# APPENDIX No. $\quad$ 6. 

## MBPORT OF TUE PLLOTAGE AUTHORITY OF QUEBEO FOR TUE CALENDAR IEAR 位DED 31st DECEMBER, 1881.

Quener, 9th January, 18es.

## To the LIonourable A. W. McLelay, Acting Minister of Marine and Fisheries, de., Ottawa.

Sin,-I have the honour to submit the following leport of the Quebec Harbour Commisioners as Pilotage Authority for the year i881.

The operations of the year opened the 14th April by the departure of the pilot sehonner No. 2, with sixteen pilots.

On the 5 th May next, schooner Nu. 5 left with twenty five pilots, and was followed during the same month by the schooners No. $t$ and No. 1, Woth carrying each thirly pilots

The five schooners, used to supply the various stations with pilots, have performed their duty with satisfaction.

Ay heretofore, the railway has frequently been used during the season fin the purpose of sending pilots to stations where they were neeted.

## (1LD PILOTS.

Before the opening of the navigation, thirty-eight old pilots having attained the are of 65 and over, were summoned to appear before the Commission in order to bo examined according to law, with the view of ascertaining if they could bo emtinued in the cxercise of their dutios. They were all found able to continue to practise. and a new licenco for one yoar was accordingly granted to each of thom.

## IENSION J.IST.

Four old pilots-Yvessylvestre, Helio Normand, Pierre Polletier and François Thivierge-hare been, at their own request, placed on the pension list during tho jer.

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TRIALS.
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Sis: trialy were hold durilys the season on complaints lodged by shijemastors. Two complaints have been lolged by the Corporation of Pilots against pilots for infringements of their regulations; one of those complaints way withdrawn on the day fixed for the trial.

The annexure No. 3 gives all the particulars as to the nature of the complaint, and the result of the trial in each caso.

## LEATIS.

The death rate this year is the largest recorded since the Corporation of Pilots are in oxistence. Three pilots, Magloire Mercier, Alfred Turgeon and Iouis P. Lavoic, and four apprentices, Arthur Pelletier, Caius Fortin, Frs. X. Lavoie and Josoph Genest, were accidentally drowned. One pilot, Edward Antil dit St. Jean, and ono apprentice, Piore Fontaine, have diod from natural causes.

## APPRENTICE PILOTS.

Ten of the apprentices on the list of 1880 having been licensed as pilots during the year, they have been replaced by ten others, whose names will be found on the annexure relating to Apprentice Pilots.

DIRECTORS OF THE CORPORATION OF PILOTS.
At their annual meeting, which took place in December last, the pilots have elected as Directors to their Corporation for the ensuing year, Messrs. Luurent Godbout, L. E. Morin, Moise Pouliot, Philippe Couillard, Auguste Desprè̀ and Jean Bte. Tremblay; and subsequently Mr. Laurent Godbout was elected President by the Directors.

The annexures respectively numbered $1,2,3,4$ and 5 , will convey all the information yearly furnished to your Department having reference to pilots.

I have the honour to be, Sir,
Your most obedient servant,
A. H. VERRET, Secretary-Treasurer.

Statement showing the Number of Pilots for and bolow the Marbour of Quebec on the Active List on the 31st December，1881； the Number who Retired，struck off the Active List or Died during the Year；the Numbor Temporarily Suspended；the： Number who were unable to Serve；the Number in charge of the Governmont Steamers and those in charge of Lighthouses，\＆c．

| $\begin{aligned} & \dot{\Delta} \\ & \text { 員 } \\ & \text { 1 } \end{aligned}$ | Names． | 4 | Residence． | Number of Pilotage Effected． |  |  | Casualties and Remarks． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | M 岂 品 | $\begin{aligned} & \text { 剽 } \\ & \text { E } \\ & \frac{E}{B} \end{aligned}$ | $\begin{aligned} & \dot{9} \\ & .{ }_{0}^{0} \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |  |
| 1 | Edouard Petitgrew．．．．．．．．．．．．．． | 76 | Green Island ．．．．．．．．．．．．．．．．．．．．．．．． | 5 | 5 | 6 |  |
| 2 | Joseph Pepin ．．．．．．．．．．．．．．．．．．． | 72 | St．Jokn，Orleans．．．．．．．．．．．．．．．．．．．．． | 5 | 5 | 6 |  |
| 3 | Charles Nolet ．．．．．．．．．．．．．．．．．．．． | 73 | Quebec．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 5 | 5 | 5 |  |
| 4 | Ires Sylvestre．．．．．．．．．．．．．．．．．． | 72 | do ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 4 | 2 4 | 4 | Pensioned the 7th September． |
| 5 | Thomas Ceuillard Desprès．．．． | 71 67 | Bienville，Lévis $\qquad$ <br> Green Island | 6 7 | 4 | 5 |  |
| 6 | Dominique Girard．．．．．．．．．．．．．．．． Edousrd Marcoux...........$~$ | 67 74 | Green <br> Ste．Pétronille，Orléans． | 7 | 5 | 6 | Employed by the Allan Line of Steamers． |
| 8 | Thomas Simard．．．．．．．．．．．．．．．．．．．．．．． | 67 | Quebec．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 5 | 5 | 6 |  |
| 9 | Jean Audet dit Lapointe ．．．．．． | 68 | ®t．Michel，Bellechasse ．．．．．．．．．．．．． | 5 | 5 | 5 |  |
| 10 | Edouard Antil dit St．Jean ．．． | 66 | Quebec ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 0 | 9 | 0 | Died the 10th Auguat． |
| 11 | George Sansterre．．．．．．．．．．．．．．．． | 70 | St．Michel，Bellechasse．．．．．．．．．．．．． | 6 | 5 | 6 |  |
| 12 | Laurent Larochelle．．．．．．．．．．．． | 69 | do do ．．．．．．．．．．．．．． | 4 | 6 | 6 |  |
| 13 | Charles Bernier．．．．．．．．．．．．．．．．．．． | 67 66 | Cap St Ignace．．．．．．．．．．．．．．．．．．．．．． | 4 | 6 4 | 6 |  |
| 14 | Régis Ménard．．．．．．．．．．．．．．．．．．．． Jean Dufresne．．．．．．．．．．．．．．． | 66 66 | Quebec．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 5 3 | 4 2 | 6 2 | On the sick list during six days． <br> Suspended the 23 rd July for the remainder of the |
| 15 | Jean Dufresne．．．．．．．．．．．．．．．．．．．．． | 6 | Quebec．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 3 | 2 | 2 | season of navigation． |
| 16 | Jean Pouliot ．．．．．．．．．．．．．．．．．．．．． | 67 | St．John，Orleans．．．．．．．．．．．．．．．．．．． | 5 | 5 | 6 |  |
| 1 | Frs．Vézina．．．．．．．．．．．．．．．．．．．．．．． | 67 | Quebec．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 6 | 4 | 6 |  |
| 18 | Helie Normand．．．．．．．．．．．．．．．．．． | 66 | do ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 5 | 3 | 5 | Pensioned the 12th October． |
| 19 | Alexandre Vaillancourt．．．．．．． | 72 | St．Laurent，Drleans．．．．．．．．．．．．．．．． | 6 | 7 | 6 |  |
| 20 | Hilarie Jovin．．．．．．．．．．．．．．．．．．．．． | 65 | Ste．Luce，Rimouski．．．．．．．．．．．．．．．．．． | 5 | 5 | 5 |  |
| 21 | Jean－Bte．Bernier．．．．．．．．．．．．．．．．． | 66 | L＇Islet ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 7 | 7 | 7 | Employed by the Allan Line of Steamers． |
| 22 | Pierre Pelletier．．．．．．．．．．．．．．．．．．． | 70 | St．Miehel，Bellechasse．．．．．．．．．．．．．． | 1 | 0 | 1 | Pensioned the 31st August． |
| 23 | Frs．Thivierge ．．．．．．．．．．．．．．．．．．．． | 66 | Quebec，St．Sauveur．．．．．．．．．．．．．．．．． | 4 | 2 | 3 6 |  |
| 24 | Joseph Pouliot．．．．．．．．．．．．．．．．．．． | 59 68 | St．John，Orlean彐．．．．．．．．．．．．．．．．．．．． Kamouraska．．．．．．．．．．．．．．．．．．．．．．． | 5 4 | 6 | 6 5 |  |
| 25 | Marcel LeBel．．．．．．．．．．．．．．．．．．．．． | 68 | Kamouraska | 4 | 4 | 5 | On the sick list from 2lst September to the end of season． |
| 26 | Jacques Tremblay ．．．．．．．．．．．．．． | 73 | St．John，Orleans．．．．．．．．．． | 4 | 6 | 5 |  |


|  | 27 | Jean Dugas........................ |
| :---: | :---: | :---: |
|  | 28 | Cyprien Raymond ............... |
|  | 29 | Louis Laprise..................... |
|  | 30 | Pierre Pepin...................... |
| N | 31 | Charles Dumas. |
| $\bigcirc$ | 32 | Louis Cottin Dugal |
|  | 33 | Edouard Genest. |
| 15 | 34 | Pierre Lapierre. |
| 0 | 35 | Magloire Delisle |
|  | 36 | Jean-Bte. Talbot. |
|  | 37 | Frs.-Xavier Delisle. |
|  | 38 | Joseph Dick. |
|  | 39 | Fre. Noel. |
|  | 40 | Paul Langlois. |
|  | 41 | George Audet dit Lapointe ... |
|  | 42 | Gabriel Lachance... |
|  | 43 | Isaie Marticotte..... |
| : | 44 | François Dallaire ........ . ...... |
|  | 45 | Laurent Goudbout |
|  | 46 | Pierre Roy. |
|  | 47 | Pierre Ruelland. |
|  | 48 | Hubert Dumas |
|  | 49 | Jos. Boucher dit Morency...... |
|  | 50 | Maurice Pepin dit Lachance.. |
|  | 51 | David Bouffard. |
|  | 52 | Edouard Labrcque. |
|  | 63 | Bart. Pepin dit Lachance. |
|  | 54 | Antoine Lapointe.......... |
|  | 55 | Jean Chassê... |
|  | 56 | Narcisse Forgues. |
|  | 57 | Frs. Dumas.... |
|  | 58 | Dominique Verreault |
|  | 59 | Michel Gnénard...... |
|  | 60 | Jean Coulombe. |
|  | 61 | Alexis Vezina. |
|  | 62 | Gilbert Baillargeon. |
|  | 63 | Jos. Phil. Couillard |
|  | 64 | Niculas Forlin.. |
|  | 65 | Magloire Mercier |
|  | 66 | Louis (livier Leclerc. ......... |
|  | 67 | Julien Dion ....... |
|  | 68 | Pierre Lemieux..... |
|  | 69 | Louis Fontaine.. |
|  | 70 | Abraham Couillard Despris.. |
|  | 71 | Frs. Godreau...................... |
|  | 72 | Jérémie Dufresne. |
|  | 73 | Antoine Guleil... |
|  | 74 | Pierre Fontaine................... |
|  | 75 | Joseph Lavoie... |



On the sick list during eight days.
On the sick list during two weeks.

Employed by the Allan Line of Steamers. Master of one of the Pilot schooners.

On the sick list during eight days.

On the sick list from the 26thSept. till end of season.
Elected Director of the Corporation at last election. Drowned the 20th May.

Statement showing the Number of Pilots for and below the Harbour of Quebec, \&c.-Continued.


| 107 | Bart. Pepin dit Lachance..... |
| :---: | :---: |
| 108 | Frs.-Xav. Delisle.................. |
| 109 | Jos. Pepin dat Lachance |
| 110 | Damien Eugène Boulanger.... |
| 111 | Cyprien Langlois . ............... |
| 112 | Jean Delisle ........................ |
| 113 | Nazaire Curodeau. |
| 114 | Charles Normand....... .......... |
| 115 | Napoléon Rioux.................... |
| 116 | Jean-Baptiste Tremblay.. ...... |
| 117 | Ray. Baquet dit Lamontagne. |
| 118 | Frs.-Xav. Lamarre ........... .. |
| 119 | Moise Pouliot. |
| 120 | Paul Gobeil |
| 121 | Uhas, Alarie Raymond .......... |
| 122 | Victor Vezina...... ..... . .......... |
| 123 | Louis Honorius Lacha |
| 124 | L. B. O. Goutron dit Larochelle |
| 125 | Chas. Hermie alias A. Bernier |
| 126 | Louis Robert Demers............ |
| 127 | Vital Ephrem Chamberland... |
| 128 | Joseph G. Dupil. |
| 129 | Jean Baptiste Talbot |
| 130 | Louis Fortunat Lavoie. |
| 131 | Joseph Fortier |
| 132 | Nestor Lachance.................. |
| 133 | Cyrille Audet dit Lapointe.... |
| 134 | Edouard Turgeon................. |
| 135 | Joseph Lapointe .................... |
| 136 | Leandre Raymond .............. |
| 137 | Pierre Pepin $d t t$ Lachance .... |
| 138 | Théophile Gourdeau.... ........ |
| 139 | Isiode Noël ........................ |
| 140 | Jean Evariste Adam............. |
| 141 | Alfred Larochelle. |
| 142 | Théophile Corriveau............. |
| 143 | EIzear Godbout. |
| 144 | George Couillard Desprès..... |
| 145 | Pierre Gobeil |
| 146 | Thomas Alfred Antil |



Statement sbowing the Number of Pilots for and below the Harbour of Quebec, \&c.-Concluded.

|  | Name. |  | Residence. | Number of Pilotage effected. |  |  | Casualties and Remarks. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 8080 |  |  |  |  |  |
| 147 | Theodule Pepin dit Lachance | 36 | Quebec ................................ | 5 | 5 | 5 |  |
| 148 | A chile Treffe Simard.......... | 30 | St. Joseph, Lévis. ................... | 6 | 6 | 5 |  |
| 149 | Jean Baptiste Patoine .......... | 30 | Bienville do .................... | 4 | 6 | 6 |  |
| 150 | Narcisse Lavoie.................. | 32 | St. Luce, Rimouski.............. ... | 3 | 3 | 2 | Master of one of the pilot schooners during part of the season. |
| 151 | Alfred Turgeon .................. | 29 | St. John, Orleans............. ....... | 3 | 2 | 3 | Drowned the 6th August. |
| 152 | Joseph Emilie Couillard....... | 30 | Quebec .................... ........... | 5 | 7 | 5 |  |
| 153 | Louis Albert Royer ............ | 36 | St. John, Urleans.................... St. Jichel, Bellechasse .......... | 5 2 | 6 0 | 5 0 |  |
| 154 | Adelard Sansterre............... | 31 | St. Michel, Bellechasse .............. | 2 | 0 | 0 | Master of one of the pilot schooners during the largest part of the season. |
| 155 | Onézime Noël.................... | 29 | St. John, Orleans ................... | 5 | 6 | 5 |  |
| 156 | Napoleon Baillargeon . ......... | 31 | Ste. Pêtronille, Orleans............. | 5 | 5 | 5 |  |
| 157 | David F. Pelletier .............. | 29 | Lauzon, Lévis ......................... | 5 | 8 | 5 |  |
| 158 | Joseph François Xavier Bernier. | 29 | Quebec ................................ | 7 | 5 | 6 |  |
| 159 | François Xavier Demeule...... | 29 | St John, Orleans..................... | 5 | 5 | 6 5 |  |
| 160 | Lonis Honoré Lapierre.......... | 31 27 | Notre Dame de Lévis .... . ........ St. John, Orleans................ | 5 | 9 6 | 5 |  |
| 161 | Joseph Eugène Lachance...... | 27 29 | St. John, Orleans.................... | 5 5 | 6 5 | 6 |  |
| 162 | David Arthur Bouffard ......... | 29 30 | Quebec do ......... ......................................... | 5 5 | 5 7 | 6 |  |
| 164 | Jacques George Dugas.......... | 29 | do ........... .................... | 6 | 4 | 6 |  |
| 165 | Jos. Victor Gourdeau ........... | 34 | Ste. Pétronille, Orleans............ | 5 | 5 | 5 |  |
| 166 | Louis alias Treffé Delisle...... | 27 | Trois-Pistoles ......................... | 0 | 0 | 0 | Master of Red Island Lightship. |
| 167 | J. Bte. Couillard................. | 30 | Cap St. Ignace................. .... | 5 | 5 | 5 |  |
| 168 | Chs. Pelletier.................... | 31 | St. Michel, Bellechasse .............. | 5 | 6 | 6 |  |
| 169 | Jos. alias Pbiléas Langlois.... | 35 | St. John, Orleans .............. ..... | 6 | 5 | 5 |  |
| 170 | Nazaire Delisle................. | 32 | do Pin .................. | 6 | 4 | 6 |  |
| 171 | J. E. Bonaventure Larvie.... | 29 | Ste. Luse, Rimouski................. | 6 | 5 | 6 |  |
| 172 173 | Alexis Vézina..................... | 31 27 | Grane Island © ${ }_{\text {Ste. Pétronille, Orleans................. }}$ | 6 5 | 5 5 | 4 5 |  |
| 174 | Samuel Rioux. ...................... | 28 | Quebec...... ....... .......... ........ | 6 | 5 | 5 |  |
| 175 | Chs. Oct, Clavet................. | 27 | St. Michel, Bellechasse...............\| | 4 | 6 | 5 |  |


| 176 | Joseph Dion |
| :---: | :---: |
| 177 | Parl Lachance. |
| 178 | Arcadius Jouvin |
| 179 | Leon Labrecque. ......... ........ |
| 180 | Louis P. Lavoie................... |
| 181 | Paul Lachance |
| 182 | Joseph Pouliot. |
| 183 | Joseph Larochelle ..... ......... |
| 184 | Adjutor Lachance................ |
| 185 | Frs. Gaudrean ................ |
| 186 | Arthur Kønig ..................... |
| 187 | Eugène Anctll. |
| 188 | David Dumas. |
| 189 | Joseph Lachance.................. |
| 190 | Paul Pâquet ....................... |
| 191 | Alplionse Pouliot................. |
| 192 | Elzéar Normand ............ ..... |
| 193 | Jean Bernier... |
| 194 | Joseph Píquet..................... |


| 25 | Green Island............................ |
| :---: | :---: |
| 25 | St. Jolin, Orleans..................... |
| 23 | Ste. Luce, Rimouski.................. |
| 31 | St. Laurent, Orleans ................ |
| 28 | St. Germain, Rimouski.............. |
| 26 | St. John, Orleans ..................... |
| 25 | do ................... |
| 24 | St. Michel, Bellechasse............... |
| 23 | do |
| 30 | Cap St. Ignace...... ................. |
| 30 | L'Islet............... . .................... |
| 23 | St. Jean Port Joli....................... |
| 28 | Green Island...... . . . . . . . . . . . . . . . |
| 27 | St. John, Orleans .................... |
| 22 | do |
| 29 | do |
| 23 | L'Islet. |
| 22 | do |
| 21 | St. John, Orleans...................... |


| 6 | 5 | 6 |  |  |
| :--- | :--- | :--- | :--- | :--- |
| 5 | 5 | 6 |  |  |
| 5 | 5 | 5 |  |  |
| 5 | 6 | 6 |  |  |
| 6 | 4 | 6 | Drowned the 20th November. |  |
| 5 | 5 | 6 |  |  |
| 6 | 5 | 6 |  |  |
| 5 | 5 | 6 |  |  |
| 5 | 5 | 5 |  |  |
| 5 | 5 | 6 |  |  |
| 5 | 6 | 5 |  |  |
| 5 | 6 | 6 |  |  |
| 6 | 5 | 5 |  |  |
| 5 | 6 | 5 |  |  |
| 6 | 5 | 6 |  |  |
| 5 | 5 | 5 | dicensed the 19th October. |  |
| 1 | 1 | 1 | do |  |
| 1 | 1 | 1 | do |  |
| 0 | 0 | 0 | do | 7th December. |

## Certified,

A. H. VERRET,

Secretary-Treasurer.

List of Apprentice Pilots acting immediately under the Quebec Harbour Commissioners' Pilotage Authority, on the 31st December, 1881.

| 㞧 | Names. | When Indentured. | Remarks. |
| :---: | :---: | :---: | :---: |
| 1 | George Dugal | April 11, 1871...... | Absent since the fall of 1877. |
| 2 | Ernest Nolet... | March' $19,1874 \ldots .$. | do do 1877. |
| 3 | Prudent Marmen | Oct. 13, 1874..... |  |
| 4 | $J$ Alphonse Lachance | April 12, 1875..... |  |
| 5 | Arthur Baillargeon .............................. | Oct. 14, 1875..... |  |
| 6 | Herménégilde Guénard ......................... | do 14, 1875...... |  |
| 7 | Joseph Vézina................................ ........ | do $14,1875 \ldots \ldots$. |  |
| 8 | William Irvine................ .................... | do 28, 1875...... |  |
| 9 | E.lzcar Desrosiers .......................... ..... | May 4, 1876...... |  |
| 10 | Jules Asselin .............. ..................... | July 26, 1876...... |  |
| 11 | Frederick Bouffard............................... | do 26, 1876...... |  |
| 12 | Alfred Dion | April 7, 1877.... |  |
| 13 | Lucien Lachance .................................. | do 7, 1877...... |  |
| 14 | Odilon Lapierre. | do 7, 1877...... |  |
| 15 | Camille Beraier.......... .......................... | July 11, 1877...... |  |
| 16 | Moïse Blouin.......... .............................. | do 11, 8877..... |  |
| 17 | Moise Goudbout. .................................. | do 11, 1877...... |  |
| 18 | Alfred Godreau.................................... | do 11, 1877...... |  |
| 19 | Alfred Raymond....................... ........... | do 11, 1877...... |  |
| 20 | Philéas Lachance.................................. | do 11, 1877..... |  |
| 21 | Moise Arthur Lachence .......................... | do $22,1880 \ldots .$. |  |
| 22 | Joseph Talbot...... .............................. | do 22, 1877..... |  |
| 23 | Louis Thivierge ........ | Oct. 20, 1880...... |  |
| 24 | Lawrence Larochelle. | do 20, 1880...... |  |
| 25 | Edmond Larochelle. ............................. | March 30, 1881...... |  |
| 26 | Joseph N. Dallaire | do 30, 1881...... |  |
| 27 | Emile Lachance ........ ...... . . . . . . . . . . . . . . | do 30, 1881...... |  |
| 28 | Alphonse Asselin................... ............. | do 30, 1881...... |  |
| 29 | Joseph Plante... | June 15, 1881...... |  |
| 30 | Narcibse Despres. | do 15, 1981..... |  |
| 31 | Alphonse Paquet | July 20, 1881...... |  |
| 32 | Napoléon Pouliot... ............................. | do 20, 1881...... |  |
| 33 | Arthur Doiron... | do 20, 1881...... |  |
| 34 | Adélard Bernier | Sept. 14, 1881...... |  |

Certified.

A. H. VERRET,<br>Secretary-Treasurer.

Statement of Trials hell during the Year 1881, before the Quebec Harbour Commissioners, under the authority of the Aet respecting Pilotage, 36 Vic., chap. 54.

| $\begin{gathered} \text { Names } \\ \text { of } \\ \text { Pilots tried. } \end{gathered}$ | Nature of Complaint. | When Complaint lodged. | Date of Trial. | Result. |
| :---: | :---: | :---: | :---: | :---: |
| Theodule Pepin dit Lachance. | For having on the 28th May caused the ship "Lanarkshire" to be moored at the Commissioner's Wharf when three vessels were already moored in the same tier at same wharf. | 28th May.. | 2nd June.. | Found guilty and fined $\$ 5$ with costs. |
| Frs. Thivierge...... | For having grounded the ship "Lady Russell,' on the 20th May, on the St. Ann's shoals. | 23rd May.. | 9th June... | Found guilty and fined $\$ 10$ with costs. |
| Adjutor Lachance. | For having, on the 16th June, ran ashore the barque "Olivia" on Red Island Reef. | 17th June. | 23rd June. | Pleads guilty and fined $\$ 10$ with costs. |
| Jean Dufresne....... | For having, during the night of the 15th July, grounded the french frigate la "Magicienne" on Red Island Reef. | 18th July. | 23rd July. | Found guilty and suspended for the remainder of the season of navigation. |
| David A. Bouffard. | For having, on the 22ad July, ran ashore, on Pilgrim Island, the barque "Alice Roy". | 26th July . | 18th Aug.. | Acquitted on the ground that the proof adduced had not been sufficient. |
| Moise Lachance.... | For having infringed the regulations of the Corporation of Pilots. | 6th Oct.... | 19th Oct... | Case dismissed on the ground that the proof adduced in support of the complaint had not been sufficient. |
| Pierre Lachance ... | For having infringed the regulations of the Corporation of Pilots. | 6th Oct.... | 31st Oct... | Complaint withdrawn. |
| Joseph Paquet...... | For having, on the 8th October, ran ashore, on St. Michaels Point Shoals, the screw steamer "Corean." | 12th Oct... | 31 st Oet... | Pleads guilty. Suspended for twelve calendar months. |

## QUEBEC HARBOUR COMMISSION.

## HARBOUR OF QUEBEC.

Date of the closing of the Harbour of Quebec in 1880, 27th November.
Date of the opening of navigation in the Harbour of Quebec, and below, in 1881, 1et April.

Date of the opening of navigation in the Harbour of Quebec, and above, in 1881, 26th April.

Date of the closing of the Harbour of Quebec in 1881, 28th November.
Certified,
A. H. VERRET,

Secretary-Treasurer.
Office of the Harbour Commission, Quebec, 9th January, 1882.
F. X. Dion, Current Account with the Corporation of Pilots of Quebec to 31st December, 1881.

E. \& O. E.

F. X. DION,<br>Treasurer.

## APPENDIX No. 17.

REPORT OF THE PILOTAGE AUTHORITY FOR THE DISTRICT OF ST. JOHN, N.B , FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1881.

St. John, N.B., 31st December, 1881.
To Wm. Smite, Esq.,
Deputy Minister of Marine and Fisheries, Ottawa.
Sir,-I have the honour of handing you herewith the Returns of Pilotage, \&c. for this district, for the year ending this day.

Your obedient servant,
J. U. THOMAS,

Secretary-Treasurer.

## Office of Pilot Commissioners,

District of St. Joen, N.B., 31st December, 1881.
Rates of Pilotage chargeable on Vessels:-

INWARD.
1st District per foot............... ..................................... $\$ 100$
2nd do do .................................................... 125
3rd do do .................. ................................. 150
4th do do .................................................... 175
5th do do ..................................................... $2 \mathbf{2 5}$
ODTWARD.
From Harbour to outside of Partridge Island, $\$ 1.25$ per foot.

## HARBOUR OF MOSQOASH-INWARD.

1st District $\$ 1.75$ per foot and 25 cents per foot additional for each District boarded beyond the said 1st district. Outward, $\$ 1.00$ per foot.
transiorting vessels in the harbour.


And 25 cents additional for every 50 tons over 400.
J. U. THOMAS,

Secretary-Treasurer.

Pilots licensed for the District of St. John, N.B., for the year ending Dec., 1881.

| Name. | Age. | Place. | Name. | Age. | Place. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Thomas Traynor ................. | 29 | St. John, N.B | Jas. S. Spears................. ...... | 36 | St. John, N.B |
| Daniel Mulberrin.................. | 55 | do | John Spears (3rd) .............. ... | 32 |  |
| Samual Rutherford.............. | 49 | do | Richard Cline....................... | 56 | do |
| James Doyle............. ........ | 44 | do | Alfred Cline. | 24 | do |
| James Reed, jun.................. | 35 | do | John Scott.. | 64 | do |
| Patrick Traynor | 55 | do | John Traynor...... ................. | 30 | do |
| Henry Thomas.. | 50 | do | Henry Spears......... ......... ...... | 30 | do |
| G. P. Mulherrin | 33 | do | S. L. Sutton.............. . ...... | 32 | do |
| Richard Scott. | 30 | do | J. L. C. Sherrard.................. | 47 | do |
| John Thomas...................... | 33 | do | P. G. Doody......... . .............. | 41 | do |
| Daniel Daley............... ........ | 52 | do | James Cassidy... .................. | 34 | do |
| Robert Thomas............... ...... | 40 | do | William Lahey ...................... | 52 | do |
| Joseph Doherty .................. | 35 | do | Thos. J. Stone...................... | 28 | do |
| James Murray ........................ | 40 | do | James E. Mantle................... | 35 | do |
| John Sproule........ ...... .......... | 45 | do | Jas. McPartland................... | 47 | do |
| Patrick Conlin.................... | 31 | do | Chas. Daley......................... | 45 | do |
| Edward J. Fletcher......... .... | 54 | do | Barth. Rogers.............. ........ | 24 | do |
| John Spears (2nd)................ | 34 | do | Michael Garrity.................. | 58 | do |
| William Quinn...................... | 34 | do | John McAnulty.......... .......... | 42 | Musquash, |
| William Miller..................... | 30 | do |  |  | N.B. |

J. U. THOMAS,<br>Secretary Treasurer.

Office of Pilot Commissioners,<br>District of Sr. John, N.B., 31st Dec., 1881,

Returns of Vessels piloted into and out of this District for the year ending the 31st December, 1881 :-


## British.

, oners ................... ............................ ..... 100
Brigs and Brigantines........................................ 87
Barques.. ......................................................... 146
Ships............................................................. 47
Steamers..................... .................................... 28
Total .............. ............................... 408

## Foreign.

Schooners ..... 123
Brige and Brigantines. ..... 7
Barques ..... 52
Ships ..... 10
Steamers ..... 2
Total ..... 194
Amount received ..... \$7,666 25
J. U. THOMAS,
Secretary-Treasurer
Office of Pilot Commissioners,
District of St. John, N.B., 31st Dec., 1881.
Receipts and Expenditure for the year ending this day:-
Receipts.
Licenses to 39 pilots at $\$ 5$ each ..... $\$ 19500$
do 7 pilot boats, at $\$ 10$ each. ..... 7000
Interest on Investment ..... 26250
Examining fees on accounc of Pilots. ..... 1500
Outward pilotage collected on account of fund ..... 4062
25 cents per foot on outward pilotage, St. John ..... 2,041 77
25 do
25 do do Musquash. ..... 8012 ..... 8012
Total. ..... \$2,705 01
Expenditure.
Pensions to 5 pilots superanouated ..... $\$ 1,00000$
do 3 widows and children ..... 34000
Auditor's fees last year ..... $\because 500$
Examining committec fees ..... 7000
J. \& A. McMillan, printing ..... 1775
Certificate of Registry. ..... 140
Thos. Dody, assistance to the sick ..... 2000
Secretary and Treasurer, one year ..... 80000
Rent, finel, stationery, \&c ..... 20000
Total ..... $\$ 2,47415$
Balance. ..... 23086
J. U. THOMAS,Secretary Treasurer.

## APPENDIX No. 18.

# REPORT OF THE PILOTAGE AUTHORITY FOR THE DISTRICT OF BUCTOUCEE, N.B., FOR THE CALENDAR YEAR ENDED 31sT DECEMBER, 1881. 

Buctovche, January 5th, 1882.
Wm. Smith, Esq.,
Deputy Minister of Marine and Fisheries, Ottawa.
Sir,-In accordance with the provisions of the 24th section of the Act 36 Vic., chap. 54, respecting pilotage, I herewith transmit to you the Pilotage Returns for the District of Buctouche, for the year ending December 31st, 1881, and which I hope you will find satisfactory.

I am, Sir,
Your obedient servant,
JOHN C. ROSS,
Secretary of Buctouche Pilotage Authority.

## PILOTAGE RETURNS, DISTRICT OF BUCTOUCHE, PROVINCE OF NEW BRONSWICK, FOR THE YEAR 18 Bl.

1st. Names and ages of pilots licensed :-
John S. Dixon .... ............................... ............................. 48
Frederick Legere.................................................................. 44
Caliste Legore.................................. .................................. 48
Thadeo Pellerin................................ . ............................... 45
Matthew Smith.................................................. ................ 42
John G. Smith................................................................... $3 \mathfrak{~} \mathbf{3}$
2nd. The above-named pilots are all licensed to undertake the pilotage of vessels of every description, within and throughout the Pilotage District of Buctouche.

3rd. Pilotage dues are charged as per section 12 of Rules and Regulations for tbe District, viz: One dollar and fifty cents (\$1.50) per foot draught of water, both inward and outward bound.

4th. Total amount of pilotage dues paid, $\$ 268$; of which there was received from British vessels, $\$ 87.00$, and foreign vessels, $\$ 181.00$, all at the rate of $\$ 1.50$ per foot for inward and outward pilotage, with exception of one vessel ("Pohona") which did not come inside the bar, and which paid pilot boarding her $\$ 10.50$, as agreed, and included in above.

5th. The pilotage dues, as above, were paid to the different pilots who performed their dutios as such to the respective vessels.

The balance of $\$ 10$, reportod in last Return as being in the hands of the Pilotage Authority, remains the same, no new licenses having been granted, or expenses incurred during the year.

JOHN G. ROSS, Secretary to Buctouche Pilotage Authority.

## APPENDIX No. 19.

REPORT OF THE PILOTAGE AUTHORITY FOR THE DISTRICT OF BATHURST, N.B., FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1881.

Bathurst, N.B., 29th December, 1881،
William Smith, Eiqq.,
Deputy Minister of Marine and Fisheries, Ottawa.
Dear Sir,-Find enclosed Report of Secretary of Pilotage District of Batharst for 1881 .

Yours obediently,<br>EDWARD HICKSON,<br>Secretary Pilotage Authority.

Statement ehowing Number of Vessels brought from and taken to Sea by each Pilot, and Amount of Fees received.


## EDWAlid HICKSON,

Secretury Pilotage Authority.

## APPENDIX No. 20.

REPORT OF THE PILOTAGE AUTIIORITY FOR THE DISTRICT OF CHARLOTTE COUNTY, FOR THE CALENDAR YEAR ENDED 31sT DECEMBER, $18 \circ 1$.

Saint Andrews, N.B. 31st December, 1881.

Sir,-I have the honour to enclose you herewith, Returns of Pilot Commissioners for the District of the County of Charlotte, for the year ending 31 st Decenber, 1881.

$$
\begin{aligned}
& \text { I am, Sir, } \\
& \text { Your most obedient servant, } \\
& \text { C. E. O. HATHEWAY, } \\
& \text { Commissioner, Acting Secretary. }
\end{aligned}
$$

To Wm. Smith, Esq.,
Deputy Minister of Marine and Fisheries,
Ottawa, Canada.
Licenged Pilots for the County.

| Name of Pilot. | Age. | For what District licen sed. |
| :---: | :---: | :---: |
| Cline, William. | 71 | Pilotage District of County. |
| Cline, Wellington | 40 | do do |
| Boyd, Joseph. | 46 | do do |
| Conley, Thomas | 51 | do do |

Pilot sloop " Pilot," 1,180 tons, for one year, for Pilotage District of County. Amount of Pilotage collected by Piiots for Year.
From British vessels ..... $\$ 25975$
Foreign do ..... 70230
Total ..... $\$ 96205$
Receipts by Commissioners.
Received for one pilot license. ..... $\$ 600$
do regulations ..... 400
do one license for pilot boat ..... 500
Total ..... $\$ 1500$Expenditure.
Stationery and postage ..... $\$ 100$
Expenses of Commissioners at St. George and St. Stephen. . ..... (i) 00
do Commissioner at St. Andrews,ActingSecretary ..... 800
Total ..... $\$ 1500$
5a-21

Rates of Pilotage for County of Charlotte District.

| Longest pilotage distance, inwards or outwards. | d | $\$ 2$ | 25 | per foot. |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Second | do | do | $\ldots$ | 1 | 60 |
| do |  |  |  |  |  |
| Third | do | do | $\ldots$. | 1 | 50 |
| do |  |  |  |  |  |

(From or to Campobello, 20c. per foot less than above rates.)
Fourth pilotage distance, inwards or outwards..... $\$ 100$ per foot.
From 1st November to 1st April 20c. per foot in addition to above rates.
Harbour pilotage up to 300 tons, $\$ 2.50$; above 300 tons, $\$ 3$.
River pilotage, inside St. Andrew's Bay, vessels up to 200 tons, 84 ; over 200 and up to 300 tons, $\$ 5$; over 300 tons and up to 400 tons, $\$ 6$; over 400 tons, 88 each.

River pilotage, St. Andrew's Bay, to any harbour in the county, vessels under 200 tons, $\$ 6 ; 200$ and under 300 tons, $\$ 8 ; 300$ tons and under 400 tons, $\$ 10$; over 400 tons, $\$ 12$ each.

C. E. O. HATHEWAY,<br>Commissioner, Acting Secretary.

St. Andrews, N.B.,
31st December, 1881.

## APPENDIX No. 21.

REPORT OF THE PILOTAGE AUTHORITY FOR THE DISCRICT OF MIRAMICHI, N.B., FOR THE CALENDAR YEAR ENDED 31sT DECEMBER, 1881.

Newcastle, Miramicui, N.B., 6th January, 1882.

Sir,-I have the honour to enclose herewith the Pilotage Returns for the Pilotage District of Miramichi, for the year ending 31st December, 1881.

I am, Sir,<br>Your obedient servant,<br>R. R. CALL,<br>Secretary, Pilotaye Authority.

To William Shith, Esq.,<br>Deputy Minister of Marine and Fisheries, Ottawa.

Pilotage Returns for Miramichi District, 1881.

|  | Names of Pilots. | Age. | For what Service granted. |
| :---: | :---: | :---: | :---: |
| 1 | Joseph Jimmo ...... | 67 | Full License for District. |
| 2 | Louis Jimmo ......................................................... | 27 | do |
| 4 | Angus McEacheran................................................ | 62 | do |
| 5 | Mitchell Martin........ ...................... ..................... | 52 | do |
| 6 | Francis Martin. ......... ...................... ........ ........ ..... | 47 | do |
| 7 | Maxime Martin. ... .... ............................................ | 36 | do |
| 8 | Alexander Martin ................ ................................. | 56 | Inwards only. |
| 9 | Angus McLean....................... .............................. | 48 | Full License for District. |
| 10 | Alexander Wilson............................. ................... | 35 | do |
| 11 | Robert Walls... ................................................... | 30 | do |
| 12 | George Savoy ........................................... ........... | 37 | do |
| 13 | Reuben Nowlan.................................................... | 37 | do |
| 14 | John McEacheran............................ ....................... | 31 | do |
| 15 | Charles McLean ......... .......................................... | 42 | do |
| 17 | John Brown..................... .................................... | 70 | do |
| 18 | James Walls........ .................................... ........... | 64 | do |
| 19 | William McEacheran............................ ................ | 37 | do |
| 20 | Oliver Foster.................... ..................................... | 40 | do |
| 21 | Michael Muzerall. .................................................. | 56 | do |
| 22 | William Walls...... ......... ....................................... | 27 | do |
| 23 | William Tait ......... .................. .......................... | 58 | do |
| 24 | Allan McEarheran ................. ........... ............. ..... | 47 | do |
| 26 | John McCallum................ ..................................... | 29 | do |
| 27 | James Nowlan....................................... ............. | 30 | do |
| 28 | Dudiey P. Walls ............................................. ...... | 35 | do |
| 29 | George Sutton $\qquad$ | 30 | do |
| 30 | James A. Nowlan | 26 | do |
| 31 | George Tait................................................................. | 24 | do |
| 32 | Jos. Jimmo, jr ...................................................... | 26 | do |
| 33 | James McCallum............................. ...................... | 37 | do |
| 34 | Allan McEacheran, jr........... ................................. | 22 | do |
| 35 | John Martin.......................................................... | 22 | do |
| 36 | Asa WalIs ...................................... | 22 | do |

Rates of Pilotage chargeable at Miramichi, N.B., on all Vessels British or Foreign:-
When inward bound
$\$ 225$ per foot.
When outward bound and drawing less than 17 ft . 175 do
When drawing 17 feet and upwards............... 200 do

And when a steamboat is employed to tow a vessel outside the octer bar, twentyfive cents per foot is deducted from above rates for outward pilotage.

For every ve:sel taken to sea after November 1st, a bonus of $\$ 1$.
For the removal and mooring of any ressel-
$\$ 150$ for vessels not exceeding 100 tons;
200 do over 100 tons and not exceeding 200 tons;
300 do over 200 tons do do 300 tons;
400 do over 300 tons;
and where the distance of remoral exceeds four miles, 50 per cent. to be added to the above rates.

Vessels reported inwards:-
British . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 65
Foreign. ..................................................... . . . 205
Ver 270
Vessels reported outwards :-
British.......................................................... 63
Foreign........................................................... . . 195
Tal 258
Total amount of Pilotage inwards :-
British .................................................. \$1,653 10
Foreign ................................................. . 5,5j3 82
Total amount of Pilotage outwards:- \$7,206 92
British............................................... . . \$1,966 95
Foreign. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 6,280 96
88,247 91
R. R. CALL, Secretary, Pilotage Authority.

Statement showing the Number of Vessels brought in and taken out to Sea by each Pilot, and Amount of Fees received, 1881.

| Names of Pilots. | British Vessels Inwards. |  | British Vessels Outwards. |  | Foreign Vessels Inwards. |  | Foreign Vessels Outwards. |  |  | Total Amount of Fees. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | $\underset{\text { A mount of }}{\text { Fees }}$ Fees. | No. | $\underset{\text { Fees }}{\text { Amount of }}$ | No. | Amount of Fees. | No. | Amount of Fees. |  |  |
|  |  | \$ cts. |  | \$ cts. |  | \$ ets. |  | \$ cts |  | \$ cts. |
| Joseph Jimmo.. |  |  |  |  | 7 | 20025 |  |  | 7 | 20025 |
| Louis Jimmo........... | 1 | 2700 | 2 | 5862 | 1 | 2812 | 2 | 5600 | 6 | 16974 |
| Angus McEacheran.. | , | 2700 | 3 | 11400 | 3 | 8550 | 9 | 31700 | 16 | 54350 |
| Mitchell Martin....... | 1 | 2250 | 2 | 7012 | 8 | 20812 | 9 | 29100 | 20 | 59174 |
| Francis Martin........ | 4 | 9450 | 3 | 7000 | 6 | 16200 | 12 | 40225 | 25 | 72875 |
| Maxime Martin........ | 6 | 15075 | 6 | 19725 | 5 | 12600 | 7 | 23600 | 24 | 71000 |
| Alex. Martin........... | , | 2375 | , | 2887 | 9 | 5963 |  |  | 4 | 11224 |
| Angus McLean........ | 2 | 3650 |  |  | 10 | 26550 | 9 | 27812 | 21 | 58012 |
| Alev. Wilson. ......... | 3 | 6750 | 1 | 2450 | 10 | 26100 | 5 | 15487 | 19 | 50787 |
| Robt. Walls.. | 2 | 5512 | 2 | 5337 | 7 | 18337 | 7 | 20937 | 18 | 50123 |
| George Sayoy.......... | 1 | 3925 | 1 | 3400 | 15 | 43875 | 14 | 49700 | 31 | 1,008 00 |
| Reuben Nowlan....... | 2 | 3400 | 2 | 7200 | 6 | 14850 | 7 | 17750 | 17 | 45200 |
| John McEacheran .... | 2 | 43 75 | 2 | 5850 | 7 | 18787 | 8 | 26] 50 | 19 | 55062 |
| Charles McLean ...... |  |  |  |  | 2 | 5625 | 2 | 6400 | 4 | 12025 |
| John Brown |  |  |  |  | 10 | 27900 | 7 | 23200 | 17 | 51100 |
| James Walls | 2 | 4950 | 2 | 6000 | 7 | 19350 | 8 | 25712 | 19 | 56012 |
| W. McEacheran | 2 | 7200 |  | 2537 | 7 | 19212 | 3 | 7875 | 13 | 36824 |
| Oliver Foster | 1 | 2025 |  |  | 9 | 25987 | 8 | 28725 | 18 | 56737 |
| M. Muzerall.. | 6 | 14763 | 4 | 9187 | 3 | 7875 | 2 | 5425 | 15 | 37249 |
| Wm. Walls. | 2 | 5362 | 2 | 4462 | 7 | 18450 | 7 | 21575 | 18 | 49849 |
| Wm. Tait .............. | 1 | 3375 | 4 | 13312 | 2 | 5625 | 15 | 49362 | 22 | 71674 |
| Allan McEacheran ... |  |  |  |  |  |  |  |  |  |  |
| John McCallum ....... | 2 | 5400 | , | 4400 | 2 | 6075 | 3 | 10900 | 8 | 26775 |
| Jas. Nowlan. | 5 | 11025 | 5 | 17300 | 7 | 18675 | 3 | 8475 | 20 | 55475 |
| Dudley P. Walls | 2 | 5625 | 2 | 7400 | 2 | 5737 | 2 | 7200 | 8 | 25962 |
| George Sutton .. | 1 | 2250 | 4 | 12900 | 9 | 23175 | 8 | 24025 | 22 | 62350 |
| Jas. A. Nowlan | 1 | 2025 | 1 | 2450 | 7 | 18450 | 6 | 19825 | 15 | 42750 |
| George T. Tait | 4 | 11137 | 3 | 10500 | 12 | 31950 | 6 | 18887 | 25 | 72474 |
| Jos. Jimmo, jun. ..... | 3 | 7650 | 3 | 9775 | 3 | 8550 | 5 | 16212 | 14 | 42187 |
| James McCallum...... | 1 | 1912 | , | 2275 | 8 | 21712 | 8 | 25500 | 18 | 51399 |
| Allan McEacheran, jr | 3 | 8550 | 2 | 7000 | 10 | 27787 | 7 | 23800 | 22 | 67137 |
| John Martin ............ | 1 | 2700 |  | 2087 | 6 | 16087 |  | 2712 | 9 | 23586 |
| Asa Walls... | 2 | 5400 | 2 | 6987 | 5 | 11700 | 5 | 14225 | 14 | 38312 |
|  | 65 | 1,653 10 | 63 | 1,966 95 | 205 | 5,553 82 | 195 | 6,280 96 | 528 | 15,454 83 |

R. R. CALL, Secretary Pilotage Authority.

Newcastle, Miramichi, N.B.

Statement of Boats and their Tonnage, \&c., Licensed by the Pilotage Authority for the year 1881.

| No. | Name. | Tonnage. | Captain. | When <br> Licensed. | When Renewed. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 11 | Spy ................. .......... | $17 \cdot 51$ | J. McCallum | May, 1875......... | April 26, 1881. |
| -2 | Industry....................... | $16 \cdot 00$ | Mitchell Martin. | do ........ |  |
| It | Phantom . .................... | 20.00 | James Walla.......... | do ......... | do |
| 7 | Advance ...................... | $23 \cdot 00$ | Angus McEacheran | do ${ }^{\text {d }}$....... | do |
| 9 | Whitewing | $20 \cdot 00$ | Max Martin ..... | May, 1876.......... | do |
| 11 | Mlay Queen .................. | $22 \cdot 56$ | Allan McEacheran. | May, 1878......... | do |
| 12 | Peter Mitchell. ............. | $26 \cdot 10$ | Jos. Jimmo .. | do ........ | do |
| 13 | Two Brothers. ............... | $25 \cdot 00$ | William Tait... | do ${ }^{\text {do }}$........ | do |
| 14 | Empress....................... | $25 \cdot 59$ <br> 20.85 | Frank Martin. |  |  |
| 15 | Princess Louise............. | $20 \cdot 85$ | D. P. Walls.. | May, 1879......... | do |

R. R. CALL,<br>Secretary, Pilotage Authority.

Newcabtle, Miramichi, N.B. 31st December, 1881.

Receipts and Expenditures of all Money received by or on behalf of the Pilotage Authority in respect of Pilots or Pilotage, for the sear 1881.

|  | \$ cts. |
| :---: | :---: |
| Received from 33 Pilots for Renewals of Licenses, $\$ 4.00$ each. $\qquad$ <br> do for Renewals of 10 Pilot Boat Licenses, $\$ 5.00$ each . $\qquad$ | 13200 |
|  | 5000 |
|  | 18200 |
| Paid John Brown and James Walls, examining candidates, and expenses................ 900 <br> Jos. Henderson, inspecting and reporting on 10 Pilot Boats ............................ 2500 <br> For advertising, printing forms, \&cc................................................................... 1810 <br> Telegrams $\qquad$ <br> For stationery, books and postage........................... ..................................... 535 <br> Secretary, on account of services.................................................................. 11810 |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  | 18200 |

R. R. CALL, Secretary, Pilotage Authority. - Pilotage Authority.

## Wm. Park, Chairmad.

Newcastle, Miramicei, N.B., 31st December, 1881.

## APPENDIX No. 22.

REPORT OF THE PILOTAGE AUTHORITY FOR THE DISTRICT OF GREAT AND LITTLE BRAS D'OR LAKES, N.S., FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1881.

Big Bras d'Or, Victoria County, Nova Scotia, 31st December, 1881.

LICENSED PILOTS.

| No. | Name. | Residence. | Age. | Amount received by each. | Remarks. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1 \\ & 2 \\ & 3 \\ & 4 \\ & 7 \\ & 8 \end{aligned}$ | Arch. Livingston $\qquad$ <br> L. Livingston $\qquad$ <br> Wm. McDonald. $\qquad$ <br> John O'Connel $\qquad$ <br> Wm. Carey. <br> K. McAulay $\qquad$ |  | 32 | \$ cts. | No return. |
|  |  |  | 30 | 3850 |  |
|  |  |  | 33 | ................. | do |
|  |  |  | 50 | 2400 |  |
|  |  |  | 32 28 |  | do |
|  |  |  |  | 10800 |  |

The services for which Pilots were licensed: "To undertake the pilotage of vessels of every description within and throughout the pilotage district of Great and Little Bras d'Or Lakes."

The pilotage fees are payable only to the Collectors of Customs at the different ports, who are entitled to a commission of 5 per cent. for collecting the same.

Amount received for licensing Pilots for the year, \$13.50.
All of which is respectfully submitted.
JOHN A. FRASER, Secretary.

## APPENDIX No. 23.

REPORT OF THE PILOTAGE AUTHORITY FOR THE DISTRICT OF HaLIFAX, N.S., FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1881.

Halifax, N.S., 9th January, 1832.

The Honourable
Hinister of Marine and Fisheries, Ottawa.
SIR,-I have the honour to transmit the Annual Returns of the Pilotage Authority for the District of Halifax, N.S.

$$
\begin{aligned}
& \text { I am, Sir, } \\
& \text { Your obedient servant, } \\
& \text { FRED. D. CORBETT, } \\
& \\
& \text { Secretary-Treasurer. }
\end{aligned}
$$

List of Licensed Pilots for the Port of Halifax, Nova Scotia.

| Name. | Residence. |
| :---: | :---: |
| John Fleming. | Ketch Harbour. |
| Thomas Holland. | Duncan's Cove. |
| James Holland... | do |
| William Baker. | Halifax. |
| Bernard Gallagher | do |
| Daniel Martin....... |  |
| Joseph Rhino.. | Herring Cove. |
| Patrick Hayes. | do |
| Hugh Munro..... | do |
| Jeremiah Holland | Duncan's Cove. |
| Edward Bayers.. | Ketch Harbonr. |
| James Hanrahan | Ferguson's Cove. |
| William Beazely. | do |
| Thomas Beazely. | do |
| John Hayes...... | Herring Cove. |
| Charles Glazebrooke. | Ferguson's Cove. |
| Richard O'Neal ... | Portuguese Cove. |

Statement of Superannuation Fund.

| 1881. |  | \$ cts. | \$ cts. |
| :---: | :---: | :---: | :---: |
| Jan. 1 | Cash in Savinge Bank this date <br> Interest. |  |  |
|  | Interest. $\qquad$ $\qquad$ <br> Two per cent collected during 1881 $\qquad$ | 4328 34777 |  |
|  | Pensions:- <br> Paid William Smith's family |  | 6000 |
|  | Balance at Credit in Savings Bank ..................... |  | 1,375 05 |

Statement of Reccipts and Expenditure for the Year 1881.

| Receipte. | \$ cts | \$ cts. |
| :---: | :---: | :---: |
| Five per cent. commission on pilotage collected...................................... | 89956 | 2,026 70 |
| Outward pilotage from shipe going to sea without pilots., ......................... | 94814 |  |
| Licenses, bonds, \&c.................................................... ........................ | 17900 |  |
| Expenditure. |  |  |
| Secretary-Treasurer's salary ................. .... ............... ........................... | 50000 |  |
| Office rent...... | 20000 |  |
| Taxes, printing, stationery, \&c....... | 20277 |  |
| Balance on hand................................................... | ...... | 1,123 93 |

Retorn of Vessels entered Inwards, at the Port of Halifax, N.S., from 1st January to 31st December, 1881, subject to compulsory Pilotage Dues.

## BRITISH.

| Schooner. | Brigantine. | Brig. | Barque. | Ship. | Steamer. | Tonnage. | Amount of Pilotage Dues. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 173 | 223 | 10 | 37 | 3 | 287 | 489,513 | $\begin{array}{cc} \$ \quad \text { cts. } \\ 9,889 & 50 \end{array}$ |

FOREIGN.

| 15 | 5 | 6 | 43 | 2 | 82 | 98,209 | 1,888 50 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 188 | 228 | 16 | 80 | 5 | 369 | 587,722 | 11,778 00 |

Retukn of Veasels entered Outwards, at the Port of Halifax, N.S., from 1st January to 31st December, 1831, subject to compulsory Pilotage Dues.

BRITISH.


FOREIGN.

| 5 | 3 | 10 | 46 | 2 | 98 | 112,968 | 1,229 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9 | 38 | 17 | 84 | 5 | 400 | 570,439 | 5,718 |  |

Inwards. Outwards.


An additional fifty cents for every one bundred tons (or fractional part thereof), above 600 tons, inwards, and twenty-ive cents outwards.

Outward pilotage for all veasels of 200 tons and upwards, to be compulsory.
Ships of Her Majesty's navy, and all ships of war, when taking a pilot, to pay the same rates of pilotage as merchant vessels.

All vessels laden with coal from coal ports in the Province of Nova Scotia, being over $1: 0$ tons and under $2 \overline{5} 0$ tons registered tonnage, shall pay one-half the tariff rates inwards, if spoken by a pilot and his services are not accepted; but any such vessel laking a pilot voluntarily, shall pay full tariff rates.

## APPENDIX No. 24.

## REPORT OF THE PILOTAGE AUTHORITY FOR THE DISTRICT OF LOUISBURG, CAPE BRETON, FOR THE CALENDAR YEAR ENDING 31st DECEMBER, 1881.

William Smite, Esq.,<br>Deputy Minister of Marine, Ottawa.

Sir, -I have the honour to submit this the First Annual Roport of the Pilot Commissioners for the district of Louisburg, Cape Breton, for the year ending 31st December, 1881, showing receipts, expenditure, \&e., \&c.

Four pilots were licensed for the Port of Louisburg in August last.

| No | Age. |
| :---: | :---: |
| 1. George Kehoe. | 40 licensed. |
| 2. Lewis Dickson. | 31 do |
| 3. J. A. Towneend | 42 do |
| 4. William Cryer. | 47 do |

William Cryer, Pilot No. 4, had his license suspended for tbree months by the Pilotage Board, on account of an accident to SS. "Bedouin," while coming into the Port of Louisburg in his charge.

> AMOUNTS RECEIVED BY PILOTS.
> Pilotage for 12 steamships (British)........................ $\$ 19700$
> do 1 barquentine do
> 450
> Total............................................. $\$ 201$ 50
> COMMISSIONERS ACCOUNT.
> Received trom pilots for licenses................................ $\$ 2000$
> Expended for printing, stationery, \&c................. .......... 1380
> Amount to credit of Board. . ................ \$ 620
> I have the honour to remain, dear Sir, Your obedient servant, A. MACDONALD,
> Secretary Pilotage Authority of Louisburg.

## APPENDIX No. 25.

REPORT OF THE PILOTAGE AUTHORITY FOR THE DISTRICT OF PICTOU, NOVA SCOTIA, FOR THE CALENDAR YEAR ENDED THE 31st DECEMBER, 1881.
Pictod, 4th January, 1882.
To Wm. Smith, Esq.,
Deputy Minister of Marine and Fisheries, Ottawa.
Sir,-The Pilotage Authority for Pictou District have the honour to submit thePilotage Returns for the past year.

$$
\begin{aligned}
& \text { We have the honor to be, Sir, } \\
& \text { Your most obedient cervants, } \\
& \text { J. R. NOONAN, } \\
& \text { A. J. PATTERSON, } \\
& \text { J. A. GORDON, } \\
& \text { JAMES D. McGREGOR, } \\
& \text { Pilotage Authority. }
\end{aligned}
$$

Pilotage Returns for the District of Pictou, N.S., for the year ended 31st December, 1881, as reguired by section 24, chap. 54, 36 Victoria, entitled: "An Act respecting Pilotage."
LICENSED PILOTG.
Name. Residence. Age.
Robert Powell . Boat Harbor ..... 80
Alex. T. Powell ..... do ..... 63
Jas. Franer. ..... 50
Bryant Rogers ..... 46
Wm. A. Cooke ..... 43
Angua McDonald. ..... 42
Henry H. Powell. ..... 35
Chas. A. Cooke. ..... 36
Geo. W. Powell ..... 30
Daniel Smith. ..... 30
John R. Powell. ..... 33
Wm. Munro ..... 51
Daniel MicLeod ..... 40
Ronald MeDonald ..... 55
Certificated Masters and Mates:-Amabel Racquet, Master, steamship "Miramichi."
Mates-None.Services 1or which Pilots were licensed :-To undertake the pilotage of vessels of every description within and through-out the Pilotage District of Pictou.

The Pilotage Dues for the time being in force, are as follows :-

|  |  |  |  | Inwards. | Outwards. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Vessels of | 80 and undor 150 tons |  |  | \$ 600 | \$ 400 |
| do | 150 | do | 300 do | 1000 | 660 |
| do | 300 | do | 400 do | 1200 | 800 |
| do | 400 | do | 500 do | 1400 | 900 |
| do | 500 | do | 600 do | 1500 | 1000 |
| do | 600 | do | 800 do | 1600 | 1100 |
| do | 800 | do | 1,000 do | 1700 | 1200 |
|  | 1,000 and upwards 2 cts. per ton inwards; $1 \frac{1}{2}$ cts. outwards |  |  |  |  |

And all vessels under 80 tons, 5 cents per ton inwards, and $\frac{4}{4}$ cents per ton outwards.

All steamers to be rated at net ionnage.
All vessels bound inwards, not requiring the services of a pilot, shall pay half pilotage to any pilot offering his services.

All vessels over 150 tons bound out, and not requiring the services of a pilot, shall pay half pilotage to the Pilot Fund.

Total amount received for pilotage dues...................... $\$ 3,48640$
Of this amount-
Received from British ships...................... \$2,777 40
do Foreign............................. 70900
Of this amount-
Received from sailing ships..................... \$1,568 78
do steamships.
1,917 62
$\$ 3,48640$
Receipts and Expenditures of all money received by or on behalf of the Pilotage Authority in respect of pilots or pilotage.

BECEIPTS.
$\begin{array}{ccrrr}\text { Received from } 14 \text { pilots for annual bonds.... } & \$ 1400 \\ \text { do } & \text { pilotage duos as per statement..... } & 3,486 & 40 \\ \text { do } & \text { balance on hand from last year.... } & 365 & 25\end{array}$
$\$ 3,86565$
EXPENDITURE.
Paid pilots for pilotage........................ ... \$3,226 40
Printing certificates, books, \&c.................... 1425
Secretary's salary..................................... 10000
Commissioners attending meetings........ ... 5000
Balance on hand..................................... . 47500
$\$ 3,86565$
J. R. NOONAN,
A. J. PATTERSON,
J. A. GORDON,

JAMES D. McGREGOR, Pilotage Authority for Pictou District.

## APPENDIX No. 26

REPORT OF THE PILOTAGE AU'NHORITY FOR THE DISTRICT OF ST. MARY'S AND LISCOMBE, NOVA SCOTIA, FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1881.

To the Honorable
The Minister of Marine and Fishcries, Ottawa.
Sir,-I herewith submit to you the Return of Pilotage for the District of St. Mary's and Liscombe, for the year ending 3lst December, 1881.

The pilots receive the amount earned by them individually.

> Yours respectfully, WILLIAM PRIDE,
> Secretary to the Commissioners.
8T. MARY'S RIVER.

Pilot, Archibald McDiarmid, age 71.


LISCOMBE.
John Wilson, age 61, Pilot No. 1.

|  | Tons. | Inwards. | Outwards. | Total. |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $\Phi$ cts. | \$ cts. | \$ cts. |
| Brig Fremad, Norwegian.................................. | 347 | 900 | 1100 | 2000 |
| do Olf, do .................................. | 210 | 600 | 800 | 1400 |
| do Yesture, English...................................... | 198 | 600 | 800 | 1400 |
| do Zone, do ........... ........................ | 244 | 900 | 1100 | 2000 |
| Barque Aladdin, Norwegian. | 382 | 900 | 1100 | 2000 |
| do Normand, do ................................... | 397 | 900 | 1100 | 2000 |
| Total amount............................... | 1,778 | ................ | ................ | 10800 |

## LISCOMBE.

Charles Riley, age 59, Pilot No. 2.

| - - | Tons. | Inwards. | Outwards. | Total. |
| :---: | :---: | :---: | :---: | :---: |
|  |  | \$ cts. | \$ cts. | \$ cts. |
| Barque Uranus, Norwegian. | 490 | 1100 | 1300 | 2400 |
| do Esperance, do | 318 | 900 | 1100 | 2000 |
| do Dueno, do | 267 | 900 | 1100 | 2000 |
| do Lomand, do | 646 | 1400 | 1500 | 2900 |
| Brig Cator, do | 225 | 600 | 800 | 1400 |
| Total amount. | 1,946 | ..... ... |  | 10700 |

## LISCOMBE.

Daniel Lang, age 44, Pilot No. 3.


## APPENDIX No 27.


#### Abstract

REPORT OF TLE PILO'TAGE AUTHORITY FOR TEE DISTRICT OF SYDNEY, C.B., FOR THE CALENDAR YEAP ENDED 3 st DECESBER, 1881.


Statement of Receipis and Disbursements by the Pilotage Authority of Sydney from
1st January to 31st December, 1881 :-

> Received at Sydney and North Sydney:-Licenses, 878; bouts, 81.n; masters, $\$ 120$
> $\$ 21300$
> Roceived at Lingan:-Lirenzes, 818 ; boats, $\$ 2 . \ldots . .$.
> Reccived at Glace Bay:-Licenses, $\$ 21$; boats, $\$ 9 \ldots \ldots$. 30. 00
> Total pilotage, per statement .............. . . . . . . . . . . . . . 12,92400
> 813,187 00

Expenditure.


North Sydney, C.B., January 17, 1882.
W. P'JRVES,
Secretary and Treasurer.

Name and Age of each and every Pilot for the torts of Sydneg and North Sydney, C.B., for the year 1881 .

| No. | Name. | Age. | No. | Name. | Age. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | James Petrie. ............................... | 61 | 14 | D. McGillvery (Biq)...................... | 61 |
| 2 | Jotun Curran............................................ | 54 | 15 | John Cann...................................... | 31 |
| 3 | John Brown ................................ | 58 | 16 | Thomas Townsend............................. | 62 |
| 4 | David Mullins............................... | 54 | 17 | John Mallins ..................................... | 31 |
| 5 | Peter Madore. .............................. | 50 | 18 | Syl. Shannahan.................................... | 39 |
| 6 | D. McGillvery (B)......................... | 62 | 19 | Andrew Ratchford.............................. | 37 |
| 7 | John Carrol | 56 | 20 | John Fraser | 41 |
| 8 | Thomas Doyle .............................. | 63 | 21 | James McGillv ery .............................. | 31 |
| 9 | Johr Petrie................................... | 51 | 22 | Grorge Townsend............................... | 63 |
| 10 | Robert Mullins................................. | 59 | 23 | Angus McNeil .................................. | 38 |
| 11 | Corn. Mullins | 50 | 24 | John Daly ..... ........................... ........ | 58 |
| 12 | D. McGillvery (D)................ ........ | 53 | 25 | Hugh McGilivery................................. | 53 |
| 13 | William Ratchford......................... | 44 | 26 | James McGill very (D)......................... | 36 |

Name and Age of each and every Pilot for the Polts of Lingan, Giace Bily and Caledonia.

| No. | Name. | Age. | No. | Name. | Age. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Thomas Laffin ........... .................. | 62 | 1 | Joseph Shanuahan........................ | 41 |
| 2 | Patrick La!fin........ ......... ............ | 44 | 2 | Wilinm Ifealan ............................ | 47 |
| 3 | Richard H.lll ................................ | 41 | 3 | Eiwa d Mahoa............ . ............... | 62 |
| 4 | Miehatl Lee. | 47 | 4 | Edward Pettie............................. | 46 |
| 5 | Walter Haudrihan. | 25 | 5 | Edmund Petrie | 41 |
| 6 | Patrick Ryan..... .... ..................... | 38 | 6 | William McLeod........................... | 45 |
| 7 | Neil Robertson.............................. | 60 | 7 | Ewan Robertson........................... | 31 |

Masters and Mates Certificated.

| No. | Name. | Rank. | Vessel. |
| :---: | :---: | :---: | :---: |
| 1 | J. P. Angrove .............................. | Master ..... | S:eams hip George Shattuck. |
| 2 | S. Anderson .................................. | do ... | :0 Valetta. |
| 3 | J. Delisle................................... | do ... | do Polino. |
| 4 | C. Ormiston ................................ | do ... | schooner J. C. Tupper. |
| 5 | J. Ormiston............................ ..... | do ... | do Valnntine |
| 6 7 | R. Ormiston | do $\begin{aligned} & \text { do } \\ & \text { do }\end{aligned}$ | do M. Hopewell. |
| 8 | T. Desmend ................................ | do | Steamship Tunsdal. |

The total number of arrivals in 1881, paying pilotinge, at the Port of Sydney, was. 55, viz. :-

Ton rage.
34 steamers, British................ .................. .................. 3:.5?
6 - do Foreign.............. .............. .................... 12,500
13 sailiug ressels, Briti-h . ...... .. ..... ......................... 3. 3.95
2 do Foreign.......................................... 97 .
$\overline{55} \quad$ - 50,974


The amount collccted at Sydney was :-
From British vessels. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$1,532
do Foreign do 214
$\$ 1,740$
The number of arrivals at North Sydney was 525, consisting of:-
Tonnage.
1f1 stearners, British.................................................. 160, 752
14 do Foreign ................... ............................. 16,211
285 sailing vessels, British.................................. ........ 114,780
65 do Foreign......................................... 32,608
525 324,351
$5 a-22$
Amount of pilotago collected at North Sydney :-
From British vessels ..... 85,825
do Foreign do ..... 1,330$\$ 8,155$
The arrivals at Little Glace Biry were 70, viz. :-
Tonaage.
1 British steamer. ..... 507
66 do sailing vessols ..... 12,247
3 Foreign do ..... 1,281
70 ..... 14,035
The amount of pilotage coliected was:-
From British versels ..... \$584 50
do Foreign do ..... 6300
$\$ 14750$
The arrivals at Port Caledonia were 128, viz. :-
Tonnage.
120 British sailing vessels ..... 2:3,155
૪ Foreign do ..... 3.200
128 ..... 26,3"5
The amount of pilotage collocted was:-
From British versils. ..... $\$ 1,36750$
do Foreign do ..... 9600
$\$ 1,463 \quad 50$
The number of arrivals at Lingan wore 8? , consisting of:-
Tonnage
2 British stc:mmers ..... 8:32
84 do sailing vesbels. ..... 14,862
86 ..... 15,694
The amount collectel wis:-
From British stcamers ..... \$ 32
do sailing vessels ..... 880

## RECAPITULATION.



## W. PURVES, <br> Secretary and Treasurer.

North Sydney, C.B., 17th Jannary, 1882.

## APPENDIX No. 28

REPORT OF THE PILOTAGE AUTHORITY FOR THE DISTRICT OF WALLADE, N.S., FOR THE CALENDAR YEAR ENDING DECEMBER 31st, 1881.

## The Honourable

Acting Minister of Marine and Fisheries, Ottawa.
Sir, - We, the Pilotage Authority for the Port of Wallace, in the County of Cumberland, Province of Nova Scotia, hare tho honour to submit to you the following particulars respecting the pilots for the said Port of Wallace :-

No. 1. Zabud Mullin, 56 Jears of age.
No. 2. Charles Stuart, 42 years of age. When licensed.
No. 3. James Carty, 55 years of age. J
The service of each and overy pilot licensed is performed by pilot vessels of every description within and without the said pilotage district of Wallace.

Rates of pilotage dues for the Port of Wallace are as follows:-

| Versels of 80 tons and under 160. |  |  |  | Inward. | Outward. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\begin{array}{r} \$ C 00 \\ 900 \end{array}$ | 8400 |
| do | 160 | do | 230. |  | 600 |
| do | 230 | do | 400. | 1200 | 800 |
| do | 400 | and upwa |  | 1400 | 1000 |

Vessels undor 80 tons, accepting the services of a pilot, 5 cents in; 4 cents out, per ton. Steamers rated at net tonnage. The above rates are to Wallace Huestis Grey Stone Company's Wharf, Wynn's Cbannel to Plaster Wharf, and up Fox Harbour Channel. Vessels requiring a pilot to Wallace Bridge pay 25 cents per foot "Draught water." To Wallace Freestone Quarries or up Bay Channel 'o Abitcan, 30 cents per foot each way.

By balance on hand as per last Report.. $\$ 1000$
Respectfully submitted.

> WILLIAM C(COTT. WILLIAM MACNAB. JOHN W. MORRIS.

## Al'PENDIX No. 29.

REPORT OF THE PILOTAGE AUTHORITY FOR THE DISTRICT OF CRAPAUD, P.E.L., FOR THE CALENDAR YEAR ENDING 31st DECEMBER, 1881.

Crapadd, P.E.I., December 29th, 1881.

## The Honorable

Acting Minister of Marine and Fisheries, Ottawa.
Str,-We, the Pilotage Authority for the Port of Crapaud, in the County of Queen's, Province of Prince Edward Island, have the honour to transmit to you our annual returns for the piotage of said port.

Peter Stewart, age 44, licensed No. 1.
copt of pilot's report.
List of vessels piloted by me in and out of Crapaud Harbour for the year ending 31st December, 1881.

$$
\begin{aligned}
& 2 \text { Barques. .......... ................... ............................... } 83050 \\
& 1 \text { Brig. } \\
& 1500 \\
& 4 \text { Brigantines. } \\
& 5800 \\
& 23 \text { Schooners............................................................. } 16298
\end{aligned}
$$

$\$ 26348$
No accidents; two cases of sickness; no one in distress; no vessels on Tryon Shoals.

1 have the honour to be, your obedient servant,
Peter Stewart,
Pilot.
The Pilotage Commission, Crapaud, P.E.I.
It affords us much pleasure to be able to say of Mr. Stewart that he has conducted himself to our and the public's satisfaction, and with honour to himsolf.

WESLEY MYERS,
Secretary.

## APPENDIX No. 30.

REPORT OF THE PILOTAGF AUTHORITY FOR THE DISTRICT OF* NANAIMO, FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1881.<br>Nanaimo, B.C., 10th January, 1882.<br>The Honorable<br>Acting Minister of Marine and Fisberies, Ottawo.<br>Sir,-In compliance with the requiroments of Sec. 24 of the Act respecting. Pilotage (36 Vic., chap. 24), I hare the honour to forward berewith Pilotage Returns for the year ended 31st December, 1881, as under, viz. :-<br>Receipts of dues, specifying nationality.<br>Amounts received and expended on account of pilotage.<br>Pilotage dues, and<br>Name, age, service and authority of pilots.<br>I have the honour to be, Sir,<br>Your obedient servant, T. ERIC PECK.<br>Acting Secretary.

Return showing the amount of Pilotage received in the Pilotage District of Nanaimo, during the year ended 31st December, 1881, specifying nationalities:-

From British vessels ................................. . ............ \$4,693 75
American vessels............................................ 5,036 00
German do ............................................ 13175
French do ............................................... 6175
Bolivian do ........ .................................... 52. 50
Tutal............................................... \$9,975 75

Return showing amount of Pilotage Dues and Licenses, \&c., and the amount expended for the Year 1881, as under, viz.:-

## RECEIPTS.

Pilotage ducs .....  89,97575
Pilotage licenses ..... 13500
Pilots' examination fees ..... 2500
$\$ \mathbf{\$ 1 3 5} 75$
Amount of pilotage paid on 31st December, 1880, under protest, and since disbursed ..... 1800
Amount brought from account of 1880 ..... 25886
Total ..... \$10,412 61

## EXPENDITURE.

| Expenses of investigations.. | \$ 22800 |
| :---: | :---: |
| Rent, stationery and office expenses | 36249 |
| Acting Secretary and Treasurer | 24000 |
| Expenses of examinations | 2500 |
| In aid of pilot boats .... | 23000 |
| Rofunds of pilotage. | 4910 |
| Earnings paid to pilots | 8,955 99 |
|  | \$10,120 58 |
| Amount carried to account of 1882. | 29203 |
| Total ....... | . \$10,41: 61 |

Return showing the Pilotage Dues in force in the Pilotage District of Nanaimo:-

> Port Pilotage Dues.

For sailing vessels of less than 12 feet draught, $\$ 3$ per foot.
For sailing vessels of more than 12 feet draught, $\$ t$ per foot.
For versels in tow of a steam ting, irrespective of draught, $\$ 3$ per foot.
For steamers, other than foreign tugs, not commanded by a pilut, three-fourths. of above rates if a pilot be employed.

## Gulf of Georgia.

For vessels in tow of a steamer, and for stermships, Nanaimo to and from Royal Roads, $\$ 10$ per day or fraction of a day of 24 hours, exclusive of port pilotage.

For vessels under canvas, proceeding as above, $\$ 6$ per day or fraction of a day of 24 hours, inclusive of port pilotage.

## Straits of Juan de Fuca.

By sperial agreement, there boing no tariff.
Return showing the name and age of all Pilots acting under the authority of the:
Nanaimo Pilotage authority, together with their duties:-


The first three above named pilots are fully authorized by the Board of Coms missioners tor their respective services.

M. BATE, JOHN HIRST, T. ERIC PECK, Commissioners.

## APPENDIX No. 3 I.

REPORT OF THE PILOTAGE AUTHORITY FOR THE DISTRICT OF VIC'TORIA AND JSQUIMAUL'T, FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1081.

Victoria B.C., 10th January, 1882.

William Simite, Esq.,
Deputy Minister of Marine and Fisheries, Ottawa.
Sir,-I have the honour to transmit by ateamer leaving to-day the Pilotage Returns for the Victoria and Esquimault District, for the calendar year ending 31st December, 1881, in keeping with the requirements of sec. 24, chap. 54 of the "Pilotage Act, 1873,' and trust the same will reach the Department in timo for your Report.

I have the honour to be, Sir,
Your most obedient servant, EDGAR CROW BAKER, Secretary-Treasurer.

Returns by the Victoria and Esquimault Pilotage Authority, 1st January to 31st Docember, 1881.

LICENSED PILOTS.


EDGAR CROW BAKER,
Secretary-Treasui er.
Viotoria, B.C., 31st December, 1881.

## List of Certificated Master: and Mates.

| No. | Name. | Date. | Vessel. | Limits. |
| :---: | :---: | :---: | :---: | :---: |
|  | James Gardiner. |  | Otter | Victoria to Fort Simpson. |
| 2 | William Meyer | do 23, 1881.... | Grappler ......... ...... | do Wrangle, \&c. |
| 3 | Daniel Morrison............ | June 29, 1881.... | Isabel......... ........... | do Puget, Sound. |
| 4 | Thomas Wilson............ | Aug. 4, 1881.... | North Pacific. ......... | do do |
| 5 | Thomas Pamphlet.......... | Sept. 27, 1881.... | Bonanza. | do Nanaimo and Bute Inlet. |
| 6 | George Lackey .............. | Dec. 15, 1881... | Black Diamond. ...... | Victoria and way ports. |

Clause I.-No acting pilots or apprentices omployed in this district.
Clatise II.-The sorvice for which every pilot is licensed is from the shores of Washington Terlitory to the northern boundary of the Prosince; less such exemptions or exclusions as are contained in the Order in Counoil, dated 15th April, 1879, as duly promulgated in tbe Canada Gazette, vol. 12, p. 1296 ; practically, it moans the harbours of Victoria and Esquimault, and the navigable waters leading thereto. Masters and mates cortificates are issued for the same service only for their respective vessels.

Clause 111 -The pilotage dues for the time being in force are the same as printed at p. 317, of Supplement No. 1, to the Thirtcenth Annual Report of the Department of Marine and Fisheries, to 31st December, 1880.

EDGAR CROW BAKER,<br>Secretary-Treasurer.

Victoria, B.C., 31st Decomber, 1881.

List of Exempted Vessels-Steamers.

| No. | Name. | Rig. | Master. |  | Route. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Euterprise. ......... | Sloop....... | W. MeCulloch .. | 442 | Victoria to New Westminster. |
| 2 | Maude................ | do ....... | Geo. Rudlin ......... | 158 | East Coast Mail. |
| 3 | Etta White. ........ | do ....... | Henry Smith......... | 97 | Mill and tug service. |
| 4 | Onriboo Fly........ | do ....... | Gco. Rudlin ......... | 138 | Victoria to Nanaimo. |
| 5 | IV.G. Hunt......... | do ....... | J. A. Clarke......... | 172 | Nanaimo, Comox, New Westminster. |
| 6 | Pilot....... ........... | do ....... | J. D. Warren......... | 183 | General towage service. |
| 7 | Beaver...... ....... . | Schooner.. | Jno. McAlister...... | 109 | do |
| 8 | Alexander ........... | do ... | D. Urquhart ......... | 331 |  |
| 9 | Western Slope...... | Sloop....... | Wm. Moore. ........ | 250 | Victoria to Yale. |
| 10 | Priucess Louise .... | Schooner.. | H. G. Lewis ......... | 498 | Victoria to Wrangle. |

All the forerroing vessels are exempt under the Act 40 Vict., chap. 20 (trading from port to port in the same Province and being propelled wholly or in part by steam). Other vessels pay the annual fees prescribed in the by-laws, 1880.

EDGAR CROW BAKER,<br>Secretary-Treasurer

Victoria, B.C., 31st December, 1881.

Victorta and Esqumadlt-Clause IV-Return of Dues Collected.


EDGAR CROTV BAKER,
Secretary-Treasurer.
Victorif and Esquimault, 7th January, 1882.

| Date. | Nature of Receipt. | Amount. | Date. | Head of Service. | Amount. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{cr} 1881 . \\ & \\ \text { Jan. 1, to Dec. } & \\ \text { do } & \ldots \\ \text { do } & \ldots \\ \text { do } & \ldots \\ \text { do } & \ldots \end{array}$ | To Balance from last year. <br> Pilotage dues collected $\qquad$ <br> Certificate fees.. $\qquad$ <br> Examination fees.. $\qquad$ <br> Surveys on pilot vessels. $\qquad$ | \$ cts. | $\begin{array}{\|cc\|} \hline 1881 . \\ \text { Jan. 1, to Dec. } & 31 ., \\ \text { do } & \ldots \\ \text { do } & \ldots \\ \text { do } & \ldots \\ \text { do } & \ldots \\ \text { do } & \ldots \\ \text { do } & \ldots \end{array}$ |  | \$ cts. |
|  |  | 11930 6667 |  | By Paid Pilots, earnings............................. | 6,000 52 |
|  |  | 6,66724 21000 |  | Office expenses...................................... | 33527 |
|  |  | 2000 |  | Expenses of investigations. | 18000 |
|  |  | 3000 |  | do examinations........ ............... | 2000 |
|  |  |  |  | do surveys................. ............ | 3000 |
|  |  | \$7,046 54 |  |  | \$7,046 54 |

Approved and certified correct.
EDGAR CROW BAKER,
$\left.\begin{array}{l}\text { RODERICK FINLAYSON, } \\ \text { R. P. RITHET, } \\ \text { W. W. CLARKE, }\end{array}\right\}$ Commissioners.
Victoria, B.C., 7th January, 1882.

## APPENDIX No. 32.

REPORT OF THE PILOTAGE AUTHORITY FOR THE DISTRICT OF YALE AND NEW WESTMINSTER, FOR THE FISCAL YEAR ENDING 31st DECEMBER, 1881.

Burrard Inlet, B.C., 26th January, 1882.

Sir, -I have the honout to transmit herewith the Pilotage Returns for the Pilotage District of Yale and New Westminster, for the year ending 31st December, 1881.

> I have the honour to be, Sir, Your obedient servant,
B. SPRINGER, Secretary.

## YALE AND NEW WESTMINSTER PILOTAGE AUTHORITY.

 LICENSED PILOTS.| 这 | Name of Pilot. | Age. | Service. |
| :---: | :---: | :---: | :---: |
| 1 | James Ramsey............. | 51 | Licensed to pilot vessels of every description |
| 3 | William Ettershank............................. | 39 | within the limits of the district. |
| 4 | James Christensen.............................. | 41 |  |
| 6 | Angus McAlister........... ...................... | 37 |  |

Pilotage ducs for the time boing in force are the same as last year, and which were approved by Order in Council of 26th July, 1879.

Pilotage collected as follows:-


At the Port New Westminster from Foreign steamers. | 3,884 | 50 |
| :--- | :--- | :--- |
| 1,320 | 00 |

Total................................... . . $\$ 5,204$ 50

Receipts and expenditures of all moneys received by or on behalf of the Pilotare Authority in repect of pilots or pilotage, for the year ending 31st December, 1881.

## RECEIPTS.

> To Cash on band from last year................. $8 \quad 8400$ Pilotage duos...................................... $5,20+50$

EXPENDITURE.
By Paid Pilots as per receipts................... \$4,68 05
Commissioners exponses .............. 900
Printing and stationery................ 650
Postages and telegrams................ $\ddagger 00$
Expenses collecting..................... 350
Secretary's salary.......... ............ 30000
Cash on hand.................................... . . 281 ч5

$$
\$ 5,288 \quad 50
$$

## J. A. RAYMUR, <br> Chairman.

B. Springer,

Secretary.
Burrard Irlet, B.C.,
31st December, 1881.

## APPENDIX No. 33.

## REPORT OF THE MONTREAL HARBOUR POLICE FOR THE FISCAL YEAR ENDED 30te JUNE, 1881.

Montreal, 31st December, 1881.

William Smith, Esq.,<br>Deputy Minister Marine and Fisheries, Ottawa.

Sir,-I have the honour to submit the Annual Report of the Government Harbour Police of Montreal for the fiscal year ended 30th June, 1881, as well as for the season of navigation of the year 1881.

During the past season the force was increased fise in number, making a total of one chief, three sergeants and thirty constables. This small addition was granted by the Department, after being satisfied of its absolute necessity. The whole line of canal and harbour wharves were twice gone over by the Honourable the Minister and repeatedly by yourself. From a police standpoint, more particularly, you gave your attention to the requirements called for by the new additions made to the river frontare, and finally decided on a site on the whart, riz., section 29, for the new substation, already determined upon as an essential adjunct. The plan boing approved, constructed of wood, it was epeedily completed and occupied by an acting sergeant with six men, to whom were assigned the entire duly from that section to Victor Hudon's Cotton Factory.

It will be apparent that this small detachment in itself would have been comparative helpless in tho ovent of any serious trouble, being necessarily divided like The main body into day and night men and reliefs, but as far as possible to obviate this difficulty you had the two stations connected by telophonc, facilitating immediate communication, providing for speedy reinforcement in cave of necd, and the transmission of prisoners to the central office. The sub.station is built upon runners and can be readily removed before winter.

The total number of arrests were 375, being an increase over the previous jear of 62. Individuals for protoction, 87, being an decrease of 23. As heretofore, acting on the discretionary power granted by the Department, partier consenting, numerous cases of intoxicated seamen wele given in charge by their officers for safe keeping, who upon becoming sober wore admonished and returned to their vessels, and are not included.

There has been an increase in the number of persons drowned and of bodies found in the Canal and Harbour-as far as known, with one exception, accidental. Several bodies were recovered by the police, dragging with grapnels supplied by the Department for the purpose, but in the generality of cases, where parties have tallen into the water in public places they have been rescued by the persons present and the police.

There has long oxisted a crying want for places to enable the large number of people omployed on the wharves as well as sailors to relieve the calls of nature. The Harbour Commissioners have already made a more in this direction, having orected one structure and promise another in connection with the general public and the sub-station, the Dopartment to contribute pro rata, but this is not by any means sufficient accommodation. There should be at regular intervals at least urinals. Persons cannot consoientiously be arrested for "indecently exposing," whon no provision has been made to provent the necessity.

As fou have the working of the Merchants' Shipping Act under advisement, together with the construction put on some of the clauses by the authorities here, $I$ shall refrain from further comment.

The Act generally has been under the consideration of the Board of Trade and the leading ship owners, who have, I believe, submitted their views on important issues that have been developed here and at Quebec.

During the month of May rumours wer prevalent of great dissatisfaction existing among the ship labourers in regard to the rates paid by employers, and early in June increased to such an extent, combined with meetings, processions and threats, that it was doemed prudent (mindful of past experience) to make preparations to meet any illegal demonstrations of violence or intimidation; the state of affairs and its threatening aspect was laid before the Department together with the substance of the pressing applications for guards of police made by the owners, agents and captains as well as merchants interested in the protection of their vessels and property, and the inability from the inadequacy of numbers to meet their numerous demands.

On the night of the 7th July a striize which had been maintained for some weeks without any formidable troach of the peace, culminated in an attempt by a large organized assemblage who had formed in procession at the termination of a convened meeting for the alleged purpose, as was reportod, of clearing the shipping and wharves of all persons working who wore non-members of their Union. This intent was fortunately to a great extent frustrated.

The procession and the police came in contact at the Dominion sheds where an attempt was made to board the SS. "Teutonia," was resisted successfully after a hand-to-band contest. The police were fired upon and stoned.

The Riot Act was read, the fire returned and the rioters dispersed. This event amongst others occurred after the terinination of the fiscal year, and, therefore, is not legitimately a portion thereof, but though requested to make this report as conciso as possible, the facts being already in possession of the Department, I shall merely briefly summarize the leading incidents and the general results.

During the month of June several meetings of the Ship Labourers' Society were held, at one of which it was decided to notify the shipowners, de., that if the increaned rates fixed upon were not paid and the conditions of the Society rules not complied with, they would cease working on Saturday afternoon the 18th June. These propositions were rojected, and by preconcerted agreement a strike was in full blast on Monday the 20th June.

It was undorstood that several efforts had been made to compromise the matter, and even increased rates agreed to, but as it turned out, a fundamental rule of the organization precluded the shipowners from entertaining any arrangement.

To provent the detention of their vessels and the shipping and delivery of goods, the merchants decided upon procuring all available labour possible outside the Union iu addition to the crews of their vessols, and having to an extent succeeded the laborers becamo exasperated and the breach widencd between labour and capital on this issue.

So many men persistently refusing work and the many non-contents overawing the rest, the injurious effects of the morement speedily developed themselvns.

The unemployed congresated in crowds on the revetment wall, and part of the programme soon became apparent, i.e., the intimidation of those working. Armed detachments of police had to mount guard over each vessel loading or unloading, and the revetment wall and ramparts were with difficulty kept clear. The Allan Line vessels were more particularly obnoxious and seriously menaced. Persons requiring access to the sbeds in search of employment bad to run the gauntlet of strikers who marked them for future retribution. Scarcely able to stem the torrent which had taken so alarming a course, urgent application was made to the Department either for authority to increase the force or to send assistance from Quebec. The latter measure was adopted, and on the morning of the 23rd June, Chief Trudel and tuenty of the Quebec Government Harbor Police opportunely arrired and were assigned, as
requiring no knowledge of locality with a few of the Montreal men, the duty of protecting the vessels and sbedr, then full of cargo at the Allan Line. It is stated that the strike originated among tholegularly employed labourers of the Allan Line, and hence the most hitter feclings existed against that Company. These wharver, the largent and most extensive in the port, being provided for by the auxiliaries left me with the balance of my regular force, five supernumeraries and the two men of the public works, at liberts to loik after the remainder of the harbour.

The combinel police were kept on duty day and night. Early and late, large and small buties of the atrikers were grouped all along the wall and evidently with a purpose. Liegnar mectings of the Society kept up the excitement; all kinds of alarming rumours were current, but in justice to the labousers it must be admitted that though their domeanour wars sullen and discontented their geueral conduct under the circumstances, with a few evceptions was very good, and their thetics seemed totend to the intimidation and slopping the workers rather than the destruction of property.

It would have been impracticable for the few men under my control, notwithstanding their jluck, to disperse or hold their own against these organized gatherings, but for the valuable arsistance freely given by Chiet Paradis, his staff and city constables. We are indebtel to them for the preservation of tho peace at that time, the harassing task of keeping free the revetment wall and its passages independent of their regular duties. My command was divided into three sections which were placed so as to afford the greatest amount of protection and at the same time to ensure means of aiding one another when attacked. As before named, Chief Trudel was entrusted with charge of the station and the Allan vessels and sheds, having all his own men and those that could be spared from the Montreal Police. Sergeant Holdbrook, with $t \in n$ men of the Montreal Police, was assigned the care of the Dominion Line wharvos to Bonsecours Market and was included in Chief Trudel's division, each supporting the other as circumstances required. This post was next in importance to the Allane, the offices of Labourers' Uuion being opposite the sheds on the wharf. Chicf Murphy, with Sergeants Donobuc, Nourie and twenty men, were stationed at the Temperley Line with detachments under ono of the sergeants to the Beaver, Reford, Donaldson \& Hope, \&c., Lines and sheds. The vessels lying below these localities had only casual supervision. The steamer ": Scotland,' of the Temperley Line, was the first objective point of the strikers. The agent of this vessel had procured a number of mon and they determined at all hazards to prevent their working. Her berth was at a wharf with but one approach, and ropeated attempts to force Chief Murphy's position were frustrated.

On the 21 st, wo days provious to the arrival of the Qucbec Police, having bern. notified by the agent that a tug with labourors from the neighbouring towns was due in the morning, disposition of the police was made to resist the threatened attack on the "Scotland." As the tug steamod up, some two thousand persons had assembled on the revetment wall and surroundings, the passages were blocked and a collision seemed imminent. The determined front of the littlo band, however, checked any attack. Until a late hour the crowd kept increasing and more defiant, but ultimatoly dispersed. Day by day groups were to be met with all along the revetment wall sseemingly with some object or preconcorted purpose.

On the 24th June, the time given by the shipowners to the strikers to re-consider their action expired without any result, and all hopes of an amicable termination of the struggle were given up. During the month of July numerous arrests for loitering on the revetment wall were made by the City Police, which somowhat abated the movement. On the Eth July, a crowded meeting of the Ship Labourers Union was held in St. Patrick's Hall, and at its termination a procession was formed, marching through the leading streets. Pursuant to call anothor mass meoting was held on thu 7 th, at Papineau Squaro, at 8 p.m. Advised from various sources and by Chief Paradis, that some demonstration was contemplated, Chief Murphy was ordered to have the workingmen on all the steamers and vessels by that hour placed under hatches, and similar instructions were given to Chief Trudel, who received every facility and.
assistance from Captain Barclay, the manager of the Allan's Line throughout the strike. Eaving perfected as far as possible the arrangements for the defence, I again visited the post at half-past eight with the only magistrate to be procured, Mr. F. W. Henshaw, and proceeded to Chief Murphy's position. About half-past nine, p.m., the cutlying picket fell back and reported the coming of the procession. Drawn up in line with fixed swords to cover the approach to the wharves, which they endeavoured to force, I advanced and ordered them off the wharf. The number of persons assembled has been computed to have been between two and three thousand, aud, as expected, paid no heed, but endeavoured to make their way to the SS. "Scotland," covered by volleys of stones. They were met with a charge of bayonets and driven back. As the last of the mob passed this point we formed, and, accompanied by the magistrate, Mr. Henshaw, marched parallel with, but intervening botween, it and the shipping, with the intention of picking up the detachment and concentrating at Allan's, the statement being curront that something extraordinary was to happen and an example made there.

On reaching the Dominion wharf, and the steamer "Teutonia," a portion of the mob that had preceded the other was found massed under the revetment wall in front of the offices of the Labour Union as well as upon top of the wall. In the act of our forming a junction with Sergeant Holdhrook's guard, a rush was made by the mob for the gangways of the steamer of which they partially gained possession, though energetically resisted by Sorgeant Holdbrook's small party and held at bay. At this moment my party reached the contested spot with a charge of bayonets responded to by pistol shots and volleys of stones, the brunt of which was first borne by the sergeant's party. Having on the first assault called upon Mr. Henshaw, who throughout was in the midst of the fight, to read the Riot Act, be did so amid so much shouting and noise that, fearing it might not have been heard on the revetment wall, I advanced with him to the verge of the mob, where he repeated it. When be had finished the people were distinctly warned, but we were met with volleys of stones, shouts of derision and disloyal epithets. During the reading the conflict was progressing. The police answered the fire of the rioters with their pistols when I ordered the firing to cease, and with a charge effectually beat off the assailants from the vessel. I did not consider it my duty to further risk the lives of this little band but confined my offorts to protect the shipping. By this time the City Police had been reinforced by order of Chief Paradis, and they gallantly attacked and dispersed the mob which we had driven on to the wall, but not without many of the constables being seriously injured. Rioters now began to disperse, and having for a few minutes formed my men behind some piles of rails to avoid the stones, re-formed and hastened to the Allan wharves. During the melle Chief Trudel had dispatchod a message for assistance, his post being threatened by the large crowd that had passed, and being unable to afford him any help ordered him to retire on board the steamship until we could join him. It is a matter of congratulation that no lives were lost, and this in a great measure is due to the coolness and discipline of the men, though Chief Murphy and several of the men were hurt (two very seriously, one of whom has since died), and most of them struck with stones. They kept their temper, firing over the heads of, rather than at, their assailants. It was afterwards found that this same gang had, on their route to Chief Murphy's position, boarded and taken out all the labourers from below these wharves. I have nu hesitation in making the assertion, borne out as it is unanimously by the shipowners, agents, merchants and Board of Trade, that but for the success of this stand a raid would have been made on all the vessels, terror would have been instilled into the labourer inclined to work and the defeat of that little body of police would havo led to a period of anarchy and ruinous to the general interests of the port.

It is needless to recapitulate the continuous worrying duties performed by the combined force until the close of July; but it is a confirmed fact that the measures taken to over-awe every incipient attempt to intimidate and otherwise encroach on the rights of the citizen prevented further complications and enabled the legitimate business on the wharvos to be proceeded with, slowly and under difficulties it is true; $5 a-23$
but, neverthelefs, vessels were loaded and discharged under the protectorate, and the indomitable energy and perseverance of the shipowners. The labourers had learned the lesson that with much sympathy with their position, the police were ready and able to perform their duty in quieting any illegal demonstrations, notwithstanding taunts to the contrary. Tho Department is, I trust, impressed with the arduous duties that have been so cheerfully performed and for which the shipowners, agents, merchants and Board of Trade had been good enough to express their thanks in a most complimentary wiy-the former supplementing their resolutions with a handsome present. I have now but to say how much I am indebted (and indeed the whole port) to Mr. F. W. Henshaw, for attending to my pressing solicitation for magisterial assistance.

The greater portion of his time (to the loss of his own business) during the period from the 18th June to 25th July was passed on and off at the office of tho Department, owing to the threatening demonstrations. He unhesitatingly accompanied the police whenever required to do so at considerable personal risk, and during the reading of the Riot Act, the first time, was nearly driven into the river, and at the second reading not only as previously stoned but was in addition under a discharge of pistols. I have no way of showing how highly I estimate the calm but determined way in which be carried out the requirements of the law. It is my duty, in view of a possible recurrence of a similar nature, to point out that some measure should be adopted to nominato for such a purpose one or more magistrates so as to insure attendance in such a crisis. Though not of the importanco, porbaps of a general riot, yot it is equally cssential that some one should be present at simila ${ }^{\circ}$ nccurrences. Though I made cerery endeavour to obtain at various times, on emerrency, the services of a justice of the peace, except in his caso I signally failed, and but for Mr. Henshaw's attendance would have boen compelled to act on my own responsibility. I am also indebted, on ono occasion later on in the troubles, to Messrs. Bulmer and O'Brien, for the offer of magisterial assistance, but though in attendance with my party their services were, happily, not required, Mr. Henshaw having been, by request of Chief Trudel, assigned to him. Chief Trudel rendered to me the most valuable assistance throughout, and has personally receired the ercomiums of the shipowners, merchants and Board of Trado for the tact he displayed in the disposition of his command, and his personal energy has been already commented upon, while his men in physique and stamina provoked the most complimontary remarks. Their conduct during thoir protracted stay was exceptionally good and singularly cheorful, considering the circumstances of their hurried Neparture from Quebec without any rig but what they stood in.

The merchants and agents were most attentive in their ondeavours to contribute to the comfort of the men on duty. The Montreal Harbour Police was necessarily rompelled, being detached, to rest in sheds and on board ships whenevor there was a chance, and their meals were obtained in a simlar manner. Tho Messrs. Allan constructed a guard room with bunks in one of their sheds, a very great convenience. Thief Murphy deserves great eredit for his untiring zeal and endurance, notwithstanding his health was not just then as good as could be wished; he exhibited an adraptability to govern his men and inspire confidence seldom found in one not educated to it. $I$ unhesitatingly gavo him, as it proved, the most critical station, and I did so with the full assurance that ho would faithfully carry out without any hesitation the instructions he received with firmness as well as discretion. Ittached to his squad was the Department's oldest sergeant, W m . Donobue, a retired staff sergeant, whose intimate knowledge and previous experience on the frontier with this furce gave assnrance of doing his part, and upon whom I relicd in the cvent of any mishap to his chicf. Sergeant Nourie, also at times with the chief, was vory valuable in the general duties given to him. His nationality enabled him to take a prominont part among his countrymen in the endeavour to restrain their excitement and to throw oil on the troubled wators. Sorgeant Holdbrook, another old servant of the Dopartment, and a former old member of the Irish Constabulary, held a most unenviable position. The Dominion Line, next to the Allan's, being the mot obnoxious and the headquartere
of the Union being opposite their sheds, his fearless and undaunted repulse, with his gallant little party of so imposing and overwhelming a crowd, is beyond praise, and will long be remembered by all concerned. I am proud to say that he proved what I always expected he would, an intrepid, trustworthy and experienced officer. It has been my province on several occasions to have been in command of parties in times of peril, but they had been in a manner born to it; but I can conscientiously say that the little phalanx of some thirty men submitted to the stoning and firing of so large and excited a crowd evincod a stcadinese, coolness and unflinching courage, promptly and unhesitatingly obeying their orders not to be challenged by tho most oxperienced hands and deserve some credil and praise officers and men than 1 know how to afford them. I have been unconciously led into those dotails as it is the only opening for bringing to your notice the latest chapter in the annals of the Montreal Government Harbour Police.

I hare the honour to be, Sir,
Your very obedient scrvant,
H.S.A. ORYOND,

Agent Marino und Fisheries Dipt., Inspector Goc. Police.
return of accidents on the wharves, de., for tie fis al tear ended 30th JUNE, 1881.

July 4th.-A hand on board the steamer "Alexandria" jumped from the wharf to a barge, missed his footing and fell into the canal; rescued by the constable on duty.

July 8th.-A man was drowned by falling into the river; body recovered; coroner notified.

July Sth.-A bos while playing on the wharf fell into the river and would have been drowned but for the assistance of the constable on duty.

July 11th.-A boy while bathing in the river at St. Helen's Island was drowned; coroner notified.

July 11th.-A hand on board the barge "Atlas" was struck on the head by a block falling from the mast and severely injured him; conveyed to the hospital.

July 15th.-A horse and truck while crossing the railway track on the wharf the horse was severely injured.

July 16th.-A man while working on board the barque*" Lord Palmerston "got ouo of his fcet crushed between a hogshead of sugar and the deck; conreyed to his residence.

July 16th.-A horse attached to a waggon ran away on Common street, foll over the reretment wall ; severely injured.

July 22nd.-A fire broke out in the store room of the SS. "Stelvio ;" after considerable damage the fire was put out with the assistance of the fire brigade.

July 23rd.-A man while loading the Grand Trunk cars on the whart had one of his hands severely injured; conveyed to the General Hospital.

July 2tth.-A boy while going on board the SS. "Prussian" accidentally fell from the gangway into the river; rescued by the constable on duty and others.

July 26 ti.-A seaman belonging to the SS. "Cynthia" while painting the smoke-stack fell on the main deck; severely injured; sent to the hospital.

July 30 th. - A horse attached to a waggon ran into the Canal Basin; got out with the assistance of the constable on duty.

August 1st.-A young man fell into the canal basin; was rescued by the constable on duty by throwing him a rope.

August 2nd.-A man while unloading iron from the steamship "Strathanly" had one of his lege soverely crushed by a bar of iton falling on it; conveyed to his home. 5 a-23 $\frac{1}{2}$

August 3rd.-Two seamen belonging to the barque "Standard" while painting the ressel the gangway gave way, both men fell into the river; rescued by the constable and others.

August 7th.-A seaman belonging to the "Ocean King" while going on board fell between the steamer and the wharf, the constable hearing the cries for help ran to his assistance and hauled him out.

August 10th.-A passenger on board the steamer "Laprairie" jumped into the river and was drowned.

August 14 th.-A man was drowned in the canal basin; body recosered; coroner notified.

August 16th.-A man sitting on tho edge of the wharf fell into the river; rescued ly the constable on duty.

August 20th.-A scaman fell from the gangway into the river; rescued ly his comrades.

August 21 st.-A scaman belonging to the ship "Derbyshire" foll from a scaffold while emplosed cleaning the side of the ressel; severely injured.

August 21st.-A borse attached to a cart loaded with coal backed into the canal; sot out without much injury.

August 22nd.-A boy fell into the canal basin and would have been drowned but for the assistance of the constable on duty.

August 24th. While two young men were playing on the wharf both fell into the river, one was drowned the other rescued; Coroner notified.

August 26 th.-A boy fell out of a small boat into the river and was drowned.
August 30th.-A scaman belonging to the ship "Glenfinart" fell from the side of the ship on to the wharf and then into the river, severely injured; sont to hospital.

Sept. 2nd.- $\Lambda$ boy fell into the canal basin and was drowned; body recorered; coroner notified.

Sept. 11th.-A girl was drowned in the new basin; body recovered; coroner notified.

Sept. 11th.-The body of a man was found floating in the rivor opposite the city ; coroner notinied.

Sept. 11th.-A woman threw berself into the river, and was rescuod by the seamen of the ship " Glenfinart."

Sept. 13th.-A man working on the S.S. "Lake Manitoba" fell down the batchway and was severely injured; remored to his residence.

Sept. 14th.-A hand working on board the Harbour Commissioners' dredge got both his hands badiy burt by boing caught in the winch; conveyed to the General Hospital.

Sept. 16th.-A man employed on bourd the propellor "Lake Michigan," a large iron plate fell from the top of the elevator on his bead, injuring him severely; conveyed to the bospital by the constable on duty.

Sept. 20th.-A boy fell into the canal basin and drowned; coroner notified.
Sept. 20th.-Henry Coté, working on board the S.S. "Buenos Ayrean," fell into the hold of the ship and was killed; the body removed to his residence; coroner notified.

Sept. 21st.-Tbe body of a man was found Hoating in the canal; sent to the morgue; coroner notificd.

Sept. 21st.-A fireman belonging to the S.S. "Buenos Ayrean" fell botweon the ship and the wharf and was drowned; the body removed to the morgue; coroner notified.

Sept. 24th.-A man fell from tho barge "Davis" into the canal and was drowned; coroner notified.

Sept. 24th - A man fell into the river and was roscued by the constable on duty and others.

Sept. 28th-A seaman belonging to the S.S. "Sharesbrook" fell into the bold of the ship and was severely injured; sent to hospital.

Sept. 28th.-A boy fell into the river ; rescued by the constable on duty.
Oct. 4th.-A man, while working on board ship, fell into the hold, was severely injured; conveyed to his home.

Oct. 4th.-A man, while walking along the canal bank, fell into the canal basin; rescued.

Oct. 5th.-A man, while unloading coal from the brigantine "Tempest," fell from the stage into the hold of the ship and was severely injured; sent to hospital.

Oct. 7th.-A man named Harry Williams was drowned in the river opposite the city; body recovered; coroner notified.

Oct. 8th.-A men fell into the river and was rescued by the constable on duty, with the assistance of others.

Oct. 16th.-A seaman belonging to the S.S. "Prior," while groing on board, fell from the gangway into the river and was drowned; body removed to the morgue; coroner notified.

Oct. 19th.-A searman, Edward Buller, belonging to the S.S. "Vanguard," was found floating in the canal basin; removed to the morgue; coroner notified.

Oct. 22nd.-A man was run over by the Grand Trunk cars at Black's Bridge and was severely injured sent to hospital.

Oct. 2tth.-A man named !James Parker, captain of the barge "Jallard," com. mitted suicide by hanging himself with a rope in the hold of the barge; coroner notified.

Oct. 25th.-A hand on board the tug-boat "Owens" got badly burnel by the explosion of a coal oil lamp; sent to hospital.

Oct. 28th.--A man named Charles Brown, working on board the barque "Alice, was struck with a bucket of coal, throwing him into the hold of the vessel, lilling him on the spot; Coroner notified.

Oct. 30th:-While the S.S. "Lake Champlain" was coming into port she ran against the S.S. "Bothal," doing her some injury.

Oct. 30th.-A boy fell into the river and was rescued by partios standing near.
Oct: 31st.-A man fell into the canal basin while crossing the lock; rescued by the lock-men.

Nov. 7th.-A man unknown fell into the river and drowned; body recovered; coroner notified.

Nov. 10th.-The body of a man was found floating in the river opposite the city ; sent to the morgue; coroner notified.

Nov. 10th.-A horse coming off the steamer "Cultivateur" fell into the river; rescued after some trouble.

Nov. 10th.-A man fell into the river and was rescued by the constable on duty and others.

Nov. 15th.-A man while working on board the SS. "Ottawa" was struck by a bale of goods while hoisting out of the bold; severely injured; sent to his home.

Nov. 17th.-The barge "Arve," loaded with peas, lying at the mouth of No. 1 lock was sunk by collision with the SS. "Sardinian."

Nov. 17th.-A horse attached to a buggy containing a gentleman and lads ram away on the wharf, pitching both out ; the lady sustained severe injuries.

No. 21st.-A boy fell into the river and would have been drowned but for the assistance of the constable who hauled him out.

Nov. 22nd.-A man while loading railway iron was very badly burt by a bar falling on his legs.

Nov. 25th.-A horse attached to a truck ran away along the wharf, smaxiog the truck and injuring the driver.

Nov. 27 th.-A man while working on board ship fell into the hold; was severely injured ; sent to hospital.

May 2nd, 1881.-A carter named Jean Baptiste Sancaitur driving a load on the wharf the horse ran away, coming in contact with a post the load upset on the man killing him on the spot.

May 2nd.-A man fell into the canal basin; the constablo on dutr bearing the cries for help ran to his assistance and pulled him out.

May 4th.-A man named Alexander Malette while walking on board the SS. "Bothal" fell into the hold and was killed ; coroner notified.

May 5th.-A man while working on board the SS. "Scandinavian" got one of his legs badly smashed; conveyed to hospital.

May 6th.-The schooner "Compass " in going out of port ran against the (quebec steamer damaging her slightly.

May 8th.-While four young men were crossing the river in a small boat the boat upset; the men were saved with great difficulty.

May 16th. When the steamer "Bohemian" was passing through the lock she struck against the fender smashing it.

May 27th. $-\Lambda$ fire broke out on board the SS. "Howard" lying at Windmill Point; the fire was put out with the assistance of the fire brigade with little damage.

May 29th.-The body of a man was found floating in the river opposite the city; coroner notified.

May 29th.-A man while loading wood on a cart on the wharf a large log fell on him injuring him severely; sent to the hospital.

May 30th.-A man fell into the river and had a narrow escape from being drowned ; assistanco given by the constable on duty.

May 30th.-A man fell from the revetment wall on the wharf; he was very badly injured ; sent to the hospital.

June 6th.-A horso attached to a truck backed into the canal basin, was got out without much injury.

June 7th.-A horse hoisting coal from a barge, fell between the barge and the wharf; got out after somo time.

Juno 9th-A fireman belonging to the steamship "Circassian," when crossing the hatchway, fell into the hold and very severely hurt ; sent to hospital.

June 9th.-A man working on board the steamship "Polino " was struck on the head while hoisting a barrel of flour and was severely injured; sont to hospital.

Juve 13th.-A man was found floating in the canal basin, and the body removed to the morgue ; coroner notified.

June l4th.-A horse and waggon fell into the canal basin; the horse was got out without much trouble.

Juve 14th.-A horse and coal-cart backed into tho canal basin, and was rescued by the assistance of the driver and constable on duty.

Juno 16 th.-A young lad, while gathering chips on the wharf, was run over by a coal-cart and baily injured; sent to his bome.

June 18th.-A horse attached to a truck ran away on tho wharf, smashing the truck and injuring itself-

Juno 21et.- A man fell from the rovetmont wall, and was very severely injured about the head; sent to hospital.

Juno 23rd.-A man working on board ship was struck with a bar of iron whilo hoisting it from the bold, and was severely injured; sent homo.

June 20th.-A man fell into the river from the wharf and would have been drowned but for the assistance of the constable on duty.

June 27th.-A man, while crossing the canal lock, fell in, and was rescucd by
constable on duty. the constable on duty.

June 28th.-A boy fell into tho hold of a ship and soverely injured; sent to the hospital.

June 30th - A young lad, while gathering chips on the canal, fell into the water; rescued by those who wore present.

GEORGE MURPHY,

Extricts from Official Journal of Events, Montreal Harbour Police Ofice for June aml July, 1881.

May 31st.-Chicf Murphy reports that he received information that the hands on board the steamer "Bohemian," and others working at this boat, would strike for more wages in the morning ; consequently, the sergeant on duty, acting on instructions, at 8 o'clock, a,m., sent a posse of police.

June 9th.-Mr. Moore, employed unloading grain from a barge at Wellington Bridge, reports that the men struck this morning at $7 \cdot 30$; requests the services of the police to protect the men whom he has at work. Sergeant Jonohue attended with six men.

June 18th.-The agent of the Donaldson Line of Steamers requested police protection, as he anticipated a striko. Cbief Murphy, with Sergeants Donohue and Holdbrook, and twenty men, went to the place of the expected trouble at 7 o'clock p.m. No disturbance, as means of precaution had been taken in time. A number of police were left in charge of the various wharves; two were placed in eharge of the Allan's sheds; two in charge of the Dominion sheds, and two others in charge of the Island wharf at 12 o'clock, when the out-going vessel of the Donaldson Live had finished taking in cargo, the men dispersed without any trouble. Five supernumeraries were sworn in this evening for special duty during the time of the expected strike.

June 20th.-Mr. Shaw of the Temperley Line called at tho office and stated that vessels of his line would arrive in port about 2 p.m., and requested the assistance of the police as he anticipated some trouble from the men on strike; assistance was sent at once.

Jane 27th. - Mr. Torrance of the Dominion Line requested protection from the police as ona of his steamers would be unloading at the ieland wharf at 6 p.m.; granted.

June 20th. - Captain Barclay of the Allan Line called at the station and requested a Sergeant and six men at 7 p.m., as he was unloading the steamer "Polynesian." Mr. Allan wrote the Inspector requesting all the protection in his power to Messrs. Swite \& Co. of Boston, shipping their dead meat on board the "Polynesian" during the night; granted.

June 20th. - The agent of the German barque "Steveller" called for protection 7 p.m., for the following morning. Granted.

June 21st.-Mr. D. Shaw, agent of the London Line, called and requested protection as he anticipated a strike; Sergeant Donobue and nine men proceeded to tho steamer "Scutland" at 7 a.m.

June 21st.-Mr. Shaw again called at 11 p.m. and requosted protection, as ho stated he expected some trouble on the arrival of a lug-boat, as he had some labourers to work for him; the Inspector, Chief and Sergeant with eighteen mon attended the arrival of the boat and prevented trouble.

June 21 st. - At 2 p.m. a large crowd of men asembled at the Victoria pier; Cbief Murphy and Sergeant Hold brook with eighteen men proceeded to the place.

June 21st.-The agent of the Donaldson Line called at the station for protection, which was granted.

June 2 Ist. - Messiss. Allan requested ten men to protect their vossels this evening ; granted.

June 22nd.-The captain of the SS. "Mathews" telephoned for protection, and states though he was paying the full price, a committee of the Ship Laborers Society came on board and requested him to sign a paper which he refused to do, and the men left; he pursued the strikers in a cab for the purpose of having them arrested by the police; the strikers afterwards returned and threatened his hands.

June 23.-The Chief and twenty men of the Quebec River Police arrived at the station this morning.

June 23.-Mr. Davidson, of John Hopo \& Co. called for protection, which was granted.

June 23.-The agent of the SS. "Dunstall" called at the station for protection as he feared his vessel would be stoned on leaving the harbor at 5 p.m.; granted.

June 23.-The captain of the ship "Severn," lying at the Merchant's Wharf, called at the station at 7 p.m. for protection; granted.

June 23.-The captain of the barque "Augustina," lying at Windmill Point, requerts protection; granted.

June 23rd.-Mr. D. Shaw asked for protection for the steamer "Valetta," lying at Windmill Point, assistance was sent at once.

June 23rd.-The agent of the SS. "Polina," lying at the Merchant's Wharf, telephoned for assistance; granted.

June 24th. - Messr.s. Allan report that their men were stoned from the revetment wall while working at their sheds, and asked for protection; extra police were sent at once.

June 27th.-Mr. D. Shaw called for protection this a.m, and requested the ecrvices of seven men to protect the S.S. "Valetta;" granted.

June 27th.-Messrs. Allan asked for police to protect labourers in their barges lying at their sheds. Granted.

June 27th.-At 3 p.m. a large crowd of strikers assembled along the revetment wall. The Inspector telegraphed the Chief of the city to have them remored, which he accordingly did with the assistance of the Harbour Police.

June 27th. -Tbe captain of the barque "Helena Finlay," lying at Windmill Point, called for protection ; granted.

June 29th.-The captain of the S.S. "Howards" made application at the station this a.m. for protection, which was granted.

July 1st.-The captain of the S.S. "Barcelona," lying at the King Basin, called for protection for his ship. Granted.

July 1st.-At 12:30 a.m. a gang of labourers when going homo from work were attacked by a gang of union men; some of them fearing to go further returned to the station for protection.

July 1st.- Messre. Allan complained to the Inspector this morning that they had not half police protection, and requested at least thirteen men, as they feared their shed would be burned; granted.

July 1st.-Mr. McKeon, Agent Richelieu and Ontario Navigation Company, called at the station this evening and stated that himself aud the men employed about the Company's boats had been threatened by strikers, and asked for protection : Granted.

July 3rd. - A large meeting of Ship Laborers' Union was beld in St. Patrick's Hall last evening; His Worship the Miryor, who attended the meeting, addressed the men and afterwards interviewed the Inspector.

July 4th.-Constable MeCormack reports that about one o'clock this morning he observed a large crowd of the strikers assemble near the new sheds, who mado use of very threatening language towards the plice, stating thes would wipe the wharf of them : assistance sent.

July th. - In conserquence of numerous representations which had been made by a number of ship labouters, two divisions of the force were despatched at $5.30 \mathrm{a} . \mathrm{m}$. this morning to pro'ect the different vessels of the L'onaldson and Dominion Lines, where their services wero particularly required.

July 4th. - At is a.m. a large force was sent to the Allinn vessels, it lieirg anticipated serious trouble would likely take place.

July 4 th.-At 11 a.m. the Inspectur received a telegrapl, from the captain of the S.S. "R.F. Mathows" stating that all the men employod at his ship bad beon taken away by the strikers; be demanded protection; granted.

July 5th.-At 8:30 a.m. th" captain of the "Tentern Abbey" called at the station and stated that a number of the strikers wero intimidating his men; polico sent and dispersed the rioters.

July 7th. - In consequence of the threatening dumonstration by the strikers, the Inspector again procured the services of F. W. Henshaw, Esq., Magistrate, for the
purpose of reading the Riot Act if required. The force was divided into three sections, 1st at Allan's shed, 2nd at Dominion, and 3rd at the Donaldson sheds. At about 9.30 the strikors approached in full force, thinking to make a raid upon eeveral vessels along the wharf. When they arrived opposite the Dominion Line of Steamers they made a desperate effort to board the S.S. "Teutonia," but were driven back by the police. The strikers then fired several pistol shots at the police, accompanied by showers of stones, inflicting numerous cuts on the men. The Iuspector then ordered the men to clear the wharf of the rioters. The whole force, as usual, were under arms the remainder of the night.

July 8th.-On the application of Mr. Cramp, seven Spencer riftes were lent to the Dominion Steamship, also eleven packages, of ten rounds each, of ball cartridges.

July 12th.- The captain of the ship "Memlack," lying at Hochelaga, called at thb station this afternoon for protection, as he was going to work at his vesse! to-night; assistance was given.

July 12th. -Mr. Brown, stevedore of the barque "Lorne," lying at Winclmill. Point, called to the station this a.m. fur protection, as he was going to work his vessel; assistance sent him.

July 12th.-'The captain of a harbour tug lying in the canal called at the station. this p.m. and stated that a gang of labourors had been fighting around the vessel, and also interfering with him in the disebarge of his duty ; assistance sent.

July 13th.-"The Canada Sugar Refining Co. requests, in view of the present. disturbed state of affairs on the wharves, that you place a permanent guard on Windmill Wharf to protect the men engaged in discharging the vessels with sugar for us. Very serious inconvenience has been caused by the interference of the strikers, particularly in the case of the barque "Mallard," the work at which vessel had, on threedifferent occasions, been stopped. As several other vessels are now there with cargoes for us, we trust you will give this matter your attention." Assistance granted.

July 14th.-Sergeant Holdbrook reports that about 150 labourers collected about the Dominion sheds seeking employment. They were informed by the stevedore that union men were not required. The sergeant then ordered those who were not employed to leave the whart, which they did.

July 14h.-The captain of the barge "J. Taylor," lying at Black's Bridge, reported at the station that the coal carters had been acting in a violent manner, and that they had assaulted one of his men with a shovel ; assistance sent.

July 14th.-The captain of the brig "Fido," lying at Hochelaga, made application for men to watch his vessel. As the force had all been employed elsewhere, the Inspector swore in a special constable for that purpose at owner's expense.

July 14th.-The captain of the "Arbutas" lying at the Island Wharf, reports that he was much annoyed by a gang of laborers who had collected around his ressel and were drinking liquor from the bung-holes; dispersed all those not employed.

July 14th.-The captain of the schooner "C. Tayler" lying at No. 1 flour shed reports that ho had been annoyed very mpeh by a number of young boys who had occasionally assembled about his vessel ; he was referred to the men on that beat.

July 14h.-Mr. D. Shaw, agent of the Temperley Line, called at the station this morning and requested protection for the SS. "Severn" as be teared trouble would occur between his men and the strikers; granted.

July 14th.-Captain lBouden of the Beaver Line, made application for protection, stating that he feared trouble from the strikers; instructions were given by the chief that a sergeant and eight men proceed to the vessel where he found about 100 men assembled; the sergeant expelled them from the wharf.

July 15th.—Chief Murphy reports that about $9: 45$ p.m. a loud report was heard on the wharf near the first lock; on examination it was found that a large quantity of powder or other explosive matter had been placed under a gangway belonging to Messrs. Allan which broko it to pieces.

July 18th.—Chief Murphy reports that about $9: 45 \mathrm{p} . \mathrm{m}$. he received information that the strikers had contemplated a raid on different vessels in the harbour who had refased their demand; about 12 o'clock Chiefs Murphy and Trudel and F. W. Henshaw,
J.P., and fifty armed men of the force made all arrangements necessary for the protection of the vessels and patrolled the wharves from the hour of 10 p.m. until 12:30 a.m. The secretary of the Ship Laborers' Union named Leonard was arrested by the police for assaulting a person named McNeal and for having a loaded revolver on his person; the force remained under arms all night.

July 23rd.-Mr. Hunt, of the Thompson Line of steamers, sent to the station at $2 \mathrm{p} . \mathrm{m}$. for police as there was some trouble at their vessels; men were sent at once.

July 23rd.-Michael Plamondon \& Co., stevedores, request protection at 7 o'clock Monday morning at the Long Wharf in unloading a ship.

July 30th.-Chief Trudel with his men left for Quebee this evening, and were escorted to the boat by the Government Harbor Police under the command of Chief Murphy.

GFO. MURPHI,
Chief G. H. Police.



## APPENDIX No. 34

## REDOLT OF THE CHIEF OF THE QUEBEC RLVER POLICE FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1881.

(iovernment Piver Police Office, Quebec; 1st January, 1882.

Sir,-I have the bonour to submit, for the consideration of tho Honorable the Minister of Marine and Fisheries, my Fourth Annual Report as Chief of tho Government River Police at this port.

Appended you will find a statement showing the number of arrests made by the force during the season, the same also gives a description of the offences and the nationality of the offenders.

The force resumed its doties on the 1st of May with the following staff, viz. : The Cbicf, who is also Shipping Master, at a salary of $\$ 1,200$ per annum for the joint offices, with Mr. .James Cunningham acting as Deputy Cbief, who receives $\$ 2.15$ per day; seven Coxswains (ono of whom acts as Detective and Clork in the shipping office) at $\$ 1.75$ per day; thirty Constables at $\$ 1.25$, and two Engineers at $\$ 1.40$, making the total number of the forco 41 , all of whom were duly sworn for duty before His Honour the Judge of tho Sessions.

To the above rato of wages each man, on the 1st October, received a gratuity of 25 cents per day for the whole season.

You will observe by the annexed statement that although there has been over. one hundred ships less this season than last, still the number of prisoners is greater, and this is in a vory great measure due to the defects of the "Canadian Seamen's Act," which said defects were mentioned in my Report of last year.

At the very opening of navigation the crimps, emboldened by the decision of tho court in October, 1880, commenced their operation with increased vigour, foreign and Colonial ships being specially subjoct to their dopredations, in many instances ships were left with their officers only. The force made every possible effort to rapture the deserters, descents were made on boarding houses, the plains and surrounding country, where tho erimps usually secreted their victims, in many instancesover twenty deserters were taken from these hiding places in one singlo patrol.

The prisoners on arrested were taken before the Judge, who in the caso of cither Foreign or ('olonial ships (owing to the defoctivenoss of the "Canadian Seamen's Act") had to order the prisuners to bo put on board their respective ships, and the very nexi day, nine cases out of ten, these men had again descrted the ship; we have even recaptured the samo men threo times.

You will also olservo by the samo statement that the increase consists in the offencos of desertions, refusal of duty and refusal to proceed to sea, and the nationalities of the offenders aro Swedes, Norwegiars, Crermans, Newfoundlanders and Canadians. As a consequence of the above wages have been very high doring the whole season, viz.: むら jer month, and in several instances as high as $£ 10$ had to be paid.

There has existed a great deal of dissatisfaction during the wholo eeason amongst ship-masters and morchants interosted in the shipping of the port, owing to the defects of tho law as above reforred to.

On the 22nd IJune, having received from tho Dopartmont orders to procced immeliately to Montreal with twenty men to assist the torce of that port in protecting
their threatened shipping interest, we accordingly loft the same night per Richelieu Company's steamer, reaching Montreal the next day at 6:30 a.m., where we remained up to the 30th of July. During our stay at that port we have performed an average daily duty of 18 bours per 24.

During our stay at Montreal we have received from the Agent of the Department, Mr. Ormond, and Chief Murphy, every assistance aud attention.

It is pleasing to know that the Board of Trade and the merchants interested in the shipping of the Port of Montreal, found subject to express their approval of our coneluct.

During our absence the balance of the force remaining at this Port, under command of my Deputy, Mr. James Cunningham, had to perform an almost constant duty; every man was called in; each of them were only allowed one hour per twenty-four to go to his house to change clothing, dc., and any spare moment that could be allowed from duty from duty to rest had to be taken in the station; and thanks to the able management of this small staff, by Mr. Cunningham, and the cheerful celerity with which every man performed the extra duties imposod on them the shipping interests of this Port have not suffered from any lack of police protection.

Beyond the above nothing worthy of special attention of the Department has occurred, and I think it unnecessary to again call the attention of the Department to the several suggestions made in my reports of 1879 and 1880 , as well as those made in my letters of 19th February, 1880, and 2nd December, 1881, but simply beg to refer the Hon. Minister of Marine and Fisheries to the same, as every year's experionce further convinces me that their adoption would increase the efficiency of the service and greatly benefit the shipping interests of the Port.

I have the honour to be, Sir,
Your obedient servant, BEN. TRUDEL, C'hief of Fiver Police and Shipping Master.
William Smitif, Esq.,
Deputy Minister of Marinc and Fisheries, Ottawa.

Statement of Arrests made at the Port of Quebec by the Government River Police, from 1st May to 30th November, 1881.

| Offences. | No. | Nationality. | No. |
| :---: | :---: | :---: | :---: |
| Desertions...... ................................... | 169 | England........... .......... ................... | 131 |
| Absence without leave ......................... | 154 | Scotland....................................... | 90 |
| Refusal of duty .................................. | 76 | Ireland..... | 94 |
| Refusal to proceed to ses..................... | 103 | Norway................ ......................... | 86 |
| Neglecting to join their ship................. | 41 | United States....... ............................ | 33 |
| Drunk on wharves and streets. .............. | 34 | Stveden.................. ........................ | 58 |
| Protection for the night....... ................. | 19 | Germany............................. .......... | 57 |
| Drunk and fighting on board ................. | 37 | France........................................... | 16 |
| Assaults on board.................... .......... | 13 | Canada .......................................... | 26 |
| Warrants of assaults........................... | 10 | WestIndies. | 11 |
| Seamen assaulted by Captains............... | 3 | Finland. | 33 |
| do do Chief Mates........... | 5 | Spain..... ...................................... | 13 |
| Captains assaulted by crew.................... | $\underline{4}$ | Denmark. | 6 |
| Chief Mates assaulted by crew................ | - | Wales............ | 13 |
| Thefts on board $\qquad$ | \% | Newfoundland ...................... ........... | 34 9 |
| Enticing to desert................................ | 1 | Jersey.. | 7 |
| Going on board without permission........ | 2 | Italy.... | 6 |
| Cutting and wounding......................... | 8 | Greece. | 6 |
| Shooting and wounding...................... | 1 | China | 5 |
| Impeding passengers at Shipping Office... | 11 | Switzerland | 4 |
| Disobeying lawful commands................ | 9 |  |  |
| Insane...... ......................................... | 1 |  |  |
| Thefts on river.................................. | 4 |  |  |
| - Inflicting grievious bodily harm on the high seas. | 1 |  |  |
| Total . | 722 | Total.......................... | 722 |

- This man was trled at the October Criminal Court here and found guilty of manslaughter.
'To the above amount of arrests should be added the following number of Seamen, who bave also received the services and care of the River Police, as hereinafter mentioned:-



## Government River Police Office, Quebec, 21st Decemter, 1881.

## APPENDIX No. 35.

## REPORT OF THE PORT WARDEN FOR THE PORT OF MONTREAL, FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1881.

Montreal, 31st December, 1881.

The Honourable A. W. McLelan, Acting Minister of Marine and Fisherjes, Ottawa.

Sir,-I have the honour to submitmy Annual Report of the affairs of the office during the year ending this day, accompanied by statements of receipts and expenditure during that period.
; Navigation oponed somewhat earlier than usual. On the 19th April, river and coasting craft began to arrive in port, and, on the 24th, the river was open to Quebec.

The steamships "Peruvian," of the Allan Line, and "Dominion," of the Dominion Line, which left port on the 21st November, last year, but wintered at Sorel, returned to port, the former on the 27th, and the latter on the 28th April. The first arrizal from sea was the Allan steamship "Buenos Ayrean," from Glasgow, on the 2nd May; after that date, vessels arrived daily, and by the middle of the month there were a considerable number in port, and business fairly commenced.

The ship "St. Patrick," from Glaegow, was the first sailing vessel from sea, on the 7th May.

The "Waldensian" steamship, of the Allan Line, for Glasgow, the last seagoing vessel of the season, left on Sunday, the 20th November.

The tonnage at this port this year, as compared with last, shows a falling otf, though in excess of the year 1879. 359 ships entered at the office this ycar, with an aggregate of 448,844 tons, as against 452 ships of 535,103 tons in 1880 , and 384 ships of 444,574 tons in 1879 .

Of the 359 ships, 232 were steamers of 383,287 tons, and 127 were sailing ship., of 65,557 tons, making the avorage tonnage of each 1,250 .

The carrying trade of the port seems to be passing from ships of moderate tonnage to that of large carrying capacity. The most noticeable feature, however, is the increase in the number of steamery as compared with sailing vessels.

The figures showing the amount of tonnage do not include ships from Newfoundland or places within the Dominion, as they do not come under the jurisdiction of the office, unless they are loaded here for ports outside of these limits.

During the earlier part of the season the business of the port was large, and showed signs of being equal in volume to last year. Up to the middle of June, the arrival of tonnage was larger than last year, but in the autumn months exports fell off very much, and the season closed unfavourably. As a whole, the export trade of the port was not satisfactory; the import trade, on the contrary, was much in excess of last year.

The exports from New York, Baltimore, and the other Atlantic grain shipping ports in the United States, show even a greater comparative falling off than Montreal.

An unusually dry summer and consequent low state of the water in the river during the summer and autumn moaths, prevented many ships from completing their loading here, and necossitated the lighterage of a portion of their cargoes. It is hoped that this state of things may not occur for several years to come, when the deepening of the ship channol, now being pushed forward, will have been completed, and this difficulty removed. On the 21 st November, the depth of water in
the ship clannel was 21 feet 3 inches; at the corresponding date last year, it was 23 fect 5 inches.

There has been an increase in the work of the office in proportion to the number of ships, arising from tho large number of surveys on cargoes, improper stowage, damage from shifting of cargoes, damage to ships, and also from the fact that all ahips loading cargoes for foreign ports, do now come under the rules and by-laws, a great number of which now load at Hochelaga, and other distant parts of the harbour.

Since the grain loading rules were made compulsory in the year 1873, there have been no ships missing, or lost from overloading or shifting of cargo.

The duties of the office have gone on smoothly throughout the year, no complaints having been lodged, and since the permanent staff was strengthened, the work of the office has been more satisfactorily executed.

Yours very respectfully.
DAVID ROSS KERR,
Port Warden.

## POR'T WARDEN'S OFFICE.

Dr. Statement of Cash Account for the Year ending 31st December, 1881. Cr.

|  | \$ cts. |  |  |
| :---: | :---: | :---: | :---: |
| To Amount of revenue derived from the following sources:- |  | By Paid salaries. <br> do rent of office. | 5,28845 320 |
| Fees on flour and meal.. ..... .......... | 12272 | do fuel and labour ........................ | 8956 |
| do asbes............................... | 14618 | do plan of barbour......................... | 8690 |
| do apples.......................... | 15719 | do books, printing and stationery. | 24783 |
| do unenumerated articles.......... | 1,989 26 | do cab-bire ........................ ..... | 10075 |
| do hops............................................................ | 124 1434 | do sundries ............................... | 13143 2500 |
| do oil cake................................... | 1487 | do Suditor.............................. | $\begin{array}{r} 2500 \\ 20000 \end{array}$ |
| do dead meat........................ | 6774 |  |  |
| do lumber and deals................. | 1260 22505 |  |  |
| do oxen and horses................. | 48921 |  |  |
| do sheep and hogs................. | 11301 |  |  |
| do stevedores' licenses............. do liners' licenses............... | 4000 |  |  |
| do liners' licenses.................. | 800 |  |  |
| Damaged cargo certificates............ | 27700 |  |  |
| Special surveys on ships................. | 44100 |  |  |
| Port Warden's fees-Inwards........... <br> do do Outwards | 25300 |  |  |
| do do Ontwards ....... Sundries................. ..................... | 1,919 25 |  |  |
|  | 21911 | By Balance........... ......................... | 9292 |
| 1883. | 6,582 84 |  | 6,582 84 |
| Jan. 2.-To Balance. ............ $\$ 9292$ |  |  |  |

D. ROSS KERR, Port Warden.

Montreal, 31st December, 1881.

## APPENDIX No. 36

## REPORT OF THE PORT WARDEN FOR THE PORT OF QUEBEC FOR THE YEAR ENDED 30тн DECEMBER, 1881.

Wm. Smith, Esq.,
Deputy ilinister of Marine, \&c., Ottawa.

Quebec, 31st December, 1881.
Sir,-I have the honour to submit this my Annual Report on the affairs of this office during the year ending this 31st December', 1881, accompanied with the amount of fees collected and expenses during the past year.

The export of cattle has increased and is larger than the previous year. This is attributed to the improvements and facilities afforded for shijment at the Grand Trunk Railroad, Lévis.

The practice of steamships carrying large quantities of cattle in stalls, and in many cases said stalls are erected over shed decks and frequently over the poop deck aft. Besides it is often found that quantities of catile feed is carried above said shed and poop decks, consequently heary losies are sustained to shippers and others concerned; besides those cumberances the duties of the vessel is hazarded.

The carrying of cattle and sheep in sheds constructed on steamships having open decks, ani those constructer with awning or shed deck should be restricted and not allowed during the fall and winter months.

The shipping of cattle from this harbour has been most satisfactory. The care exercised betore and after shipment proves to be of much service to the carrying trade.

This season has passed without difficulty, no complaints having been recorded in this office.

> Amount of fees received, including work done outside of the harbour limits................................. ........... \$2,000 00
> Office expenses, \&c 68328
> $\$ 1,31672$

Respectfully submitted, JOHN DICK,

Port Warden.

## APPENDIX No. 37.

## REPORT OF THE PORT WARDEN OF THE PORT OF HALIFAX, N.S.

Halifas, N.S., December 31st, 1881.
Sir,-I have the honour to submit my Report of the affairs of this office during the year now ended, torether with a statement of the fees collected and the expenses incurred. I also enclove a list of damaged vessels upon which surveys have been held by the Port Warden during the period covered by the Report.

Estimates of the cost of repairing the brig "Ann" (referred to in my last year's Report), were forwarded to the owners in Great Britain, and instructions were thereafter received by the master to sell the vessel. She was subsequently repaired and put in a seaworthy condition. The cargo wats shipped to its destination by the agent of the consignees.

The cargo of the S.S. "Widdrington," which remel was sunk by collision in this barbour, was all damaged by water. The coru was sold as soon as posible after the vessel was flated. The cotton was stored and instructions awaited frow the owners and otbers concerned as to its disposal. It was subsequently sold by order of Lloyd's Agent, under instructions from the underwritere.

The SS. "Carima" received temporary repairs at this port and proceeded to New York to be permanently reparred.

The cargoes of the Schooner "Adah E.," and brigantine "Vesta" were taken delivery of by the owners.

All the vemels that arrived at this port in a damaged condition, upon which surveys were bold by the Port Warden, were natisfactorily repaired previous to certificates of seaworthiness being given. The cargoes, when landed, were re-shipped, with the exception of those alluded to; and those vessels now due at their destinations have all arrived.

The SS. " Rochdale" is now in port undergoing repairs.
I have the honour to be, Sir, your obedient servant,
DAVID HUNTER,
Wm. Smith, Esq.,
Deputy Minister of Marine and Fisberics,
Deputy Minister of Marin
Ottawa.
Port Warden.
$\qquad$
Receipts and Expenditures of the Port Warden, Halifax, N.S., from 1st January till 3 lst December, 1881.
Dr.
Cr.

| To Fees for survey of hatches, storage and damaged goods...... <br> Fees for survey of vessels damaged <br> Fees from all other sources. | \$ cts. | By Paid fees to Assistants. <br> Paid office expenses, printing, stationery, \&c. <br> Paid W. G. Ray, Acting Port <br> Warden <br> Belance carried down $\qquad$ | \$ cta |
| :---: | :---: | :---: | :---: |
|  | 1,051 50 |  | 60450 |
|  | J,134 00 |  |  |
|  |  |  |  |
|  |  |  | 18244 |
|  |  |  | 1,368 30 |
|  | 2,494 50 | By Amount reverting to Port Warden | 2,494 50 |
| To Balance brought down............... | 1,368 30 |  | 1,368 30 |
| E. and O. E. |  |  |  |
| Halifax, N.S., 31st Decen | r, 1881. | DAVID HUNTER, |  |

List of Damaged Vesbels $\mathrm{s}_{\mathrm{u}} \mathrm{r}^{\text {vejeged by Port Warden, Halifax, N.S. }}$

| er Name of Vessel. | Port of Registry. | Rig. | Where From. | Where Bound. | Description of Cargo. | Nature of Damage. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \%renenor .................. | West Hartlepool ...... | Steamship... | Bonah........ ... ...... | New York ................. | Minerals ............ | Deckwork damaged. |
| Canima ................. | Bermuda... | do | New York ...... ........ | Halfax, N.Y .............. | General cargo.... | Damaged by collision. |
| Widdrington ......... | North Shields. | do | New Orleans | Hamburg. ................. | Graiu and cotton | do do |
| Douro.. ................. | Sunderland.. | do | Middlesborough...... | Mobille | Steel rails | Cargo shifted ; deckwork damaged. |
| Magnolia................ | Halifax, N.S..... ..... | Barque ....... |  |  |  | Damaged by fire. |
| Beta.. ........ ........... | Glasgow. | Steamship... | Jamaica. | Halifax, N S .............. | General cargo.... | Damaged by collision. |
| Busy Bee................ | Londonderry, N.S.... | Brigantine... | Wilmington............ | Loudon.................... | Naval Stores...... | Leaky ; deckwork damaged, \&c. |
| Jane E. Hala........... | Halifax, N.S. | do | Porto Rico | Halifax, N.S.............. | Ballast | Loss of spars, sails, de. |
| Jannie M. Hammond. | Shelburne............... | Schooner ... | Nevis...... | do | Molasses........... | Stranded at Thum Cap Reef; total loss. |
| Brinkburn .............. | Newcastle ............. | Steamship.. | New York .............. | London.................... | General cargo.... | Deckwork damaged |
| Catherina... | Broche. | Brigantine... | Aracaju ........... ..... | Halifax, N. | Sugar .............. | Hull damaged; sails split, \&c. |
| Swiftsure................ | Charlottetown ... | do ... | Cow Bay, C.B ......... | St. Jago................... | Coal. | Leaky from stress of weather. |
| Angus Grant........... | Shelb | Schogner..... | Shelburne | Halifax, N.S .............. |  | Stranded ; bull damaged. |
| Annie M. Allen. ...... | Providence, R.I...... | Te |  |  | Sugar, \&c ......... | Derelict; hull damaged; loss of apars, sails, \&c. |
| Servian ...... ............ | Charlottetown ........ | Brig........... | Cardenas. ......... ..... | Halifax, N.S ............. | W. I. produce.... | Deckwork damaged. |
| Immanuel............... | Langesund. | Barque ....... | H | do .............. | Ballast............. | Damaged by ice. |
| Resolute. ............... | Venice ......... ......... | do ....... | Bah | do | Sugar ............. | Leaky from collision with wreckage. |
| Newma.................. | Maitland. .............. | do ....... | Baltimore............... | St. Nazaire................ | Grain ......... ..... | Loss of bulwarks and stanchions. |
| Sigdal. ................. | Dr | do ....... | Liverpool .............. | Halifax, N.S........ ..... | Salt ................. | Leaky |
| Minnie Butler .......... | Halifax, | Brigantine... | Cuba. | do | W. I. produc | Deckwork damagad. |
| Byprell Castle |  |  |  |  |  | Shaft broken. |

List of Damaged Vessels surveyed by Port Warden, Halifax, N.S.—Concluded.


## APPENDIX No. 38.

REPORT OF THF PORT WARDEN FOR THE PORT OF MONCTON, FOR THE CALANDAR YEAR ENDED 31st DECEMBER, 1881.
Statrment of Receipts and Expenses of Port Warden for Port of Moucton, for year ended 31st December, 1881.
1881.

May 2. Amount received for holding survey on hatches of
brigantine "Otacillis" ..... $\$ 250$
" 3. For survey on cargo on board "Otacillis"......... 200
" 3. For survey of cargo damaged on wharf and in storehouse, with two assistants...... ............. 1600
Dec.24. Amount received for survey of hatches of brigantine "Otacillis".250

## 1881.

Expenses.
May 3. Amount paid for memorandum book... .... \$0 15
" 3 . do two assistants on survey of damaged cargo of sugar from brigantine " Utacillis," $\$ 4.00$ each 800

$$
815
$$

Balance
$\$ 1485$

I hereby certify the above to be a true and? correct statement of the receipts and expenditure of my office as Port Warden.

JAMES HAMILTON,<br>Port Warden.

Declared to before me on the 7th
January, 1882.
J. W. Binney, J.P.

## APPENDIX No. 39.

REPORT OF THE PORT WARDEN FOR THE PORT OF ST. ANDREWS, NEW BRUNSWICK, FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1881.

St. Andrews, 31st August, 1881.
August 31st.-Called on by Captain Joseph McKay to survey hatches on board schooner "Ada," of Digby, N.S., from New York, corn laden; lound hatches properly caulked and battened, with good tarpaulins; also found cargo in good order noder hatches.

Called on same day to survey cargo; found the ceiling dry and in good order, but considerable corn damaged in the bottom of the vessel; caused by the water being over the dunnage; ordered all of the dry corn to be discharged; the damaged to be sold for the benefit of all concerned.

I questioned the captain as to cause of damage. He told me he had experienced stormy weather on the passage; carried away the foremasthead, and the vessel commenced making a great deal of water.

Charges on schooner "Ada," of Digby. N.S.:-

> August 31st. Surveying hatches, with certificate............... $\$ 250$
> " 31st. do cargo do ............... 200
> January 2nd. Attending sale............................................ 200
> " 25th. Copy of each certificate, consignee of cargo.. 100
$\$ 750$
JOHN WREN,
Port Warden.

## APPENDIX No. 40

REPORT OF THE PORT WARDEN FOR THE PORT OF NORTH SYDNEY, FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1881.

Port Warden's Office,<br>Nobti Sydney, C.B., 17th January, 1882.

Sir-I have the bonour to hand you, herewith, my Annual Report as Port Warden of North Sydney, for the year 1881.

The trade of the port is somewhat increasing as regards bunkering steamboats, 126 of which bunkered in this cistrict, the greater number laden, many of which came from southern ports. Vessels calling from southern ports do not avail themselves of my services as Port Warden, and I should like to be instructed whether it was necessary or not that such vessels should be subject to my examination. I cannot understand why vessels bringing cargo from Canada should require a certificate of seatorthincss while versels from the United States should be exempt.

Uuring the past year I have granted certificates in the following cases:-
37 bunker steamships.
6 steamships requiring repairs.
8 sailing vessels. do
4 surveys on hatches.
12 certificates of seaworthiness.

## 67

I have also held four surveys on cargo damaged, making, in all, seventy-one official acts, not including second and third calls of survey.

The total fees received at this office during the past year were, $\$ 460$.
And the charges were:-
For Assistant..................... . ......... ................ \$60 00
Office rent, fuel, \&c.................................. . 5000
Boat-hire and sundry expenses.................... 1750
Books, stationery, \&c. .................. ........... 750
13500
Balance. .............................. . 832500
Trusting that the foregoing Report will meet with the approval of your Department.

I have the honour to be, Sir, Your obedient servant, DANIEL MoKAY.

Port Warden.

## APPENDIX No. 41

REPORT OF THE PORT WARDEN FOR THE PORT OF PICTOU, FOR THE CALENDAR YEAR ENDED 3Ist DECEMBER, 1881.

Pictou, 29th December, 1881.
Wm. Smith, Enq.,
Deputy Minister of Marine and Fisheries, Ottawa:
Sir, - $\overline{1}$ hare the honour to submit this my Annual Report on the affairs of this office during the year ended this 31st December, 1831, accompanied by the amount of fees collected and expenses during the past year:-
Amount of fees received ..... $\$ 8300$
Paid fees to assistants. ..... 1000

Respectfully submitted,
DANIEL McDONALD.
Port IVarden.

## APPENDIX No. 42.

REPORT OF THE PORT WARDEN FOR THE PORT OF PORT HAWKES: BURY, N.S., FOR THE CALEN DAR YEAR ENDED 31st DECEMBER, 1881.

Port Hawkesbury, N.S.,<br>31st December, 1881.

Wm. Smita, Esq.
Deputy Minister of Marine and Fisheries, Ottawa.
Sir,-I have the honour to submit my Annual Report of the affairs of this office, accompanied with a statement of the fees collected ly me during the past year.

Enclosed please find a list of vessels arriving in a damaged condition, on which surveys have been held during the jear just ended. There has been several other vessels repaired on the marine rail way here during the past year, but these named are the only ones on which surveys have been held by me.

I have the honour to be, Sir,
Your obedient servant, D. W. HENESEY,

Port Warden.

Statement of Fees Collected at the Port of Port Hawkesbury, N.S, for the Year ended 31st December, 1881.

| Receipts. | \$ cts. | Expenditiore. | \$ cts. |
| :---: | :---: | :---: | :---: |
|  | 1900 1900 | Paid J. E. Dorlay, shipwright..... | 800 800 |
| do do Hudson........... | 1300 | Mr. Harding .......... | ${ }_{6} 00$ |
| do do Zaidie ............ | 1300 | Messrs. Harding and Dorlay. | 1000 |
| do held on cargo, achooner Muskrat. | 500 | Mr. Dorlay..................... | 800 |
|  | 800 |  |  |
| $\begin{array}{cc}\text { do } & \text { held on schooner } \\ \text { do } & \text { do asper Embra. } \\ \text { do } & \text { Clara Rogers... }\end{array}$ | 2800 2100 |  |  |
| do do Lids and Lizzie | 1300 |  |  |
| Amount paid Surveyors . ................................................ | $\begin{array}{r} 13900 \\ 3900 \end{array}$ | Total ..................... | 3900 |
| Amount reverting to Port Warden . .. ..... | 10000 |  |  |

List of Damaged Vebsels surveyed by the Port Warden for the Port of Port Hawkesbary, N.S., for the Year ended 31st December, 1881.

| $\begin{gathered} \text { Name } \\ \text { of } \\ \text { Vessel. } \end{gathered}$ | Where from. | Rig. | Where bound. | Port of Registry. | Cargo. | $\begin{gathered} \text { Name } \\ \text { of } \\ \text { Master. } \end{gathered}$ | Nature of Damage. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Araunah ......... | ILunenburg ....... | Sihoener .... | Labrador ........... | Lunenburg .......... | Fishing supplies. | Wm. Maxner ..... | Struck on a rock at Canso. |
| Isaac Goodwin... | Gaspé .............. | do .... | Boston ............... | Pictou ................ | Lumber............ | Neil McKinnon.. | Struck on North Cape of P.E. Island |
| Hudson ..... ...... | Barbadoes ......... | do .... | Port of Quebec .... | New Carlisle. ....... | Molasses ........... | Peter McRae...... | Struck on White Head, near Canso. |
| Zaidie............. | Boston | do | New London, P.E.I | Liverpool, N.S...... | Ballast ............ | Thomas Day..... | Started bowsprit and broke beam by stress of weather. |
| Muskrat............ | Margaree .......... | do | Halifax............... | Arichat............... | Produce and canned meat. | - McFarlane .... | Collision, Port Hastings. |
| Kitty Clyde....... | P. E. Island ...... | Brigantine... | Baltimore, U.S.... | Charlottetown ..... | Potatoes. | - Campbell ..... | Natural decay and worms. |
| Gasper Embra... | Summerside ...... | Schooner..... | New York | Port Hawkeabury. | do | Jobn Embra | Stranded at Port Hawkesbury. |
| Lida and Lizzie. | Eddy Point....... |  | Pi | Pictou | Ballast | Wm. Campbell.. | Stranded at Eddy Point, Strait of Canso. |
| Clara Rogers .... | New York ......... | do | Cow Bay.... | Arichat....... ....... | do | Jas. Rogers....... | Stranded at Vineyard Sound, D.S. |

## APPENDIX No. 43

REPORT OF THE PORT WARDEN FOR THE PORT OF SYDNEY, CAPE BRETON, FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1881.

Port Warden's Office, Sydney, C.B., 31st December, 1881.

To Wm. Smite, Esq.,
Deputy Minister of Marine and Fisheries, Ottawa.
Sir,-I have the honour to submit a report of the transactions in connection with the office of Port Warden at Sydney, Cape Breton, during the past year.

I have the honor to be, Sir,
Your obedient servant,
JOHN LORWAY, Port Warden.

Receipts and Expenditure of the Port Warden, Sydney, C.B., from 1st January to 31st December, 1881.
Dr.
Cr.

| To Fees for surveys of hulls and hatches, with certificates Surveys on vessels damaged $\qquad$ | \$ cts | By Paid fees to assistants. Paid office rent and other expenses Balance brought down $\qquad$ | \$ cts. 3800 300011000 |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  | 10400 |  |  |
|  | 7400 |  |  |
|  | 17800 |  | 17800 |
| To Balance brought down ............... | 11000 | By Amount reverting to Port Warden. | 11000 |

JOHN LORWAY, Port Warden.

## APPENDIX No. 44.

REPORT OF THE PORT WARDEN FOR THE PORTS OF VICTORIA AND FSQUIMALT, B.C., FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1881.

Victoria, B.C., 2nd January, 1882.
Wм. Sмitн, Esq.,
Deputy Ministor of Marine and Fisheries, Ottawa.
Sir,-I have the honour to submit my first Report of the affairs of this office from the 18 th of April to 3lst of December, 1881.

The only casualties that have occurred during the above-mentioned period are as follows:-

The German barque "Black Diamond," bound from Burrard Inlet to Shanghai, lumber laden, put back to Fisquimalt in a leaky cordition on the night of the 11 th of November, making 14 inches of water per hour. A survey was held on the 12 th, when it was agreed by the surveyors that the submarine diver, Mr. Thomas Harman, be employed to examine the barque's bottom, and report thereon.

The diver, after a careful examination, found a leak in her starboard garboard from her sternpost 14 feet forward, for which he, the diser, tools a contract to stop, and did it to the captain's satisfaction, the vessel only making two-thirds of one inch of water per hour when leaving Esquimalt Harbour on her voyage.

The other case is that of the Chilian barque "Twenty-first of May," in ballast, bound from Valparaiso to Port, Discovery, in Washington Territory, to load lumber.

On the 10th of December the barque being a few miles to the eastward of the Race Rocks, was struck by a squall from the south-east, and the crew not being able to take the canvas off quick eloough, and a strong current setting to the westward, she got close into Edge Point, V.I. Both anchor's were let go, but the vessel being close in whe knocked away her rudder and became unmanageable; her sternpest being badly injured she commenced to fill.

A survey was held on the 121 h , and the surveyors decided that the vessel be immediately sold by public auction for the benefit of all concerned; and was sold accordingly.

> I have the honour to be, Sir,
> Your most obedient servant,
> W. R. CLARKE,

Port Warden.

Statement of Receipts and Expenditure connected with the Office of Port Warden for the Ports of Victoria and Esquimalt, B.C., from 18th April to 31st December, 1881.

| Date. | - | Amount. | Total. |
| :---: | :---: | :---: | :---: |
| 1881. |  | \$ cts. | \$ cts. |
| April 18...... | For surveys on barque "Pasithea "................. | 3100 |  |
| do 22...... | do do "Odulia"................. | 4700 |  |
| May 4...... | do do "Herbert Black". | 500 |  |
| Jone 14...... | do do "Henry Buck"... | 500 |  |
| July 11...... | do do "City of Quebec". | 2100 |  |
| do 20..... | do Steamer "Quinta" ......... | 500 |  |
| Sept. 15...... | do Barque "Xenia"......... | 1100 |  |
| do 22...... | do for Underwriters, ex "Xenia" | 200 |  |
| do 23...... | do do "Doxford". | 1200 |  |
| do 27...... | do do "Xenia".... | 200 |  |
| do 30...... | do on barque "Doxford" ......... .... | 3000 |  |
| do 30...... | do for Underwriters, ex "Doxford". | 200 |  |
| Nov. 12...... | do on barque "Remijio" .............. | 200 |  |
| do 14...... | do do "Yarra" ......... | 500 |  |
| do 24...... | do do "Prince Rupert" ............ | 1300 |  |
| do 30...... | do do "Chiloe"............." | 1100 |  |
| do 30...... | 2 do do "Black Diamond"... | 2000 |  |
| do 30...... | do do "Rover of the Seas" | 700 |  |
| Dec. 7..... | 2 do do "Gange". | 1500 |  |
| Nov. 7..... | 1 survey for Qwong Lee........ | 300 |  |
| Dec. 9..... | Copying 2 certificates................ | 200 |  |
| do 12..... | 1 survey on barque "21st May" .............................................. | 1000 |  |
|  | By amount reverting to W. R. Clarke, Port Warden .... |  | 26100 |
|  |  |  | 26100 |

I certify that the above is correct.
W. R. CLARKE,

Port Warden.
Victoria, B.C., 2nd January, 1882.
$\left.\begin{array}{c}\text { Sworn before me at Victoria, B.C., } \\ \text { this 5th day of January, 1882. }\end{array}\right\}$ J. H. Torner, J.P.

## APPENDIX No. 45 .

REPORT OF THE PORT WARDEN FOR PRINCE EDWARD ISLAND FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1881.

Charlottetown, P.E.I., December 31st, 1881.
To Wm. Smith, Esq.,
Deputy Minister of Marine and Fisheries, Ottawa.
Sir,-I have the honour to submit my Report of the business of my office during the past year.

I have much pleasure to report that I have not heard of any loss of ships laden with grain from the Island this season.

I most repectfully call your attention to the fact that vessels loading potatoes from the Island for ports in the Provinces and ports in the Uaited States, have pat into ports on their voyages with cargoes shifted and other damage, seriously endangering the vessels and the lives of the crew-the chief cause from not having shifting boards.

Navigation remained open this year later than usual, which enabled vessels making long passages from Europe to load and get to sea in safety.

$$
\begin{aligned}
& \text { I am, Sir, } \\
& \text { Your obedient servant, } \\
& \text { H. P. WELSH, } \\
& \text { Port Warden. }
\end{aligned}
$$

Receipts and Expenditure of the Port Warden, Prince Edward Island, 1881.

| 1881-To Fees dcrived from grain-loaded ships $\qquad$ Other surveys. $\qquad$ | $\$$ cts. <br> 50034 <br> 1400 | 1881-By Expense of Office. $\qquad$ Commission paid to deputy. Balance $\qquad$ | $\$$ cts. $\$ 000$ 9200 372 34 |
| :---: | :---: | :---: | :---: |
|  | 51434 |  | 51434 |

H P. WELSH,
Port Warden.

## APPENDIX No， 46.

Statement showing results of certain Returns respecting Shipping and Discharging of Seamen，received by the Department of Marine and Fisheries in accordance with the provisions of the Act 36 Vic．，Chap．129，from Shipping Masters throughout the Dominion，for the halt－years ended 30th June and 31st Derember， 1881.
quebec．

| Name of Port． | $\begin{gathered} \text { Name } \\ \text { of } \\ \text { County. } \end{gathered}$ | $\begin{gathered} \text { Name } \\ \text { of } \\ \text { Shipping Master. } \end{gathered}$ | For Half－year ended 30th June， 1881. |  |  | For Half－year ended 31st Decomber， 1881. |  |  | Total Seamen Shipped． | Total Seamen Dis－ charged． | Total Amount． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Seamen Shipped． | Seamen Dis－ charged． | Amount． | Scamen Shipped． | Seamen Dis－ charged． | Amount． |  |  |  |
| Escoumains．．．．．．．．．．．．．．． | Bonaventure．． | John E．Barry．．．．．．． | ．．．．．．．．．．．．．． |  | \＄$\quad$ cts． | －$\prod_{\text {No returns received．}} \prod_{\text {cts．}}^{\$} \quad$ ct |  |  | ．．．．．．．．．．．．． |  | \＄cts． |
| Gaspó．．．．．．．．．．．．．．．．．．．． | Gaspé ．．．．．．．． | ⿴囗玉nest Têtu．．．．．．．．． |  | 1 | $30$ | No returns received． |  |  | 1 |  | 30 |
| Magdalen Islands．．．．．． | Gaspé．．．．．．．．．．． | J．J．Fox ．．．．．．．．．．．． |  | Nil．．．．．．．．．． | ．．．．．．．．．．．． |  | Nil． | ．．．．．．．． |  |  |  |
| Montreal．．．．．．．．．．．．．．．．．． | Montreal．．．．．．．． | Geo Smith．．．．．．．．．． | 160 | 267 | 20990 | 516 | 729 | 60370 | 776 | 996 | 81360 |
| New Carlisle．．．．．．．．．．．． | Bonaventure．． | W．Montgomery．．．． |  |  |  | Nor | turns rece | red． | $\ldots$ | $\ldots$ |  |
| Percé ．．．．．．．．．．．．．．．．．．．．． | Ciaspé．．．．．．．．．．． | G．LeBoutillier ．．．． |  |  |  | No r | turns rec | ved． |  | ．．．．．． |  |
| Quebec ．．．．．．．．．．．．．．．．．．．． | Quebec．．．．．．．．．． | B．Trudel．．．．．．．．．．．．． | 325 | 58 | 17990 |  | 76 | 37530 | 1，030 | 134 | 55520 |
| Rimouski ．．．．．．．．．．．．．．．．． | Rimouski．．．．．．． | P．L．Gauvreau．．．． | ．．． | Nil．．．．．．．．．． |  | De | cient retu |  | ．．．．．．．．．．．．．． | ．．．．．．．．．．．．． | ．．．．．．．．．．．．．． |
| St．John＇s．．．．．．．．．．．．．．． | St．John＇s ．．．．．． | E．D．Philips ．．．．．．． |  |  |  | No r | turns rece | ved． |  |  |  |
| Richelieu ．．．．．．．．．．．．．．．． | Richelieu ．．．．．．． | G．Peltier．．．．．．．．．．．． | 42 | 46 | 3480 |  | cient retu |  | 42 | 46 | $3+80$ |
| Three Rivers．．．．．．．．．．．． | Three Rivers．．． | A．A．Lantier． |  |  |  | No | turns rece | ved． |  |  |  |

Statement showing results of certain Returns respecting Shipping and Discharging of Seamen, \&c.-Continued.
new brunswick.

| Name of Port. | $\begin{gathered} \text { Name } \\ \text { of } \\ \text { County. } \end{gathered}$ | $\begin{gathered} \begin{array}{c} \text { Name } \\ \text { of } \\ \text { Sbipping Master. } \end{array} \end{gathered}$ | For Half-year ended 30th June, 1881. |  |  | For Half-year ended 31st December, 1881. |  |  | Total Scamen Shipped. | Total Seamen Discharged. | Total Amount. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Seamen Shipped. | Seamen Discharged. | Amount | Seamen <br> Shipped | Seamen Iischarged | Amount. |  |  |  |
|  |  |  |  |  | \$ cts |  |  | \$ cts |  |  | \$ cts. |
| Alma. .................... | Albert .. ........ | Robert Wright..... | 21 | 6 | 1230 | 13 | 7 | 860 | 34 | 13 | 2090 |
| Bathurst.................. | Gloucester ..... | W. J. 0'Brien...... |  | Nil. ........ |  | 10 | 32 | 1460 | 10 | 32 | 1460 |
| Buctouche................ | Kent............. | R. Douglas ......... |  | Nil. ......... | ..... ........ |  | turne recei |  |  |  |  |
| Ohatham................. | Northumberl'd | J. J. Brown......... | 36 | 34 | 2820 | 274 | 51 | 16230 | 310 | 85 | 18050 |
| Cocagne .................. | Kent ............. | A. K. Dysart....... |  | Nil. ........ |  |  | ficient retur |  |  |  |  |
| Dalhousie................. | Restigouche ... | W. Montgomery .... |  | 2 | 060 | 8 | 13 | 790 | 8 | 15 | 850 |
| Fredericton .............. | York ............ | A. F. Street........ |  | Nil. ....... |  |  | ... | 100 | 2 | .............. | 100 |
| Grand Manan ........... | Charlotte....... | l'. Wooster . . . . . . . | 28 | 23 | 2090 | 62 | 55 | 4750 | 90 | 78 | 6840 |
| Harvey .................... | Albert.......... | W. J. Reid ........... | 7 | 2 | 410 | 13 | 2 | 710 | 20 | 4 | 1120 |
| Hillsborough............. | Albert ........... | W. E. Stevens ...... | 44 | 16 | 2680 | 43 | 16 | 2630 | 87 | 32 | 5310 |
| Lepreaux ................. | Charlotte....... | G. K. Ianson..... | 2 | 1 | 130 |  | Nil......... |  | 2 | 1 | 130 |
| Moncton ......... ......... | Westmoreland | J. W. Binney, acting | 9 | 4 | 570 | 43 | 13 | 2540 | 52 | 17 | 3110 |
| Musquash ................ | St. John........ | A. T. Dunn......... | 9 | 14 | 870 | 22 | ... | 1100 | 31 | 14 | 1970 |
| New Bandon ............ | Gloucester ..... | F. J. Foley......... |  |  |  | Nor | eturns recei |  |  |  |  |
| Newcastle ................ | Northumberl'd | R. B. Haddow ...... | 7 | 22 | 1010 | 12 | 15 | 1050 | 19 | 37 | 2060 |
| North Joggins. . ........\| | Westmoreland | Rufus Cole.......... | 11 | 9 | 820 | 3 | 4 | 270 | 14 | 13 | 1090 |


| chibucto | $\left\|\begin{array}{l} \text { St. John.......... } \\ \text { Kent .............. } \end{array}\right\|$ | J. Carson. $\qquad$ John Rusk $\qquad$ | 11 3 |  | 560 330 |  | \|ricient Retu | 1580 | 36 3 | 11 6 | $2 i$ 30 330 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| eSack ville ...... ........... | Westmoreland | J. C. Dixon.......... | 11 | 6 | 730 | 27 | 24 | 2070 | 38 | 30 | 2800 |
| $\int_{0}$ St. Andrews .............. | Charlotte....... | Samuel Billings .... | 58 | 9 | 3170 | 42 | 37 | 3210 | 100 | 46 | 6380 |
| ${ }^{\text {c/S }}$ St. Geor | Charlot | James | 10 | 3 | 590 | 6 | 4 | 420 | 16 | 7 | 1010 |
| St. John . .................. | St. John . . . . . . | Allan McLean....... | 1,820 | 1,141 | 1,252 30 | 2,494 | 1,390 | 1,664 00 | 4,314 | 2,531 | 2,916 30 |
| St. Stephens | Char | H. Webber | 3 | 1 | 180 | 8 | 5 | 550 | 11 | 6 | 730 |
| Shediac ................... | West | H | 13 | 6 | 830 | 18 | 32 | 1860 | 31 | 38 | 2690 |
| Shippegan | Gloucester...... | Henry A. Bormany |  | Nil.. | .............. | . | Nil . ........ | .. | .......... .... | Nil .......... | .. |

NOVA SCOTIA.

| Adrocate ................. | Cumberland... | James Ward......... |  | \| | rns. | 13 | 2 | 710 | 13 | 2 | 710 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Amherst.................. | Cumberland ... | Nathan Tupper..... |  | Nil ... |  |  | Nil .......... |  | .. | .............. |  |
| Annapolis ............... | Annapolis ..... | A. Fullerton........ | 50 | 20 | 3100 | 43 | 33 | 3140 | 93 | 53 | 6240 |
| Antigonish ...... ........ | Antigonish . ... | R. Grant ............ |  | Nil. |  |  | Nil .......... |  | .... | ............ |  |
| Appie River ............. | Cumberland ... | J. W. Ward.......... |  | Nil . ......... |  |  | ur |  | .... | .............. |  |
| Arichat.................. | Richmond....... | D. O'C. Madden ... | 105 | 30 | 6100 | 130 | 93 | 9290 | 235 | 123 | 15390 |
| Aspey Bay ............... | Victoria ......... | D. McDonald. ....... |  | Nil .......... |  |  | cient Retur |  |  |  |  |
| Baddeck ................. | Victoria ......... | A. Oameron ......... |  |  |  |  |  |  | No R | eturns Rec | ived. |
| Barrington ............... | Shelburne...... | D. Sargent ........... | 22 | 6 | 1280 | 4 |  | 200 | 26 | 6 | 1480 |
| Bayfield .. ................ | Antigonish .... | E. G. Randall ...... |  | Nil |  | 21 |  | 1015 | 21 |  | 1015 |
| Beliveau Cove .......... | Digby ........... | $J$. | 16 | 6 | 980 | 13 | 20 | 1250 | 29 | 26 | 3830 |
| Bear River................ | Digby . . . . . . . | John Troop .......... | $1+7$ | 93 | 10140 | 150 | 190 | 13200 | 297 | 283 | 23340 |
| Beaver Ri | Colchester | R. Perry ..... | 8 |  | 400 | 6 |  | 300 | 14 | .......... | 700 |

Statement showing resulte of certain Returns respecting shipping and discharging of Seamen, \&c.-Continued.
NOVA SCOTIA-Continued.

| Name of Port. | $\begin{gathered} \text { Name } \\ \text { of } \\ \text { County. } \end{gathered}$ | ```Name of Shipping Master.``` | For half-year ended 30th June, 1881. |  |  | For half-year ended 31st December, 1881. |  |  | Total Seamen Shipped. | Total Seamen Discharged. | Total Amount. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Seamen Shipied. | Seamen Discharged. | Amount. | Seamen Shipped. | Seamen Discharged. | Amount. |  |  |  |
| Bridgetown ............. | Annapolis ...... | S. S. Ruggles...... | 4 | 1 | $\$ 8$ | 10 | 8 | \$ cts. | 14 | 9 | $\begin{array}{ccc}\$ 8 & \mathrm{cts} \\ 9 & 70\end{array}$ |
| Pridgewater............. | Lunenburg..... | W. M. Duff . ........ | 85 | 70 | 6350 | 104 | 53 | 6790 | 189 | 123 | 13140 |
| Calcdonia ................ | Cape Breton ... | James T. Burchell. |  |  |  | 8 | 12 | 760 | 8 | 12 | 760 |
| Cayada Creek .......... | King's.......... | C. V. Rawling..... | 10 | 6 | 680 | 18 | 17 | 1410 | 28 | 23 | 2090 |
| Craso . ................... | Guysboro' | J. W. Young........ | 16 | ............ | 800 | 12 | 3 | 690 | 28 | 3 | 1490 |
| Cape Sahle Islan | Shellurne ...... | Seth Smith.......... | 10 |  | 500 | 17 | 10 | 1150 | 27 | 10 | 1650 |
| Clementsport ........... | Annapolis ..... | G. F. Ditmars...... | 37 | 24 | 2570 | 50 | 63 | 4390 | 87 | 87 | 6960 |
| Cornwallis............... | King's.......... | E. Rand.............. | 59 | 24 | 3670 | 19 | 8 | 1190 | 78 | 32 | 4860 |
| Cow Bay................. | Cape Breton ... | Isaac Archibald.... | 45 | 10 | 2550 | 65 | 34 | 4270 | 110 | 44 | 6820 |
| Digby..................... | Digby ........... | Botsford Viets ...... | 24 | 27 | 2010 | 42 | 21 | 2730 | 66 | 48 | 4740 |
| Freeport | Digby .......... | Isaiah Thurber...... | 6 | 4 | 420 | 6 | 7 | 510 | 12 | 11 | 930 |
| French Cross........... | King's .......... | J. E. Orpen. ........ | 8 | 2 | 460 | 10 | 7 | 710 | 18 | 9 | 1170 |
| Great Bras d'Or ......... | Cape Breton ... | D. Campbell........ | 8 |  | 400 | D | cient Retu |  | 8 | .............. | 400 |
| Guysboro'................ | Guysboro' ...... | J. A. Tory........... | 12 | 1 | 630 | 5 | 11 | 580 | 17 | 12 | 1210 |
| Halifax ................... | Halifax......... | A sa B. Bligh........ | 1,776 | 1,490 | 1,335 00 | 1,803 | 1,407 | 1,323 60 | 3,579 | 2,897 | 2,658 60 |
|  | Hants ........... | Wm. Davison ...... | 27 | 19 | 1920 | 67 | 48 | 4790 | 94 | 67 | 6710 |



Statement showing results of certain Returns respecting shipping and discharging of Seamen, \&e.-Continued.
NOVA SOOTIA-Continued.


| Sheet Harbour........... | Halifax.......... | M. Macfarlane....... |  | \|.............. |  | \||.............. | Deficient re | eturns. |  | \|.............. | 050 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Shelburne................. | Shelburne....... | W. F. Atwood...... | 95 | 1 | 4780 | 4500 | 4200 | 3500 | 137 | 43 | 8290 |
| Ship Harbour............ | Halifax. ......... | Edgar Hill. ......... | .............. |  |  |  | No returns | received. |  |  |  |
| South Bar................. | Cape Breton... | P. Hullins ............ |  |  |  |  | No returns | received. |  |  |  |
| Sydney .................... | Oape Breton... | R. J. Ingraham .... |  |  |  | No returns | received. |  |  |  |  |
| Thorne's Cove........... | Annapolis ...... | E. H. Porter........ | 32 |  | 1600 | 17 | 10 | 1150 | 49 | 10 | 3760 |
| Truro...................... | Colchester...... | J. T. Crowe ......... |  | Nil..... .... |  |  | Nil.......... |  |  |  |  |
| Tatamagouche .......... | Colchester...... | J. A. G. Campbell | 9 |  | 450 | 4 | 3 | 290 | 13 | 3 | 740 |
| Wallace.................. | Cumberland... | Wm. McNab ........ | 5 | 1 | 280 | 9 | 3 | 540 | 14 | 4 | 820 |
| Walton .................... | Hants ............ | A. McN. Parke | 25 | 15 | 1700 | 24 | 20 | 1800 | 49 | 35 | 3500 |
| Weymouth ............... | Digby ............ | Sterns Jones......... | 36 | 5 | 1700 | 20 | 5 | 1150 | 45 | 10 | 2850 |
| Windsor . ................. | Hants ............ | E. O'Brien........... | 40 | 13 | 2390 | 73 | 37 | 4760 | 113 | 50 | 7150 |
| Wilmot.................... | Annapolis ...... | G. B. Reed.......... |  | - |  | No returns | received. |  | ............. |  |  |
| Yarmouth................. | Yarmouth....... | C. W. Clements..... | 258 | 207 | 19110 | 522 | 419 | 38670 | 780 | 626 | 57780 |

## PRINCE EDWARD ISLAND.

| Cascumpec............... | Prince ........... | James F. White.... | No returns |  |  | .............. |  |  | ............. | .............. | ........ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Charlottetown........... | Queen's......... | Wm. Koughan ...... | 221 | 105 | 14200 | 300 | 247 | 22410 | 521 | 352 | 36610 |
| Crapaud................... | Queen's.......... | S. J. B. Leard....... |  | Deficient re | turns. | 22 | 11 | 1430 | 22 | 11 | 1430 |
| Georgetown ............. | King's ........... | Charles Owen... | 56 | 37 | 3910 | 89 | 61 | 6280 | 145 | 98 | 10190 |
| Malpeque ................. | Prince ........... | J. M. Macvortt. |  | Nil......... |  |  | Nil. ......... |  |  |  |  |
| Montague Bridge....... | King's ........... | M. Rowe. | 15 |  | 750 | 9 |  | 450 | 24 | .............. | 1200 |
| Murray Harbour......... | Kiug's.......... | H. J. Brehaut | 4 | 2 | 260 | 3 | 2 | 210 | 7 | 4 | 470 |
| Pinette.................... | Queen's......... | A. Murchison........ |  | Nil......... |  |  | - | .............. | .............. |  |  |
| Port Hil | Pri | W. Hopgood.... |  | 1 | 280 | Deficient retar | eturns. |  | 11 | 11 | 280 |

Statement showing results of certain Returns respecting Shipping and Discharging of Seamen, \&c.-Continued. PRINCE EDWARD ISLAND.-Continued.

| Name of Port. | $\begin{aligned} & \text { Name } \\ & \text { of } \\ & \text { County. } \end{aligned}$ | $\begin{gathered} \text { Name } \\ \text { of } \\ \text { Shipping Master. } \end{gathered}$ | For Half-Year ended 30th Jone, 1881. |  |  | For Half-Year ended 31st December, 1881. |  |  | Total Sesmen Shipped. | Total Seamen Discharged. | Total Amount. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Seamen Shipped. | Seamen Discharged. | Amount. | Seamen Shipped. | Seamen Discharged. | Amount. |  |  |  |
| St. Peter's Bay......... | Eing's .. ........ | R. D. McCallum ... |  |  | \$ cts. | No returns |  | \$ cts. |  |  |  |
| Souris..................... | King's ........... | James Moynagh.... | 35 | 11 | 2080 | 44 | 16 | 2650 | 79 | 26 | 4730 |
| Sammerside............. | Prince ........... | Jacob Schuman .... | 31 | 7 | 1760 | 64 | 22 | 3860 | 95 | 29 | 5620 |
| Tignish. .......... ......... | Prince ........... | Geo.Conroy, acting |  |  |  | No returns | received. | .......... | .............. | .............. |  |
| West Cape............... | Prince ........... | Charles Stewart ... |  |  | ............. | do | do |  |  |  |  |
| BRITISH COLOMBIA. |  |  |  |  |  |  |  |  |  |  |  |
| Burrard Inlet............ | N. Westminst'r | Isaac Johns .......... | 16 | 51 | 2330 | 2 | 33 | 2240 | 41 | 84 | 4570 |
| Victoria................... | Victoria ......... | W. Hamley......... | 17 | 13 | 1240 | 37 | 24 | 2570 | 54 | 37 | 3810 |

Wm. SMITH,
Deputy Minister of Marine.

## APPENDIX No. 47 .

List of Persons to whom Rewards have beon granted by the Government of the Dominion of Canada, from 1st January to 31st December, 1881, for gallant and humane services rendered in Saving Life from Shipwrecked Canadian Vessels, or by British or Foreign Governments for similar services in Saving Life from. Shipwrecked Britist and Foreign Vessels for same period.


List of Persons to whom Rewards have been granted by the Government of the Dominion of Canada, \&c.-Continued.


List of Persons to whom Rewards have been grantel by the Government of the Dominion of Canada, \&c.-Concluded.

| Name and Designation |
| :--- | :--- | :--- | :--- |
| of Persors. |

## SUPPLEMENT No. 2

TO THE FOURTEENTH ANNUAL REpORT OF THE

DEPARTMENT OF MARINE AND FISHERIES FOR THE YEAR 1881.

## FISHERIES STATEMENTS

## FOR THE YEAR

## 1881.



OTTAWA.
PRINTED BY MACLEAN, ROGER \& Co., WELLINGTON STREET, 1882 ,

## INDEX

## TO TIE

## Fisheries Statements

## FOR THE YEAR 1881.

PAGE.
vii
Total Yield and Value of Fisheries in tre Dominion of Canada
xiv
Expenditcre-Fisheries and Fish-breeding
XV
Revende from Fishery Leases, Licenses and Fines.
xviii
Salmon Angling Statistics, Quebec and New Brenstick.
xix
Fish breeding.
XX
List of Fishery Officers
APPENDICES.
Appendix No. 1—Nova Scotia: Report of W. H. Rogers, Esq., Inspector of Fisheries, with Fishery Statistics. ..... 1
" No. 2-New Brunswiok: Report of W. H. Venning, Esq., In- spector of Fisheries, with Fishery Statisties..... ..... 52
" No.3—Quebec: Report of Wm. Wakeham, Esq., Officer in Cbarge of tho Fisheries Protection Service in tho Gulf and River St. Lawrence, with Fishery Statistics ..... 75
" No. 4 - " Fishery Statistics, South Shore, Quebec to Cape Chatte ..... 156
" Fishery Statistics, North Shore, Quebec to Bersimis. ..... 161
" Fishery Statistics, above Quebec ..... 165
" Synopses of Fishery Officers' Reports ..... 167
No. 5-Prince Edward Island: Report of J. Hunter-Duvar,Esq., Inspector of Fisheries, with FisheryStatistics175
" No. 6-Bbitisir Columbia: Ropori of A. C. Anderson, Esq., In- spector of Fisheries, with Fishery Statistics.. ..... 202
" No. 7-Ontario: Fishery Statistics ..... 228
" Synopses of Fishery Oversoers ..... 247

## FISHERIES STATEMENTS

FOR THE YEAR 1881.

## PRODUCE AND VALUE OF THE CANADIAN FISHERIES.

The total value of the production of tho Fisheries of Canada in 1881, is $\$ 15,817,162.64$. The value in the previous year amounted to $\$ 14,499,979.71$, an increase of $\$ 1,317,182.93$, exclusive of the catch in Manitoba and North-West Territories, of which there are no returns.

General Recapitclation of the Yield and Value of the Fisheries in the Dominion of Canada, for the Year 1881.

| Kinds of Fish. | Quantity | Value. |
| :---: | :---: | :---: |
|  |  | \$ cts. |
| Salmon .................. ........ ................................................ Brls. | 6,0382 | 56,453 00 |
| do fresh, in ice $\qquad$ Lbs. | 1,037,945 | 165,806 11 |
| do fresh Pieces. | 157,931 | 44,646 50 |
| do smoked $\qquad$ Lbs. \& boxes. | 7,191 | 2,538 50 |
| do preserved in cans................................................. Lbs. | 8,524,827 | 1,066,149 70 |
| Cod $\qquad$ Cwt. | 1,075,507 | 4, 468,39175 |
| Pollock | 54,538 | 190,883 00 |
| Haddock | 116,978 | $409,832 \quad 00$ |
| do $\qquad$ Lbs. |  | 83,642 10 |
| Hake ........................................................................... ...... Cwt. | 153,3:7 | 533,14450 |
| Halibut | $263$ | 1,578 00 |
| do $\qquad$ Lbs. | 1,017 395 | 61,0+3 70 |
| Herring, pickled........ .................................................. Brls. | 1,362,354 | 1,490,018 00 |
| do smoked.................................................................. Boxes | $1,060,416$ | $267,604 \quad 00$ |
| do frozen $\qquad$ Hbds. | $16,050,100$ | $64,20000$ |
| Mackerel............................................................. ............... Brls. | 105,772 ${ }^{3}$ | $1,046,34300$ |
|  | 390,666 44,039 | $\begin{array}{r} 58,54990 \\ 175,19750 \end{array}$ |
|  | -75 | 1800 00 |
| Shad........................................................................... Brls. | 14,819 | 118,552 00 |
| do ........................... ........................ ............ ......... No. | 116,977 | 10,527 93 |
| Bass, Trout and Smelt $\qquad$ Lbs. | 410,750 | 24,645 00 |
| Bass $\qquad$ a do $\square$ Brls. | 388833 2,767 | $\begin{aligned} & 23,32998 \\ & 13,83500 \end{aligned}$ |
| Trout................................................................................................... ${ }^{\text {. }}$, | 9,700 | 96,757 00 |
| do ............................................................................. Lbe. Lbs. | 606,177 | 41,079 46 |
| Smelts ............. .......... ............................................... ${ }^{4}$ | 1,994,905 | 117,600 30 |
| Sturgeon ........ ...................... ..................................... ${ }^{\text {a }}$ | 673,121 | 38,893 26 |
| do ............................................................................... Brls. | 3,361 | $16,80500$ |
| White fish | 5, $079 \frac{1}{2}$ | $50,74500$ |
| do .............................................................................. Lbs. | 2,608,161 | $131,80660$ |
| do (........... .......... ........ .................................... No. | 677,320 | $67,73200$ |
| Bar and White fish........................................................................ Doz. | 5,270 | 6,587 50 |
| Carr ied forward..... ... |  | 10,945,317 29 |

General Recapitulation of the Yield and Value of Fisheries, \&c.-Continued.


Comparative Statement of Production in each Branch of Fishing in the respective Provinces of the Dominion of Canada, in 1880 and 1881.

PROVINOE OF NOVA SCOTIA.

| Kinds of Fish. | 1880. |  | 1881. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantity. | Value. | Quantity. | Yalue. |
|  |  | \$ ets. |  | \$ cts. |
| Salmon.................................... Brls. | 792 | 11,880 00 | 457 | 6,855 00 |
| do fresh, in ice....................... Lbs. | 201,488 | 30,223 20 | 190,203 | 28,530 45 |
| do smoked......... ................... ${ }^{4}$ | 11,914 | 1,787 10 | 7,190 | 1,078 50 |
| de preserved......................... Cans. | 11,348 | 1,702 20 | 9,250 | 1,387 50 |
| Codfish .................................... Cwt. | 587,727 | 2,497,839 75 | 583, $029 *$ | 2,477,873 25 |
| Cod Tongues and Tongues ........... Brls. | 1,437 | 10,059 00 | 1,170 | 8,190 00 |
| Pollock ................................. . . . Cwt. | 43,979 | 153,926 50 | 31,558 | 110,453 00 |
| Bake ........................................ " | 47,658 | 166,803 00 | 73,885 | 258,597 50 |
| Haddock .................................. " | 102,027 | 357,094 50 | 116,160 | 406,560 00 |
| Halibut..................................... Lbs. | 889,963 | 53,397 78 | 718,370 | 43,102 20 |
| Mackerel ................................... Brls. | 126,432 | 1,264,320 00 | 63,377 | 633,770 00 |
| do preserved ......... .............. Cans. | 40,320 | 6,048 00 | 39,689 | 5,953 35 |
| Herring..................................... Brls. | 136,543 | 546, 17200 | 198,269 | 793,076 00 |
| do smoked............................Boxes. | 60,020 | 15,005 00 | 67,325 | 16,831 25 |
| Alewives.................................. Brls. | 16,145 | 64,580 00 | 22,474 | 89,896 00 |
| Shad...... .................................. " | 7,557 | 60,456 00 | 9,396 | 75,168 00 |
| Bass.............................................. Lbs. | 11,470 | 68820 |  |  |
| Trout......................................... ${ }^{\text {a }}$ | 69,138 | 4,148 28 | \} 410,750 | 24,845 00 |
| Smelt....................................... ${ }^{\text {a }}$ | 351,100 | 21,066 00 |  |  |
| Eels......................................... Brls. | 1,862 | 16,758 00 | 1,951 | 17,559 00 |
| Oysters........... ..... .................... " | 1,861 | 5,583 00 | 2,270 | 6,810 00 |
| Lobsters ..................................................................................... do | 4,082,140 | 612,321 00 | $4,895,692$ 35 | 734,35380 1,40000 |
|  | 369,233 | 240,001 45 | 417,029 | 271,064 30 |
| Fish Guano ................................ Tons. | 1,784 | 26,760 00 | 1,820 | 27,300 00 |
| Fish used as bait............................. Brls. do manure | 13,677 12,330 | 13,677 6,165 600 | 1,820 9,778 19,780 | 29,184 $\mathbf{9 , 8 9 0}$ |
| $\qquad$ Hake Sounds and fresh Fish in | 12,330 | 6,165 00 | 19,780 | 9,890 00 |
| Digby Co. .. ............................ Lbs. |  | 22,180 00 | 44,864 | 26,918 40 |
| Squid in Guysboro'and Victoria Co's Brls. |  | 5,400 00 | 2,400 | 9,600 00 |
| Amount sold in Halifax Fish Market. |  | 22,000 00 | 2,400 | 25,500 00 |
| Codfish and Haddock, Halifax Co... Cans. | 14,400 | 1,728 00 | . | 25,600 0 |
| Home consumption of various counties, as per return |  | 81,291 50 | ........ ........... | 46,290 00 |
| Smoked Haddies, Haddock and Halibut in Digby Co. |  |  |  | 26,010 00 |
|  | ......... | ............... | ....... ............ |  |
| Total..................................... | .................. | 6,291,061 46 | ................... | 6,214,781 50 |

PROVINCE OF NEW BRUNSWICK.

| Codfish...................................... Cwt. | 69,099 | 293,670 75 | 65,492 | 278,341 00 |
| :---: | :---: | :---: | :---: | :---: |
| Herring.................................... Brls. | 125,552 | 502,208 00 | 81,478 | 325,912 00 |
| do smoked........................... Boxes. | 477,340 | 119,335 00 | 991,605 | 247,911 15 |
| do frozen $\qquad$ Hhds. |  |  | 16,050,000 | 64,200 00 |
| Mackerel .................................. Brls. | 19,650 | 196,500 00 | 3,421 | 34,21000 |
| do preserved...................... Cans. | 66,427 | 9,964 05 | 122,024 | 18,303 60 |
| Haddock................................... Lbs. | 695,050 | 41,703 00 | Owt. 22,653 | 79,285 50 |
| Pollock............................ ........ Cwt. | 18,873 | 66,055 50 | - 22,980 | 80,430 00 |
| Hake .............. ........................ ${ }^{\text {a }}$ | 61,054 | 213,689 00 | 70,419 | 246,466 50 |
| Halibut...................................... . Lbs. | 270,100 | 16,206 00 | 294,450 | 17,667 00 |
| Carried forward. |  | 1,459,331 30 |  | 1,392,716 85 |

Comparative Statement of Production in each Branch of Fishing, \&c.-Continued. PROVINCE OF NEW BRUNSWICK-Concluded.

| Kinds of Fish. | 1880. |  | 1881. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantity. | Value. | Quantity. | Value. |
| Brought forward................ | .............. | $\begin{array}{cc} \$ & \text { cts. } \\ 1,459,331 & 30 \end{array}$ |  | $\begin{array}{cc} \$ \quad \text { cts. } \\ 1,392,176 & 85 \end{array}$ |
| Salmon, pickled............................ Brls. do fresh, in ice. | 53 821,555 | $\begin{array}{r}954 \\ \hline 123 \\ \hline 23 \\ \hline 150\end{array}$ | 97 597,924 | 1,74600 11958480 |
| do fresh, in ice.................... Lbs. do smoked.................... | 821,555 1,000 | 123,23325 150 5, | 597,924 | 119,584 80 |
| do preserved............................. ${ }^{\text {a }}$ Cans. | 23,000 | 5,750 00 | 3,137 | 62740 |
| Alewives.................................... Bris. | 15,147 | 75,735 00 | 19,648 | 78,592 00 |
| Trout ....................................... L bs. | 40,030 | 2,401 80 | 29,805 | 1,788 30 |
| Smelts..................................... | 2,553,828 | 76,614 84 | 1,925,105 | 115,508 30 |
| Shad....................................... Bris. | 3,289 | 26,312 00 | 5,423 | 43,384 00 |
| Eels........................................ " | 1,058 | 9,522 00 | 896 | 806400 |
| Bass................................ ....... Lbs. | 177,839 | 10,670 34 | 235,283 | 13,516 98 |
| Oysters.................................... Bris. | 12,280 | 36,840 00 | 8,413 | 25,239 00 |
| Lobsters, preserved .................... Cans. | 4,734,331 | 710,149 65 | 5,421,050 | 813,15750 |
| Fish Guano....................... ...... Tons. | 1,305 | 19,575 00 | 1,092 | 16,380 00 |
| Fish used as manure.................... Bris. | 9,045 | 4,532 50 | 19,620 | 9,810 00 |
| Cod Tongues and Sounds............. " | 602 | 4,214 00 | -282 | 1,974 00 |
| Hake Sounds................................ Lbs. |  |  | 66,930 | 66,930 00 |
|  | 602,500 | 6,025 00 | 453,450 | 27,207 00 |
|  | 20,269 109 | 101,34500 | 19,280 | 115,680 00 |
| Fish Oil.................................... Galls. | 109,386 | 71,100 90 | 98,093 508 | $\begin{aligned} & 63,76045 \\ & 15,24000 \end{aligned}$ |
| Total. | ............. | 2, 744,446 58 | ................... | 2,930,904 58 |

## Province of quebec.

| Salmon, pickled ......................... Bris. | 814 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| do fresh in ice...................... Lbs. | 306,340 | 21,44380 | 568 247,273 | $\begin{array}{r} 8,52000 \\ 17,30911 \end{array}$ |
| do preserved in cans............ " |  |  | 3,192 | -47880 |
| do sunuked .......................... Boxes. |  |  | 1 | 1000 |
| do fu-sh ............................ Pieces. | 5,614 | 5,614 00 | 4,131 | 6,196 50 |
|  | 364,442 | 1,457,688 00 | 374,846 | 1,499,384 00 |
| Haddock ........................................... . ${ }^{\text {a }}$ | 43, 205 | 172,820 00 | 35,206 | 140,824 00 |
| Ling................................................. ${ }^{\text {. }}$. | 1,140 16 | $\begin{array}{r}4,560 \\ 6+00 \\ \hline 1,\end{array}$ | 818 | 3,272 00 |
| Halibut......... .............................. Brls. | 16 217 | $6 \pm$ 100 | 75 | 30000 |
| Herring, pickied.............................. 14 | 55,194 | 1,302 00 | cwt. 263 | 1,578 00 |
| do smoked. .................................. Boxes. | 55,194 562 | 251,153600 | 40,202 | 201,010 00 |
| Shad................................. ...... Pieces. |  | 11050 | 1,426 | 35650 |
| Ecls ....................................... " | 09,591 | 2,661 15 | 116,977 | 10,527 93. |
| do pickled ................................... Brls. | 37 | 40,959 20 | 337,267 | 33,726 70 |
| Mackerel .......................................... . . ${ }^{\text {. }}$ | 5,017 | 25900 | 25 | 17500 |
| Sardines ........ ................................... . . | 6,017 | 40,87800 | 2,8912 | 17,533 00 |
| Sturgeon ..................................... . ${ }^{\text {a }}$ | 3,858 888 | 11,559 60 | 4,648 | 13,944 00 |
| do ......................................... L bs. | 888 | 4,440 00 | 1,136 | 5,680 00 |
| Trout ....................... ................. ${ }^{\text {a }}$ |  |  | 149,400 | 7,47-00 |
| do .......................................... Brls. | 619,350 | 30,967 50 | 553,042 | 37,891 36 |
| Winnuniph ............. ................ Pieces. | 121 24,736 | 96800 | 1212 | 97200 |
| Bar rud White fish.......................... Doz. | 24,736 7,758 | 6,18400 | 26,600 | 9,150 00 |
| Bar Fish......................................... Lbs. | 7,758 9,000 | 7,758 00 | 5,270 | 6,587 50 |
| White fish..................................... ....... ${ }^{\text {a }}$ is. | 29,000 | 1,460 00 | 11,400 | 191200 |
| Maskinongé..... ....................... . Picces. | 3,650 | $3,650 \ldots \ldots$ | 46,620 | 3,729 60 |
| Carried |  | 3,650 00 | lbs. 128,160 | 7,689 60 |
| Carried |  | 2,079,796 65 |  | 2,035,227 60 |

## Comparative Statement of Production in each Branch of Fishing, \&c.-Continued.

PROVINCE OF QUEBEC-Concluded.

| Kinds of Fish. | 1880. |  | 1881. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantity. | Value. | Quantly. | Value. |
| Brought forward................. | ..... | 2,079,796 65 | ................... | 2,035,227 60 |
| Bass....................................... Brls. | 1,050 | 8,40000 | " 161,950 | 9,71700 |
| Pickerel ................................... " | 973 | 7,784 00 | " 252,100 | 15,126 00 |
| Pike......................................... " | 975 | 7,80000 | " 295,200 | 14,760 00 |
| Tom Cod.................................. " | 3,333 | 5,000 00 | -6,890 | 10,335 00 |
| Cod Tongues and Sounds............. " | $39 \frac{1}{2}$ | 35550 | 144 | 1,296 00 |
| Lobsters, canned......................... Lbs. | 737,551 | 110,632 00 | 860,916 | 129.13740 |
| Small Fish................................ Brls. | 16,902 | 33,804 00 | 2,103 | 4,206 00 |
| Mixed Fish............................... Lbs. |  |  | 1,349,400 | 26:988 00 |
| Seal Skins............................... . No. | 26,621 | 26,621 09 | 58,201 | 58,201 00 |
| Porpoise Skins................. ......... " | 218 | 86400 | 8 | 3200 |
| Seal Oil.................................... Galls. | 115,127 | 57,563 50 | 220,157 | 110,078 50 |
| Whale Oil................................. " | 13,500 | 5,400 00 | 12,985 | 5,19100 |
| Cod Oil .................................... " | 293,809 | 118,595 30 | 333,310 | 133,324 00 |
| Porpoise Oil.............................. " | 3,956 | 1,978 00 | 497 | 24850 |
| Fish used as bait and manure ........ Brls. | 113,034 | 104,002 50 | 125,716 | 117,01150 |
| Fish used for local consumption..... " | 15,740 | 63,960 00 | 20,270 | 81,080 00 |
| Total ...... ............... ............. | .... | 2,631,556 45 | ... | 2,751,962 50 |

PROVINCE OF PRINCE EDWARD ISLAND.

| Codfish......... .......................... Cwt. | 28,045 | 112,180 00 | 16,934 | 71,969 50 |
| :---: | :---: | :---: | :---: | :---: |
| Herring .................................... Brls. | 18,020 | 72,080 00 | 24,445 | 97,780 00 |
| do smoked..........................Boxes. |  |  | 60 | 1500 |
| Mackerel .................................. . Brls. | 82,570 | 660,560 00 | 36,083 | 360,830 00 |
| do preserved..................... Cans. | 6,960 | 69600 | 228,953 | 34,34-95 |
| Haddock . ...... ........................ . Lbs. | 90,600 | 2,718 00 | 72,610 | 4,356 60 |
| Hake...................................... Cwt. | 8,213 | 24,639 00 | 8,023 | 28,080 50 |
| Salmon, fresh............................. Lbs. | 7,550 | 45300 | 2,545 | 38175 |
| do preserved...................... Cans. | 1,440 | 28800 |  |  |
| Alewives .......................... ........ Brls. | 1,724 | 5,172 00 | 1,917 | 6,709 50 |
| Halibut..................... ............. Lbs. | 1,800 | 10800 | 4,575 | 27450 |
| Bass......... ................. ............... " | 2,000 | 12000 | 1,600 | 9600 |
| Trout...................................... " | 10,110 | 60660 | 19,830 | 1,189 80 |
| Smelts ............ ....................... " | 37,700 | 2,203 00 | 69,800 | 209400 |
| Eels........ ................................ " | 25,680 | 1,540 80 | 17,300 | 1,050 00 |
| Oysters ........ ........................... Brls. | 20,297 | 60,891 00 | 20,815 | 62,445 00 |
| Lobsters, preserved ..................... Lbs. | 3,551,050 | 710,210 00 | 6,312,865 | 1,262,573 00 |
| Cod and Hake Sounds.................. " | 12,500 | 7,500 90 | 18,923 | 14,192 25 |
| Fish Oil....................................Galls. | 12,099 | 6,049 50 | 9,313 | 6,053 45 |
| do Guano............................... Tons. | 400 | 6,000 00 | 2 | 3000 |
| do Manure.............................. Brls. | 2,030 | 1,015 00 |  |  |
| do do ............................. Tons. |  |  | 4,130 | 82600 |
| Total |  | 1,675,088 90 | .............. | 1,955,289 80 |

Comparative Statement of Production in each Branch of Fisheries, \&c.-Continued. PROVINCE OF BRITISH COLOMBIA.

| Kinds of Fish. | 1880. |  | 1881. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantity. | Value. | Quantity. | Value. |
|  |  | \$ cts. |  | $\$$ cts. |
| Salmon, pickled.................................. Brls. | 2,345 | 18,760 00 | 4,9163 | 39,332 00 |
| do do ........................... .Half " | 284 | 1,420 00 | ............. | .............. |
| do do ................. ............... Kitts. | 30 | 9000 |  |  |
| do fresh ...................................... No. | 27,678 | 13,889 00 | 153,800 | 38,450 00 |
| do preserved in cans...................... Lbs. | 2,968,752 | 400,781 52 | 8,509,248 | 1,063,656 00 |
| do smoked............................................ | 50 | 950 300 00 | 75 | $\begin{array}{r}1,450 \\ 450 \\ \hline\end{array}$ |
| Mixed Fish, pickled................................... Br........... | 10 | 4000 | 200 | 1,200 00 |
| do smoked ..................................... ${ }^{\text {d }}$ | 20 | 20000 | ................. | 2,500 00 |
| do do not enumersted................... |  | 1,550 00 |  | 210000 |
| Trout, fresh........................................ Lbs. | 2,500 | 15000 | 3,500 | 21000 |
| Sturgeon, fresh.................................... " | 80,000 | 3,200 00 | 70,271 | 4,216 26 |
| Haddock and other fish, dried ....................... |  | 17500 |  | 25000 |
| Halibut, fresh, in ice, to San Francisco, Customs Returns.............................. Lbs. | 17,176 | 1,182 00 | 235 | $\begin{array}{r}578 \\ 2,350 \\ \hline\end{array}$ |
| Oolâhang, pickled........................ $\left\{\right.$ Half ${ }^{\text {che }}$ | 145 | 72500 | 230 | 1,150 00 |
| Kitts. |  |  | 50 | 12500 |
| do smoked ...............................Boxes. | 180 | 18000 | 500 | 50000 |
| do fresh .................................. Lbs. |  |  | 3,100 | 18600 |
| Fur Seal Sking..................................... No. | 13,600 | 163,200 00 | 13,541 | 162,49200 |
| Hair do .................................... " | 3,000 | 1,500 00 | 3,500 | 1,750 00 |
| Sea Otter Skins .......................................... ${ }^{\text {a }}$ | 105 | 4,200 00 | 150 | 6,000 00 |
| Oolahhan Oil ....................................... Galls. | 1,274 | 1,274 00 | 1,630 | 1,630 00 |
| Herring Oil ........................................ ${ }^{\text {a }}$ | 7,000 | 3,500 00 | 16,000 | 6,400 00 |
| Dog-fish, Seal and Porpoise Oil ............... | 119,362 | 47,74480 | 142,240 | 56,896 00 |
| do Oil, refined | 20,000 | 11,000 00 | 27,000 | 14,850 00 |
| Fresh fish sold in markets....................... |  | 35,000 00 | . . . . | 45,000 00 |
| Fish cured for home consumption .................... |  | 2,000 00 |  | 2,500 00 |
| Fish Guano (Herring Scrap) $\qquad$ Tons. | 54 | 32400 | 10 | ........... |
| Fish Scrap, dried | .................. |  | 10 | 20000 |
| Total. | ................. | 713,335 32 | $\cdot$ | 1,454,321 26 |

Note.-Computation of home consumption of Fish by the Indians of British Columbia, in 1881, -exclusive of European supply:-


Comparative Statement of Production in each Brance of Fisheries, \&c.-Continud. PROVINCE OF ONTARIO.


RECAPITULATION.

| Provinces. | Value. |  |
| :---: | :---: | :---: |
|  | 1880. | 1881. |
|  | \$ cts. | \$ cts. |
| Nova Scotia ............. ...................................................... | 6,291 06146 | 6.214 .78150 |
| New Brunswick ................................................................ | 2,744,446 58 | 2,930,904 58 |
| Quebec ........................................................................ | 2,63155645 | 2,751,962 50 |
| Prince Edward Island ..................... ..................................... | 1,675,088 90 | 1,955,289 80 |
| British Columbia ................................................................. | 713,335 32 | 1,454,321 26 |
| Ontario ................................ ....................... .................... | 444,491 00 | 509,903 00 |
| Total................................................ ..... | 14,499,979 71 | $\begin{aligned} & 15,817,16264 \\ & 14,499,97971 \end{aligned}$ |
| Increase.................................................... | .... ................. | 1,317,182 93 |

See note at preceding page.

## EXPENDITURE AND RECEIPTB.

The following statements exhibit the respective amounts expended and collected during the fiscal year ended 30th June, 1881. This oxpenditure is subdirided for the several Provinces, as follows:-

## Nova Scotia.

Fishery Officers' salaries and disbursements. 814,90942
Fish-breeding .......................................... 3,454 29

New Brunswick.
Fisherf Officers' salaries and disbursements. \$il,776 56
Fish-breeding......................................... 3,455 91
15,23247
Quebec.
Fishery Officers' salaries and disbursements. \$15,123 79
Fish-breeding
5,444 89
———— 20,568 68

Prince Edward Island.
Fishery Officers' salaries and disbursements. \$2,691 49
Fish-breeding........................................ . 85211
3,54360
British Columbia.
Fishery Officers' salaries and disbursements ............... 1, 1,721 48
Ontario.
Fishery Officers' salaries and disbursoments. \$11,506 74
Fish-breediag........................................... 8,823 42

1,30025
Total expenditure......................... 880,56035
Statements, in detail, of the above expenditure will be found at page 186 of the Annual Report of the Marine Branch.

## FISH CULTURE.

The total expenditure on account of this service for the fiscal year onded 30th June, 1881, amounts to $\$ 2 \mathrm{i}, 530.62$, divided as follows among elecen hatcheries for artificial roproduction of fish:-
Nowcastle, Ontario ..... \$2,526 47
Sandwich do ..... 2,896 16
General disbursements, including Mr. S.
Wilmot's salary and uravelling expenses ..... 2,900 79
Total, Ontario ..... \$8,323 42
T'adoussac, Quelec ..... $\$ 2,04030$
Graspé Basin do ..... 1,785 59
Ristigouche do and New Brunswick. ..... 1,351 77
Magog do ..... 22833
Rejairing fish-ways on Matane River ..... 3900
IJotal, Quebec. ..... 5,44489
Bedforl Basin, Nova Scotia ..... 82,608 04
Sydney do ..... 84625
Total, Nova Scotia ..... 3,45429
Miramichi, New Brunswick ..... 81,290 49
St. John River do ..... 2,165 42
Total, New Brunswick ..... 3,455 91
Dunk Rivor, Prince Edward Island ..... $\$ 85211$
Total, Prince Edward Island ..... 85211
Total ..... $\$ 21,53062$
Collections made during the fiscal jear are as follows:-
Neva Scotia.
For fishery licenses, fines and forfeitures' ..... 82,77949New Brunswick.
Rente, taxes on nets, fines and forfeitures ..... 4,69528
Quebec.
Rents, license fees, fincs and forfeitures ..... 9,286 18
Prince Eduard Island.
For fishery licenso ..... 4000
Ontario.
Reats, license fees, fines and confiecations. ..... 7.79599
824,596 94
LICENSES ISSUED.
The number of fishery liconsos issued during the season of 1881 is as follows :-
Ontario.
Gill-net licenses. ..... 447
Hoop-net do ..... 49
Pound-net do ..... 49
Seine do ..... 233
Angling permits. ..... 867
Spearing licenses. ..... 291
1,936
Quebec.
Salmon angling licenses. ..... 6
Salmon-net fishing licenses. ..... 406
Brush-weir do ..... 129
Eel-weir do ..... 5
Seine do ..... 184
Gill-net do ..... 156
Hoop-net do ..... 83
Dip-net do ..... 8
Pound-net do ..... 1
Hook and line do ..... 341,012
New Brunswick.
Salmon angling licenses. ..... 2
Salmon-nct fishing licenses. ..... 725
Herring-weir do ..... 80
Bass ..... do ..... 205
Smelt do ..... 805
Sturgeon do ..... 82
Nova Scotia.
Salmon-net fishing licenses ..... 33
Trap-net licenses. ..... 40
Weir do ..... 5
Prince Edward Island.
Trap-net liconse ..... 1
Total ..... 4,926

Schedcle of Salmon Angling in the leased Rivers of the Provinces of Quebec and New Brunswick，during the season of 1881.

| Names of Rivers． | 号 | 苞 |  |  |  | Remarks． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Lbs． | Lbs． | Lbs． | Lbs． |  |
| Du Gouffre．． | 4 | 63 | 15．75 | 25 | 6 |  |
| Murray．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 3 | 52 | $17 \cdot 33$ | 25 | 10 |  |
| Ste．Marguerite，$\underset{\text { do }}{\text { N．W．}}$ N．Branch．．．． | 8 22 | 104 308 | $13 \cdot 00$ 14.00 | ．．．．．．．． | ．．．．．．．． |  |
| A Mars．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 37 | 315 | 14.51 8.51 | 15 | 4 |  |
| Little Saguenay．．．．．．．．．．．．．．．．．．．．．． | 1 | 14 | $14 \cdot 00$ | 14 | 14 |  |
| Anse St．Jean．．．．．．．．．．．．．．．．．．．．．．．．． | 5 | 65 | $13 \cdot 00$ | 141 | 5 |  |
| Saultau Cochor．．．．．．．．．．．．．．．．．．．．． | ．．．．． | ． | ．．．．．．．．．．． | ．．．．．．．．． | ．．．．．．．． | Not angled． |
| Laval．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  | ．．．．．．．．．．． |  |  |  |  |
| Godbout．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 32 | 640 | $20 \cdot 00$ | 29 | 10 |  |
| Trinity．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | ．．． | ．．．．．．．．．．． | ．．．．．．．．．．． | ．．．．．．．．． | ．．．．．．．． | do |
| Mingan ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | ．．．．．．．． | ．．．．．．．．．． | ．．．．．．．．．． | ．．．．．．．．． | ．．．．．．．．． | No returns． |
| Mistassini．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  | ．．．．．．．．．． | $\cdots$ | do |
| Recscie．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 7 | 70 | 10.00 | ．．．．．．．．．．． | $\cdots$ | Not angled． |
| Manitou．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  | ．．．．． |  | No returns． |
| Moisie．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 52 | 1，367 | $26 \cdot 28$ | 41 | 8 |  |
| Kegashca．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | ．． | ．．．．．．．．．． | ．．．．．．．．．．． | ．．．．．．．．． |  | do |
| St．John．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | ．．．．． |  |  |  |  | do |
| Natashquan．．．．．．．．．．．．．．．．．．．．．．．．．．． | 233 9 | 2,0173 103 | $8 \cdot 65$ 11.44 | 242 | 3 5 |  |
| Washeecootai ．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  | 103 | $11 \cdot 44$ | 17 | 5 |  |
| Matane．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 36 | 432 | 12.00 | 24妾 | …．．．．．．． | － |
| Little S．W．Bic．．．．．．．．．．．．．．．．．．．．．． | 15 | 150 | $10 \cdot 00$ |  |  |  |
| Ste．Anne des Monts．．．．．．．．．．．．．．．． | 131 | 3，153 | $24 \cdot 07$ | 281 | 9 | Four grilse weighing 25 lbs． |
| Cape Uhatte．．．．．．．．．．．．．．．．．．．．．．．．． | 4 | 78 | $19 \cdot 50$ | $23^{2}$ | 17 |  |
| Magdalen．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 31 | 632 | $20 \cdot 38$ |  |  |  |
| York．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 41 | 889 | $21 \cdot 68$ | 39 | 8 |  |
| St．John．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 25 | 384 | 15．36 | 32 | 8 |  |
| Dartmouth．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 4 | 712 | $17 \cdot 87$ | 26， | 32 |  |
| Grand．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 38 | 501 | $13 \cdot 18$ | 332 | 5 |  |
| Grand Pabos．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  |  | None． |
| Little do ．．．．．．．．．．．．．．．．．．．．．．．．． | 4 | 40 | $10 \cdot 00$ | 12 |  |  |
| Bonaventure．．．．．．．．．．．．．．．．．．．．．．．．．． | 23 | 356 | $15 \cdot 47$ | 28 | 8 |  |
| Little Cascapedia．．．．．．．．．．．．．．．．．．．．． | 295 | 8，187 | $27 \cdot 07$ | 43 | 10 | No returns． |
| Matapedis．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 103 | 8,187 2,472 | $27 \cdot 07$ 24.00 | 43 | 10 |  |
| Upealquitch．．．．．．．．．．．．．．．．．．．．．．．．．． | 11 | 132 | 12.00 |  |  |  |
| Kedgwick ．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 16 | 192 | $12 \cdot 00$ |  |  |  |
| Ristigouche Division No．1．．．．．．． | 90 | 1，471 ${ }^{2}$ | $16 \cdot 35$ | 392 | 6 | 93 grilse． |
| do do 2．．．．．． | 2 | $45^{\circ}$ | $22 \cdot 60$ | 23 | 22 |  |
| do do 3．．．．．． | 60 | 892 | $17 \cdot 84$ | 33 | $6 \frac{1}{2}$ |  |
| do do 4．．．．．． | 21 | 3462 | $16 \cdot 50$ |  |  |  |
| $\begin{array}{lll}\text { do } \\ \text { do } & \text { do } \\ \text { do } & \text { d．．．．．．．}\end{array}$ | 49 | 1，132 ${ }^{\text {a }}$ | $23 \cdot 11$ | 38 | 82 |  |
| $\begin{array}{lll}\text { do } & \text { do } \\ \text { do } & \text { do } & 7 \ldots . . \\ \text { do }\end{array}$ | 28 | 540 | $19 \cdot 28$ | 31 | $10^{2}$ |  |
| $\begin{array}{ll}\text { do } \\ \text { do } & \text { do } \\ \text { do } & 7 \ldots \ldots . \\ \text { do }\end{array}$ | ．．．．． |  |  |  |  | None． |
| do do 9．．．．．． | 114 | 2，678 | 23＇50 | 42 |  | 39 griss？． |
| Total．．．．．．．．．．．．．．．．．．．．． | 1，612 | 31，254 | $19 \cdot 38$ | 43 | 3 |  |

## FISH-BREEDING.

Mr. S. Wilmot's Report and other detailed statements connected with FishBreeding operations during the year 1881 will be found in a soparate volume.

Schedule of Fishery Officers in the Provinces of Ontario, Quebec, Nova Scotia, New Brunswick, Prince Edward Island and British Columbia, appointed under the Fisheries' Act (1868), with Districts, Post Office Addresses, Salaries, etc., etc., distinguishing those who, being Fishery Overseers, are instructed to act ex-officio as Magistrates, from those who act in the capacity of Fishery Wardens, and do not exercise magisterial powers

## PROVINCE OF ONTARIO.

| Name. | Distret. | Adress. | Overseer or Warden. | Salary. |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\$ \mathrm{cts}$ |
| T. McGarrity | Counties of Stormont and Glengarry... |  | Orerseer.. | 5000 |
| William Pool | Prescott to Roch P , rt...... ................. | (renadier lsland | do | 5000 |
| Henry Hunt......... | Larue's Island. | Rock port | Warden | 2000 |
| John Wallace...... | Lindoe Island. | Lansduwn |  | 5000 |
| J D. Mcdillan..... | Lake St. Francis, from Cornwall to Coteau du Lac, on the north side, and from St. Regis to Valleyfidd, on the sonth side, including lake St. Francis and Sa!mon and La: Guerre Rivers. | Dumdee. P. $\mathrm{P}^{\text {a }}$ | \\|verseer.. | 5000 |
| O. Mirom | Sonth Nation River, in the County of Prescott | ('urran. |  |  |
| Juhn Mooney | Brock ville to Cornwall. | Prescott |  | 80000 |
| John Cox | Howe Island ..... ..... | Howe lslan |  | 5000 |
| Peter Kiel........... | Wo fe Island and the southern part of the Uounty of Prontenac, comprising the Townships of Storrington, Pittsburgh and Kingston.... |  | do |  |
| Jus. Redusond...... | The County of Prince Edward.......... | Picton |  | 30000 |
| Charles Uilchrist. . | Rice Lake and part of Lake Ontario, fronting on the County of Norti-1 umberland $\qquad$ | Port Hope......... ........ |  | 40000 |
| W. II. Johnston.... | Charlestun hake, Gananoque Lake and River. $\qquad$ | Farmersvilic ............. |  | 40000 5000 |
| James Greer........ | Ghnanoque Rivec............................ | U arburton | du | 4000 |
| (ieo. B. McDermot. | Lake Scugog, including Lindsay or Scugrog River to its mouth............. | Port Perry................. |  | 10000 |
| John A. Cameron. | That part of the County of Frontenac, north of Loughboro' Lake. | Westport ................. |  | 100 or |
| A. D. Sills........... | Lake shore and inland waters, County of Lennox and Addington, including Amberst Isiand.. | Napance................... | do | 15000 |
| Charles Wilkins... | Waters of the Bay of Quinte frouting on County of Hastings, and from Carrying Place eastward to Mill |  |  |  |
|  | Point, in the Co. of Prince Edward | Belleville. |  | 300 CO |
| James G. Wiicor.. | River Credit, from mouth of riser up to Norval | Port Credit. |  | 5000 |
| Andrew Ifughson.. | River Credit, from Urangeville to Norval, together with the Tuwn ships of Mono, East Gurafraxa, Allion, Amaranth Luther and Caledon to Church's Mills Cataract. | Oranreville ...... ......... | do |  |
| Jolin W. Kerr. ..... <br> W. A. MeCrae...... | Whitby Harbour to Moulton Bay....... Grand River from mouth of Caledonia and that part of Lake Erie extending from Soutl Cayuga to Moulton Bay.. | Hamilton.................... |  | $\begin{array}{r} 50 \\ 500 \\ 00 \end{array}$ |
|  |  |  |  | 10000 |
|  | Carried forward. | Dimnville............ ..... | do | 2,840 00 |

## Schedule of Fishery Off ers in the several Provinces, \&c.-Continued.

PROVINCE OF GFTARIO-Continued.

| Name. | District. | Addrese. | Urerseer <br> or <br> Warden. | Salary. |
| :---: | :---: | :---: | :---: | :---: |
|  | Drought forward. |  |  | $\begin{gathered} \$ \mathrm{cts} \\ 2.840 \end{gathered}$ |
| Clias L. Bingham | That part of the (:ounties of Norfolk and Haldimand fronting on Lake Erie and extending from the division line between the Counties of Elgin and Norfolk to the division line between the Townships of Rainham and South Cayuga. $\qquad$ | Rowau Mills. | Urerseer.. | 25000 |
| Alex. McBride ...... | That part of Lake Erie fronting on the County of Elgin. | Port Burwell.............. |  | 5000 |
| John McMichael.... | Lake Erie frontage, County of Kent... | Rond Eau.. | do | 5000 |
| John Cummins..... | Point Pelcée Island. | Kingsville. | Warden ... | 5000 |
| Wm. Prosser......... | Lake Erie, from mouth Detroit River to Point Pelée. |  |  | 3000 |
| E. Boismier. | Baptiste Creek, on Lake St. Clair, to mouth of Detront River. $\qquad$ | Sandwich | Overscer. . | こi) 00 |
| Anedee Quenneville................. | That part of Lake St. Clair extending from Stouy Point to the division line between Dover East and West, including the mouth of River Thames | Stony Point. | Warden ... | $29)$ |
| Timothy McQueen. | Mouth of Thamea River to Lewisville. | Chatham..... | Overseer.. | 5000 |
| Angus Brady. ...... | Thames Rirer, from Lewisville to Cashmere. | Bothwell |  | 4010 |
| Peter McCann ...... | Thames River, from Thamesville to London. $\qquad$ | London |  | 20000 |
| P. McCarron....... | Sydenham Rirer and tributaries........ | Wallaceburg. |  | 10000 |
| J. B. Moody ........ | North Branch, Sydenham River, from its juaction with the main river at Wallaceburg, to its source............. | Waubuno ........ ........ | do ...i | 5100 |
| Chas. W. Raymond | Lake St. Clair.............................. | Mitchell's Bay...... ...... | do | 50 610 |
| David McMaster,... | Baby's Point, on River St. Clair, to Kettle Point, on Lake Huron ......... | Saraia. | do ... | 20000 |
| A. C. Mckinnon... | Kettle Point to Point Clarke, Lake Huron. | Godericlı.................. | do | 10000 |
| James Muir. ........ | Point Clarke to Cape Hurd, including adjacent islands. | Port Elgin... |  | 10000 |
| Geo. S. Miller. | Owen Sound to Cape Hood | Owen Sound. |  | 10000 |
| James Patton. | Collingwood to Point Rich | Collingwood | do | 25000 |
| Samuel Fraser...... | Point Cockburn to Moose Point........ | Midland |  | 10000 |
| Wm. McGown ...... | From Moose Deer Point to Byng Inlet, Georgian Bay. $\qquad$ | Parry Sound | Warden ... | 5000 |
| G. B. Abery ........ | Manitoulin Islands and adjacent islands in Lake Huron................... | Little Current. | Orerseer .. | 10000 |
| Jos. Wilson......... | Thessalon River, Lake Huron, to Slate Island, Lake Superior | Sault Ste. Marie.......... | do | 10000 |
| James Dickson..... | Slate Island to Pigeon River, Lake Superior | Prince Arthur's Land 'g |  | 10000 |
| Alex. MeKenzie.... | Lake Simcoc and tributaries............ | Barrie. |  | 15000 |
| Wm. Hastings ...... | Lake Simeoe, fron Cook's Bay to Beaverton $\qquad$ | Roach's Point ........... |  | 5000 |
| Wm. McDermott... George Cochrave . | Co. Simcoe............................. ...... | Beeton... .... ....... |  | 2500 |
|  | Inland waters, Co. Peterborough, including Pigeon, Deer, SalmonTrout, Stony, Sturgeon and Chemong Lakes. | Lakicfield.................. | do | 25000 |
|  | Carried formard.................. |  |  | 5.70500 |

Sshedule of Fishery Officers in the several Provinces, \&c.-Continued.

PROVINCE OF ONTARIO-Conelusted.

| Same. | District. | Address. | Overseer or Warden. | Salary. |
| :---: | :---: | :---: | :---: | :---: |
|  | Brought furwarl |  |  | $\begin{gathered} \$ \text { cts. } \\ 5,70500 \end{gathered}$ |
| John Dauncey ...... | Upper Division or East Riding, Co. Peterborough, comprising waters of Gull and Burnt Rivers and tributaries, together with Drag, Eagle, Moose, Redstone, Crooked and other lakes within such limits......... | Mindon ......... ........... | Orerseer .. | 10000 |
| J. R. Graham...... | Inland waters, N.R., County Victoria, north of Sturgeon Lake, and above Fenelon Falls.. $\qquad$ | Victoria Road | do ... | 10000 |
| James McFadden.. | Mississippi River and Lake ............... | Carleton Place........... |  | 3000 |
| Andrew Telfer...... | Bonnechere River and Lakes, County Renfrew $\qquad$ | Bristol Corner. P.Q. ... | do ... | 5000 |
| W. P. Croome ...... | Grand River and its tributaries from Brantford upwards. | Brantford. ................. | do | 10000 |
| Wm. E. Foot. ...... | Lakes Muskoka, Rosseau, Joseph, Lake of Bays and the Maganetawan River | Bracebridye....... ....... | do ... |  |
| Wellington Hull ... | The Rivers Credit and Speed, with their tributaries, in the Townships of Tramosa, Erin, Caledon and Esquessing.. | Eria ................ ...... | do | 5000 |
| W. D. Pollock..... | Twelve and Sixteen Mile Creeks, in the County of Halton. | Bronte...................... | Warden ... | 3000 |
| Hugh McFayden... | Head waters of Saugeen River, and tributaries | Durbam .................... |  | 4000 |
| Geo. Jeacles......... <br> A. E Mills | Rideau Lakes................................ | Westport................... | do ... | 7500 |
| A. E. Mills. ........ | Rideau River and Canal | Smith's Falls............. | do ... | 5000 |
| John Morrow. ....... | Upper and Lower Bever | Delta | do ... | 4000 |
| Jno. R. McDonald. | Mpper Madawaska Madawaska River. | Dacre . |  | 2500 50 |
| M. L. Russell....... | Bonnechère River................................. | Renfrew |  | 2500 |
| Thos. McKibbon ... | Mink and Doré Lakes, Renfrew ......... | Eganville ......... ........ | do | 2500 |
| Geo. Douglas...... | Muskrat Lake and Snake River, Renfrew $\qquad$ |  |  | 2500 |
| Arch. Acheson..... | Lower Allumette and Coulonge Lakes. | Westmeath |  | 2500 |
| John Grant......... | Upper Allumette to Des Jouchims, including Petawawa River | Forester's Falls.......... | do | 7500 |
| Ephraim Deacon... | River Tay, Co. Lanark.................... | Bolingbroke ......... ..... |  | 5000 |
| Wm. Boucher. .... | Waters of Co. Carleton........................ | South March................ | do | 10000 |
| W. B. Jelley......... | Co. Wellington. | Bowling Green............ | do | 4009 |
| W. Helliwell........ | Long Point ....... .......... .................. |  | do | 5000 |
|  | Co. York..................................... | Highland Creek......... | do | 10000 |
|  | Total .. |  |  | 7,085 00 |

province of quebec.

| Wm. Wakcham.... | Lower St. Lawrence River and Gulf.. | Gasuć Basin | $\left\lvert\, \begin{aligned} & \text { Officer } \\ & \text { charge of } \\ & \text { Fin } \\ & \text { Preries } \\ & \text { Protection } \\ & \text { Service in } \\ & \text { Gulfa } \\ & \text { Lud } \\ & \text { Lower St. } \\ & \text { Lawrence. }\end{aligned}\right.$ | 1,200 00 |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 1,200 00 |

## Schedule of Fishery Officers in the several Provinces, \&c.-Continued.

PROVINCE OF QUEBEC-Continued.

| Name. | District. | Address. | $\begin{aligned} & \text { Overseer } \\ & \text { or } \\ & \text { Warden. } \end{aligned}$ | Salary. |
| :---: | :---: | :---: | :---: | :---: |
|  | Bronght forward................. |  |  | $\begin{array}{cc} \$ & \text { cts. } \\ 1,200 & 00 \end{array}$ |
| C. F. Caron | Point Levis to Ri | L'Islet. | Overseer... | 20000 |
| Jules Gauvreau.... | River Onelle to Point à la Loupe, Green Island | Isle V er |  | 10000 |
| II. Martin............ | Point à la Lonpe, Green Island, to Rimouski River (same included)..... | Rimous |  | 10000 |
| I. E. Grondin | Rimouski to River Blanche ............... | do |  | 10000 |
| Vital Charest...... | River Blanche to Cape Chatte | Matane | do ... | 10000 |
| George Gagnon.... | [nland waters, County Témiscouata.. | St. Epiphane...... | Warden ... | 3000 |
| Philcas Dubó ...... | Lake Témiscouata and neighbouring waters, County Tćmiscouata.. | Not |  | 3000 |
| Alfred Blais......... | Lake Matapedia and River Matapedia to Causapscal | Cansapscal............... | 0 verseer .. | 10000 |
| J. J. Letourneau... | Cape Cbatte to biver Ste. Anne des Monts $\qquad$ | Ste. Anne des Monts... |  | 10000 |
| P. Vibert, jun....... | York, Dartmoutl and St. John Rivers, Gaspé Basin, to Point Maquereau.... |  |  | 20000 |
| John Phelan........ | Point Maquereau to Paspebiac Point.. | Port Daniel |  | 50 0n |
| John Cullen ........ | Paspebiac Point to Maguasha Point... | Carleton.. |  | 20000 |
| John Mowat ......... | The Ristigouche Rivers, in the Counties of Rimouski and Bonarenture, including also the waters of Baydes Chaleurs...... ................................ | Dee Side, Matapedia.... | do | 40000 |
| L. P. Huot. ......... | Lakes Philippe, Gagné and adjacent Lakes, and the Island of Orleans.... | St Roch, Quebce...... | do ... | 10000 |
| U. Bhéreur.......... | River du Goutfre to Canard liver. including iniand Lakes adjacent to Murray Bay and St. Paul's Bay...... | Murray Bay .............. | do |  |
| Etienne Tremblay. | \} Lakes in rear of Murray Bay and | Bay st. Paul.............. | Warden |  |
| Jos. Simard......... | $\}^{\text {Lay St. Paul......................... }}$ | St. A gnés ................. |  |  |
| Jos. Radford......... | Counties of Chicontimi aud Saguenay | Tadoussac | Overseer... | 20000 |
| Jacques Girard, | Grand Bay................................... | Grand Bay | Warden ... | 10000 |
| Romuald Maltais... | Lake St. John | Alma | do | 5000 |
| Chas. Potvin. |  | Roberval. |  | 5000 |
| Job Bilodeau | Lake St. Joln and tributaries, Upper <br> Saguenay | Metabechou |  |  |
| Joseph Boily........ | Escoumains to Bersimis.................... | Mille Vaches.. |  |  |
| F. Duchesne ......... | North Shore, from Manicouagan to Point des Monts, including Becscie, Mistassini and Godbout Rivers....... | Chicouti | do | 15000 |
| J. O. Belanger ..... | North Shore, River St. Lawrence, from Point des Monts to Baie des Ruchers, including Trinity and Pentecost Rivers.. | Montmagny | do | 15000 |
| Gr. Mathurin ......... | Moisie District, from Point Jambon to Point St. Ubarles, including Moisie River. $\qquad$ |  | Overseer .. | 15000 |
| G. L. Duguay. | Esquimaux Point to Sheldrake River. | Murıay Bay............... |  | 10000 |
| W. McLeod. ......... | Washeecootai Division, comprising the Rivers Kegashca, Musquarro, Washeecootai and Olomanosheeboo | L'Islct. |  | 10000 |
| P. C. Gobeil ........ | Watsheehoo District, from A teepetal Bay West to Little Watsheehoo River East | St. Pamphile ............. | Warden . | 15000 |
| T. Mignault......... | Western Division Natashquan, including River Agwanus, Nabissippi and Natashquan $\qquad$ | Montmagny. .............. | Overseer. . | 15000 |
|  | Carried forward............. |  |  | 4,610 00 |

## Schedele of Fishery Officers in the several Provinces, \&c.-Continued.

PROVINCE OF QUEBEC-Continued.

| Name. | District. | Address. | Orerseer or Warden. | Salary. |
| :---: | :---: | :---: | :---: | :---: |
| , | Brought forward........... |  |  | $\underset{4,610}{\$} \text { cts. }$ |
| J. Legouve ......... | St. Augustine Division, from Cape Whittle to Checatica. | Gaspe Basin .............. | Warden ... | 10000 |
| W. H. Whitely.... | Bonne Espérance Division, from Che catica to Blanc Sablon. | Bonne Espérance........ |  | 10000 |
| Ant. Cbevrier....... John Morris....... | Magdalen Islands...... ........................ | Amherst ................... | Overseer. | 10000 |
| John Morris......... | River St. Lawrence around Island of Montreal | St. Lambert. |  | 20000 |
| R. W. Jones ......... | Ottawa River from Oka to Carillon, North side. |  |  | 4000 |
| Jos. I. Lamoureux. | Ottawa River, from Oka to Carillon, South side | St. And | do do do | 4000 4000 |
| Jos. Lauzon | River Jesus and Des Prairie | Terrebonne |  |  |
| W. C. Willis........ | Waters in Districts of St. Francis...... | Sherbrooke | do | 15000 |
| II. W. Austin........ | Richelieu River and tributaries from Sorel to St. John. |  |  |  |
| N. A. Beach ........ | Lake Memphremagog, in the Counties of Stanstead and Brome | Georr |  |  |
| J. B. Cheralier..... | Richelieu River, from St. Jobn to Lake Champlain | Georgeville............... | do ... | 10000 |
| Pierre Latraverse. | Lake Champlain............................ <br> That part of the River St. Lawreace bordering on the Counties of Richelieu, Yamaska and Berthier, in the Proviace of Quebec, including Sore and adjoining Islands. $\qquad$ | Iberrille. | Wo ... | 15000 |
| Olivier Lafleche.... | That part of the River St. Lawrence fronting Counties of Berthier and Maskinongé $\qquad$ | Loriseville. | Warden | 10000 |
| M. IIurteau | Vercheres and L'Assomption Counties | Contreeæur .................. |  | 4000 |
| I. J. Loranger...... | The inland waters of the County of Terrebonne $\qquad$ | St. Sanveur . | Oversc | 2500 |
| P. E. Luke . ......... | Missisquoi Bay in Lake Champlain and Pike River | Phillip | do ... | 15000 |
| J. B. McDonald.... | Lake Megantic...................................... | Phillipsburg ............... Echo Vale............. |  | $5000$ |
| J. F. Picotin........ | St. Prancis River.. | Drummond ville............. | Warden... | $\begin{array}{r} 10000 \\ 2500 \end{array}$ |
| Wm. Clyde......... | Chateauguay River and tributaries.... | Buntingdon | Warden ... Overseer. . | $\begin{array}{ll} 2500 \\ 50 & 00 \end{array}$ |
| J. Laberge.......... | River Chateauguay, from mouth to village $\qquad$ | Chateauguay Basin | Overseer.. |  |
| Alexander Beaton. | The inland waters in rear of the County of Argenteuil. | Lost River, P.O., Har- |  | 5000 |
| Thomas Evans..... | Inland waters of the Townships of Gore, Wentworth and Howard, in the County of Argenteuil, and those of the Scigniory of Mille Isle and Township of Morin, in the County of Terrebonne. | ringto | do | 3000 |
| P. C. Ducharme... | The inland waters of the Counties of Joliette and Berthier $\qquad$ |  |  |  |
| Jos. Marion......... | County of Ottawa............................. | St. Felix de Valois..... | do | 10000 |
| Louis Lachapelle. | St. Mary's Lake, County of Ottaka... | St. Mary's Lake............. | Warden | 20000 |
| V. Veilleux,........ | Inland waters of the County of Beauce | St. Mary St. Ephrim de Tring | Wardeu | 3000 |
| James Mobr.......... | The waters of the County of Pontiac, from Ottawa County line, west to River Coulonge. $\qquad$ | St. Ephrim de Tring... | do | 4000 |
| J. T. Coghlan ...... | The waters of the County of Pontiac, from River Coulonge, west to Des Joachims $\qquad$ $\qquad$ $\qquad$ | Waltham .................. | Orerscer. . do | 4000 4000 |
|  | Carried forward... |  |  | 7,190 00 |

Schedule of Fishery Officers in the several Provinces, \&c.--Continued.

## PROVINCE OF QUFBEC-Concluded.

| Name. | District. | Adiress. | Overseer or Warden. | Salary. |
| :---: | :---: | :---: | :---: | :---: |
|  | Brougl t forward............... | $\ldots$ | .............. | $\begin{array}{cc} \$ & \text { cts } \\ 7,190 & 00 \end{array}$ |
| D. D. Foster........ | Brome Lake......,........................... | Knowlton.................. | Warden ... | 2500 |
| U. Barbeau......... | Ottawa River. | Ottawa..................... | Overseer.. | 20000 |
| A. Campbell........ | Lochaber Bay. | Locbaber Bay............ | do ... | 100 0, |
| Robt. Joynt. ........ | Lake Bernard............................... | Jognt P.O................. | Guardian. | 2500 |
|  | Total.......................... |  |  | 7,540 00 |

PROVINCE OF NOVA SCOTIA.

| W, I. Rogers...... | Nora Scotia....... ............ ............. Annupolis County. | Amheret................ | Inspector of Fisheries $\qquad$ | 1,400 00. |
| :---: | :---: | :---: | :---: | :---: |
| W. T. Carty ........ | Annapolis County......................... | Annapolis................. | Overseer .. | $1 \geqslant 000$ |
| A. F. Morton........ | Annapolis River | Wilmot......... ............ | Warden ... | 35010 |
| Geo. Vroom......... | Bear River (South side)................... | Bear River .................. | do . | 2500 |
| Wm. Croscup ....... | Bear River (North side)................... | do ................. |  | $2500 \times$ |
| W. A. Rice ......... | Annapolis River ........................... | Bridgetown ............... |  | 3500 |
| W. M. Bailie........ | Round Hill.... .............. ............. | Round Hill .......... .... | do ... | 2500 |
| M. Riordan ......... | Annapolis and Langille Rivers......... | Annapolis ... . | do ... | 2500 |
| T. R. Ilsley ......... | From Lawrencetown to County line... | Williamstown ..... ...... | do ... | 2500 |
| Albert Barteaux... | Nictaux River ....... ....................... | Nictaux Falls . | do | $25^{6} 61$ |
|  | Antigonish Coun'y. |  |  |  |
| Joln McDonald . | Antigonish Count | Antigonish | Orerseer.. | 1:500 |
| Angus McDonald.. | From mouth of Harbour to foot of Marsh, thence up Tracadie stream to lake, from Marsh up to Monastery Brook, including French Settlement Brook and Tarbitts. | Tracadie ......... ........ | Warden ... | 1.500 2500 |
| J. R. Aymer ......... | From mouth of Harbour to Forks, from thence on the Pomquet River to V . Chisholm's Mills, and from looks on the Black River to Falls.. | Pomquet Forks, Antigonish $\qquad$ |  | 2.500 |
| Albert Randall. | From shore to lake ........................ | Bayfield, W. O.. ......... |  | 1500 |
| Colin Chisholm. | From Antigonish Harbour to McWilliam's or St. Andrew's Bridge......... | Lower South River, Antigonish.............. | do ... | 2501 |
| Lochlin Cameron.. | From McWilliam's Bridge to Fraser's Bridge, inclading Big Brook........... | Upper South River, Antigonish .......... ... | do ... | 3000 |
| John Cumming .... | From Fraser's Bridge to County line at head of lake $\qquad$ | Upper South River, Antigonish ....... ...... | do | 30010 |
| John Dexter ......... | From Antigonish Harbour (foot of Marsh), to Trotter's Mill Brook, thence up said Brook to Trotter's Mill, inclading both branches of West River and Bailey's Brook. | Antigonish .............. | do | 3000 |
|  | Carried forward................. |  |  | 2,01500 |

Schedule of Fishery Officers in the several Provinces, \&c.-Continued.

PROVINCE OF NOVA SCOTIA-Continued.


## Schedule of Fishery Officers in the several Provinces, \&c.-Continued.

## 1

PROVINCE OF NOVA SCOTIA-Continued.

| Name. | District. | Address. | Overseer. or Warden. | Salary. |
| :---: | :---: | :---: | :---: | :---: |
|  | Brought for ward $\qquad$ Colshester County-Concluded. |  |  | $\begin{gathered} \$ \text { cts. } \\ 2,980 \quad 00 \end{gathered}$ |
| H. Gass .............. | Northern Division, Co, Colchester, comprising Tatamagouche Bay, French and Waugh's River............ | Tatamagoucbe........... | Overseer | 5000 |
| J. W. Davison ... | Colchester County, West Division...... | Upper Economy ......... | do | 10000 |
| Daniel McKay .... | Waugh's Rivers. ............................ | Tatamagouche River... | Warden | 5000 |
| Robt. R. Fulton.... | De Bert River............... ................ | Londonderry ............. | do | 2500 |
| T. Davidson, 2nd. | Portaupique | Portaupique, W. O...... |  | 2500 |
| George Moore...... | Economy River... .......................... | Economy .......... ........ | do ... | 2500 |
| Mat. G. Murray .... | Salmon River. | Truro ........ | do ... | 2500 |
| William Winton ... | Lower Stewiacke River. | Lower Stewiacke | do | 2500 |
| Alfred Wright ...... | do . do ................ | do | do | 2500 |
| Henry Blair......... | Eastern Division, County Colchester. | North River | Overseer. . | 10000 |
| Henry Urqubart.... | Folly River | Londonderry ............. | Warden ... | 2500 |
| Samuel Frame...... | Shubenacadie River and Gay's River. | Shubenacadie River.... | do .... | 2500 |
|  | Cumberland Counly. |  |  |  |
| G. W. Gilroy. ...... | Cumberland Co., Eastern Division, embracing all streams emptying into the straits of Northumberland......... | Oxford. |  | 10000 |
| Oliver Fillmore.... | River Philip, Hanam's Falls, upwards | River H bilip ................ | Warden ... | 2500 |
| John W. Moore .... | do do downwards | do | do ... | 2500 |
| Thos. R. Smith..... | Shinimicas River........ | Shinimicas River......... | do ... | 2500 |
| F. W. Lowther..... | River Philip........ ......................... | River Philip ........ ...... | du | 2500 |
| James King......... | Cumberland County, Western Division, including all streams flowing into the Bay of Fundy.................... | Amberst | Overseer. . | 10000 |
| Darid Corbett ...... | Laplanche and Nappan Rivers.......... | do $\qquad$ | Warden ... | 2500 |
| Moses Harrison..... | Maccan River ...... ..... ..................... | Maccan, W. 0 |  | 2500 |
| U. Pugsley ......... | River Hebert................................. | River Hebert................ | do ... | 2500 |
| Francis L. Jenks.. | Parrsboro' Head ......... ................... | Parrsboro'. | do ... | 2500 |
| Wm. Marphy ...... | Wallace River ............................... | Wallace | do ... | 3000 |
| Elijah Fowler...... Samuel McPberson | Diligent, Ramshead and Fox Rivers, including fisheries from Partridge Island to Spencer Island................ | Diligent River, l'arrsboro'. $\qquad$ <br> Pugwash River |  | 3000 2500 |
|  | Digby County. |  |  |  |
| Wm. Hanley........ | Digby County .............................. | IIillsburg. .................. | Overseer .. | 12000 |
| Abraham L. Gavil. | Joggins River....................... ........ | Digby:........... ........... | Warden ... | 2500 |
| Lochlin McKay .... | St. Mary's Bay ........ ................... | St. Mary's Bay, W.O... | do ... | 2500 |
| Robert Journey..... | Sissaboo River.............................. | Weymouth............ | $\text { do } \quad . .$ | 2500 |
|  | Briar and Long Island. $\qquad$ Guysborough County. | Brier Island...... | Overseer .. | 5000 |
| James A. Tory..... | Guysborough County .................... | Guysborougli............. | Overseer .. | 15000 |
| James Cook.......... | Salmon River, from mouth to Graham's West Line. | Salmon River, W.O.... | Warden... | 2500 |
| James McEllum .... | From Graham's West Line to foot of Neil's Lake, including North Branch and Lake. $\qquad$ | do .... |  | 2000 |
|  |  |  |  | 4,40500 |

Schedule of Fishery Officers in the several Provinces, \&c.-Continued.

PROVINCE OF NOVA SCOTIA-Continued.

| Name. | District. | Address. | Orerseer or Warden. | Salary |
| :---: | :---: | :---: | :---: | :---: |
|  | Brought forward $\qquad$ Guysborough County-Concluded. | ......... ........ .............. |  | $\begin{gathered} \$ \text { cts. } \\ 4,405 \quad 00 \end{gathered}$ |
| Charles Kenny ..... | From foot of Neil's Lake to Bearer Dam Lake, inclusive, and all the lakes through which it passes......... | Salmon River, West Branch, Guysboro'... | Warden.... | 1500 |
| Donald Gunn....... | From mouth of Scott's Place to Country Harbour Lake, including Gunn's Brook, from Main River to Hurley's Lake $\qquad$ | Cross Roads .............. | do ... | 3000 |
| William Pride. | From mouth of St. Mary's River to Sinclair's Point, including stream from Wine Harbour to Lake ......... . | Sherbrooke, St. Mary's | do ... | 3000 |
| Thomas Mckeen ... | From Forks to County Line, including McQueen's Mill and Brook, to Lake $\qquad$ | Melrose . ................... |  | 3000 |
| J. L. Smith. | From Forks to lndian Man's Brook.... | West River | do | 2500 |
| Robert McKay ...... | From bead of tide to bead of Interrale, on the North Branch, and to Cameron's Mill, on the Valley Branch. | Guysborongh, Inter- |  |  |
| James R. Bruce |  | vale, W.O...... | do ... | 1500 |
|  | to \#pper Falls ............................ | Guysborough............. | do | 1000 |
| James Nickerson... | From Beach to Falls, including North West Brook |  |  | 1500 |
| D. A. McDonald... | St. Mary's River ..................................... | St Mary's River, Sher- |  | 1500 |
| Allan McQuarric... | District of St. Mar | brooke. Sherbrooke | $\begin{gathered} \text { do } . . . \\ \text { Overseer. } \end{gathered}$ | $4000$ |
| Adam Kirk. ........ | St Mary's River, extending from Alex. Rosa' (above still waters) to Hugb Halters', on the West River............ |  |  |  |
| Wm. McDonald.... | St. Mary's River.............................. | Stillwater | $\begin{aligned} & \text { arden ... } \\ & \text { do } . . . \end{aligned}$ | 2900 |
| 1). McC. Sinclair... | From Sinclair to Headwater. . ............ | Goshen....................... | do | 2000 |
| Luke Tarpell ..... | From mouth to bead of Indian River.... | Indian River, St, Mary's District. $\qquad$ | do ... | 1500 |
| D. Cameron, sen... | West River, St. Mary's, from Wallace Bridge to head of River. |  |  | 2000 |
| Fraderick Mattic... | Tracadie River, in Counties of Guysborough and Antigonish. | Upper Caledonia........ |  | 2000 |
| Angus Cameron... | East River, St Mary's | Antigonish ............. | do | 1500 |
| John Jones.......... | Mouth of Salmon River |  |  | 2500 |
| James Henderson. | Isaac Harbour and River ..................... | lsaac Harbour. |  | 2500 |
| Samuel Hudson (Lewis' son)...... | Country Harbour River, from Bridge at Nirrows to mouth.. | Couac Harbour. ... |  | 2500 2500 |
| John J. Sangster... | From New Harbour to Ifaac Harbour. including harbours, rivers and lakes between these places. | Country Larbour.. |  | 2500 |
| Jas. Harrigan.junr. | Cole IIarbour River .. .......................... | Coddel's llarbour. ...... Cole Harbour............. | $\begin{array}{ll} \text { do } & \ldots \\ \text { do } & \ldots . \end{array}$ | $\begin{aligned} & 2500 \\ & 2500 \end{aligned}$ |
|  | Malifax County. |  |  |  |
| William Anderson | Halifax County, East Division, Dartmouth to Ecum Secum $\qquad$ | Musquodoboit Harbour. | Overscer .. | 15000 |
|  | Carried forward. |  |  | 5,140 00 |

Schedule of Fishery Officers in the several Provinces, \&c.-Continued.

PROVINCE OF SOVA SCOTIA-Continued.

| Name. | District. | Address. | Overseer or Warden. | Salary. |
| :---: | :---: | :---: | :---: | :---: |
|  | Brought forward. <br> IHulifax County-Concluded. | ……......... ........... |  | $\begin{gathered} \$ \text { cts. } \\ 5,140 \end{gathered}$ |
| James Blakely ...... | From Ship Harbour to Chezzetcook, inclusive. | Ship liarbour | Warden ... | 3000 |
| Wiliam Hall | Sheet Harbour | Sheet Harbour |  | 4000 |
| .John Fitzgerald.... | Halifax Harbour to Margaret Bay, Portuguese Cove. | Portuguese Cove......... | Overseer.. | 15000 |
| Archibald Kidston | From Peggy's Cove to Terrance Bay, Nine Mile and Prospect Rrivers...... | Spryfield ................... | Warden ... | 4000 |
| Nathaniel Mason... | From Hubert's to Peggy's Cove, Margaret Bay, Ingraham and Indian Rivers.. | Margaret Bay, Peggy's |  |  |
|  |  | Cove, W.0. ............ |  | 4000 |
| Daniel Mosher. | Cow Bry Run....................... ........ | Cow Bay, Dartmouth... |  | 2000 |
| Jonald McCleam.. | Chezzetcook River......................... | Chezzetcook River ...... | do | 3000 |
| Henry Balcam...... | Salmon River .... .......................... | Salmon River............. | do | 3000 |
| Geo. McLeod | Middle Musquodoboi | Middle Musquodoboit... | do | 3000 |
| P. Hugbes..... | Tangier River. | Tengier River............ | do | 3000 |
| Hy. A. Shatford.... | Pennsnt River | Hubbard's Cove ......... | do | 40 0) |
| Jas. Gardner....... | Musquodoboit Harbour...... ............. | Musquodoboit Harbour. |  | 3000 |
| John Taylor ........ | Little Musquoduboit River | Little Musquodoboit River |  | 3000 |
| Geo. Parker ......... | Opper Musquodoboit ...................... | Opper Musquodoboit |  |  |
| John Frazer ......... | Moser's River and Ecum Secum and smith's Brook $\qquad$ | Moser's Rive |  | 3000 |
| Geo. Keizer. | Lake Yorter and streams ......... ........ | Lake Porter............... | do | 3000 |
| Wm. Geo. Walker. | Little Salmon River ........................ | Little Salmon Rirer, Preston Road .......... |  | 2000 |
| .James Crook ........ | Bir Salmon River or Lawrencetown River $\qquad$ <br> Sack ville River | Lawrencetown |  | 2500 |
| F. G. Tolson........ | Sack ville River....................... ...... | Sack ville River . ......... |  | 4000 |
|  | Hrants County. |  |  |  |
| 1. S. Burnham..... | IJants County. Weatern Division, from Western County Line to Walton.... | Windsor | Overseer .. | 10000 |
| John B Colter..... | Shubenacadie River ...................... | Milford | do ... | 3000 |
| James Mosher ...... | Rivers Meander and Hebert, from mouth to source $\qquad$ | Brooklyn ............ .. | Warden ... | 3000 |
| 'T. B. O'Brien....... | East Division, from Walton to Colchester Line.. | Maitland...... ........... | Overseer | 10000 |
| Soseph Mosher..... | Kennetcook River, from mouth to head of tide $\qquad$ |  | Warden |  |
| Joseph M. O'Brien. | Walton and Kennetcook Rivers......... | Maitland........................... | do | $\begin{array}{ll} 50 & 00 \\ 3000 \end{array}$ |
|  | Inverness County. |  |  |  |
| Jas. Coady .......... | Inverness County, East Division ....... |  | Overseer .. | 10900 |
| David Ross | do do pi....... | N.E. Margarce ............ | do ... | 10000 |
| Miles McDasiel .... | From mouth of Margaree River to South-west Chapel. | Forks, Margaree, W.O. | do ... | 2500 |
| Neil McKay......... | Upper Waters and tributaries, Margaree River. |  |  | 2500 |
| D. F. McLean....... | Inverness County, Western Division. | Port Hasting3............ | $\begin{aligned} & \text { Warden ... } \\ & \text { Overseer. } \end{aligned}$ | 10000 |
|  |  |  |  | 6,545 00 |

## Schedule of Fishery Officers in the several Provinces, \&c.-Continued.

PROVINCE OF NOVA SCOTIA-Continued.

| Name. | District. | Address. | Orerseer or Warden. | Salary. |
| :---: | :---: | :---: | :---: | :---: |
|  | Brought formard Inverness County-Concluded. |  |  | $\begin{gathered} \$ \text { ets. } \\ 6,54500 \end{gathered}$ |
| Peter Benrie. | Mabou River. | Mabou, Brook Village.. | Warden ... | 2500 |
| M. B. McDonald.... | River Dennis. | River Dennis, W.O .... |  | 2500 |
| Donald McDonald. | River Inhabitants | River Inhabitants, W. 0 . |  | 2500 |
| John McLean. ...... <br> Hugh Cameron | do | Broad Cove......... ...... | do ... | 2500 |
| Hugh Cameron..... <br> Moses Murphy. | Ainslie Lake | S. W. Mabou................ |  | $\stackrel{25}{25} 00$ |
| Moses Murphy...... | Ainslie Lake.............................. | N. E. Margaree. ......... <br> Big lntervale, Mar- <br> garee, W. 0 |  | 3500 2500 |
| Daniel McDermid.. | From his own residence to Big Intervale. $\qquad$ | N. E. Margaree. ......... |  | 2500 |
| Marls Crowdis.... | From Bridge to Forks, North-east Margaree River... ....................... .. | do ........... |  |  |
| Angus McKinnon.. William Hart, jun. |  | do | do $\begin{aligned} & \text { do }\end{aligned}$ | 2500 |
|  | McDermid's residence..................... | S. W. Margaree. ........ |  | 2500 |
| Allan McLellan <br> (John's Son)...... | Whycocomagh Bay........................ | River Dennis............. |  | 2500 |
| Malcolm McKay.... | Trout River..................................... | Lake Ainslie................ |  | 2500 |
| Angus McFarlane <br> (Angus' Son)..... | Upper South-west Margaree Rivers.... | Opper S. W. Margaree |  |  |
| John P. McFarlane | Margaree Harbo |  |  | 2500 |
| Stephen Graham... | Long Point and Judique Rivers........... | Margarec................... | do $\ldots$ | 2500 2500 |
|  | King's County. |  |  |  |
| John E. Starr...... | King's County.............................. | Port William............. | Overseer. . |  |
| W. MeIntyre........ | Annapolis River....................... .... . | Kentville...... ..... ........ | Warden ... | 5000 |
| R. F. Reid........... | King's County....................... ........ | Wolfville..... ............. | Overseer. | 12500 |
| C. E. Bishop........ | Gaspereaux Itirer............................ | Horton............. .......... | Warden .. | 3000 |
| Jos. Angus.......... | do | do ......... |  | 3000 |
|  | Lanenburg County. |  |  |  |
| Geo. Redden . ..... | Lunenburg County, East Division, Middle, Gold, Martin's and Mushamush Rivers. |  |  |  |
| Fd. Hayes.......... | Eastern River |  | Overseer. . <br> Warden | 100 2500 2500 |
| Isaiah Besancon.... | Middle River. | do Basin................ | Warden .... | 2500 2500 |
| David Demon. | Lower Gold River.............................. |  |  | 2500 |
| John Hutt........... | Middle Gold River ..... ..................... | Beech Hill, Chester.... |  | 2500 2500 |
| Kdward Boylan.... | Gold River, Upper......... ...................... |  |  | 2500 2500 |
| Jas. Langille. ..... | Martin's River ......................................... | Dhester.......................... | do $\begin{aligned} & \text { do } \\ & \text { do }\end{aligned}$ | 2500 2500 |
| IIy. S. Jost.......... | Lunenbarg County, West Division.... | Lunenburg ......... . . ..... | Overseer... | $\begin{array}{r} 2500 \\ 10000 \end{array}$ |
| Chas. Pernette. .... | From mouth to Lahave River to Wilkie's Cove. $\qquad$ | Lo .............. | Warden ... | 10000 2500 |
| C. E. Goddard $\qquad$ Jas. Mossman. | Wilkie's Cove to Henry Koch's .......... <br> From Henry Koch's to Knock' | Bridgewater:................ | Overseer.. | 5000 |
| 3. Rothenhiser....... | Fnock's to source of Lahave Rive | Lunenburg......... . ..... | Warden ... | 2504 |
| John Andrews...... | Mushamush River.............. ...... | Mridgewater...... ........ |  | 2500 |
| Geo. A. Nesbitt..... | Potite River, mouth to Wallace Brook.. | Mahone Bay...... ......... |  | 2500 |
| Eli Hebb............. | Petite River, from Wallace Brook to source $\qquad$ | Petite River $\qquad$ <br> Hebb's Cross, West Conquerall $\qquad$ | do $\begin{array}{cc}\text { do } & \\ \end{array}$ | 2500 2500 |
|  | Carried torward. |  |  | 7,980 00 |

Schedule of Fishery Officers in the several Provinces, \&c.-Conlinued.

PROVINCE OF NOYA SCOTIA-Conlinued.


## Scheduse of Fishery Officers in the sereral Provinces, \&c.-Continued.

PROVINCE OF NOVA SCOTJA.-Continued.

| Name. | District. | Address. | Overseer or Warden. | Salary. |
| :---: | :---: | :---: | :---: | :---: |
|  | Brought forward $\qquad$ <br> Richmond County. | ............................ |  | $\begin{gathered} \$ \text { cts. } \\ 9,345 \text { 00 } \end{gathered}$ |
| Duncan Cameron.. | Eastern Division, from River Bourgeois to East Boundary of County, including said river $\qquad$ | St. Peters | Overseer. . | 12500 |
| Joln Murchison.... | Grand River...................... .......... | Grand River, W.O.... | Warden ... | 3000 |
| Francis Marmeau. | Western Division, from River Bourgeois to West Boundary of County. | Arichat..................... | Overseer.. |  |
| P. W. Grouchy..... | Decousse River.............................. | do .................... | Warden ... | 3000 |
| John Proctor, sen. | Inhabitants River............................ | Port Hawkesbury........ |  | 2000 |
| Abraham Sampson | Petit Degrat Inlet........................... | Petit Degrat.............. |  | 3000 |
| $J$ Justinian Sampson | L'Ardoise...................................... | L'A rdoise................... |  | 3000 |
| Charles Grant...... | River Inbabitants . .............. .......... | River Inhabitants . ...... |  | 2000 |
| Allan McRae........ | West Bay, Black River ................... | West Bay .................. |  | 3000 |
| son $\qquad$ <br> Patrick Kyte | River Moulin ......................... ........ | River Moulin, Grandigue Ferry, W.O.... | do | 3000 |
| Patrick Kyte........ |  | River Tier, St. Peters... | do | 3500 |
| William Kehoe...... | Talse Bay and Breen's Brook...... ..... | River Bourgeois, $\mathbf{w}$. | $\begin{array}{ll} \text { do } & \ldots \\ \text { do } & \ldots \end{array}$ | $\begin{array}{ll} 2500 \\ 2500 \end{array}$ |
|  | Shelburne Coun'y. |  |  |  |
| Wm. John McGill. | Shelburne County. | Shel burnc | Overseer. | 12500 |
| M. Green wood...... | Round Bay River and Indian Brook ... | Clyde River, W.U | Warden ... | 2000 |
| George Archer..... | Birchtown River | Shelburne.................. |  | 3000 |
| Geo. Ryer ........... | Roseway River. | do |  | 5000 |
| G. A. Holden....... | Jordan River.................................. | do | do $\ldots$ | 5000 |
| Heary A ckerman.. | Green Harbour................................ | Ragged Island, Locke's |  |  |
| P. Crowell.......... | Barrington River............................ | Island, W.O... ......... Barrington. $\qquad$ | $\begin{array}{ll} \text { do } & \ldots \\ \text { do } & \ldots . \end{array}$ | 2000 2000 |
| F. G. Nichol......... | Clyde River .......................... ...... | Ulyde River. | $\begin{array}{ll} \text { do } & \ldots \\ \text { do } \end{array}$ | 2000 |
|  | Victoria County. |  |  |  |
| J. W. Burke ......... | Vietoria County, North Division, from |  |  |  |
|  | Smoky Head to Bay St. Lawrence... | Ingon'sh...... .......... | Overseer. . | 12000 |
| Donald McRae, jun <br> John McLellan...... | do $\quad$ South Division............ Middie River.................................. | Raddeck . . ............. | do ... | 12000 |
|  |  | Baddeck | Warden ... | 2500 |
| Son)....... ........ | Midule River, Upper Settlement. |  |  |  |
| Donald McQuaric. | do ...... ......................... | Baddeck............ |  | 25 2500 |
| Donald Mchillan.. | Baddeck River...................................... |  |  | 25 2500 00 |
| Donald Mcauley.. | do .................................. | do |  | 2500 2500 |
|  | North River ...... ............................ | North River, W O....... |  | 2500 |
| Tonald McRae | 13addeck River and tributaries .......... | Baddeck ..................... |  | 2500 |
| Frs McGregor..... | Entrance of Baddeck River................ | Hunter's Mountain, Wö | do | 2500 |
| Angus McDonald.. | Washabuck River............................. | Washabuck River. ...... |  |  |
| Kenneth McRae... | Indian Brook.................................. | Middle River.............. |  |  |
| Roderick Beaton... | Hume's River. | McNaughton's, W.O...... | do | 3000 |
| William Foyle ..... | Peter's Brook........... ....................... | Baddeck River........... | do $\quad$... | 3000 |
| Donald Bochaman. | Upper Settlement. . .......................... | Middle River................. | do | 3000 |
|  | Barachois River............................. | Barachois River ........... | do $\quad$... | 3000 |
|  | Carried forward. |  |  | 84500 |

## Schedule of Fishery Officers in the several Provinces, \&c.-Continued.

PROVINOE OF NOVA SCOTlA-Coneluded.


## PROVINCE OF NEW BRONSWICK.

| W. H. Venning..... <br> C. R. Veuning...... | New Brunewick............................. | St. John, N. B $\qquad$ do | Inspector of Fisheries Clerk....... | $\begin{array}{r} 1,40000 \\ 40000 \end{array}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | Albert County, |  |  |  |
| Winthrop Akerly.. | County of Albert | Harvey .................... | Overseer. . | 10000 |
| Wallace Taylor.... | Petitcodiac River. | Coverdale ................. | Warden ... | 4000 |
| C. McLatchey ...... | Mouth of Petitcodiac River and Dorchester Bay | Hillsboro'................... | do ... | 4000 |
| Jacob Beck. ........ | Pollet Rivar .................................. | Elgin ...................... | do ... | 3000 |
| J. E. Kinne......... | Germantown Lake and Shepody River | Hopewell Corner........ | do ... | 4000 |
| Bartlet Oliver...... | Rocher bay . ................................ | Waterside. ................ | do ... | 4000 |
|  | Carleton County. |  |  |  |
| W. B. Mills.. ........ | Miramichi Rirer (S.W.) from Head Waters to Forks | Foreston. . . . . . . . . . . . . | Overseer.. | 15000 |
| Geo. R. Burt......... | St. John River and tributaries, from Long's Creek to Tobique River...... | Upper Woodstock ...... | do ... | 10000 |
| J. W Scott......... | St. John River, from Eel River to Woodstock | Canterbury .............. | Warden ... | 3000 |
|  | Carried forward. |  |  | 2,370 00 |

## Schedule of Fishery Officers in the several Provinces, \&c.-Continued.

PROVINCE OF NEW BRUNSWICK-Continued.


## Scinedule of Fishery Officers in the several Provinces, \&c.-Continued.

## PROVINCE OF NEW BRUNSWICK-Continued.

| Name. | District. | Address. | Overseer or Warden. | Salary. |
| :---: | :---: | :---: | :---: | :---: |
|  | Brought forward...... ......... <br> Kent County-Concluded. |  |  | $\begin{gathered} \$ \text { cts. } \\ 4,42500 \end{gathered}$ |
| Nicholas Muzzeroll | From Kouchibouquacis River to Point Sapin | Kouchlbouquacis ........ | Warden ... | 5000 |
| A. L. Collet........ | Buctouche Bay......... ....................... | Buctouche......... ......... | do.... | 3000 |
|  | King's County. |  |  |  |
| Samuel Gosline..... | From mouth of Smith's Creek up. wards $\qquad$ | Smith's Creek, W. $0 . .$. | Overseer. . | 10000 |
| Samuel F. Ryan.... | Mill Stream... .............................. | Studholm, A pohaqui... | Warden ... | 3000 |
| James A. Belyea... | St. John River and Belle Isle Bay and streams ruoning thereinto. | Westfield...... ............ | Oversecr. . |  |
| Samuel Gamblin... | Washademoak Lake and its tributaries in King's aud Queen's Countics...... | English . Settlement, |  |  |
|  |  | Pearsor*s, W.O. ...... | Warden ... |  |
| Jonah Keith ......... | North Canaan Rive | Havelock...................... | $\begin{array}{ll}\text { do } \\ \text { do } & . . \\ \end{array}$ | 50 3000 |
|  | Northumberland County. |  |  |  |
| I'rudent Robichaux | Burnt Church River and tributaries, and Upper Tabusintac. | Upper Neguac...... ...... | Overseer. . | 10000 |
| John Stymast...... | Lower Tabusintac River................... | Stymast Road, Neguac. | Warden ... | 5000 |
| William Wyse....... | Herring fisheries, Miramichi Bay, and bass tishing in Napan Bay and Black Rivers. $\qquad$ | Chatham..... ............. | Overseer. . | 20000 |
| Chris. Parker. ...... | Miramichi River and tributaries, from Beaubair's Island to Blackville....... | New castle......... ........ | do ${ }^{\text {d }}$ | 16000 |
| Samuel Holt........ | From lower line of Blackville to Blissfield |  | do ... | 16000 |
| John Hogan ......... | Miramichi River (N.W.) and tributaries, from Chatham Ferry upwards $\qquad$ | Newcastle........... ...... | do ... | 40000 |
| Aaron Hovey. ...... | Miramichi River (S.W.) aud tributaries, from Nelson's to Head of Hovey Island $\qquad$ | Boiestown......... ........ | Warden ... | 3000 |
| George Bryanton... | From Elm Tree Brook to Squire Underhill's, on the S.W. Miramichi River... | Derby, W.O........ ...... | do ... | 3000 |
| Kenneth Cameron. | Miramichi River (S.W.) from line of Blissfield to the head waters and tributaries. | Boiestown........... ...... | Overseer. | 10000 |
| Patrick Bergin..... | From Underhill's to Stephen Mitchell's, on S W. Miramichi | Domphey, W.O., Parish of Blackville, S.W. Miramichi. | Warden ... | 3000 |
| Thomas Smith ...... | From lower end of Fingley's Island, ou N. W. Miramichi, upwards, and the Big Sevogle. $\qquad$ | North Esk, Red Bank, |  |  |
| Jared Blackmore... | From lower side of Ox Bow, on the Little South West, upwards. | W. 0 ............. : $\cdot$.... | do ... Overseer. . | $\begin{array}{ll}30 & 00 \\ 50 & 00\end{array}$ |
| Patrick Gillis. ...... | Little S. W. River and tribataries....... | do do | Warden ... | 3000 |
| Denis Hogan........ | Renous River and tributaries............ | Renous Bridge, W.O... |  | 3000 |
| Michael Donovan. . | Renous River................................ | Renous Bridge........... |  | 1800 |
|  | Carriel forward. |  |  | 6,213 00 |

## Schedule of Fishery Officers in the several Provinces, \&c.- Continued.

PROVINCE OF NEW BRUNSWICK-Continued.


Schedule of Fishery Officers in the several Provinces, \&c.-Continued.

PROVINCE OF NEW BRUNSWICK-Concluded.

| Name. | District. | Address. | Overscer or Warden. | Salary. |
| :---: | :---: | :---: | :---: | :---: |
|  | Brought forward................. |  |  | $\begin{gathered} \text { \$ cts. } \\ 7,408 \text { 00 } \end{gathered}$ |
|  | Sunbury County. |  |  |  |
| G. W. Hoben....... W. E. Taylor....... | St. John River, Indiantown, to Co. line of York. <br> do do | Burton, W.O............... <br> Sheffield | Overseer .. Warden ... | $\begin{array}{r} 10000 \\ 3000 \end{array}$ |
|  | St. John County. |  |  |  |
| Joseph O'Brian..... | St. John County ............................ | Carleton, St. John....... | Orerscer.. | 15000 |
| Wm. E. Skillen... | Eastern part of St. John County, from Quaco Head to Goose River. ......... | St. Martins. ............... | do ... | 10000 |
|  | Victoria County. |  |  |  |
| C. McCluskey...... | County of Victoria......................... | Grand Falls | Overseer.. | 10000 |
| Chas. Roberts....... | Lower Division, Tobique River......... | Andover...................... | Warden ... | 3000 |
| Jno. McDougall.... | Three Brooks, branch of Tobique River........................................................ | Rocky Brook, Parish of Lorne $\qquad$ |  | 3000 |
| Jno. C. McCloskey | Salmon River....... . ...................... | Andover................... | do ... | 3000 |
| Donald Fraser ...... | Tobique River ............................... | Aurthurette, W. 0 ....... | do ... | 3000 |
| Thos. Edgar........ | Middle Division, Tobique River ........ | Three Rivers................ | do ... | 2000 |
| Edward Maloney... | Upper Division, do ........ | Tobique River, Parish of Lorne. |  | 3000 |
| J. McNab Cameron | Tobique River............................... | Tobique River............ | do ... | 3000 |
|  | Westmoreland County. |  |  |  |
| W. B. Deacon...... | Shediac Harbour and River.............. | Shediac.................... |  | 10000 |
| D. T. Cormier...... | Dorchester Bay................................ | Pré d'en haut......... ..... | do ... | 6000 |
| Robt. Goodwin .... | The Parishes of Sack ville and Westmoreland $\qquad$ | Bay Verte................. | do ... | 10000 |
|  | York County. |  |  |  |
| Robert Orr.......... | County of York............................. | Fredericton............... | Overscer . | 15000 |
| J. Campbell ......... | Grand Pass, on St. John River, upwards from Crock's Point to Lower Line of York County, including Nashwaak River $\qquad$ | Kingsclear, W.O, Fredericton | Warden | 6000 |
| Wm. Brown.......... | St. John River, from Upper Line of York County to Crock's Point, on River St. John. $\qquad$ | Southampton | do ... | 6000 |
| A. Moir............... | From Price's Bend to Burnt Hill, S.W. W. Miramichi $\qquad$ | Bloomfield | do | $3000$ |
|  | Total . |  |  | 8,658 00 |

Schedule of Fishery Officers in the sereral Prorinces, \&c.-Continued.

PROVINCE OF PRINCE EDWARD ISLAND.

| Name. | District. | Address. | Overseer or Warden. | Salary. |
| :---: | :---: | :---: | :---: | :---: |
| J. IIunter Dupar... | Prince Edward Island. | Alberton .................. | Inspector of Fisheries..... | $\$ \mathrm{cts}$. 80000 |
|  | Queen's County. |  |  |  |
| Michael Ready...... Lionel Garnam | Winter River ........ ...................... do | Winter River. | Warden .. | 3000 3000 |
| Lionel Garnam..... <br> S. Vanderstine...... |  |  | do | 3000 |
| Geo. Stephenson... | New Gla | Yernon |  | 3000 |
| James Power ....... | Nuw Glasgo | New Glasgow............ |  | 3000 |
| Jonathan Delany.. | Hew London | Huntley River ............ |  | 3000 3000 |
| Jobn Mathieson .... | Bonshaw, from Appin Road to Dog River and from South Wiltshire Road to the Coast $\qquad$ | West River |  |  |
| Finlay Mackenzie. | Lots 60 and 62.................................. | Pinette River |  |  |
| Francis Stanley.... | Charlottetown, including East, West, and North Rivers $\qquad$ | Charlottetow |  | 3000 |
| Wm. Whitehead ... | South West River............................ | S. W. River.. . |  | 3000 |
| Thomas Murphy.... | Trout River. | Trout River. |  | 3000 |
| Peter Trayor......... | Johnston's River, including Oyster Fishery at its mouth. | Johnston's Rir | do | 3000 |
| R. Loughrim... | Orwell and Newtown Rivers .............. | Orwell.............. | do | 3000 |
| W. Campbell | Cousin's Run.. | Cousin's Run | do | 3000 |
| Thos. W. Beers .... | Pownal Bay and Seal River | Cherry Valley | do | 3000 |
| Jas. Howatt ........ | Orapaud......... ............................. | Crapaud........ |  | 2000 |
|  | Prince County. |  |  |  |
| Henry Clark......... | Dunk River and Egmont Bry........... | Summerside | 0 rerscer .. | 20000 |
| D. L. Bryant........ | From western bank of Big Pierre Jacques River to the point where the North line of Lot 15 touches the shore of Egmont Bay. | Enmor | Warden... |  |
| Ualvin Howat.... | Tryon River ........... ...................... | Tryon River | do |  |
| James T. Reid ...... | Miminigash. | Miminigash |  |  |
| James Ramsay..... | Lot 13, Trout River | Lot 13....... |  | 3000 |
| James McLellan.... | Lot l4 do | Lot 14. |  | 3000 |
| John Tucker........ | Dunk River, Lot $25 . . .$. ...................... | Lot 25. |  | 3000 |
| Patrick McBride ... | do do ............................ | do . |  | 3000 |
| William Burns...... | do do | do |  | 3000 3000 |
| James Nelligan .... | Nail Pond and Skinner's Pond | Nail Pond |  | 3000 30 |
| John Beaton ....... | Lots 5, 6 and 10 | Lot 10..... |  | 3000 |
| Geo. A. Sharpe.... | Lot 12, on the Narrows. | Lot 12. |  | 3000 |
| Patrick Delaney ... | Summerside, including Bedeque Bay and South part of Richmond Bay ... | Summerside. |  | 3000 |
| Chapel | Tignish, from line of Lot No. 2, northward, to include Little and Big Tignish, and westward to Railway. | Tignisl |  |  |
| Peter Aylward .... | Skinner's Pond, southward, from south end of Nail Pond to Black Pond, inclusive, and East to Rail- | Tignish |  | 30 Co |
| Alex. McDonald ... | Way........ ................................ | do | do | 3000 |
| Thos. Diummond. <br> Y. S. Gillis $\qquad$ | Narrows to Kildare Capes.............. | Alberton | do ... | 3000 |
|  | Dunk River | Freetown......... .......... | do $\ldots$ | 3000 |
|  | Richard Bay and Malpeque .............. | Indian River, Lot 18.... | do | 3000 |
|  | Carried forwa |  |  | 1,990 00 |

Schedule of Fishery Officers in the several Provinces, \&c.-Concluded.

PROVINCE OF PRINCE EDWARD ISLAND-Concluded.

| Name. | District. | Aldress. | Overgeer or Warden. | Salary |
| :---: | :---: | :---: | :---: | :---: |
|  | Brought forward $\qquad$ King's County. |  |  | $\begin{gathered} \$ \text { cts. } \\ 1,990 \text { 00 } \end{gathered}$ |
| Andrew Whelan | Souris River ......................... ........ | Souris River. | Tarde | 30 (10) |
| Allan McDonald... | North Lake ................................. | North Lake.. | do .. | 3000 |
| Malcolm Mathew- <br> son. $\qquad$ | Grand River.............. ................... | Grand River.............. |  |  |
| Edmund Aitken... | Bay Fortune River............................. | Bray Fortune River ...... | d. | 3000 |
| John McDonald .... | Naufrage River .............................. | Nautrage River........... |  | 3000 |
| Daniel Reilly ....... | Montague, from Georgetown Road to Whim Road, and from County Line to the Coast. | Montogue River......... |  | 300. |
| John Lowe . ......... | Murray Harbour and River, including Lot 63 and 64. | Murray Harbour......... | d ${ }^{\text {d }}$ | 300 |
| Peter Duffy........ | St. Peter's and Morell...................... | St. Peters........ | d, | 3000 |
| James Mitchell...... | First District of Morell..................... | Peake s Road. | do | 3000 |
| John O'Brien ....... | Second do .................... | Morell Rirer | do ... | $\because 000$ |
| Pat. McCullough... | Third do | Peske's Road. | do ... | 3000 |
| J. H. Dingwell...... | Fourth do | Morell River | do ... | 3000 |
| James Burke......... | Cardigan Bay .................................... | Georgetown. | do ... | 3000 |
| Robert Quinn........ | Brudenell River ................................ | Cardigan.................... | do ... | 30 on |
|  | Total . |  |  | 2,410 00 |

PROVINCE OF BRITISH COLOXBIA.


## RECAPITULATION.

| Samuel Wilmot, Superintendent, Fish-Breeding Establishments in the Dominion. | \$2,000 00 |
| :---: | :---: |
| Ontario. | 7,08500 |
| Quebec. | 7,190 00 |
| Nova Scotia. | 11,420 00 |
| New Brunswick | 8,653 00 |
| l'rince Edward 1sland. | 2,410 00 |
| British Columbia. | 1,100 00 |
| Total | 39,863 00 |

No. 1.

## NOVA SCOTIA.

## REPORT OF W. H. ROGERS, Esı, INSPLCTOR OF FISHERIES FOR THE province of nova scotia, for the year 1881.

Amierst, 31st December, 1881.

## Hon. Minister of Marine and Fisheries, Ottawa.

Sir,-I have the honour to submit my Annual Report on the tisheries of Nova Scotia, together with the statistics, which show a small increase in the total value over last year, the whole amounting to $\$ 6,214,775.50$; and as prices in our markets ruled higher than in 1880, our fishermen have realized larger profits. When times are good and labour in demand, many fishermen abandon thoir usual calling, and obtain employment in the coal minos, lumbor woods, \&c. Hence a smaller crop of fish is usually gathered. I find that the number of men engaged in the fisheries during the year was over five thousand less than in 1880, a falling off of about twenty-two per cent., while the shrinkage in the yield of the fisheries is not over one and a-quarterper cent.; thus showing pretty clearly that fish must have been more plentiful around our coasts or we should have had to record very different results. Considering that some 2,000 less men were employed, fish of all kinds must have been unusually plentiful around the coast. I anticipate a still greater increase in all kinds next season. It must also be borne in mind that the whole summer was a very rough and boisterous one, which caused much loss of time to those that parsued fishing as a business. Then, it will be observed that the crop of mackerel has fallen off about one-half in a single year, which is not an unusual occurrence, as they are very erratic and unreliable in their movements. The best that can be done to improve this branch of the fisheries, as well as the cod family, is to open up inland waters for the passage of migratory fishes to spawning grounds, so that the increased numbers of fry may afford attraction to the sea fish along the inshores. Mill-dams, natural falls, and accumulations of trees, branches, \&c., impede the progress of fish in many branches of large rivers. Also beaches, thrown up by the action of the waves, close up the outlots of many lakes and streams, which ought to be opened as rapidly as possible. To fill our numberless bays, estuaries, harbours, \&c., with myriads of young fish from our inland waters, as was the case before the country was settled, simply means to bring in larger fish to where our fishermen can capture them. Th is will render the business of fishing not only more profitable, but much more certain in its annual yield.

A careful perusal of the Oversoers' reports herewith, will show that much has already been done in the direction above mentioned, yet there is very much to be accomplished. The capabilities of our inshores, like many of our other natural resources, are susceptible of great and wide expansion, and the profits from a prudent
expenditure of monoy and labour are not more certain in any branch of human industry.

The population of the continent is rapidly increasing, the modes of travel and channels of commerce are continually extending and widening; hence the value of our fish crop should correspondingly be enhanced, and the profits increased. Every means within our knowledge, therefore, should be utilized to improre and increase the productions of the fisheries.

## GALMON.

This tishery, as will be seen by the returns, still continues to decrease, but I am not disposed either to take so gloomy a view of this as some, or attribute it to local abuses entirely, because the decline in the production of these fish is continental in extent, and it is as marked on the coast of Nemfoundland, Labrador, Quebec and New Brunswick, where the local abuses complained of in this Prorince either do not exist at all, or to a very limited extent. In this Province these fish seem to have, for the time, even abandoned our unobstructed eastern rivers, as woll as those afflicted with mill-dams and saw-dust, in the central portions of the Province. In each case local abuses or imaginary evils are pointed to by some as the cause. If it be true that salmon will only enter their native rivers for the purpose of spawning, the abuses on the LaHave, for instance, ought not to reduce the number of salmon entering the Gold, St. Mary's or Margaree Rivers; yet these fish are almost as scarce on the latter as on the former. I am quite aware that impassable milldams will destroy most effectually the fish in any river; but I fully believe that our salmon fisherios are not, as some suppose, rapidly passing away for the want of properprotoction and care, but, like other branches of the fisheries, aro subjoct to general migratory movements for which no cause, within the knowledge of man, has yet been accurately assigned. I therefore contidently look for a return, at an early date, of these fish in abundance, and we are not without encouraging evidences of this, for during the past fall our rivers were well stocked with parent fish-moro than has been known for twonty or thirty years past. Instances might be cited, but this is unnecessary, becauso, on referring to the Overseers' roports herewith, it will be seen that this fact is noted by many of thom as being well known local facts, and particularly so of the rivers in which young fish wore placed during the past fow years, so that we may look with confidence for a large increase in this fishory the next and following years, as has been the caso with the alewives fishery. These fish are constantly incroasing in value, and on much of our coast, where they are taken in the months of March and April, they are worth from 40 c . to 75 c . per pound ; at this rate, the Liverpool and Medway Rivers, with their ostuarios, could, in a very few years, by the aid of a hatching-house, be made to yield from $\$ 200,000$ to $\$ 300,000$ per annum. This sum would be almost clear profit to the people, as they are sold and sent away fresh to the American markets and the expense of catching them is trifling.

## ALEWIVES.

This fishery, as I have anticipated in former roports, till continues to increase, The following figures show the catch of recont years:-

| 18 | 5, 438 | brls. |
| :---: | :---: | :---: |
| 1878. | 5,738 | ، |
| 1879. | 9,489 | 6 |
| 1880 | 16,148 | * |
| 1881. | 22,474 | ${ }^{6}$ |

Next year I fully believe the catch will be as high as 30,000 barrels. The market, however, is limited, and pricos drop when the catch is large. Had it not been for this fact, many more would have been taken during the present year, and this wili still more
have the effect of contracting the catch next year. The great value of this fisbery, however, is in its influence on the cod and mackercl fisheries. When the former are abundant, the latter are almost sure to be. It is in our power to increase this fishery indefinitely in this Province, as our lakes and inland waters are so numerous and exlensive, they can be cultivated cheaply and abundantly. All that is needed is an easy and certain passage from tide waters to the fresh water lakes and streams.
SII \H.

This fisher'y also cortinues to give increasing returus, but I do not take much credit as the result of Departmental control or improvements for the increase, because all we can do towards its improvoment or protection, is to protect individual rights and enforce fair and legitimate modes of fishing. There cannot be a doubt, as it appears to me, but that the incroase as indicated by the following figures, is almost entirely the result of the extensive artificial culture of these fish by the Americans to the south of us. After spawning in their rivers in February, March and April, they come north to feed on the mud flats of the Bay of Fundy, where they become fat very rapidly. I need not further elaborate this view of the matter, as I have so often referred to it in my former reports. During tho four years, from 1870 to 1873, we caught in this Province 20,260 barrels. The next four years, from 1874 to $1877,25,480$ barrels, and the last four years, from 1878 to 1881 , we took 35,340 barrels. The last period, showing the very large increase of nearly 80 per cect., ovelthe first, and a very satisfactory increase throughout the whole period. I think wo may expect a continned increase as long as our neighbours contimue their enterpriso in this direction.

## LOBSTERS.

There has been an increase in the quantity put up of $813,55^{2}$ caus, owing to an increase in the packing establishments, and the number of persons engaged in the business. There seems to be a great diversity of opinion, both among fishermen and packers, as to the lengtl of time and the season which should be set apart ay a close season for these fish. I think that one uniform time, embracing the months of July and August, should be fixed upon for the whole Dominion. This would cover all the time needed in both early and lato districts, and would afford ample time for packing all the fish the market would require, or the waters of our coast could afford to part with, consistent with keeping up the supply.

## IIERRING.

Herring were very aboudant all around our coast, and seem to have sattered to the winds the theory put forth for years past by our fishermen, that the Jobster fishing was ruining the herring fishery. We caught of those fish in the year-

| 1877 | 113,098 | brls. |
| :---: | :---: | :---: |
| 1878 | 130,290 | ، |
| 1873 | 129,763 | " |
| 1880 | 136,543 | " |
| 1881 | 198,264 | ${ }^{1}$ |

This fishery is also on the increase; and the same is true of the Digly herring fishery, which are usually smoked and put up in boxes. During the past few years this fishery fell off largely, and the cause assigned was that saw-dust from the mills on the Bear and Annapolis rivers had driven them out or provented them from entering the bay. Recent developments in this fisherg, howover, tell a different story, for we caught in--

$$
56-1 \frac{1}{2}
$$

| 1877 | 28,780 | boxes. |
| :---: | :---: | :---: |
| 1878 | 7,165 |  |
| 1879. | 32,840 | " |
| 1880 | 60,020 | " |
| 1881 | 67,325 |  |

So that this fishery, too, is on the increase at present, and wo hope it may continue for some time to come.

## MACKEREL.

These tish have fallen off from the catch last year more than 50 per cent. This is not surprising or unusual for mackersl, as they are very unreliable in their move. ments. The only way to keep plenty of these fish about our shores is to increase the number of young tish descending our rivers into the bays and harbours each year.

## FISHWAYS.

But little was accomplished during the past summer in the way of either improving the old or constructing new ones. The reason for this is two-fold :-

In the first place, the season was a very wet ono, and consequently the streams wore full during most of the summer, rendering it difficult in most cases to do anything in this work. Then, it is useless to construct any more of the old pattern, when we have a new one which is perfect in its effects. But before they can be adopled generally it would be necessary that some means be provided to at least pay for part of the cost of their construction. As this is the most important part of our work in this Province, no time should be lost in perfecting the necessary arrangements for their immediate and rapid construction throughont the Province. The old ladders on the dams at Bridgewater, on the Laharo Rirer, have boen repaired and will be in readiness for the fish in the spring. Stringent moastiros will be necessary to keep the poachers away, so that fish can ascend the streams.

Some money should bo provided especially for opering up and removing rubbish and other obstructions from many small streams from lakes in order to admit the passago of fish to the headquartors of our streams, \&c. 'This is of the utmost importance, and should not on any account bo longer dolayed.

## fishery officers

Are fur the most part faithfal to thoir trust, add many (f them take much interest in their work, lint their pay should bo increased. In many places additional officere are required.

1 hitwe the honour to be, Sir, Your obedient kercant, W. H. ROGERS, Inspector of Fisheries.

## SENOPSE; OF FISHERY OVERSEERG REPORTS.

## ANNAPOLIS rOUNTY.

Overscer IV. T. Carty, of I'upperville, roports that hook fishing in the Bajy of Fundy is gradually diminishing, owing, it is supposed, to excessive trawling at the mouth of the bay. Horring, however, have been taken in very remunerative quantities, and are on the increase. The fishermon at Hampton and Parleer's Cove made extra exertions during the past year as to fishing gear, but they labour under the disadvantage of not having a proper place for a harbour. The Anni-
polis Basin yielded a very remunerative supply' of a superior quality of herring Laiquille River yielded comparatively nothing, only about 100 pounds of salmon. The stream is continually infested with Indians, and the Warden "amounts to nothing." Annapolis River contained large quantities of salmon, bass and shad, but the freshet in the fishing season prevented many nets from being set. The Lawrence dam was opened for the nassage of fish, and salmon and shad have been reen in their old resorts in Wilmot. The overseer has not heard of any salmon being taken in Round Hill Stream, and would recomraend one of the new fishways in the east brook, and the old one closed, and also a gate of net work, to prevent salmon from going under the dam near the old fishway. There have been no salmon in Nictaux River, above the Bial's Dam, since that dam has been there, and the mill has been burnt for two years. Nixon's Mill has gone down, and the Pope and Voce Mill in Albany, on the Nictaux Stream has been burnt. As these streams are important, the overseer strongly recommends that the obstructions be removed and the streams restocked.

## Antigonish county.

Overseer John McDonald, ot Doctor's Brook, reports a falling off in the total value of last season's fish, owing principally to the falling off of mackerel and salmon. Two new lobster factorios-one at Arisaig, and the other at Cape George-were built, and have had fair success. A less number of salmon fishermen have taken out licenses this year than last, owing to the poor prospects of salmon fishing at the beginning of the season. After carefully examining the different fisbways in the county, Mr. McDonald is of the opinion that "none of them answers the purpose of its construction," because: 1st. They cannot properly be located; 2nd. Freshets only, afford sufficient water for their proper use. On the 22nd of November, he had a party arrested for fishing salmon without a license, and after considerable trouble succeeded in punishing the guilty person. All the Wardens report that they have sen more fish in the rivers, especially salmon, this year than for any previous year, and that they have no trouble with poachers or others who seem disposed to give injury to our fisheries.

## OUMBERLAND COUNTY.

Overseer James King of Amherst, reports that salmon have been about as plentiful this year as formerly, but were late coming into the rivers on account of the dry weather. Alewives were very plentiful this year and appeared very carly in the season. Shad also were plentiful and of very good quality, and although early in making their appearance, the people were ready and secured a good catch. The catch of herrings shows a large falling off, and the same applies to all fiyb which are hooked, which makes the general yield below last year. The only fishway in his section is at River Hebert, and it is in good order. The other rivors are generally unobstructed.

## OOLCHESTER COUNTY.

Overseer Henry Blair, of Truro, reports that there have been no violations of the law in his division. The only trouble he has had is in attending to the rubbish from the mill, and that requires constant watching. Salmon and shad have not been quite as plentiful as they were last year. Alewives are increasing steadily, and, with proper protection, will soon be a valuable fishery. There are no fishways in his division, althougb some are much needed, and this ought to be attended to at once. The run of spawning fish up rivers has been small this fall.

Overseer R. J. Pollock, Lower Stewiacke, reports that the season has been much more favourable for the salmon than last year. They have been more plentiful than for two years, 500 lbs . more being caught. About one-third of all the fish caught have been used for home consumption, and the balance is sold at the railway station
in Truro and to farmers. On account of the favourableness of the season more time has been spent looking over the river than heretofore. The people appear to have given up the practice of drifting and spearing, and this officer failed to detect uny violation of the law. Fall salmon were plentiful.

Overseer Henderson Gass reports a great falling off in the catch of herring. There is also a falling off in the catch of lobsters, owing to the fact that the season was ten days shorter, and also to stormy weather during the latter part of the season. The salmon fishely in the bay was considerably better this year, but as there is only one man fitted out for deep-water fishing, the catch, as it appears in the statistics, is small. This overseer reports that there has been no open violation of the law, but that he is aware of the fact that poaching is carried on to a considerable extent, which it is impostible to stop, as the people believe that the law is unfair, because the close season begins before any salmon enter the rivers, giving no chance to catch any legally. He believes that more salmon ascended our rivers this season than for any of the past few years.

Overseer J. W. Davison, of Little Bass River, reports that there has been a considerable increase in the catch of shad over that of last year, and a small increase in the quantities of salmon and cod taken. Weir fishing is declining, while net fishing has been very successful. Prices generally were good, and, in some cases, extra. The last shipment of shad sold in Philadelphia at eleven dollars per bariel. Three of the fishways on Bass River and Economy River receivod the needed. repairs and are now in good order. Owing to the want of rain in the early part of the season, salmon did not go up the rivers until the middle of October, when they ascended in as good numbers as usual. Mr. Davison says that one of the greatest evils existing in the fisheries in his distriet is the fact that, when a season or two of good fishing occurs, a large number rush into the fisbing business, which, while furnishing a remunerative employment to a reasonable number, beeomes ruinous on that account.

## CAPE BRETON COUNTY.

Overseer Francis Quinan reports that salmon have been scarcer than in any year since he bas held office. The cause given by fishermen is that the winds were unfavourable at the time the fish were approaching our coast, which caused them to take another direction. Mackerel were very scarce, but herring were plentiful and of good quality. Alewives were numerous, but were not fished extensively. The spring catch of codfish was large, and would have been much larger if the miners, as formerly, were compelled by necossity to fiwh. The salmon-breeding establishment at Sydney will likely prove a great benefit to the fisheries. Some of the rivers best adapted for salmon are almost ruined by the masses of brush, \&c., in their beds. If a few hundred dollars were spent in removing this, the rivers would be much more suitod for an increase in salmon. Two wardens are required, one for Cow Bay, and one for Glace Bay. Thoy are wanted to protect the fishing grounds from the ballast of the coal.traders, and the fish offal of the different passing vessels. Many of the fishermen have been secking new markets. Several send their fish to Montreal, and others to Boston. Tho only fish-ladder in his district is in good working order.

Overseer Alexander McDonald, East Bay, reports the lange decrease of 4,728 barrels in mackerel. Owing to the smallness of the prices in the spring season, it was not remunerative to fish them, while in the fall they would not take the book. There is a slight decrease in the catch of codfish, because the coast was lined, until about the 20 th of May, with drift ice, and also owing to the unfavourable weather in August. The catch of herring shows an increase of 1,032 barrels. Salmon are becoming scarcer yearly, there being less caught this year than ever before in this district, and besiles very few were seen going to their spawning grounds. The cause of their scarcity is unknown. Haddock shows an increase, while halibut are wanting altogether, owing, it is supposed, to trawl fishing. The lobster factory, under the manayement of $H$. Cook, was in operation this season, and has done better
work than last year. The fishermen are displeased because of the shortness of the time allowed thom to catch lobsters. They cannot put their gear into the water with eafety before the 15 th of May, on account of the drift ice, which makes the season a short one, aud they, therefore, ask for the time allowed Prince Edward Island, that is, up to the 15th August. The fishery laws were well observed.

Overseer York Barrington reports a decrease in almost all kinds of fish, except herring, the catch of which exceeds that of many years past. The decrease in the total amount is due to the unfavourable weather in the fishing sesson. Mr. Barrington has no fines to report.

## DIGBY COUNTY.

Overseer William Hanley, of Digby, reports a large increase in the total catch in Digby County over that of last year. There being no Overseer the year before he received his appointment, Mr. Hanley found the fishery regulations almost entirely ignored. The catch of mackerel in St. Mary's Buy was very small this year. Notwithstanding the yield of shad at the head of St. Mary's Bay has been greater this year than for the last two, this fishery is much under that of former years. The reason of this decrease he thinks is obvious. The head of St. Mary's Bay is their spawning grourds, and as they enter the bay they are captured by weirs set early in April. They are very poor and are not worth much in the market. Mr. Hanley thinks the only way to save this important fishery from total destruction is to pass an order, prohibiting the erection of shad weirs, north and south at the head of St. Mary's Bay, prerious to the 20th June. Herring were more abundant this season than for several years past. There are several important fishing statoons along the Bay of Fundy shore, which need breakwaters in order to form protection to vessels, \&c. The fishermen in some places offer timber, \&c., and only desire the aid of the Government to help in constructing them. Two factories have bcen started for canning haddock, and there bas also been two started for the manufacture of guano. This oversecr regrets to report that no salmon were caught this seusn, owing to the fact that mill.dums prevent them from reaching their spawning grounds. A good market has been created for halibut in Boston at remunerative prices.

## GUYSBOROUGH COUNTY.

Overseer James A. Tory reports the fisheries much more successful than for several years past. This increase may be attributed in a great measure to the fitting out at Cape Canso of several well equippod vessels for the bank or deepsea fishing; also to the increase in lobstera, which contirms former statements that restrictions should be placed upon this finhery, if it is to be preserved for future benefit. The extra catch of herring bas also helped to swell the total catch, and a new item, which appears for the first time in this county, viz: Squid. This fivh was heretofore only caught for the purpose of bait, but is now of greater importance in supplying the bank or deep-sea fishermen of the Dominion and the United States, besides in being an article of export to St. Pierre. Nearly all the other kinds of fish are about the same as in the previous year, and considering the whole catch, it has proved a prosperous season. Mr. Tory has nothing specisal to report concerning the river fisheries, but still find it difficalt to keep the rivers free from illegal fishing. From what he can learn, however, the fish in the rivers are on the increase.

In the spring, Mr. Wilmot brought twenty thousand salmon ova, and one-half the young fish were placed in the river at the Intervale, and the other half in $\mathrm{S}_{\mathrm{g}} \mathrm{lmon}$ River. The latter were seen about a month after two miles above where they were pat in.

The overseer finds considerable complaint and dissatisfaction among net and seine fishermen owing to the want of regulations in reference to their fishing. Since the repeal of the old Nova Scotia law there has been, in fact, no regulation to guide or control the shore fisheries.

Overseer Allan McQuarrie, of District of St. Mary's reports an increase in the total catch, which is mainly due to the new canning establishment at Liscombe. There is a considerable falling off in the catch of mackerel and salmon. The decrease in the former is due to the unfavorable winds prevailing during the fishing season, while that of the latter is due to the over-fishing, caused by the good markets for salmon, as well as to the boats, traps and garbage of the lobster factories all along the shore, and on some of the best salmon rivers. Lobster fishing was good, particularly so up to about the 10th of July, after which they seemed scarce, as well as small and soft shelled. Alewives were more plentiful than usual, as they went up to the bead waters, and the poor people were given a chance to catch them. Smelt are very abundant, but are only taken in small quantitie. for home use. Wardens are greatly noeded at Indian Harbour and Ecum Secum. The fishways are in good order, as is evident from the number of fish seen ascending them when there is sufficient water. The amount of sawdust in the St. Mary's and Liscombe Rivers in yearly increasing, and notably so in the latter. There is much difference of opinion as to its injurimus effects, and it should, Mr. McQuarrie thinks, be kept from the streams as much as possible. In a former report, this officer referred to a stream emptying int, Indian Harbour, forming the outlet to the chain of lakes, 9 miles in extent. This siream becomes much obstructed by storms, and it required some attention and expense to keep the channel open. The wardeas are always ready to give him any assistance needed. The laws have generally been well observed, and he bas only one small fine to report.

## HALIFAX COUNTY.

Oversetr John Fitzgerald, Portuguese Cove, reports a decrease in the catch an compared with that of last year. Salmon and mackerel show the most notable decrease,-enpecially the latter. The reason of this decrease is the fact that they did not come near enough the shore to be taken by seines or nets. The quality, however, of those that were taken, was superior to any that have been caught for the last five or six years. He cannot well explain the falling off in salmon, but it is not larger than in other portions of the Province. Owing to certain steps he has tiken in regard to rawdust and mill rubbish, there is reason to beliese that the law will in the future be better obeyed.

Overseer Wm. Anderson reports that the lobster-packing establishments have done well, and are likely to take the lead in this district. A new one bas been erected at Pope's Harbor, and contrary to the expectations of many, lobsters were plentiful during the months of May, June and July.

The fi-hways are all in good order, except the old one at Ship Harbor, the entrance of which is too far down stream. One of the new fishways would obviate this difficulty, and should be put in at once. Provision ought to be made to cut through those reefs at West River, Sheet Harbor and several other small streams. There is a large crushing mill on the Tangier River, supplied with water from that stream. They built what they term a wing dan, but it leaves only a small place for the fish to go up, and in coming down, they are diverted into a flume, over a quarter of a mile long,-then to pass either through a peculiarly built water-wheel, or through a waste gate with a per pendicular beight of about twenty feet, just above a bed of rocks. They at first, with the overseer's orders, put in a fine wire netting over the mouth of the flume, but this became filled up, and stopped the mill. The matter will have to be attended to promptly next spring.

The high price for fish late in the seasou will compensate to some extent for the decrease. Alewives were very abundant, but remunerative prices could not be obtained for them. Salmon were never soarcer.

## HANTS COUNTY.

Overseer T. B. O'Brien, of Maitland, reports the catch of salmon in his district this season as more than double that of last. The catch of shad, however, is
alightly less, but their quality is better than for many years past. Considering the fact that fewer men were employed in fishing than usually, this season's business has been fully equal to that of last. More salmon ascended the Shubenacadie River, to the spawning grounds, than for a number of years. Some of the net fishermen complain of the sawdust, but Mr. O'Brien reports that very little mill rubbish of any kind is thrown into the streams. He found all the mill-owners ready to comply with his requests. A warden is much needed at Enfield and vicinity in order that the fishing interests of that locality may the more carefully be looked after.

## INVERNESS COUNTY.

Overseer D. F McLean, of Port Hood, reports an increase in his division in the catch of herring, alewives, codfish, hake, haddock, halibut, shad, smelts, eels and oysters, and a docrease in salmon, mackerel, bass, trout and lobsters. He states as follows:-
"In the several districts in this division, in which the practice of setting herring nots in the day is still continued-an abuse of which I complaned in my report of last jear-there has been a decrease in the quantity of herring taken. Fur this reason I beg now to renew my application for a regulation to compel herring fishormen to tako up their nets in the day time. In some inskances the cause of the scarcity of fish baffles the most scientific enquirer. In various districts it may be said to be due to the stormy weather of the season, while, in other cases, it is undoubtedly owing to over production. I have interviewed several fislı dealers and fishermen who maintain that certain branches of our fisheries are inexbaustible. I entertain a different opinion. Take the lobster fishery for instance, in which there is a nuliceable decrease in the district under my supervision, I venture to assert that, should this branch of our fisheries be prosecuted with the same vigor in future that it has been during the past three sears, the markets will be overstocked, and the fishery comparatively exhausted. Notwithstanding that this is inevitable, we find considerable efforts are being made among packers and others directly interested for an extension of the fishing season, and some are so unreasonable in their demands, that they go so far as to ask for the repeal of the laws regulating the close season. I have no besitation in giving public expression to the opinion that should a change of any kind be under the consideration of the Government, more stringent laws and regulations should be enacted for this and other branches ot our fisberies. Unless a move be made in this direction, I would recommend that the fishing laws should remain unchanged."

Mr. McLean further reports two lobster factorion in operation in this district during the past season, one at Port Hood, the other at Mabou Harbour. At each there are 43 persons employed, exeluding fishermen. The number of traps used for lobster fishing at Port Hood Island is 4,000, and at Mabou Harbour ${ }^{2}, 0,0$. Lobster canning was commenced at Port Hawkesbury in May last, but the enterprise was not carried on to such an extent as to enable him to report as to whether it would prove remunerative or not. About four per cent. of the lobsters taken were undersized or in spawn, and, in accordance with his instructions, liberated.

Mr. McLean reports the close season as having been well observed. But one infraction of the law camo under bis notice, which was the setting of some salmon nets across the River Inhabitants. He seized the nets, but has not yet got a clue to the owners.

Overseer James Coady reports a decrease in the catch as compared with that of last year, due chiefly to the falling off in the catch of mackerel. They were late in making their appearance on the coast, and then unfavourable weather prohibited successful fishing. The catch of salmon aud alewives is about the same, but there is a small decrease in the catch both of lobsters and of herring, owing in a great measure to the unfavourable weather. Trout fisbing was much better than for a number of years, and there is also a small increase in the catch of codfish. The shore fishery in the southern end of his division was much better than in previous
years, but in the northern ond there was a great decrease. Several cases of violations of the law were promptly attended to, and fines from three to six dollars were imposed, making in all about fifty-five dollars, twelve of which have not yet been collected. Overseer Coady would strongly recommend the appointment of a warden in the vicinity of the Margaree Forks, which, he thinks, will entirely stop infringements of the law on that important part of the river.

Overseer David Ross, of N. E. Margaree, reports a marked decrease in the catch of all kinds of fish in his division, owing both to unfavourable weather and scarcity of fish. A new lobster-packing establishment was erected, and, although drift ice prohibited the setting of traps betore the first of June, yet the fishermen were very successful during the remainder of the season. The overseer recommends an extension of time, owing to the lateness of the season, when the drift ice is gone. Fly fishing for salmon in the north-east branch of the Margaree River was better than during the previous year, but shore fishing was a failure.

Mr. Ross again recommends the appointment of a warden at Little River, a distance of twenty-five miles from where he lives. A great many salmon frequent that stream, and a warden is necessary.

## King's county.

Overseer J. E. Starr, of Starr's Point, reports the catch as an average one. Herring were not abundant, but shad were plentiful and excellent in quality. The fish ladder at White Rock Mills appears to be all that is necessary. A large number of small fish were seen going down in the autumn on their way to the sea. They seem, however, to have some trouble in coming down over the dam, and some method should be adopted to ensure them a safe passagelover tho dam. Vessels from down the bay (American and others) have been in the babit of drifting large quantities of spawning herring in Scott's Bay. The resident fishermen very strongly object to this-claiming it to be a "natural spawning ground," and have petitioned the Minister to have it set aside for that purpose.

Overseer Reuben F. Reid, of Wolfville, reports a considerable falling off in the quantity of salmon and alewives in the Gaspereaux River. It is thought to be owing to the ineffeiency of the fish ladder, especially for the descent of the young fish. No case of illegal fishing came under the overseor's notice, but there is still the abuse of throwinis sawdust and other debris into the streams, which more stringent moasures will restrain in the future.

## LUNENBERG COUNTY.

Overseer H. S. Jost, ${ }^{\text {iof }}$ Western Lunenbuig, reporta a decrease in the value of the catch, owing to the lobster canning. Tho principal factory took no lolister, and the one at New Dublin did but little work this weason. The shore fishermen had poor luck this year with their nets and reines, but line fishing was good; the catch is said to be much more than that of last year. The Bay cod fishing flect, as a whole, did well. There is no improvement in the salmon and alewives fisherry in this district. There were very few tirh taken in the Lahave River. At Petite Riviere, the warden imposed a fine upon a man for having his net set across the channel. There are still some ralmon and alewives in the river, but they are so easily captured in the passes that $M_{1}$. Jost thinks it is only a question of time as to their entire extinction, unless more efficient ladders be supplied.

Onerseer Geo. W. Redden, of Chester, reports a large falling off in the value of the fish taken last season, due to the decrease in mackerel, herring and cod There has been a very marked increase in the catch of salmon, due chiefly to the increase in the rivers, which were restocked by the Department. There is also a large increase in the catch of gaspereaux-a result of the removal of obstruction in the rivers. Poachers are watched very closely, yet in some places meaeures should be taken to put an end to this evil. Mr. Redden recommends the removal of obstructions on

Upper Gold and Larder's Rivers, and also on Common's Lake Brook. The streams from which obstacles have been removed, have, as mentioned above, resulted successfully, and the same would be the case with others. There has been an increase of lobsters in this division, as a result of the close season.

## PICTOU COUNTY.

Overseer A. C. Pritchard, of New Glasgow, reports that the run of salmon in his district exceeded that of any previous years. He employed two men to aid him in suppressing illegal salmon fishing. Although some difficulties were encountered, yet the effect has been to lessen to a great extent the poaching on rivers in his district. If two such police were employed twenty-five days in the fishing season on each of the three rivers, the effect of their services would be to suppress the extensive poaching to which their rivers are subject. In accordance with orders, he suspended the prosecution of the Eureka Woollen Factory Co., for not constructing a fishway in their dam on East River. There is every prospect that, without further delay, they will accede to the demands of the Minister, and construct the pass. The fishways in this district are generally in a dilapidated condition, and require immediate attention. As several of the dams are to be repaired next summer, a favourable opportunity presents itself to have new ones built, or, at least, the old ones repaired. The fishway at Cameron's Mills needs special attention, as the gaspereaux are unable to reach Gardon Lake.

## QUEEN'S COUNTY.

Overseer John Fitzgerald, of Mill Village, reports the catch of salmon, although not so great as in former years, as greatly in excess of that of 1880. Alewives were plentiful, 5,000 barrels being caught in the Medway River. This is the best catch for forty years. Smelts were nearly as abundant as last year, and eels more so.

Overseer Sellon reports the catch of salmon in the Liverpool River to te in excess of last year, but a very unusual high"freshet and strong current prevented successful dipping for them, so that many more than usual were seen to go up the ladders, the undoubted efficiency of which is thereby further proven. No alewives or salmon were seen accumulating under the dam as herotofore. A free and good passage with plenty of water is provided even when the water is low in the river. A trap was placed at the head of the ladder, by direction of the Inspector, in the latter part of October and first part of November, and several fine parent fish were seen in it and allowed to pass up, thus proving not only that they ascend in the fall montha, but that they can easily and cheaply be taken for hatching purposes. Alewives were also in excess of last year. Spring fishing with nets was good in the harbour, but the strong and high stream prevented dipping. Many fish were seen going up the ladders, and many young ones were noticed descending the river during the month of September. Codfish, haddock and hake were plentiful, and fishing war good when bait could be got. Mackerel were almost a failure, herring were at times very plenty, but would not mesh in float nots; at times the seines did well, but these fish did not go near the traps this season. Lobsters are becoming small and scarce. Mr. Sellon is still of opinion that this fishery keeps river fish from coming in shore, and by it our line fishing is injured. A large number of American fishing vessels come here for bait, wantirg soveral ${ }^{*}$ hundred dollars worth per weels. He says, in conclusion, that the river fisheries under Departmental control are advancing, and he has every reason to believe that an ample supply of salmon and alcwives went up to the breeding grcunds, and will yearly increase.

## RICHMOND COUNTY.

Overseer Francis Marmeau, of Arichat, reports the catch of herring and of haddock as being nearly threefold that of the zear before, and the catch of cod showing an increase of more than one-half; but mackerel have fallen off nearly one-
half, and the salmon fishery proved nearly a failure. The catch of lobsters for the Arichat Lobster Factory is largely in advance of last year. This is due probably to the fact that the factory at D'Escousse was closed during the present season.

Orerseer Duncan Cameron, of St. Peter's, reports a very large increase in the catch in many kinds of fish, although a slight falling off is noticeable in some of the most important kinds. The large increase in the catch of herring and haddock fully compensates for the slight decrease in that of cod and lobsters. The catch, although only an average one, will yield remunerative prices. Mr. Cameron reports no infringement of the law.

## SHELBORNE COUNTY.

Overseer William J. McGill, of Shelburne, reports eight vessels employed fishing this year less than last. There is a large decrease in the catch of codfish. Trap fishing at John's Island was better than usual. The falling off in mackerel fishing is due to the failure in net fishing. The lobster business continues good, and shows a large inerease in the number of cans. At Wood's Harbour lobsters were plentiful, but are diminishing in size. Alowives continue to increase in some rivers. The fisbway at Clyde River is satisfactery, but some of the dams on other rivers are not provided with efficient passes. The falling off in the catch of alewires and salmon is due to tbe building of dams which are not supplied with proper fish passes. The public is much interested in the river fisheries, and ready to give its assistance to any steps that might be taken to reclaim the loss suffered since dams were built.

## FICTORIA COUNTY.

Overseer Donald McRae, of Baddeck, reports a decrease in almost all kinds of fish in his district, except herring, the catch of which is an average one. Mackerel proved a complete failure. The catch of cod shows a decrease, partly owing to the fact that this fishery was not closely attended to by the fishermon. The close season was well observed, and the people are generally becoming better acquainted with the laws and more disposed to obey them.

Overseer Juhn W. Burke, of Ingonish, reports that although the catch of some kinds of fish exceeds that of last year, yet the se:mon's catch, as a whole, is far below that of the previous season. Mackerel and salmon seemed to be wholly wanting; but herring and codish were a little more plentifal. The overseer watched the rivers with duo attention, and several poachers were detected.

## YARMOUTH COUNTX.

Overseer Enos Gardner, of Tusket, reports a falling off in the total catch, owing to the small catch of shore fishermen on account of unfavourable weathor. The bank fishermon all made good catches, larger than last year, and as prices generally ruled high for fish of all kinds, it has been a successful year to many of the fisbermen. Mr. Garduer again reports a good alewives fisbory, larger than last year. The fish came early and in large quantities, and the spring and fall freshets enabled them to ascend the rivers and come down in the fall in large quantities. The rivers are generally pretty free from obstructions; but one of the new ladders is needed at Carleton, which will remedy the existing evil. The ladder has been prepared, but the fish do not ascend in quantities, and some new passage is needed. The salmon fishery was very poor. In June there was quite a run, and most of the fish were then caught. Some of the trap nets made a good season's fishing, but unfarourable winds kopt the mackerel too far from shore for most of them. The lobster factories closed on first of August, according to law, but they were much disappointed in not being allowed the ten days' extension of time. Packers and fishermon are of opinion that July and August should be made a close season, and that fishing might be allowed during all the other months of the year. It is their intention to petition Parliament in the matter at ite next session. All the regulations were fairly observed.

Table showing the actual increase and decrease of the several productions of the Fishorics in the Province of Nova Scotia, compared with 1880.

| Articles. |  | Increase. | Decrease. |
| :---: | :---: | :---: | :---: |
| Salmon. | barrels. |  | 335 |
| do in ice. | lbs. | ................... | 11,285 |
| do smoked... |  | ....................... | 4,724 |
| do preserved..... | in cans. | .......................... | 2,098 |
| Mackerel................. do | barrels. in cans. |  | 63,055 631 |
| do Herring......................... | in cans. barrels. | - $\quad$................ | 631 |
| do smoked...... | barrels. boxes. | 61,726 7,305 | .................................. |
| Alewives ........... | barrels. | 6,329 | , |
| Uod.. ......................... | cwt. | 6, | 4,698 |
| Cod Tongues and Sounds.. | barrcls. | ....................... | 267 |
| Pollock. | crit. | 26, | 12,421 |
| Hake. | do | 26,227 | ................ |
| Haddock | do | 14,133 | 1715 |
| Halibut.. | lbs. |  | 171,593 |
| Shad. <br> Bass | harrels. | 1,839 | 2,760 |
| Trout | do | 3,092 | 2,760 |
| Smelt. | do |  | 21,390 |
| Eels... | barrels. | 89 | .................. |
| Oysters.. | do | 409 | ..... ................... |
| Lobsters. | cans. | 813,559 | , |
| Fish Oil. | gallons. | 47,789 | ...................... |
| Fish Guano. | tons. | 36 | ............. |
| Fish used as manure | barrels. | 7,450 | ....................... |

Comparative Statements of value of Fisheries in each County, in the Province of Nova Scotia, for the Years 1880 and 1881.

| Counties. | 1880. | 1881. | Increase. | Decrease. |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| A nnapolis. | 105,899 00 | 151,857 20 | 45,958 20 |  |
| Antigonish . ...................................... | 75,063 10 | 55,155 65 |  | 19,907 45 |
| Cumberland | 46,979 20 | 55, 20290 | 8,22370 |  |
| Colchester | 58,724 28 | 67,65125 | 8,92697 |  |
| Cape Breton ...... ................................. | 297,329 25 | 268,477 00 |  | 28,852 25 |
| Digby..................................... .......... | 402,714 00 | 481,382 00 | 78,668 00 |  |
| Guysboro' .................................. ........ | 447,398 95 | 562,598 50 | 115,199 55 |  |
| Halifar ............................................. | 884,451 80 | 722,446 20 |  | 162,005 60 |
| Hants. | 23,212 25 | 24,971 60 | 1,759 35 |  |
| Inverness................... ....................... | 435,449 50 | 399,209 75 |  | 36,239 75 |
| King's. ............................................ | 43,534 00 | 62,246 25 | 18,112 25 |  |
| Lunenburg....................... ................. | 1,176,159 05 | 1,150,682 95 |  | 25,476 10 |
| Pictou ........................... ................... | 45,989 75 | 73,96040 | 27,970 65 |  |
| Queen's. .......................................... | 203,502 15 | 227,061 00 | 23,558 85 |  |
| Richmond .......................................... | 375,812 13 | 416,403 80 | 40,591 67 |  |
| Shelburne | 857,307 00 | 791,389 25 |  | 65,917 75 |
| Victoria | 141,964 00 | 118,678 70 |  | 23,285 30 |
| Yarmouth | 669,572 05 | 585,401 10 |  | 84,170 95 |
| Total .............................. | 6,291,061 46 | 6,214,7ヶ5 50 | 369,569 19 | $\begin{array}{ll} 445,855 & 15 \\ 369,569 & 19 \end{array}$ |
| Decrease..... |  |  |  | 76,285 96 |

## GENERAL RECAPITULATION.

| Kinds of Fisl. | Quantities. | Rate. | Value. |
| :---: | :---: | :---: | :---: |
|  |  | \$ cts. | \$ cts. |
| Salmon, pickled............................................. | 457 brls. | 1500 | 6,855 00 |
| do fresh in ice........................................ | 190,203 lbs. | 015 | 28,530 45 |
| do smoked........................................... | 7,190 do | 015 | 1,078 50 |
| do preserved ......................................... | 9,250 cans. | 015 | 1,38750 |
| Mackerel.................................................... | 63,377 brls. | 1000 | 633,770 00 |
| do in cans.... ......................................... | 39,689 cans. | 015 | 5,953 35 |
| Herring...................................................... | 198,269 brls. | 400 | 793,076 00 |
| do smoked, in boxes................................... | 67,325 boxes. | 025 | 16,831 25 |
| Alewives.... ................................................ | 22,474 brls. | 400 | 89,896 00 |
| Cod ........ ................................................. | $583,029 \mathrm{cwt}$. | 425 | 2,477,873 25 |
| Cod Tongues and Sounds................................. | 1,170 brls. | ${ }^{7} 00$ | 8,190 00 |
| Pollock. | 31,558 cwt. | 350 | 110,453 00 |
| Hake. | 73,885 do | 350 | 258,597 50 |
| Haddock | 116,160 do | 350 | 406,560 00 |
| Halibut ..................................................... | 718,370 lbs. | 046 | 43,102 20 |
| Shad........................ ......................... ........ | 9,396 brls | 809 | 75,16800 |
| Bass, Trout and Smelt.......... .......................... | $410,650 \mathrm{lbs}$. | 006 | 24,639 00 |
| Eels... | 1,951 brls. | 900 | 17.559 00 |
| Oysters.............................. ........................... | 2,270 do | 300 | 6,810 00 |
| Lobsters, preserved | 4,895,692 cans. | 015 | 731,35380 |
| do $\qquad$ | 35 tons. | 4000 | 1,400 00 |
| Fish Oil... | $417,022 \mathrm{galls}$. | 065 | 271,064 30 |
| Fish Guano.................................................... | 1,820 tons. | 1500 | 27,300 00 |
| Fish used as manure | 19,780 brls. | 050 | 9,890 00 |
| Fish used as bait. | 9,728 do | 300 | 29,184 00 |
| Hake sounds. | 44,864 lbs. | 060 | -6,918 40 |
| Squid.. | 2,400 brls. | 400 | 9,600 00 |
| Halifax Fish Market (amount sold)................... |  |  | 25,500 00 |
| Smoked Haddies, Haddock and Halibut in Digby Co. |  |  | 26,01000 |
| Albicores and Clams in Queen's Co |  |  | 93500 |
| Home consumption of various counties as per returns. |  |  | 46,290 00 |
| Total |  |  | 6,214, $\uparrow$ ¢5 50 |

Return shcwing the Number, Tonnage and Value of Vessels and Boats engaged in Fish, and the Total Number of Men employed, \&c., in the

the Fisheries, Quantity and Value of Fishing Materials, Kinds and Quantitie of Province of Nova Scotia, for the Year 1881.


Return showing the Number, Tonnage and Value of Vessels and


Boats engaged in the Fisheries, \&c.-Nova Scotia-Continuch.


Return showing the Number, Tonnage and Value of Vessels and


Boats engaged in the Fisheries, \&c.-Nova Scotia-Continued.


Return showing the Number, Tonnage and Value of Vessels and


Boats engaged in the Fisheries, \&c.-Nova Scotia-Continued.

| Kinds of Fish. |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Fisi <br> Prodects. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  | $\xrightarrow{\text { 兽 }}$ |  |  |  | Lobsters, cans. |  |  |  | \| | Valcr. |
| ... | 99 | 4351 | . | 6 | 185 | 9300 | 1 |  | 3350 | 12500 | 94 | 25 |  |  | 2548 | 30 | ..... | 52,463 95 |
|  |  | 7200 | $10 \mid \ldots$ | 400 | 400 |  |  | ... |  |  |  |  | 48000 | \|... | 3000 | \|... | ...... | 51,020 00 |
|  | .... | 140 | ...... ... | ...... | 100 | ...... | ..... | ... |  | ....... |  |  | ........ |  | 200 | ... | ..... | 2,575 00 |
| ... | ... | 3600 | ..... ... | ...... | 1000 | ...... | .... |  | ..... | ........ | ..... |  | ........ |  | 1800 | ... | , | 27,385 60 |
|  | ..... | 1200 | ...... ... | ...... | 250 | ...... |  |  | ..... | ....... |  |  |  |  | 640 | ... |  | 13,241 00 |
| ... | $\cdots$ | 1800 | ...... ... | ...... | 600 | ...... | ...... | ... | ...... | .. | ...... |  |  |  | 1200 | ... |  | 17,050 00 |
|  | ..... | 580 | ...... ... | 40 | 70 |  |  |  | ..... | ........ | .... |  |  |  | 300 |  | . | 7,150 00 |
|  |  | 4500 | . |  | 600 |  |  |  |  |  |  |  |  |  |  |  |  | 34,930 00 |
|  | 20 | 3000 | ..... |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 25,990 00 |
| ... | 30 | 200 | . ... |  | 40 |  |  |  |  |  |  |  |  |  |  |  |  | 1,830 00 |
|  | 6 | 200 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ..... | 2,395 00 |
|  |  |  |  |  |  |  |  |  |  | Fish us | ed as | bait, | , 1,20 | ba | rels, at |  |  | 3,612 00 |
| *- |  |  | ...... ... |  |  |  |  |  | 200 | ....... |  |  | .... |  |  | ... | ... | 13800 |
| $\cdots$ | .... | 80 | ...... ... | ...... |  | ...... |  |  |  | ......... |  |  | ... |  | 13 20 |  |  | 24495 41060 |
| $\cdots$ |  | 1409 | ...... | . | 50 | 80 |  |  |  |  |  |  |  |  |  |  |  | 10,355 50 |
|  |  | 200 | ...... | ....... | 10 | 80 |  |  |  |  | ..... |  |  |  | 50 |  |  | 2,122 30 |
|  |  | 100 | ..... | ...... | 12. | ...... |  |  | 150 |  |  |  |  | ... | 25 |  |  | 2,092 25 |
|  | 8 |  | ..... |  |  |  |  |  | 150 | ........ |  |  |  |  |  |  |  | 4100 |
|  |  | 100 | ...... ... |  | 5. |  |  |  |  |  | 4. |  |  | ... | 25 |  |  | 1,309 75 |
|  |  | 100 | ...... ... | ... | 5. | ...... |  |  |  | ......... | 5 |  |  | ... |  |  |  | 1,733 75 |
|  |  | 30 | ... |  |  |  |  |  |  |  |  |  |  | .... |  |  |  | 1540 20 |
| .... |  | 100 | . |  | 5 |  |  |  |  |  |  |  |  | ... | 25 |  |  | 2,058 75 |
|  |  | 50 |  |  |  |  |  |  |  |  |  |  |  | ... | 13 |  |  | 3,020 95 |
|  | 7. |  |  |  |  |  |  |  |  |  |  |  |  | $\ldots$ |  |  |  | 66700 |
| $\cdots$ | 5 | 100 | ...... .. |  |  |  |  |  |  |  |  |  |  | $\cdots$ | 25 |  | ...... | 1,317 05 |
|  |  |  |  |  |  |  | .... | ... |  | 2000 |  |  |  |  |  |  |  | 13500 |
| ... | 175 | 29481 | 10 ... | 446 | 3832 | 9430 | 1 ... | ... 5 | 5090 | 17800 | 142 | 51 | 48000 | ...\| | 14367 | 30 | ... | 268,477 00 |

Retcrn showing the Number, Tonnage and Value of Vessels

and Boats eugaged in the Fisheriee, \&c.-Nova Scotia-Continuerl.


Return showing the Number, Tonnage and Value of Vessels and


Boats engaged in the Fisheries, \&c.-Nova Scotia-Continued.


Return showing the Number, Tonnage and Value of Vessels and Boats engaged in the Fisheries, \&c.-Nova Scotia-Continued.


Return showing the Number, Tonnage and Value of Vessels and Boats engaged in the Fisheries, \&c.-Nova Scotia-Continued.


Retorn showing the Number, Tonnage and Value of Vessels and


Boats engaged in the Fisheries, \&c.-Nova Scotia-Continued.


Return showing the Number, Tonnage and Value of Vessels and Boats engaged in the Fisheries, \&c.-Nova Scotia-Continued.



| Dibinict． | Kinds of Fish． |  |  |  |  |  |  |  |  |  |  |  |  |  | Fish Prodicts． |  |  | Value． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \dot{B} \\ \dot{B} \\ \dot{B} \end{gathered}$ |  |  |  |  |  |  |  |  |  |  |  | $\begin{aligned} & \text { 島 } \\ & \text { d } \\ & \text { 嵒 } \\ & \mathbf{U} \\ & 0 \\ & 0 \\ & \hline 0 \end{aligned}$ |  |  |  |  |  |
| Invernest－Continued． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | \＄cts． |
| Port Hawkesbury ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 700 | 30 | ．．．．． |  | 250 | ．．．．． |  | ．．．．． | 1000 | 700 | 10 | ．．．．． | 3600 |  | 4500 |  |  | 69，071 00 |
| Port Hastiugs．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 100 70 | ． | ．．．．． | ．．．．． | 50 | ．．．．． | ．．．．． | ．．．．． | 500 | 2000 | 20 | ．．．．．． |  |  | 60 |  |  | 2，50e 00 |
| Creignish ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 40 | ．．．．．．． |  | ．．．．．．． | 10 | ．．．．．．． | ．．．．．． | ．．．．． |  |  |  | …．． | …．．．． | 14 | ${ }_{15}^{15}$ |  | ．．．．． | 1，602 25 |
| Long Point ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 210 | ．．．．．．． |  | ．．．．．．． |  |  |  | ．．．．．． | 400 | 3000 |  |  |  |  | 180 |  | ．．．．． | 1,805 <br> 4,519 |
| Judique．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 216 |  |  |  |  |  |  |  | 250 | 3000 |  |  |  |  | 200 |  |  | 4,519 <br> 3,316 |
| Little Judique．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 350 | 7. | ．．．．．． | 400 |  | 150 |  | 100 | 100 | 1500 | 15 |  |  | ．．．．． | 450 | 30 |  | 3,316 7.905 7 |
| Port Hood．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 4000 | 60. |  | 2000 | 300 | ， 150 | ．．．．．． | 140 |  | 1000 |  |  | 133814 |  | 2000 | 300 |  | 57，669 5 ¢ |
| Malua ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 1000 | 30 | ．．．． | 80 | 200 | 700 | ．．．．．． | 100 | 200 | 2000 |  |  | 53864 |  | 600 | 50 | 40 | 18，247 10 |
| Whycocomah ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 300 |  |  | ．．．．．． |  |  | ．．．．． | ．．． | 2500 | 1000 | 30 | 100 |  |  | 60 |  |  | 2，569 00 |
| Boom ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 375 | 25 | ．．．．． | ．．．． |  |  |  | ．．．．．． | 800 | 700 | 15 | 5.50 |  | ．．．．．．． | 200 |  |  | 6，083 75 |
| Malgawatch ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 260 25 | ．．．．．． | ．．．．．． | ．．．．．． | ．．．．．｜ |  | ．．． | 150 | 300 150 | 1000 | 30 | 400 | ．．． | ．．．．．． | 75 | ．．．． | ．．．．． | 5，51075 |
| Basin River and Deanis ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 25 | ．．．．．．． | ．．．．．．． | ．．．． | ．．．．． | ．．．．．． | $\cdots$ | ．．．．．． | 150 400 | 200 800 | 20 | 400 | ．．．．．．．． |  | 6 |  |  | 1，751 15 |
| River Dennis ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 500 | ．．．．．． | ．．．．．．． | ． | －．．．． |  |  | ．．．．．． | 400 | 800 60 | 20 | － |  |  |  |  |  | 7200 |
| West Bay．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 350 | ．．．．． | ．．．．． | ．．．．． | ．．．． | ．．．．．． | ．．．．． | ．．．．． | 200 | 110 | 10 | － 31 | ．．．．．．． |  | 75 |  |  | 3,823 2,711 25 |
| River Inbabitauts．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  | ．．．．．． | ． | ． |  | ．．．．．．． | ．．．．．．． | ．．．．． | 2000 | 1800 | 20 |  |  |  | 35 |  |  | 2,71125 40860 |
| Delaney＇s Cove ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 500 | ．．．．． |  | ．． | 30. |  | ．．．．． |  |  |  |  | ．．．．． |  |  | 250 |  |  | 3，272 50 |
| Doucet＇s Cove ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 430 | － | ．．．．．． | ．．． | 85 | ．．．．．． | ｜．．．．． | ．．．．．． |  | ．．．．．．．．． |  |  |  | ．．．．． | 210 | ．． |  | 3，549 50 |
| East Margaree Harbor ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 910 | ．．．．． | ．．．． | ．．．．．． | $1 \div 6$ | ．．．．．． |  | ．．．．．． |  | ．．．．．．．． | 6. |  |  |  | 430 |  |  | 7，469 u0 |
| West Margaree Harbor．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 2610 | ．．．．．． |  | ．．．．． | 240 | ．．．．．． | ．．．．．． | ．．．．．． | 800 | ．．．．．．．．． | 5 | ．．．．． | 43400 |  | 1320 | ．．．．．．． |  | 24，212 00 |
| Margaree Forks ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 20 | ．．．．．． | ．．．．．． | ．．．．． | ．．．．． | ．．．．．． | ．．．．．． | ．．．．．． | 280 |  |  |  |  |  | 38 |  |  | 1,600 50 |
| Margaree River．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  | ．．．．．． | ．．．．． | ．．．．． |  |  |  |  | 200 | ．．．．．．．． |  |  |  |  |  |  |  | 1，836 00 |
| Margaree Island．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 658 | ．．． | ．．．．． | ．．．．． | 126 | 600 |  | ．．． | ．．．．．．．． | ．．．．．．．．． | ．．．．．． | ．．．．．． |  |  | 200 |  |  | 8，043 50 |
| Broad Cove Marsh．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 350 | ．．．．．． | ．．．．． | ．．．．． | 84 | 800 | ． |  | ．．．．．．．． | ．．．．．．．． |  |  |  |  | 126 |  |  | 6，191 40 |
| Port Bana ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 730 |  |  |  | 96 | 400 |  |  |  | ．．．．．．．． |  |  |  |  | 364 |  |  | 7，209 10 |


| Coal Mines, O.B............................................... | 680 |  |  |  |  |  |  |  |  |  |  |  |  |  | 240 |  |  | 8,602 00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Brosd Cove .......... ........ ....... .................. ........ | 200 | ...... |  | .... | 28 |  |  | ..... |  | 1200 |  |  |  |  | 125 |  |  | 4,221 25 |
| Lake Bain ........ ................ ............................. |  |  |  |  |  |  | ...... | ... | 800 |  | 72 | ...... |  |  |  |  |  | 83600 |
| ETrout River. ................. ................ ................... |  |  |  |  |  |  |  | ...... | 8400 |  |  |  |  |  |  |  |  | 50400 |
| Cheticamp...................................................... | 8400 | ..... | ..... | 510 | 750 | ..... |  | . | 500 | ........ | ...... |  |  |  | 2000 | ..... |  | 44,175 00 |
| O-Eastern Harbor . .............. .............................................................................. | 5377 | ..... | ..... | 175 | 100 | ..... | . | . | ........ |  |  | ..... | 97872 | ..... | 2750 | ..... | ..... | 48,561 40 |
| Clack Rock | 800 | ..... | ..... | 25 | 20 | .... | ..... | . | ........ | ......... | ...... | ..... |  | ...... | 600 | ..... | ..... | 4,107 50 |
| wit Mill Brook. | 1025 | ..... | ..... | 125 | 250 | ..... | ..... | ..... | ........ | ......... | ...... | ..... | ........ | ... | 350 |  |  | 7,446 25 |
| Mill Cove. | 160 | ...... | ..... | 20 | 12 | ..... | ..... | ... | ....... | ......... | ..... | -.... | ........ | $\cdots$ | 100 | ..... | ...... | 94300 56350 |
| Big Pond | 2300 | ....... | ...... | 300 | 200 | ....... | ...... | ....... | .......... | -........ |  | ...... |  | ..... | 760 |  |  | 14,001 00 |
| Friar Head | 1250 | ... |  | 200 | 240 | ..... |  | . | ..... |  |  |  |  |  | 1140 |  |  | 9,781 50 |
| Douceti's Cove. | 150 | …... |  | 200 | 15 | ...... |  | ...... |  |  |  |  |  |  | 80 |  |  | ${ }^{\circ} 86800$ |
| North East Margaree ................................................. | 150 |  |  | 40 | 50 |  |  |  | 1500 |  |  |  |  |  |  |  |  | 1,642 50 |
| Total. | 35316 | 152 | ..... | 3879 | 3305 | 2800 | 8 | 490 | 21380 | 20060 | 287 | 1481 | 332550 | 14 | 19634 | 382 | 40 | 399,209 75 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Return showing the Number, Tonnage and Value of Vessels and


Boats engaged in the Fisheries, \&c.-Nova Scotia-Continued.


Retern showing the Number, Tonnage and Value of Vessels and Boats engaged in the Fisheries, sc.-Nova Scotia-Continued.


Return showing the Number, Tonnage and Value of Vessels and Boats engaged in the Fisheries, \&c.-Nova Scotia-Continued.

| District. | Kinds of Fish. |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $\mathrm{F}_{\text {ISH }}$ <br> Products. |  |  | Value. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \dot{B} \\ 0 \\ \text { B } \\ 0 \end{gathered}$ |  | $\begin{gathered} \dot{\vec{B}} \\ \dot{B} \\ \stackrel{y}{\ddot{0}} \\ \stackrel{\rightharpoonup}{\sigma} \\ \dot{\theta} \end{gathered}$ |  |  | $\stackrel{\dot{\oplus}}{\stackrel{1}{\theta}}$ |  |  | $\stackrel{\oplus}{\oplus}$ | $\begin{aligned} & \dot{g}= \\ & \stackrel{\text { か }}{\ddot{~}} \\ & \text { 品 } \end{aligned}$ |  |  |  |  | \|l|c|c |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lunenburg. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | \$ cts. |
| Lunenburg to Cross Island................. | 10 | 58000 | 60 | $540 \sim$ | 5000 | 11000 | 70000 |  | ...... |  |  | 100 |  | ........ |  | 55580 | 50 | 400 | 385,055 00 |
| Mahone Bay to Martin's Island............ | 50 | $20+38$ | 21 | 1350 | 1200 | 3200 | 21000 | ...... | . |  | 2510 | 3:1 | ........ | ... | 2 | 17326 | 30 | 200 | 135,673 90 |
| L,ahave River to Iron Bound Island....... | 60 | 29000 | 30 | 28.10 | 2500 | 4401 | 40000 | ...... | ..... | 180 | 2000 | 50 | - | ........ | 3 | 27090 | 30 | 309 | 203, 16150 |
| West Dublir to County Line West........ | 40 | 38000 | 32 | 3100 | 34.0 | 6000 | 50000 | ...... | .... | 3500 | 3000 | 60 | .... | 5760 | 4 | 3535 | 60 | 300 | 267,675 50 |
| Chester | 800 | 2000 | 10 | ....... | 40 | 80 | ....... | ...... | ..... | 2000 | ..... | 20 |  | 150000 | ...... | 100 |  | 40 | 46,605 00 |
| Martin's River. | 40 | 8000 | 15 |  | 20 | 300 | ....... | ..... | ...... | 80 | ...... | 15 | ........ |  | ..... | 400 | 10 | ..... | 36,695 80 |
| Fox Point. ...................................... |  | 50 | ...... | .......... | 200 | 60 | ......... | .... | ...... |  | ....... | 15 | ........ | ......... | . | 20 |  | ...... | 7,395 50 |
| Mill Cove....................................... | 10 | 20 | ...... | . | 100 | 80 | ......... | . |  | ........ | .... | - |  | . | ...... | 40 |  | ..... | 5,196 00 |
| Lodge .................. ................ ....... | 20 | $\cdots$ | ...... |  | 50 |  | ........ | ... | ..... | ....... | .... | ..... | ......... |  | ...... | 10 |  | ..... | 7,536 50 |
| North-West Cove., ............................ | 10 | 2011 | 8 |  | 100 | 60 | ........ | ... | ...... | .... | .... | ..... |  |  | ...... | 100 |  | ...... | 13,634 00 |
| Ashpotaghan................................. | 12 | 100 |  |  | 50 | 20 | ........ |  | - | ........ |  | ..... |  | ......... | ...... | 50 |  | ..... | 9,565 50 |
| Sandy Beaches................................. | 15 | 1000 | ${ }^{6}$ | ... | 75 | 50 | ......... | ...... | $\cdots$ | ....... | ..... | . | ........ | - | ..... | 80 | ... | ..... | 9,64900 |
| Blandford...................................... | 20 | 150 | 9 | ......... | 150 | 100 | ......... | ..... | $\cdot$ | ....... | ... | ..... |  | .. | $\cdots$ | 150 | ..... | - | 8,61300 |
| Little Tancook......... ........................ |  | 100 |  | .... | 100 | 50 | ........ | ..... | ... |  | .... |  |  | ...... | ..... | 105 | ...... | ..... | 2,818 25 |
| Big [ancook.................................... | 40 | 209 | 10 | ........ | 200 | 100 | ... |  | ..... | ....... | ..... | ..... | ........ | ........ | ..... | 200 |  | ...... | 5,835 <br> 2,359 <br> 3, <br> 15 |
| Deep Cove <br> Iron Bound $\qquad$ | 10 | 29 100 | ...... | ........ | 40 150 | 30 100 | ....... | ..... | .... | ....... | ..... | ..... | ........ | ....... | ..... | 175 |  | ..... | 2,35975 3,21375 |
| Iron Bound ...................................... |  | 100 |  |  | 150 | 100 | ......... |  |  |  |  |  |  |  |  | 175 |  |  | 3,213 75 |
| Total............................. | 1137 | 157378 | 201 | 12650 | 13375 | 25630 | 181000 |  |  | 12980 | 9300 | 275 |  | 155760 | 13 | 136791 |  | 1240 | 1,150,682 95 |

Retorn showing the Number, Tonnage and Value of Vessels

and Boats engaged in the Fisherio ; \&c.-Nova Scotia-Continued.


Return showing the Number, Tonnage, and Value of Vessels and


Boats engaged in the Fisheries, \&c.-Nova Scotia-Continued.


Return showing the Number, Tonnage and Value of Vessels and


Boats engaged in the Fisheries, \&c.-Nova Scotia-Continued.


Return showing the Number, Tonnage and Value of Vessels and


Boats engaged in the Fisheries, \&c.-Nova Scotia-Continueá.


Return showing the Number, Tonnage, and Value of Vessels and


Boats engaged in the Fisberios, \&c.-Nora Scotia-Continued.


5 b-4

Recapitolation showing the Total Number，Tonnage，and Value of Vessels and Boats engaged in the Fisheries \＆c．－Nova Scotia．

| No． | Codrtien． | Vegbels and Boats Emploted in Figeing． |  |  |  |  |  |  | Fishing Material． |  |  |  | Kinds of Fise． |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Vessels． |  |  |  | Boats． |  |  | Nets， |  | Weirs． |  |  |  |  |  |  |  |  |  |
|  |  | \％ |  |  | 号 | ${ }^{\circ}$ |  |  |  |  | \％ |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | $\begin{aligned} & \text { 号 } \\ & \text { ® } \end{aligned}$ | 苞 |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | Annapolis ．．．．．．．．．．．．．．．．．．．．．．．．． | 13 | 167 | $\$$ 5100 | 67 | 217 | $\$$ <br> $\$ 874$ <br>  <br> 8 | 413 | 23258 | ${ }_{11330}$ | 25 | ${ }_{1275}^{\$}$ |  | 960 |  |  | 70 |  | 26500 | 39200 |
| 2 | Antigonish．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  | 190 | 3370 | 440 | 15700 | 16800 |  |  | ．．．．． | 27658 |  | ．．．．．． | 840 |  | 417. | ．．．．．．．． |
| 3 | Oumberland．．．．．．．．．．．．．．．．．．．．．．． | 1 | 40 | 1600 | 4 | 47 | 1310 | 176 | 3600 | 2015 | 13 | 385. |  | 22550 |  |  | 195 | ．．．．．．． | 1050 |  |
| 4 | Colchester ．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  | 145 | 3615 | 313 | 28230 | 656.1 | 34 | 11950 | 34 | 26140. | ． | ．．．．． |  |  | 236 | 350 |
| 5 | Cape Breton．．．．．．．．．．．．．．．．．．．．．．．．．．． | 13 | 263 | 4630 | 77 | 758 | 19888 | 1900 | 51460 | 22774 | 500 | 150 | 72 | 4580. | ．．．．．． | ．．．．．． | 1833 | ．．．．．．．． | 20620 |  |
| 6 | Digby ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 58 | 1078 | 27500 | 363 | 475 | 18025 | 1051 | 20020 | 17780 | 34 | 2600. |  |  |  |  | 176 | ．．．．．．．． | 16336 | 12000 |
| 7 | Guysborough ．．．．．．．．．．．．．．．．．．．．．． | 28 | 1088 | 30000 | 215 | 1350 | 31755 | 2314 | 143200 | 69500 | 71 | 9730 | 81 | 3420 | 1150 |  | 7983 | ．．．． | 21483 |  |
| 8 | Halifax ．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 58 | 1571 | 17100 | 338 | 2199 | 10509 | 2593 | 226190＇ | 29：70 | 461 |  |  | 23236 | 5140 |  | 12009 | $\cdot \cdot$ | 21166 |  |
| 9 | Hants．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  | 119 | 2083 | 150 | 7656 | 3045 | 12 | 1350 |  | 6533 | ．．．．． |  |  |  | 900. |  |
| 10 | Inverness．．．．．．．．．．．．．．．．．．．．．．．．．．． | 14 | 472 | 8500 | 89 | 742 | 182.7 | 2130 | 55915 | 37591 | 98 | 1156 | 127 | 2400 | ．．．．．． | 7750 | 7153 | 19689 | 14630 |  |
| 11 | Kinga．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 9 | 111 | 1950 | 320 | 68 | 1388 | 1 | 15430 | 3835 | 29 | 6610 | ．．．．． | 4690 |  | ． | 60. |  | 7341 | 15355 |
| 12 | Lunenburg ．．．．．．．．．．．．．．．．．．．．．．．．． | 161 | 15582 | 446900 | 1471 | 2180 | 58455 | 3541 | 62600 | 67620 | 121 | 24800 | ．．．．． | 18960 | 900 | ．．．．．． | 9610 | 15000 | 15740 | ．．．．．．．．． |
| 13 | Pictou ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  | 158 | $\underline{2359}$ | 263 | 6755 | 7445 | ． | ．．．．．．．． | ．．．．．． | 32466 | $\cdot$ | ．．． | 76 | ．．．．．．．．． | 1145 | ．．．．．．．．． |
| 14 | Queens．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 30 | 907 | 36300 | 211 | 381 | 17334 | 762 | 22372 | 13392 | ．．．．． |  | ．．．．． | 12565 |  |  | 141 | ．．．．．．．．． | 8996 |  |
| 15 | Richmond．．．．．．．．．．．．．．．．．．．．．．．．．． | 67 | 2275 | 167300 | 481 | 989 | 20793 | 2004 | 111350 | 40785 |  |  | 54 | 100 | ．．．．．． | 1500 | 5796 |  | 16756 |  |
| 16 | Shelburne．．．．．．．．．．．．．．．．．．．．．．．．．． | 111 | 5159 | 213400 | 1182 | 830 | 25550 | 1413 | 65710 | 19745 | 1.3 | 8800 |  | ．．．．．．．． |  | ． | 7466 | ．．．．．． | 12812 |  |
| 17 | Victoria．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | ．．． |  |  |  | 536 | 10320 | 1066 | 34090 | 11776 |  |  | 89 | ．．．．．．．．． |  |  | 666 |  | 2469 |  |
| 18 | Yarmouth ．．．．．．．．．．．．．．．．．．．．．．．．．． | 84 | 4144 | 210120 | 1186 | 541 | 21660 | 986 | 68160 | 34010 | 23 | 35200 |  | 4035 |  |  | 9313 | 5000 | 9672 | 420 |
|  | Total ．．．．．．．．．．．．．．．．．． | 647 | 32867 | 1170400 | 6004 | 11919 | 269515 | 21522 | 961686｜ | 415338 | 1434 | 104006 | 457 | 190203 | 7190 | 9250 | 63377 | 39689 | 198269 | 67325 |

Recapittlation showing the Total Number, Tonnage and Value of Vessels and Boate engaged in the Fisheries, \&c.-Nova Scotia-Concluded.


No. 2.

## NEW BRUNSWICK.

# REPORT OF W. H. VENNING, Esq., INSPECTOR OF FISHERIES FOR THE PROVINCE OF NEW BRUNSWICK, FOR THE YEAR 1831. 

Fisheries Office, Str. John, 31st December, 1881.

Hon. A. W. McLelan,<br>Minister of Marine and Fisheries, Ottaka.

Sir,-I have the hnnour to submit my Annual Report on the fisheries of New Brunswick, for the year now ending, together with synopses of the Reports of local officers. Appended to these will be found statistics of the catch in the several districts and in the Province, which show a considerable increase over those of last year.

GALMON.
The serious decrease in the catch of salmon, recorded in my last Annual Report, has, I regret to say, been still more marked during the present year. The salmon fisheries of the Province have fallen more than 50 per cent. below the catch of former years. This decline is generally attributed to some unusual and exceptional cause; but, so far as I have beon able to learn, no abnormal cause has yet been discovered, while a plain, simple and sufficient cause is everywhere visible. In all our estuaries and rivers the number of nets is excessive, and for years this fishery has boen pursued beyond the power of the fish to multiply. The effects of this over-fishing has long been visible, and is every year becoming more evident, and I can only again expross my strengthened conviction that, as long as this excessive fishing continues to be pursued, no permanent improvement can be expected. As it will be extremely difficult, if not impracticable, to curtail the number of nets, the most feasible mode of reducing the over-fishing will be either to shorten the open season or to lengthen the weekly close time. One of these measures will, in my opinion, be absolutely necessary for the preservation of this fishery.

## BAS8.

This fishery continues to improve in all places except in Miramichi, where it has long been pursued to an excessive extent. The destruction of young bass, formerly caused by bag-nets in smelt fishing, has no doubt retarded the improvement which resulted from the prohibition of seiningand late spring fishing. But still the fishery has been profitable, and the catch has considerably exceeded that of last year, which is very encouraging, as previously each successive yoar showed a decline in this important and profitable fishery. Any relaxation in the present protective regulations will be followed by the worst results.

## SHAD.

The catch of this fish has been somewhat better this year than last; but, compared with former years, it is very small and indicates certain decay. As $\bar{I}$

Stated in my last Annual Report, the only measure I can recommend for its improvement is a longer weekly close time. Under present regulations this close time is only from Saturday night to Monday morning, and is not sufficient for the protection of apawning fish. If the close time were made from Friday night until Monday morning, a larger number of parent fish would reach their spawning places, and their progeny would, no doubt, increase the stock, which excessive fishing has almost exhausted.

## ALEWIVES.

There has been a small increase in tho catch of this fish over that of last year. But, as the causos assigned in my former Reports for the decrease in this fishery, viz: excessive fishing and insufficient close time, still continue to operate, I can see no reasonable hope for any permanent improvement. Alewives are taken only when asconding our rivers to spawn; consequently, the whole catch consists of gravid fish. So many of these are taken every season, and the remnant left for propagation is so small, that year by year the supply diminishes, while the fishermen increase. If the weekly close time were extended, no doubt a much larger stock of parent fish would reach their spawning places, and as this species is very prolific, we might reasonably hope to see the catch ivoreased.

## SMELT.

This fishery still continues to yield an immense catch; but glutted markets and low prices have left small profits to dealers. The mild weather that has prevailed this winter has necessitated sales at any price, and at present the supply is greater than the demand. Should the weather be colder during the months of January and February, and allow shippers to hold over their stock, prices will, no doubt, advance to figures that will leave a fair margin for profit to shippers and good remuneration to fishermen. Taking into account the enormous quantities of this tish which have been taken jearly, and the very small profits that have been realized from the busiuess, it is a matter for grave consideration whether some means of restricting the catch should not be provided. This restricted catch would really be more profitable than the present excessive quantities, which keep prices down. The injury done to the coast fisheries by this great destruction of fish food is not compensated for by the money obtained in return. Our rivers are being depleted of fish food without any corresponding benefit to the country, and it is a serious question whether the fish are not worth more to the country in the water than in glutted markets and manure heaps. When the supply of fish food fails, the decp sea fishes will desert our shores, and seek it in other and distant places.

## STURGEON.

The capture and care of this fivh, as described in my last Repret, has grown into a large and important industry. The quantity caught has been romewhat less this season than last; but our fishormen have obtained better ${ }^{\text {prices }}$ from the shippers. During the months of June and July the catch was very large, the market was overstocked, and prices fell to so low a firure that shippers must, in some cases, have lost money. In consequence of this, fishing was not pursued so energetically during the month of Aurust, and ceased entirely somo time before the close scason commenced. If the fish continuc to be as numerous in futureseasonsav they have been in those of the past, this fishery will be the most important one on the St. John River. The measures adopted for its regulation and protection appear to be sufficient, and have been cheerfully observed by fishermen. A strong desire is expressed by the fishermen of Sunbury and Q'een's that the close time should be extended from 1st May to Ist July, in order that the first schools of fish may reach these counties before they are disturbed by nets lower down the river; and that the open season should be prolonged until the ist October. I am not prepared to recommend this change, as it would
prevent the fish from being taken when in its best condition, and would leave no protection for spawners.

## herring.

The returns show a very large increase from this fishery. The demand for small herring, cured as sardines, continues to increase, and large quantities are disposed of at better prices than formerly. This increasing catch of young fish cannot fail to hare a material effect on the future supply of mature berring. The number of weirs is constantly increasing, and the production of sardines is becoming greater every year. In view of these facts, I would arain urge that all known spawning grounds be protected during the spawning season, and no fishing allowed within their limits. If the supply of herring is to be kept up, I consider this protective measure absolutely necersary; but an Order in Council will be needed to give it effect. The demand for small herring has brought into practice a very destructive mode of capturing them, against which numerous complaints are made by weir and net fishermen. This mode is called "torching," or "driving," and is thus conducted: A boac, with a large torch in the bow, made of combustible materials saturated with parafine oil, is rapidly rowed by two men in the coves and along tho shores frequented by the schools of young herring. These are attracted by the light, and surround the boat, into which they are scooped by large dip-nets. The oil, dripping from the torches, fouls the water and drives away the schools, which soon desert the localities thus rendered unfit for their habitat. There is no doubt that this mode of fishing will drive the schools from the coves and sheltered bays to which they resort, and it should therefore be prohibited.

The winter fishing has opened well, and large quantities of berring are now being caught in Chatlotto and St. John counties. These are exported fresh, in a. frozen state, and bring fuir prices. Large quantitios are now being sent to Quebec and Ontario by rail.

> COD

The catch of this fish has been fitir, and rather above the average, but it is somewhat less than last year's. This is due to the less vigorous prosecution of the fishery in Gloucester County, consequent on the increased demand for lobsters to supply the increased number of factories, which. gives the fishermen employment near home. The fishing is confined almost entirely to Gloucester, Kent, and Charlotte counties, in all of which, however, the pursuit of cod is giving place to that of other fisheries. In Charlotte, though fewer men were ongaged, the catch slightly exceeds that of last year.

## MACKEREL.

There has been a large decrease in the catch of this fish. The quality was poor, and but little effort was made to secure them for salting. The quantily canned largely exceeds that of last year, but the fishery is not pursued with any great vigour by our poople, who confine their efforts to in-shore fishing in open boats.

## POILOCK, HALIBUT, HAKE AND HADDOCK.

The County of Charlotte is the only place in the Province where these fishcries are pursued to any extent. St. Johr fishermen follow them in a desultory way for the local market, but very limited quantities are taken within the county waters. The returns show about an average catch of each species.

## LOBBTERS.

The constantly increasing production of canned lobsters threatens the speedy exhaustion of this shell fish. The returns show an increase of $1,000,000 \mathrm{lbs}$ over
the immense catch of last year, which was more than $1,000,000 \mathrm{lbs}$. over that of the year previous. Asstated in my last annual report the number of factories continues to increase, while the average size of the lobster continues to diminish in all districts where the fishery has been long pursued. At the present rate of production the supply cannot continue for many years. In Charlotte County and all parts of the Bay of Fundy, where the canning business has been longest established, the supply is already beginniug to fail, and several factories have been closed. Those engaged in the business are striving to make larger production compensate for low prices, and are seeking to get the present close season shortened, and some other protective measures modified. A series of resolutions passed at a public meeting of lobster canners, held in Kent County recently, urges several changes in the present regulations. Among others, they urge that fishing be allowed until 1st September, and that the restriction against using spawning tish be modified. Against the first of these I do not see any great objections, as in Kent and the more northern counties lobster traps cannot be set much before 25th May, in consequence of ice hanging about the shores. The permission given by the regulations to commence fishing on 20th April is, therefore, useless to fishermen and canners in these counticy, and a whole month of legal fishing time is lost to them. When this regulation was made, I was not consulted in any way, nor was my opinion asked as to this matter, or I should have pointed out that the open season was most unsuitable to these northern counties. But any modification of the regulation which forbids spawning lobsters to be canned, will, I am convinced, hasten the extinction of this fishery as a profitable industry. At the present enormous rate of production of canned lobsters on all our coasts - a rate wholly begond the reproductive power of this crustacean to keep upits certain extivction is only a question of time, even with the most rigid enforcement of all existing protection. But if this is relined so that parent fish and all their progeny are destroyed, nothing but the blindest stupidity can fail to see that this extinction will be much more rapidly reached. In this connection, Overseer Deacon, who was once engaged in the canning businesa, and has since had exceptional opportunies for observing its working, makes some very judicious remarks in his Report, to which I respectfully direct your Honor's attention.

The quarrelling about tishing limits, alluded to in my last Report, has largely increased during the past seasorn, and has caused much trouble and extra work to officers. Factories have now become so numerous that the whole extent of our coast line fails to supply profitable fishing grourds, and consequently the new factories crowd in on the lines occupied by older establisbments. As this trouble is sure to become more nerious and already threatens violence, it becomes a matter for grave consideration whether this fishery should not at once be placed under such restrictions as will enable the Department to control it.

OYSTERS.
Year by year the gield of our once teening oyster beds is growing less. The returne this year show a falling off of more than one-third as compared with last year, and no improvement can be hopel jor under present circumstances. In a special Report on the oyster beds of the Province, I have called attention to their present state. and pointed out the difficultier that will heset any remedial measures. I have stated the facts as they exist, and submitted my own opinion; but the whole subject is surrounded by difficulties of a gencral and local nature which will require careful consideration.

## SYNOPSES OF THE REPORTS FROM LOCAL OFFICERS.

## RESTIGOUCHE COUNTY.

Overseer Mowat, of the Upper Division, reports a very poor catch of salmon, even worse than that of last year. This he attributes partly to the first run of fish
having ascended the river before fishermen got out their nets; partly to heavy freshets in July, which enabled many fish to escape the nets, and partly to the increased number of nets set on the coast about Caraquet and Miscou. He expresses his belief that this extension of coast fishing will prevent the estuary fishermen from ever again making as good catches as formerly. In this opinion I fully agree, as there can be no doubt that this fishery is now pursued to excess and beyond the power of the fish to keep up the old supply. He reports that angling was very good last summer, and that a fair stock of salmon had reached the upper waters, while the number of grilse in the river, he states, was unusually large. This increase in the number of grilse is a most hopeful indication, and promises a better run of salmon next year.

Overseer McFherson, of the Coast Division, also reports a decrease in the catch of salmon, for which he can assign no reason. His returns show an increased catch of lobstere and mackerel.

## GLOUCESTER COUNTY.

Overseer Hickson 'roports another very bad season for salmon. He says:-"I wish I could suggest some remedy for, or offer any explanation of this falling off in coast salmon fishery; but I am utterly unable to do either." He reports a good stock of grilse in the rivers and expres-es a strong hope that next season will see a great improvement in the eatch. He reports a largely increased lobster fishery, and expresses his conviction that, at the present rate of production, this fish will become exhausted at no distant day. The catch of herring has been smaller than usual, but that of cod and mackerel was about an average.

Overseer Cormier, of Caraquet berring banks, reports that good order has been maintained among the fishing vessels, and that the regulations have been respected. The catch of herring was smaller than usual.

Warden Hache, of Shippegan District, reports a reduced catch of cod, owing to bad weathor and scarcity of bait. Makerel tishing was poor, and fishermen caught little above their own needs for domestic uso. Herring were plentiful; but a late spring and stormy weather in tho full operated unfavorably for this fishery and the catch was small.

Overseer Landry, of Pokemouche District, reports a better catch of alewives. Smelt wese plentiful, but low prices left amall profits for those engaged in this fishery. The catch of mackerel was smaller than usual; but that of lobsters mach larger. Overscer Landry's duties have been very much increased, by the smelt and lobster fisterics, and ho declines to perform the dutics another year at his present salary. I hope hi knowledge and experience will not be lost to the service.

Oovisuer Hacke, of Caraquot, and Sacoy, of Tracadie, hare failed to send me any reports of their districts. From ohler sources I learn that about an average catch of tish was made in each district.

## NORTHUMBERLAND COUNTY

Overseer Stymast, of Tabusintac District, reports a large falling off in the catch of salmon. Alowives were more plentifil than usual ; but low pricor curtailed tbe catch, which will have a good effect on the future supply, as largor achools will reach their spawning beds. Smelt continue plentiful, and a large cateh was made. Lobster fisbing bay largely increased in this distyict, and proparations are made for three more fictories. This fishery, which is new to the district, and the smelt fishery, keep Mr. S'ymast occupied both summer and winter. His present salary does not remunorate him for the increaved labor he now performs.

Overseer Robichaux, of Neguac and Potage Island District, reports a greatly reduced catch of salmon, the cause of which he cannot assign. The catch of herring was about the same as usual for barreling; but a very large quantity was caught for lobster bait which does not appear in the returns. Cod fishing in the spring was
good ; but want of bait in the fall prevented its pursuit, and the year's catch is smaller than usual. The catch of mackerel was small, and the bulk of it was canned or sold fresh. Lobster fishing, here as elsewhere, has largely increased, and two new factories will be started next season. Tha regulations are now well respected in this district, and Mr. Robichaux had no fine to impose.

Overseer Williston, of Escuminac and Bay du Vin District, reports a poor catch of salmon, but lobsters, smelts and other fish have given an average catch. Owing to the decay of the oyster beds in Gloucester and Kent Counties, the Miramichi beds have been more extensively fished than formerly, although the oystere are of inferior quality. He has no special remarks to make, as the regulations have been well observed.

Overseer Russell, of Grand Downs and Lower Newcastle District, reports a decrease in the catch of salmon at Portage lsland and Burnt Church, but a small increase at Oak Point and Lower Newcastle. The catch of mackerel was small ; that of bass and smelt very good. Oyster fishing was more largely pursued than last year. Lobster fishing has increased and new factories are projected for next summer.

Overseer Wyse, of Chatham and Napan District, says:-"The salmon fishery has again failed-the catch being much below that of last year. For a week or ten days in June the run was large, and gave good promise; but for the rest of the month fish were very scarce. In July there was a fair run: hut this lasted only a few days and for the rest of the se:son fishing was very discouraging. Since the prohibition of seines, alewives have increased, and a much better catch than usual was made in the Main River. The protection of bass in Napan during the close season still requires constant vigilance. A gang of poachers destroyed the warden's boats last season, and, although I offered a reward of $\$ 100$ for the conviction of the offenders, it has not, so far, led to their detection. The catch of smelt was very large last winter, and from the preparations now being made it will probably be much larger the present season. If more extended markets could be found, this fishery would be profitable; but as it is, glutted markets and low prices leave no margin for profit either to dealers or fishermen."

Overseer Hogan, of Newcastle and North Esk District, reports that the catch of salmon was about the same as last year; but that was nearly 50 per cent. less than previous year. Heavy freehets enabled a good stock to get up to their spawning places, and the large number of grilse in the rivers gives promise of better fishing next season. Bass fishing continued good, and the catch exceeded that of last yeir; but great difficulty was experienced in preventing the catch of small bass. Overseer Hogan strongly urges that the present small salaries paid to wardens in his district is not sufficient to pay them for the work they have to perform. Watching ralmon nets in summer, and bass nets in winter, takes up a large portion of their time, and he very truly states that good men cannot be got to do this work for such pittances as $\$ 30$ and $\$ 50$ a year. He recommends that these officers, who have both summer and winter work to do, should have their present salaries doubled.

Overseer Parker, of Upper Nelson and Derby District, reports a very small catch of salmon, which he attributes to the breaking of the South-west boom. This accident filled the river with logs and prevented nets being set, while the best run of fish was ascending. Above the boom the fishing was better. The catch of alewives was much larger than usual, and this compensated, in some measure, for the poor catch of salmon. In view of the rapid decrease of salmon, 0 :erseer Parker expresses the opinion that nets sbould nol be allowed above the tideway, where the river is so narrow that it is almost impossible for any fish to escape them. I entiroly with this opinion, and have, in former Reports, pointed out that in no other river agree are salmon allowed to be netted after they bave reached their spawning places.

Overseer Holt, of Blackville, Taylor, of Blissfield, Freeze, of Doaktown, and Cameron, of Stanley, all report a scarcity of salmon, but an improved catch of slewives, these being the only fish caught in these districts.

## KENT COUNTY.

Overseer Sutherland, of the Upper Division, reports a poor catch of salmon, slewives and smelt, but that of bass was in excess of last year. The salmon fishermen of Kent are of opinion that the immense number of lobster traps net all along the coast prevents the salmon from coming in shore as formerly. Cod, mackerel and herring have yieldcd small returns, a rough and stormy season having interfered with these branches of fishing. Lobster fishing was more extensively pursued than in any previous year, and the quantity canned was much larger. Three new establishments were being built for next season. The fishermen and canners engaged in this business want the sea*on extended to 1st September. A meeting of those interested was held in the fall, at which resolutions were passed embodying their views and wishes. Those have been transmitted to your honor, and will doubtless receive dug consideration. In my general remarks I have expressed my convictions on this important matter.

Overseer Girouard, of Buctouche District, roports a poor season for mackerel fishing. The catch of alewives was also small; that of bass about an average. Spring herring fishing was very good, and a larger catch than usual was made. Lobster fishing was more largoly pursued, and two new factories were in operation; buta late spring and rough weather proved serious drawbacks on this part of the coast, the catch not being as large as usual. Oysters are becoming scarcer every year, and but few wore raked in Buctouche.

Overseer Cormier, of the Lower District, reports a large catch of spring herring; but cod and mackerel tishing was very poor. The lobster fishery did not yield as large returns as last year, owing to the drawbacks just mentioned. The oyster beds of Cocagne are now almost exhausted, and no reasonable hope of their improvement can be entertained under existing circumstances.

## WESTMORELAND COUNTY.

Overseer Deacon, of Shediac and Cape Tormentine Districts, reported as follows:-"The citch of fish generally has been very good. Mackerel were plentiful and of fair quality. Sinelt were taken in large quantities last winter; but, as usual, dealers nade little money in consequence of overstocked markets and low prices. I have seen them sold for 40 conts and 50 cents per barrel, and sometimes quantitien are wasted for want of purchasers. Large quantities of spring herring were caught, and not less than 10,250 barrels werc salted for lobster bait. Two new factorier hare been built during the last rearon, making eleven now operating in my distict, and four lew odes are in coure of erection for next scason. The catch has beon much larger than that of last year. I would again strongly recommend the close fearon for lobsters to be from 20 ch October to 20 h May, and from 15 th July to 15th Aupunt. Close observation has convinced me that these periods form the proper cline fearon for the northern parts of this Province. Lobsters cannot be taken here before the 20th May, in consequence of ice hanging to the shores, and the privilege of fishing before that time is useless, because it cannot be exercised. I am also convinced that it is a wicked waste to take lobsters during tho heated term, when there is not as much meat in four, as there is in one healthy lobster. Besides this, they are really not fit for food. I have seen a copy of resolutions passed at a meeting convened at Richibucto by the lobster packers of Kent County, in which they ark to take female lobsters with eggs attached. I hope the Minister will not be persuaded to allow this distruction of npawning fish-this wanton waste in the production of lohsters. I am satisfied it would be far better to allow them to take lobsters as snall as they choose, than to take females with eggs actached. No person who has any regard for the future of this fishery would allow such fish to be taken to his factory. I find, however, many engayed in the business who look only to present profit, and who, if not closely watched, will encourage the breach of all regulations."

Overseer Goodwin, of Bay Verte and Sackville Dintrict, reporte that herriis were plentiful and of good quality for spring fish. About $\pm, 000$ barrels were taken in the Bay, $\mathbf{1 , 5 0 0}$ of which were sold as bait and the remainder salted or smoked. Bass frequent Bay Verte and Tidnish Rivers, but are fished for only by sportsmen with hook and line. Alewives are increasing, and the catch this season was considerably larger than that of last year. The shad fishery at Sackville was not so productive as in former years, for which several local causes are assigned; but there is no doubt that the real cause is the general failure of this fish in all our Provincial waters, from past and present over-fishing. Lobsters are plentiful; but there is yet no factory started in Bay Vorte.

Overseer Cormier, of Dorchester Bay District, reports a better catch of shad than usual. Up to September the fishing was very good; but after that date rough and stormy weather prevented the boats from continuing their operations. The quality of the fish was better than usual, and good prices were readily obtained. 'Though cod and herring are plentiful in the lower part of this district, fishermen confine their labor entirely to shad fishing, which is more remunerative.

ALBERT COUNTY.
Overseer Akerly reports that fishing has not been pursued in his district as vigorously as it wes last year ; but the catch of shad was quite as good. Salmon were not less plentiful, but less attention was given to their capture. Alewives were abundant and a good catch was made for domestic use. Wbile the fisheries of Albert County are not extensive, they are of great local value, and are pursued principally by farmers, who devote their spare time to the business. The fish-ways in Germinltown Lake, Salmon and Point Wolf Rivers have been kept open and in good order. Those in Coverdale and Pollet Rivers, reported last year as having been torn out by froshets, have not been replaced. Mr. Akerly says he could see no practical benetit to be derived from their replacement, as no migratory fish now resort to them. They abound in fine trout, which afford good sport to numerous anglers who visit them during the summer months.

## VICTORIA COUNTY.

Overseer McClusky reports that, owing to several freshets in the St. John during the summer, a large number of salmon escaped the nets and reached the upper waters. 'This was more particularly observable in the Tobique, where salmon were more numerous than they have been for several years. He says:-"Owing to excessive fishing at the mouth of the river, and along its whole couree, the number of fish that reach Victoria County is now very small, and this makes it all ithe more difficult to protect them. The settlers conterd that it is not just nor equitable to make their waters a nursery for salmod for the benefit of more favored persons living down the river and along the seaboard, to the exclusion of the poor sectlers in the interior who need the fish most. Such are the arguments I meet with throughout my district when endeavoring to enforce observance of the law." He agrain urges the necessity of two special guardians for the better protection of salmon in the Tobique. Long stretches of the river are unsettled-the wardens are few and far apart-great facilities for poaching exist, and, even if the number of resident wardens were doubled, they couid not effectually prevent illegal fishing. Two special guardians, moving constantly up and down the river, and acting in concert with the revident wardens, would be able to effect this, and I would again respectfully urge that they be provided the coming season.

## CARLETON CODNTY.

Overseer Burt reports that the high freshets and large drives of lumber in the river provented nets from being set, and consequently, few salmon were caught. Another officer should be appointed in this district, as it is impossible for one man to give it the requisite supervision.

Overseer Mills reports that a good run of salmon reached the he ad waters of the Miramichi, and that he had much trouble in protecting them from poachers who infest the river. Late in the season I found it necessary to employ, for a month, a epecial guardian to assist him, and I am glad to be able to state that no further attempts were made to disturb the fish on their spawning beds.

## YORK COUNTY.

Overseer Orr reports a still smaller catch of salmon than was made last year. Shad were more plentiful, and a good catch was made. Sturgeon were not so plentiful as last year ; extensive fishing in the lower counties preventing them from reaching York in their accustomed numbers. He reports much illegal fishing, and the seizure of several nets, which are jet in his possession.

Wardens Brown and Campbell also report a steadily decreasing catch of fish. Mr. Brown again expresses his decided opinion that this decrease is caused by over-fishing in the harbor of St. John, and by drift nets outside its limits, and also by the sawdust and mill refuse which pollute the waters of the St. John and its tributaries.

## SUNBURY COUNTY.

Overseer Hoben reports a smaller catch of salmon, but a much better take of shad and alewives. Sturgeon fishing was largely pursued, and a good catch was made. Pickerel have become very plentiful, and large quantities of these and white perch were packed in ice and sent to American markets. The capture of these fishes has opened up a new industry, which will probably give employment to a large number of people. Mr. Hoben says:-"Pickerel are becoming valuable. When first introduced into the St. John it was supposed they would be a curse to the country, and would devour all the other fish; but it has turned out differently. They inhabit sluggish Creeks, still ponds and small lakes, in which lily-pads and other aquatic plants abound, and feed upon frogs, chub, suckers and other inferior fishes. They are not found in clear running water, and in no instance that has come to my knowledge have they heen found in water frequented by salmon, trout, shad or alewives. Therefore the young of these fish are safe from their voracious habits."

## QUEEN'S COUNTY.

Overseer Hetherington reports salmon scarcer than he has ever known them. Bass and shad were more numerous than they have been for many years. The increased run of shad he attributes to fieshets in the river, which enabled them to escape the nets ind weirs in the harbour of St. John. Alewives were also more plentiful than usual, which he accounts for in the same manner. Sturgeon fishing was more largely followed than last year, and better prices were paid to fishermen. Mr. Hetherington says:-"I am sorry to have to report that I find a growing indifference on the part of mill-owners for that part of the law relating to sawdust and rofuse. Several in my district are becoming more careless as to ite disposal, and they say when rich men are compelled to respect the law they will obey it. They allude to the Nashwaak Mills and say that they do more damage to the river than all other mills combined."

## king's oounty.

Overseer Belyed, of Westfield and Belleisle District, reports a large decrease in the catch of salmon; but an improved catch of shad and alewives. The sturgeon fishery in this district has developed into a most important industry. A very large number was caught, and fishermen oblained better prices than last year. Mr. Belyea does not favour any extension of the time for fishing, but thinks it should end the last of August, so that necessary protection may be given to lute spawning fish. In this opinion I quite agree, as already stated in my general remarks on this fishery.

Overseer Gosline, of Kennebecasis River, and its tributaries, reports a better run of shad and alewives than he has known for many years. Other kinds of fish about the same as last year. Some sturgeons were taken in the lower parts of the river, and preparations are being made for more extended fishing next season. Winter hake fishing through the ice continues to increase, and considorable numbers are taken for home use. There is no increase in salmon to be noted, but fine trout are plentiful in all the lakes and streams.

## ST. JOHN COUNTY.

Overseer O'Brien says: "The catch of salmon fell largely below that of last year. In the first of the season the indications were promising; but here, as every where else, they soon failed, and the season ended diastrously for fishermen. The catch of herring was much larger than last year, and the schools came quite into the harbour, which is a most unusual occurrence, af they seldom come inside of Partridge Island, and then remain only for a short time." But this season they remained in the harbour four or five weeks, much to the advantage of our fishermen, who industriously availed themselves of these unusual facilities. An immense catch was made, and large quantities, were cured as "bloaters" for American and Canadian markets. A large portion was sent frozen to Quebec, Montreal, and other Canadian cities, as were also large numbers of frozen cod and baddock. The catch of spring shad was the largest known for many years, and alewives were more plentiful than usual, and of superior quality. If some means could be devised to prevent the young fish from being destroyed by weirs, an improvement in this fishery might reasonably be expected to follow."

Overseer Skillen, of St. Martin District, says:-"My returns for the present year, I am happy to say, show exceptionally good results. The catch is considerably over that of last year, and indications are favorable for renewed activity in fishing industry. We have abundance of fish on this part of the coast, and all wo need is industrious application to the business of catching and curing them. Salmon have not been fished for in my district this year, and this fact, with the nursing we are giving them here, ought to be followed by a large future increase. A large number ascended the fish-way in Salmon River dam, and fry are plentiful in its waters. I had the pleasure of seeing a large school of salmon ascending Moster's Mill stream, through the sluice-way opened in the dam for their passage. I had some difficulty in enforcing the weekly close time among the herring fishers between Roger's Head and Black River. There is a fine spawning ground in this neighbourhood, which, in my last year's report, 1 recommended should be protected from 10th July to E0th August. The growing demand for small herring makes this measure all the more necessary, and I hope it will be adopted. I have, in my general remarks on the herring fishery, urged that all known spawning grounds should be strictly protected, and I can only express my entire approval of Overseer Skillen's suggestion. An Order in Council will be needed to accomplish this.

## OHARLOTTE OOUNTT.

Qverseer Todd, of St. Croix District, reports salmon and alewives more plentiful than last year. The catch of mackerel and herring was not so good. The employment of a night watchman has almost entirely prevented the poaching that formerly prevailed at the head of the tide. Fish-ways were kept in good order and well supplied with water. Mr. Todd says:-"The mills at St. Stephen and Milltown are now watched very closely, and but little refuse goes into the river. At Baring, some six miles above, there is no warden or watchman, and much of the mill refuse is allowed to pass into the river. An officer is much needed at this place, and I respectfully request that I be allowed to employ an assistant there. The expense would not exceed $\$ 25$ or $\$ 30$ a year, and the money would be well expended in material and moral effects on mill-owners both there and below. The guardian I
employed at Palfrey Brook and Skiff Lake has put an effectual stop to the poaching formerly done there on the spawning beds of the land-locked salmon."

Overseer Cunningham, of St. Andrew's Bay District, reports a large catch of herring last winter, the quality of which was excellent, and the prices obtained good. Preparations are made for an active pursuit of the fishery this winter. The demand for small herring, cured as sardines, continues unabated, and large quantities were taken, for which good prices were obtained all the season. Mackerel were small and poor-not fit for export ; the few caught were used for home consumption. Haddock, hake, cod and pollock, once plentiful in the Bay, are so scare that fishermen do no pursue live fishing, being more profitably employed with their weirs, which have largely increased in number. Lobster fishing was not so largely pursued this season. The factories at Eastport, which formerly canned lobsters, are now putting up sardines, and the demand for the former has fallen off. This, however, is not to be regretted, as the over fishing of the last ten years had largely diminished the snpply, and this rest will give them a chanco to increase.

Overseer Best, of Beaver Harbor District, reports an improved catch of all kinds of fish-cod, pollock, hake, herring and sardines. This latter fishery has been more vigorously prosecuted during the last year than ever before, and the demand continues to increase. The number of weirs has nearly doubled, and new applications are being made for more. This fishery has given employment nearer home to those who formerly pursued line fishing off shore, consequently fewer fishermen now engage in that business. No violations of the law have occurred, but some disputes among fishermen have required his interference to settle.

Overseer Lord, of Deer Island and Latéte District, reports as follows:-"The fishing season of 1881 has been very favourable, taking all branches of the business into consideration. The line catch is smaller than usual, not from any scarcity of fish, but from less attention having been given to this branch, and more to weirfishing. The quantity of herring barrelled was large, with fair prices. Smoked fish are largely in excess of last year's returns, and, though prices were low in the early part of the season, they improved later, and this branch of the business has been very satiefactory. The number of weirs has increased, giving employment to a great many persons who formerly pursued line fishing. The demand tor small herring continues, and not less than 8,000 hogsheads were taken during the season, which have averaged fully $\$ 6$, making the receipts to this district alone $\$ 48,000$, for a class of fish that formerly yielded little or nothing. If anything could be done to induce the estabiishment of a sardine factory here, these small herring could be utilized more to the advantage of our own people. As it is, we have to send the fish out of the Province to be manufactured, and then import them again for consumption." Mr. Lord directs attention to the destructive mode of tishing known as "torching" or "driving," described in my general remarks on the herring fishery, and says: "I consider it a great injury, both to the weirs and to the fish, as the oil fouls the water, drives the schools away from their usual baunts, and prevents them coming iushore. Many weirs which were formerly valuable are now almost worthless, in consequence of this most destructive mode of fishing, which is carried on principally by Americans from Eastport. The proprietors of the sardine factories fit out the boats, provide the cotton and kerosene for torches, and take at a low price all the herring caught. I think a regulation should at once be made prohibiting this mode of tinhing, so that our fishermen (who have expended large sums in building weirs, for which they have to pay an annual license fee), may be protected from those who pay nothing for the privilege of destroying our fishery."

Overseer Brown, of Campobello, reports an average catch of codfish, pollock, and haddock, but a decrease in the weir catch of herring, which he thinks may possibly be caused by the large number of small fish that are annually taken for sardines.

Overseer McLaughlin, of Grand Manan, reports as follows:-"It gives me much pleasure to be able to report an encouraging result of the year's work in the fisheries of Grand Manan. Shortly after forwarding my last year's returns in

December last, the waters of this district were visited by an unusual sun of all the fish that frequent the coast. The whole Bay of Fundy seemed to be alive with herring, cod, pollock, halibut, haddock, and even whales, porpoises and sharks came in greater numbers than have been known for the last fifty years. In consequence of this, all branches of fishing in my district bave been industriously pursued, and the results are largely in excess of last year's catch. Vessels in the Bay made better fares than those that went to the Banks, and boat fishing has been much better than last year. Prices have been good, and fish of all kinds have found a ready sale. The cash value of this year's catch will exceed that of last year by more than $\$ 100,000$.
"The unusual number of whales that came into the Bay of Fundy induced an American whaler to come in pursuit of them, and she made a good season's work. Several of the whales were brought by her crew into the southern part, of my district, and some of the residents were employed in cutting them up and trying out the oil, for which they received good remuneration. The year has been remarkable for a run of large herring, of extra good quality, in all parts of my district. This has brought a large number of American vessels to the place to purchane bait for cod fishing, for which they paid good prices in cash. The weirs from North Head to the Passages have generally tished well. Some of the new weirs had an extraordinary catch, while others have proved failures, and will probably be abandoned next year. Several applications have been made for others, which will be examined and reported on in due time."

From the foregoing reports and extracts of local officers, your Honour will observe that in most of the districts the duties of both overseers and wardens have greatly increased. In the northern counties the immense extension of the lobster fishery in summer and the smelt fishery in winter, has doubled their duties in all districts where these fisheries are carried on. In the County of Charlotte, comprising the southern districts, the increased number of weirs has doubled the overseer's duties. While the work has thus been increased, the originally insufficiont salaries have remained the same, and the service is now in danger of losing some of its best and most experienced officers, because the salaries they receive do not pay them for the increased duties they have to perform. In former annual reports and in special reports on file, I have called attention to this important matter, and urged its early consideration and adjustment, and I again respectfully recommend that active and faithful officers receive a substantial addition to their present small stipends.

I have the honour to be, Sir, your obedient servant,
W. H. VENNING,

Inspector of Fisheries, N. B.

Return showing the Number，Tonnage and Value of Vessels and Boats engaged in the Fisheries；Quantity and Value of Fishing
Material；Kinds and Quantities of Fish，and the Total Number of Men employed，\＆c．，in the Provinae of New Brunswick， for the Year 1881.

| Distriots． | Vessels and Boats eeployed in Fishing． |  |  |  |  |  |  | Fighing Material． |  |  |  | Kinds of Fish． |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Vessels． |  |  |  | Boats． |  |  | Nets． |  | Weirs． |  |  |  |  |  |  |  |  |  |
|  | $\stackrel{\dot{Z}}{\square}$ | $\begin{aligned} & \text { 安 } \\ & \text { 畧 } \\ & \text { م } \\ & \hline \end{aligned}$ | 棠 | 宽 | $\dot{\circ}$ | 急 | 安 |  | $\begin{gathered} \dot{\Xi} \\ \stackrel{\Xi}{\sigma} \\ \stackrel{\rightharpoonup}{\circ} \end{gathered}$ | $\|\dot{0}\|$ |  | 號 |  |  |  |  |  |  |  |
| Restigouche． |  |  | \＄ |  |  | $\$$ |  |  | \＄ |  | $\$$ |  |  |  |  |  |  |  |  |
| From head of tide to Dalhonsie From Dalhousie to Belledune．． |  |  |  | …．． | 43 68 | $\begin{array}{r} 516 \\ 1,290 \end{array}$ | $\begin{array}{r} 52 \\ 172 \end{array}$ | 10,750 20,198 | $\begin{array}{r} \mathbf{5}, 370 \\ 10,095 \end{array}$ |  |  | ．．． | $\begin{aligned} & 70,000 \\ & 91,659 \end{aligned}$ |  |  |  | 6，424 | 000 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total ．．．．．．．．．．．．．．．． | ．．． | ．．．．．．．．． | ．．．．．．．．．．． | ．．．．． | 111 | 1，806 | 224 | 30，940 | 15，465 | ．．．－ | ．．．．． | ．． | 161，659 | ．．．．． | ．．．．．．．．．． |  | 6，424 | 1，000 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bathurst．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | ．．． | ．．．．．．．． |  | ．．．．．．． | 30 | 1，600 | 60 | 6，053 | 6，053 | ．．．． |  | … | 60，000 |  |  | 300 |  | 300 |  |
| New Bandon ．．．．．．．．．．．．．．．．．．．．．．．． | － |  |  |  | 100 | 2，000 | 200 | 4，722 | 4；000 | ．．． | ． | ．．． |  | ．．．．．． |  | 400 | 5，000 | 1，500 | ．．．．．．． |
| Caraquet．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  | 80 | 12，900 | 230 | 1，836 | 1，220 |  |  | ．．． |  | ．．．．． |  | 15 |  | 2，200 |  |
| Shippegan | 10 | 119 | 3，400 | 34 | 154. | 12，280 | 352 | 4，615 | 2.420 | ．．． |  | ．．． |  |  | 737 | 91 | 830 | 1，180 |  |
| Pockmouche |  |  |  | ． 18 | 80 | 850 1.860 | 130 | $\begin{array}{r} 2,340 \\ 1,3 \end{array}$ | $1,640$ |  |  | 50 | 11，900 |  |  | 60 | ．．．．．．．．．．．． | 200 |  |
| Tracadie．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 6 | 70 | 1，600 | 18 | 31 | 1，860 | 93 | 12，000 | 8，000 |  |  | 50 | 1，500 | ．．．．．． |  | 100 |  | 3，000 |  |
| Total．．．．．．．．．．．．．．．．． | 16 | 189 | 5，000 | 52 | 565 | 31，990 | 1，215 | 36，556 | 28，323 |  |  | 50 | 141，400 | ． | 3，137 | 934 | 77，830 | 9，380 | ．．．．．． |
| Sunbury． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| St．John River ．．．．．．．．．．．．．．．．．．．． | ．．． | ．．．．．．．．． | ．．．．．．．．．．． | ．．．．．． |  |  |  |  |  |  |  | ．．． | 580 |  |  |  |  |  |  |
| Otnabog Lake．．．．．．．．．．．．．．．．．．．．．． | ．．． | ．．．．．．．．． | ．．．．．．．．．．． | ．．．．． | 5 | 50 | 10 | 150 |  |  | :.....\| | ．．． | $\qquad$ | ．．．．． | ． |  | ．．．．．．．．．．． |  |  |
| Hart＇s Lake and Gagetown ．．．． | ．． |  | ， | ．．．．．． | 12 | 120 | 24 | 240 | 200 | ．．． | ．．．．． | ．．． | －4＊＊ | ．．．．． | ．．．．．．．．．．． | ， | ． | ． | ． |
| Grand Lake．．．．．．．．．．．．．．．．．．．．．．． |  |  |  | ．．．．．． | 16 | 100 160 | 20 30 | 600 400 | 300 | ．．． | ．．．．．． | ．．． | ．．．．．．．．．．． | ．．．．． | ．．．．．．．．．．．． | ． | ．．．．．．．．．．． |  | ．．．．． |
| Maguapet Lake．．．．．．．．．．．．．．．．．．．． | ．．． | ．．．．． |  | ．．．．．．．． | 16 | 160 200 | $\begin{aligned} & 30 \\ & 40 \end{aligned}$ | 400 800 | $\begin{aligned} & 300 \\ & 402 \end{aligned}$ | ．．．． | ．．．．．． | ．．． | ．．．．．．．．．．．． | ．．．．． | ．．．．．．．．．．． | $\cdots$ | ．．．．．．．．．． | ．．．．．．．．．．． | ． |
| Sheffield $\qquad$ | ．．． | －．．．．．．．．．． |  | ．．．．．．． | 20 20 | 200 200 | $\begin{aligned} & 40 \\ & 40 \end{aligned}$ | 800 800 | $\begin{aligned} & 4006 \\ & 460 \end{aligned}$ | ．．．． | ．．．．．． | ．．． |  | ．．．．． | ．．．．．．．．．．． | ． | ． | ．．．． | ．$\cdot$. |
| Oromocto <br> French Lake． $\qquad$ | ．．． | ．．．．．．．．． |  |  | 20 15 15 | 150 | $\begin{aligned} & 40 \\ & 30 \end{aligned}$ | 800 600 | $\begin{aligned} & 460 \\ & 300 \end{aligned}$ | ．．．． | ．．．．．．． | $\ldots$ | ．．．．．．．．．．．． | ．．．．． | ．．．．．．．．．．．．．． |  | ．．．．．．．．．．． | ．．．．．．．．． | ．．．．． |
| French Lake． <br> Maugerville | ．．． |  |  | …．．． | 10 | 100 | 20 | 610 200 | 100 | ．．．． | ．．．．．．． | ．．． | ．．．．．．．．．．． |  |  |  | ．．．．．．．．．．．． | ．．．．．．．．．． | ．．．．． |
| Mangerville ．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  |  |  |  |  |  |  |  |  | ．．．． |  | ．．．．．．．．．．． | ．．．．．．．．．．． | ． | ．．．．．．．．． |  |
| Total ．．．．．．．．．．．． |  |  | ．．．．．．．．．．． |  | 133 | 1，330 | 264 | 5，010 | 2，615 |  |  |  | 680 |  | ．．．．．．．．．．． |  | ．．．．．．．．．．． |  |  |

Return showing the Number, Tonnage and Value of Vessels and Boats engaged in the Fisheries, \&c.-New Brunswick-Continued.


Return showing the Number, Tonnage and Value of Vessels and Boatsengaged in the Fisharies, \&c.-New Brunswick-Continued.


Return showing the Number, Tonnage and Value of Vessels and Boats engaged in the Fisberics, \&c.-Ncw Brunewick-Continucd.




Return showing the Number, Tonnage and Value of Vessels and Boats engaged in the Fisherie:, \&c.-New Brunswick-Continued.


Return showing the Number，Tonuage and Value of Vessels and Boats engaged in the Fisheries，\＆e，New Brunswick－Continucd．

| District． | Vessels and Boats faploteit in Fishina． |  |  |  |  |  | Fishina Material． |  |  |  | Kinds of Fish． |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Vessels． |  |  | Boats． |  |  | Nets． |  | Weirs． |  | － |  |  |  |  | 吕 |  |  |
|  |  | $\stackrel{\dot{8}}{\stackrel{E}{E}}$ | $\dot{\underset{y y}{\mid c}}$ | $\dot{8}$ | $\begin{aligned} & \text { ジ } \\ & \text { 『் } \end{aligned}$ | 邑 |  | $\begin{aligned} & \stackrel{\text { ® }}{\text { ब̈ }} \end{aligned}$ | $\dot{8}$ | $\frac{\stackrel{ே}{\Xi}}{\stackrel{\rightharpoonup}{\square}}$ |  |  |  |  |  |  |  |  |
| Tork． |  | $\$$ |  |  | \＄ |  |  | \＄ |  | \＄ |  |  |  |  |  |  |  |  |
| From Sunbury County line to York County line．． |  |  |  | ．．．．． | ．．．．．．． |  |  |  | ．．．．． | ．．．． | ．．． | 3，000 |  |  | ．．．．．．．． | ．．．．．．．．． | ．．．．．．．．．．． | ．．．．．．．．． |
| County line．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | ．．． |  | ．．．．． | 11 | 73 | 18 | 157 | 111 | ．．．．．． |  | ．． | 5，020 | ．．．．． | ．．．．．． | ．．．．．．．．． | ．．．．．．．． | ．．．．．．．．．．． |  |
| Total ．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | －．． | ．．．．．．．．． | ．．．．．． | 11 | 73 | 18 | 157 | 111 | ．．．．． |  | ．．． | 8，020 | ．．．．． | $\cdots$ | ．．．．．．．．． | ．．．．．．．．．．． | ．．．．．．．．．．． |  |
| Northumberland． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tabusintac Bay and River．．．．．．．．．．．．．．．．．． From Neguac Island to Burnt Chnrch． | $\cdots 16$ | 500 | 6 | 22 50 | 560 1.500 | 44 100 | 1,096 4,500 | 1， 5880 | ．．．．．．． |  | $\ldots$ | 3,984 5,010 |  | $\cdot$ | 20 12 | 5，000 | 50 1,000 | 400 |
| From Portage Island to Chatham Ferry | 116 | 600 |  | 114 | 2，040 | 123 | 20，100 | 9，420 |  |  | $\ldots$ | 41，730 | ．．．．． | ， | 158 |  | 1,000 300 |  |
| Point Escuminac，Huckleberry，Egg， Fox and Bay du Via lslands and Bay． $\qquad$ 30 | 30150 | 1，500 | 120 | 85 | 1，700 | 114 | 7，500 | 7，500 |  |  | ．．． | 68，630 |  |  |  | 5，000 |  |  |
| From Bay du Vin to Beaubair＇s Is－ land | ．． |  |  | 56 | 560 | 56 | 6，000 | 2，400 |  |  | ．．． | 20，000 | ． | ． | 50 | ，．．．．．．．． |  | ．．．．．．．．．．．． |
| From Clotham Ferry to Head Waters North－West $\qquad$ |  |  |  |  |  |  | 3，310 | 2，878 |  |  | $\cdots$ | 40，739 |  | ．．．．．． |  |  |  | ．．．．． |
| From Bearbair＇s Island to Blackville．．． | ．．．．．．． | ．． | ．．．．． | ．．．．．． |  |  |  |  |  | ．．．．．． | ．．． | 7，800 | ．．．．．．． |  |  | ．．．．．．．．．．．．．． |  |  |
| Blackville Parish．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | ．． | ．．． | ．．．．． |  |  |  |  |  | ．．．．．． |  | ．．． | 8，000 | ．．．．．． | ．．．．．． |  |  |  |  |
| Blisefield ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | ． | ．．．．．．．． | ．．．．． | 13 | 120 | 13 | 278 | 130 | ．．． | ．．．．．． | ．．． | 750 | ．．．．．． | ．．．．．． | ． |  |  | ．．．．．．．．．．． |
| Doaktown and Hovey Island．．．．．．．．．．．．．． | ．．．．．．．． |  | ．．．． |  |  |  | 298 | 120 | ．．．．． |  | ．．． | 2，000 | ．．．．．．． | ．．．．．． | ． |  |  |  |
| From Hovey Island to Burnt Hill．．．．．．．．． | ．．．．．．．． |  |  |  |  |  |  |  |  |  |  | 1，065 |  |  |  |  |  |  |
| Total ．．．．．．．．．．．．．．．．．．．．．．．．．． 33 | 33191 | 2，600 | 128 | 340 | 6，480 | 450 | 43，082 | 24，778 |  |  | ．． | 199，698 | ．．．．．． |  | 240 | 10，000 | 1，350 | 400 |

Retdrn showing the Number, Tonnage and Value of Vessels and Boats engaged in the Fisherics, \&e.-Now Brunswiek-Continued.

| District, | Kinds of Fish. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Fish Pboduots. |  |  | Valte. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | $\begin{aligned} & \text { 莒 } \\ & 0 \\ & 0 \\ & 0.0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & \text { d } \\ & 0 \\ & 0 \\ & \text { ow } \\ & \stackrel{w}{W} \\ & \stackrel{0}{0} \\ & 0 \end{aligned}$ |  |  |  |  |  |
| York. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | \$ cts. |
| From Sunbury County line to York County line. |  |  |  |  |  |  |  | .... | 200 |  |  |  |  |  |  |  |  |  |  | 2,200 00 |
| From Sunbury Couniy line to Carleton <br> Oounty line |  |  |  |  |  | ... | ..... |  |  |  |  |  |  |  |  | ... |  |  |  |  |
| Total ......................... | ..... |  | ..... | ..... | ..... | ... | ...... | ..... | 200 | ........... | ........ | ............. |  | ........ | ............. | ... | ..... | ... | ........ | 3,204 00 |
| Northumberland. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tabusintac Bay and River. | 40 |  | ... | ..... | - | $\cdots$ |  |  |  |  |  | 62,000 | ${ }^{40}$ | 100 | 138,228 |  |  |  |  | 27,221 00 |
| From Neguac Island to Burnt Church. From Portage Island to Chatham |  | 800 | ... | ...... |  | . |  | ..... | ..... | 7,300 | 500 |  | 5. | ........ | 30,000 | ... | 100 | .. | 200 | 13,800 00 |
| Ferry | 69 |  |  |  |  | ... |  |  |  | 11,583 | 1,300 | 100,593 |  | 1,000 | 147,000 |  |  |  | 700 | 46,610 56 |
| Point Escuminac, Huckleberry, Egg, Fox and Bay du Vin Islands and |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bay......................................... | 251 | 110 | 13 | ..... | 25 | ... | ...... | ...... | ..... | 10,000 |  | 175,409 | ... | 1,950 | 153,000 | ... | ..... | $\cdots$ | ........ | 56,048 54 |
| rom Bay du Vin to Beaubair's is- |  |  |  | ..... | .. | ... | . | .... | 8 | 1,000 |  | 670,000 | 20 |  |  |  | ..... |  | 1,000 | 47,104 00 |
| From Clotham Ferry to Head Waters North-West. |  |  |  |  |  |  |  |  |  | 99,000 | 105 |  |  |  |  |  |  |  |  | 14,094 10 |
| From Beaubair's Island to Blackville.. | 250 |  | ..... | ... |  | ... |  |  | ..... | ........... |  |  |  |  |  | ... |  |  |  | 2,660 00 |
| Black ville Parish ............................. |  |  | .... | ... |  | ... |  | ..... | .. |  |  |  |  | ....... |  | ... | ...... |  | ......... | 1,600 00 |
| Blissfield ..................................... |  | ... | .... | ..... | ..... | ... | \|..... | ..... |  |  | 600 |  |  |  |  | ... |  |  | ......... | 21000 |
| Doaktown to Hovey Island............... | 10 | .... | ..... | ..... | ..... | .. | ..... | ...... | 5 | ....... |  |  |  | ........ | .............. | ... | ...... | ... | . | 48000 |
| From Hovey Island to Burnt Eill ....... |  |  |  |  |  |  |  | ..... |  |  | ..... |  |  |  |  |  |  |  |  | 21300 |
| Total ......................... | 1026 | 910 | 13 |  | 25 |  | ..... | ...... | 13 | 128,883 | 2,505 | 1,038,002 | 265 | 3,050 | 468,228 | ... | 100 | 0 | 1,900 | 209,941 20 |

Recapitolation showing the Number, Tonnage and Value of Vessels aud Boats ongaged in the Fisheries, \&c.New Brunswick-Continued.


Recapitulation showing tho Number, Tonnage and Value of Vessels an l Buats engaged in the Fisheric., \&c.New Brunswick-Continued.


Recapitulation of the Yield and Value of the Fisheries of New Brunswick during the Year 1881.


No. 3.

## QUEBEC.

Gispe, December 31st, 1881.
Ho the Hon. Minister o: Marine and Fisheries, Ottawa.
Sir,-I have the honor herewith to transmit you my statement of the fisherios of tho Gulf division for the past year.

I left Quebec on board the Government steamor for the protection of the fisheried, "La Canadienne," on the 22nd June, and returned to Quobec on the 9 Lh of November, having spent the season cruising in the Gulf, as will be seen by the extract from my log, which I append to this report. It was high time that some protection was afforded to those carrying on the fisheries, more especially along the northern shore of the Gulf. An annually increasing number of vessels are visiting the lowor part of this coast, and they bave been causing mnch annoganco and loss to our shore fishermen by the throwing of gurry and offal into the harbors and bays and along the course of the inner banks. Many of them aro seiners and without the continued presence of a protecting vessel during the fishing season, which begins with July and ends with August, it is impossible to prevent them from seining in such a mannor as to drive the hand and line fishermen off the fishing grounds.

I also notice that many of these forcign (I use the word foreign in the sense of not belonging to the Dominion) fishermen have introduced the habit of jigging for cod. Tho habit is one extensively practiced by the Norwegians, but so far it has not been much resorted to by our fishermen. There can be no doubt that when fish are very plentiful and refuse to take the bait the temptation to jig for them must be very great; yet, I think when we consider that for every fish takon on the jig so many are lacerated and torn and lost, it becomes a quostion whether thas style of fishing should be encouraged or tolorated in waters over which we have any control. I have consulted the principal fishing firms and the oldest and most intelligent fishermen, and I find that they are all of the opinion that the practice is a bad one.

The following table will show at a glance the extent and value of the Gulf fisheries for the season, and by it, it will he scen that a slight increase in value exists over the season of 1880 :-

## Table No. 1.

Total Catch and Value of all the Galt Fisheries for Soason of 1881.

| Description. | Quantity. | Price. | Value. |
| :---: | :---: | :---: | :---: |
|  |  | \$ cts. | \$ cts. |
| Salmon-Salt | 568 harrels... | 1500 | 8,52000 |
| do Fresb, in ic | 247,273 pounds... | 007 | 17,309 11 |
| do Canned ............................ ...- .............. | 3,192 do .... | 015 | 47880 |
| do Smoked ............ .................................. | 1 box......... | 1000 | 1000 |
| Cod-Summer .......................................... ........ | 374,846 cwt. ...... | 400 | 1,499,384 00 |
| do Fall..................................... .................. | 35,206 do ...... | 400 | 140,824 00 |
| IIaddock......................................................... | 818 do ...... | 400 | 3,27200 |
| ling ............................................................... | 75 do ...... | 400 | 30000 |
| Halibut ............................................................ | 263 do ...... | 600 | 1,57800 |
|  | 17,652 barrels.... | 500 | 88,260 00 |
| do Smoked.............................................. | 1,426 boxes..... | 025 | 35650 |
| Mackerel ............................ ................. ............. | 2;845 ${ }^{\text {d }}$ barrel3.... | 600 | 17,07300 |
| 'Srout ..... ............................. ............................. | $121 \frac{1}{2}$ do .... | 800 | 97200 |
| Eels......... ............................... ........ ...... ...... | 25 do .... | 700 | 17500 |
| Cod Tongues and Sounds..................................... | 144 do .... | 900 | 1,296 00 |
| Seal Skins.................. ................. . .................... | 58,201 pieces..... | 100 | 58,201 00 |
| Seal Oil................ ................................... ........ | 2:0,157 gallons ... | 050 | 110,078 50 |
| Whale Oil............... ............................ ............. | 12,985 do ... | 040 | 5,194 00 |
| Porpoise Oil .................................... ................. | 9 do ... | 050 | 450 |
| Cod Oil .......................... ........ ......................... | 333,310 do ... | 040 | 133,324 00 |
| Lobsters, canned. | 860,916 pounds... | 015 | 129,137 40 |
| Fish as bait and manure ..................................... | 114,110 barrels.... | 100 | 114,110 00 |
| Fish for local consumption ................................... | 20,270 do .... | 400 | 81,080 00 |
|  |  |  | $\begin{aligned} & 2,410,93781 \\ & 2,357,22285 \end{aligned}$ |
| Total increasc in value for 1881 over 1880.... |  |  | 63,71496 |

Table No. 2.
Table showing Number, 'Tonnage and Value of Vessicis engaged in Gulf Fisheries, 1881.

| Division. | Number of Vessels. | Tonnage. | Number of Sailors. | Value of Vessels. |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | \$ |
| South Shore .................................................. | 82 | 7,035 | 464 | 287,800 |
| North Shore ......... ........ ........ ................... ...... | 63 | 2,324 | 323 | 89,245 |
| Magdalen Islands ........................................... | 19 | 778 | 160 | Si,100 |
| Anticosti ..................... ................ ................. | 1 | 35 | 4 | 600 |
| Total .. | 165 | 10,172 | 951 | 408,745 |

Table No. 3.
Table showing the Number of Fishing Boats and Flats, with their value, and the Number of Fishermen and Shoromen in the Gulf, 1881.

| Dirision. | 苞 | 号 | ¢ | $\underset{\text { en }}{\stackrel{\text { ¢ }}{E}}$ | Value. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | \$ |
| South Shore ......................... ..................' | 3,329 | 1,296 | $1,638$ |  | 83,925 12,993 |
| North Shore ............................................. | 1,969 | 1,077 | 978 | .............. | 38,225 |
| Mardalen Taland . |  | 221 | ${ }^{\text {•............ }}$ | ¢............ | 9,605 13,050 |
| Magdalen Islands . ..................................... | 826 | 221 | ............... | ……1.... ${ }^{220}$ | 13,050 1,420 |
| Anticosti................................................ | 269 | 73 \{ | 149 | .............. ${ }_{\text {cher }}$ | 6,235 1,535 |
| Total....................................... | 6,393 | 2,667 | 3,083 | 2,400 | 166,987 |

Table No. 4.
Total Number of Nets in use in Gulf Fisheries, with their values, ©c., 1881.

|  | Description. | Number of Nets. | Length. | Value. |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | yds. | \$ |
| Salmon nets.. | .. ............................ | 1,266 | 90,620 | 36,890 |
| Cod seines... | .. . . ..................... .................. | 30 | 4,355 | 5,850 |
| Herring seines | . ........ ........ .............................. | 33 | 4,446 | 4,178 |
| do nets... | .............................................. | 4,155 | 146,973 | 54,095 |
| Mackerel seines | ............................. | 11 | 1,755 | 2,710 |
| do nets... | ..................... | 803 | 30,357 | 9,104 |
| Capelin seines.. | .................... | 296 | 15,658 | 12,433 |
| Launce do .. | .................... | 52 | 2,530 | 2,808 |
| Eeal nets ...... | .......... | 461 | 27,307 | 8,967 |
| Trout nets...... | . . ........ | 1.4 | 7 | 261 |
|  | .... .......................................... | 15 | 765 | 127 |
|  | lue. |  |  | 137,423 |

Total Value of Vessels, Boats, Flats and Nets used in Gulf Fioheries during 1881.

|  |  | 8,7 |
| :---: | :---: | :---: |
| Value ofdo do | Vessels ........... | 8,7 |
|  | Nets and Moorings | 137,432 |
|  | Tot | 713,164 |

The fisheries of the south shore, the Magdalen Islands and the Island of Anticosti were all poor, with the exception of the spring seal fishery of the Magdalen Islands, which was very good. The north shore fishery has, however; been abundant, and our merchents have been enabled to mako up the deficiencies caused by the failure of the south shore fisheries by the extra quantity of fish that they had from the north shore. The following tables will show the quantities of fish and oil exported, foreisn, from the ports of New Carlisle. Gaspe and Percé:-

Table No.
Vessens Outwards from Port of New Carlisle with Fish and Oil during the Seacon of 1881 .


Table No. 6.
Clearances from Port of Percé Outwards with Fish during Sieason of 1851.


Table No. 7.
Vessels cleared Outwards from Port of Gaspé in $1 \mathrm{~s} S 1$, with Fish Cargoes.

| Name of Vessel. | Destination. | Quantity | Valuc. |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| , |  |  | 8 cts. |
| Standard. | Barbadoes | 2,400 cw t. | 0,615 00 |
| Emeline Adelina. | do | 2,000 " | 5,250 00 |
| Exact. | Brazil | 3,206 " | 13,549 00 |
| Dawn.. | do | 2,406 " | 11,870 00) |
| Alliance | Barbadoes. | 1,000 " | 4,039 0\% |
| Dewdrop..... | do . | 1,200 " ... | 2,552 00 |
| Brothers...... | Brazil . | 2,371 tubs.. | 11,005 00 |
| J. L. B.. | do ............... | 1,951 " | 8,71000 |
| Cornucopia. | do ............... | 2,082 " | 10,475 06 |
| Dewdrop.............. | do ................ | 1,550 " | 7,750 00 |
| Alliance............... | Ancona............ | 2,785 cwt.. | 11,140 00 |
| Brittany. | do ............... | 2,365 " | 9,460 00 |
| Weazle. | Naples...... .......... | 1,910 " | 7,640 00 |
| Cimbri. | do ................ | 3,035 " | 12,140 013 |
| Warrior. | Bar: .. | 2,108 " | 6,324 00 |
| Gleaner. | Naples. | 2,286 " | 9,144 00 |
| Zingara.. | Brazil. | 2,5:33 tubs. . | 12,132 00 |
| Dawn.... | do | 2,395 ".. | 10,776 019 |
| Bella Rosa. | do | 2,018 " | 12, 10800 |
| Snowdrop. | do | 2,463 | 12,315 00 |
| Exact...... | do | 2,200 " | 13,200 00 |
| Brothers. | Jersey.. | Fish and oil. | 10,655 00 |
| Industry.. | Lisbon. | 3,568 cwt | 14,272 Of |
| Zephyr...... | Naples. | 3,107 " | 12,428 00 |
| Lady Mary. | Brazil .. | 2,200 tubs. | 11,000 00 |
| St. Bulade... | Vienna. | 2,620 cwt. | 10,480 00 |
| Village Belle.. | Lisbon | 3,033 " | 12,132 00 |
| Harry Emmett. | Brazil | 1,825 tubs. | 10,615 00 |
| Standard. | Oporto. | 2,773 cwt. | 8,292 01 |
| J. L. B.. | Brazil............. | 2,033 tubs. | 10,165 00 |
|  |  | Total. | 301,2?3 00 |

## SOUTH SHORE.

## COD FISHERY.

This fishery opened well and for a ferw weeks the promise was good, but early in the scason from Perce west as far as Cape Chatte the fishing began to fall off, and it never recovered during the seasoa. From Cape Core to Newport the fishing was good throughout the season, especially at Grand River and Newport. The cod tishery at these latter places is almost entirely made on the bank at Miscou. I fancy that the small catch made in the wostern portion of this division may be attributed in great part to the roughness of the season-to the fact that the tides and currents were strong and uncertain, and that bait was at other times scarce and difficult to obtain.


The above table shows that the year 1881 has been the poorest for the cod fishery on the south shore for a number of years, the year 1879 being considered an average yecr.

## SALARON FISHERY.

This fishery opened late, no fish being talsen before June. The first fish wore of a large run and the fishermen looked forward to a succossful season, but the fishing soon fell off, and the catch of 1881 is the poorest within the memory of the "oldest inhabitant." We know so little of the manner of life and whereabouts of the salmon onco they leave the rivers that we are quite unable to venture any opinion as to the cause of this great decreaso in the number of salmon visiting our fresh water bays and rivars during these last three years. I am informed by old salmon fishermen that this is not the first tine that this missing of the salmon has been noticed. Whilo I am quite roady to admit that the quantity of salmon coming into the rivers in the spring was smaller than usual, yet I think the eatch of salmon was smaller than usual from causes that were pofectly apparent. The spring was cold and lato up to June, when tho woather suddonly bocame warm and was exceedingly dry. The water in the rivers foll rapidly and was clear and bright, and when this is the case, as it undoubtedly was last sping, the salmon do not mesh. The socond run of fish did not enter tho rivers until tho net fishery was over. In conversing with somo of the fly fishermon I found that none of them attributed their poor luck not to a want of tish, but rather to the lowness and clcarness of the water. That the falling off in the salmon net fishery has been something alarming during the last throu years, can be shown by the following table, which includes the whole of the Gult tishery:-

Table showing falling off in Salmon Net Fishery of 1881 as compared with 1878.

| Tencription. | 1878. | 1881. | $\begin{gathered} \text { Decrease, } \\ 1881 . \end{gathered}$ |
| :---: | :---: | :---: | :---: |
|  | Lbs. | Lbs. | Lbs. |
| Salt. | 818,700 | 167,100 | 651,600 |
| Fresh, in ice. | +89,786 | 247,273 | 242,513 |
| Canned in tins............................. .... | 139,574 | 3,192 | 136,382 |
| Total. | 1,448,060 | 417,565 | 1,030,495 |

When we consider that, as a rule, the salmon net fishermen do not carry on any other kind of fishery, and that to fit out a salmon stand requires a considerable outlay in the way of nets, mooring, \&c., the above table will give some idea of the loss caused by the failure of the salmon fishery.

## Lobster Fishery.

The lobster fishery shows a slight falling off in spite of the fact that several now canneries had been at work. I believe that two or three more are to be established daring the winter, and mado ready for work in the spring. At this rate it will not take very long to make lobstors scarce about the Gaspé coast. I hear that it is tho intention of some English company to establish a cannery on some part of Anticosti. I belicve that they are satisfied that they will find lobsters there in paying quantitios. I think some stricter means will have to bo adopted to secure the due observance of the law with regard to the taking of small lobsters; they are certainly neglected at the canneries, but it is too late then, as the damage has been done, unless the small lobsters are returned to the water by the fishermen at once, on opening the trap; they seldom have vitality enough left to survive by the time they reach the beach, where they are usually culled. The following table will show the decrease as compared with the previous year:-

| - | 1879. | 1880. | 1881. | Decrease, 1881. |
| :---: | :---: | :---: | :---: | :---: |
| . | Lbs. | Lbs. | Libs. | Lbs. |
| Bonaventure................... | 83,464 315,184 | 210,553 | 131,696 $\mathbf{2 5 5}$ | 78,857 32,390 |
| Gaspé............................ | 315,184 | 288,046 | 255,656 | 32,390 |
| Total...... ............. | 398,648 | 498,599 | 387,352 | 111,247 |

## Herring Fishery.

There has been a slight increaso in the catch of herring, due principally to the return of the berring to the Bay Chalear; it bas been some few years sinco the catch of berring has been so good about Bonaventure.


## Ma letel Fistery.

This fishery was forer-that is to say, but a mati quantity of markerei was taken. The fishery is one that is neglected by our tishermen, and I think they make a great mistake by so $\mathrm{n}:$ glecting it. A few old men and boys about Port Daviel and Gaspe amuse themselves mornirg and evening by jigging for mackerel when they see them schooling in the bays; but there is no attempt to carry on this fishery with the skill and energy which the value and abundanco of this fish would mont assuredly warrant.


## 'Bait.

Bait was uncertain along the south coast during the eeason, especially on that part of the coast west of Perce, and much of the falling off in the cod fishery I attribate to this cause. I may state in this connection that the fishery bulletins which were published with great punctuality, were frequently made use of in the search for bait. Many fishermon who were disposed to laugh at the idea of these bulletins being of any practical use to them have been forced to admit of their value; and there is no doubt whatever that as the fisherman learn to place confidonce in these daily roports, a greater use will be made of them from year to year. I would urge on the various telegraph operators who compile them, that they take pains to furnish honest and reliable information.

## Bait in 1881-South Shore.



Toral Catch and Value of the South Shore Fisheries for the Sisason of 1881.

| Description. | Quantity. | Price. | Value. |
| :---: | :---: | :---: | :---: |
|  |  | \$ cts. | \$ cts. |
| Salmon-Salt | 32 barrels...... | 1500 | 48000 |
| do Fresh, in ice................................................... | 139,753 pounds ..... | 007 | 9,782 71 |
| do Canned ... ...................... ......................... | 3,192 do ...... | 015 | 47880 |
| do Smoked ...................... .......................... . | 11 box.......... | 1000 | 1000 |
| Cod-Summer | 63,675 cwt. ......... | 400 | 254,700 00 |
| do Fall................................................................... | 24,024 do ........ | 400 | 96,096 00 |
| Haddock ................. ...................... ........ .............. | 377 do ........ | 400 | 1,508 00 |
| Ling ......... ........................ ........... .. ................... | 75 do ......... | 400 | 30000 |
| Halibut....................... ........ .......... ...................... | 59 barrels ...... | 600 | 35400 |
| Herring-Salt.......................... ............................ | 12,053 do ...... | 500 | 60,265 00 |
| do Smoked.................................................. | 1,426 boxes....... | 025 | 35650 |
| Mackerel................. ............................................. | 432 barrels ...... | 600 | 2,592 00 |
| Trout . ................................................... ............. | 13 do ...... | 800 | 10400 |
| Eels .................................... ............................ | 25 do ..... | 700 | 17500 |
| Cod Tongues and Sounds....................................... | 127 do ..... | 900 | 1,14300 |
| Ood Oil ...................................... ....................... | 49,049 gallons...... | 040 | 19,619 60 |
| Whale Oil ................................ ........................... | 9,785 do ...... | 040 | 3,914 00 |
| Fish as bait and manare ......................................... | 30,382 barrels ...... | 100 | 30,382 00 |
| Lobsters, canned.................................................. | 387,352 pounds..... | 015 | 68,102 80 |
| Fish for local consumption ..................................... | 9,757 barrels ...... | 400 | 39,028 00 |
|  | . |  | $\begin{array}{ll} 679,391 & 41 \\ 659,230 & 10 \end{array}$ |
| Decrease in value for 1881 ...................... | ........................ |  | 79,838 69 |

Return showing the Kinds and Quantities of Fish in the South Shore Division ex-

CAPE CHATTE DIVISION


MAGDALEN RIYER DIVISION

tending from Cape Chatte to Restigouche, in the Province of Quebec, for the Year 1831.
(Cape Cbatte to Martin River.)

(Claude River to Cape des Rosiers.)


## Return showing the Kinds, Quantities and Prices of Fish in the Sou th

## MAGDALEN



GASPE DIVIgIon


PORT DANIEL DIVISION
Anse au Gascon..... ..............
L'Anse i la Barbe..............
Port Daniel...................
S.W. Point of Port Danicl....

480
160
400
70


Shore Division, oxtending from Cape Chatte to Restigouche, \&c.-Continued.

DIVISION-Contipued.

(Cape Gaspé to Newport.)

(Point Maquereau to Paspebiac Point.)


## Retonn showing the Kinds and Quantities of Fish in the South Shore

PORT DANIEL DIIVSION-(Point


NEW RICEMOND DIVISION


TOTALS OF ALL THE SOUTH


Division extending from Cape Chatte to Restigouche, \&c.-Continued.

Macquercau to Paspebiac Point).-Continued.

(Paspebiac Point to Maguasha Head.)


SHORE DIVISIONS.


Retulan showing the Number and Value of Vessels, Boats, Nets, \&e., in Division extending from Cape Chate to Martin River, in the Province of Quebec, for the Year 1881.

Cape chatte division.


Retury showing the Number and Value of Vessels．Boats，Nets，\＆c．，in Division extending from Cape Chatie to Martin River，in the Province of Quebec，for the Year 1881－Continued．
cape chatte division－Continued．

| Naife of Place． | Name of Fitter Oft． | Nets and Seines， |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Mackerel Seines． |  | Mackerel Scines． |  |  | Capelin Seines． |  |  | Launce Scines． |  |  | Seal Nets． |  |  | Brash Fish－ eries． | Trout Nets． |  |  |
|  |  | 家 |  | $0$ | $\stackrel{\dot{\text { g }}}{\substack{y\\}}$ | $\stackrel{\dot{\oplus}}{\stackrel{y}{\Phi}}$ | $\dot{8}$ |  | 㗊 | $\stackrel{1}{2}$ |  | $\stackrel{\dot{y}}{\stackrel{\rightharpoonup}{d}}$ | $0^{\circ}$ | $\begin{aligned} & \text { 荘 } \\ & \text { 感 } \end{aligned}$ | $\begin{aligned} & \text { 总 } \\ & \stackrel{y}{\circ} \end{aligned}$ |  | $\stackrel{0}{2}$ | 号 | $\stackrel{\stackrel{3}{\square}}{\stackrel{\rightharpoonup}{\square}}$ |
|  |  |  | \＄ |  |  | \＄ |  |  | \＄ |  |  | \＄ |  |  | \＄ | \＄ |  |  | \＄ |
| Cape Chatte．．．．．．．．．．．．．．．．．．．．．．．．．．． |  | ．．．…… | ．．．．． | － | ．．．．．．． |  | ．．．．． |  |  |  |  | ．．．．． | … | ．．．．． | ．．．．． |  | ．．．．． |  | ．．．．．．．．． |
| do …．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | － | .. …． <br> .. ．．．． <br>   | …… | ．．．．．． |  | ．．．．．．．．．． | 1 | 60 | 70 |  |  | ．．．．． | … |  | ．．．．．． | $\cdots 3$ | ．．．． | － $2 . . .10$ | － 10 |
| Ste．Anne des Monts ．．．．．．．．．．．．．．．．． | ．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | ．．． | ． | ．．． | ．．．．．．．． | ．．． |  |  |  |  |  | ．． | ．．． | ．．．．． | ．．．．． | … ．．．．． |  | ．．．．．．．． | ．．．．．．．．． |
| do $\quad$ ．．．．．．．．．．．．．．．．．．．．．．．． | ． | ．．． | －．．．．． | ． | ．．．．．．．．． | ．．． |  |  | ． |  | ．．．．． | ． | ．． | ．． | ．．．．． | ．．．．．．．．． |  | ．．．．．．．． | ．．． |
| do $\quad$ ．．．．．．．．．．．．．．．．．．．．．． | ．． | … | －．．．．． | －．．．． |  |  | 1 | 75 | 60 |  |  | ．．．．．． | ．．． |  |  | ．．． | 1 | 40 | 12 |
| do do ．．．．．．．．．．．．．．． | － | ．．． | ．．．． | 2 | 30 | 20 | 1 | 80 | 40 |  | ．．．．．．． | ．．．．． | ．．．． | ．．．．．．． | ．．．．．． | $2{ }^{-3}$ | 1 | 15 | 5 |
| River à Marthe <br> Ruissoau Vallée． | ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | ．．． | ．．．． | ．．．．．．． | ． |  | ．．．．．． | ． | ．．．． |  |  | ． | ．．． |  | ．．．．．． | ．$\cdot$ ．．．．．． | 1 | 25 | 10 |
| River a Marthe．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  | ．． | ．．．．．．． |  |  |  | ． | ：．．．．．．． |  |  |  | ．．．．．． | $\cdots$ |  |  | ．．．．．． | ．．．．．． |  | ． |
| Total，Cape Chatte Division． |  | － |  | 2 |  | 20 | 3 | 215 | 170 |  |  |  |  |  |  | － 711 |  | 105 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | ．．． |  |  |  |  |  |  |

Return showing Number and Value of Vessels, Boats, Nels, dc., in South Shore Division, extending from Cape Chatte to Restigouche, \&c.-Continued.

MAGDALEN RIVER DIVISION (Claude River to Cape de Rosier, inclusive.)


| Anse it Fougère......................... | 3 | do |  |  |  |  |  | 2 | 100 | 2 | 20 | 4 | $2 \mid$ |  |  |  |  |  |  |  |  | . |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Anse au Grisfond..... ................... | 80 | do |  |  |  |  |  | 46 | 4500 | 46 | 500 | 92 | 40 | 1 | 100\| | 45 |  |  | ...... | ... | ...... | ..... |
| Trois Ruisseaux............................ | 8 | do |  |  | ...... |  |  | 6 | 300 | 6 | 50 | 12 | 5 | ...... | - |  | ... | ...... | ...... | - |  | ...... |
| Jersey Cove................................ | 12 | do |  |  | ....... |  | ........ | 10 | 450 | 4 | 40 | 18 | 8 | ...... | . |  | ... | .... | ...... | - | . | ...... |
| Anse d la Louise........................ | 28 | do |  |  | ..... | . $\cdot$ | ...... | 18 | 800 | 15 | 130 | 36 | 15 | ...... |  |  | ... | ...... | ...... | ... | ..... | ... |
| Cap des Rosiers......................... | 40 | do | , |  | .... |  | ...... | 40 | 2000 | 40 | 400 | 80 | 30 |  |  |  | ... |  | ...... | ... | ...... | ...... |
| Total of Magdalen Division.... |  |  |  | 3 | 75 | 1300 | 6 | 495 | 28960 | 414 | 4106 | 910 | 392 | 9 | 1020 | 450 | 1 | 175 | 200 | ... | ..... | . $\cdot \cdot$ |

GASPE DIVISION (Cape Gaspé to Newport.)

| Ship Head . |  | 1 | 50 | 1000 | 4 | 10 | 252 | 12 | 96 | 19 | ..... | .. | . |  | ... | ...... | ...... | ... |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Indian and St. George's Coves..... |  |  |  |  |  | 14 | 247 | 15 | 120 | 26 |  |  |  |  |  |  |  |  |  |  |
| Grande Greve and Little Gaspé ... |  | 3 | 186 | 5300 | 15 | 24 | 1040 | 31 | 248 | 57 | 24 | 4 | 1060 | 285 |  |  | ...... | . |  |  |
| Capaux Os. ............................... |  |  |  |  |  | 9 | 130 | 13 | 104 | 19 | ... | 5 | 1310 | 298 |  | ...... | ...... | . | - |  |
| Peninsula. |  | 1 | 54 | 800 | 4 | 4 | 117 | 11 | 88 | 11 | . $\cdot$ | 10 | 4574 | 1259 |  | ...... | $\cdot$ | - | - |  |
| North West Bay |  | 2 | 115 | 3200 | 9 | 6 | 240 | 15 | 120 | 15 | ...... | 8 | 1546 | 640 | . | ..... | ...... | ... | . |  |
| Gaspé Basin and South West Bay. |  | 5 | 319 | 7600 | 34 | 4 | 160 | 22 | 220 | 30 | 25 | 25 | 5594 | 1250 |  | , | ...... | ... | ..... |  |
| Sandy Beach. ............................ |  | 5 | 25. | 8600 | 23 | 20 | 449 | 20 | 120 | 40 | 2 | 17 | 4180 | 850 |  |  |  | .. |  |  |
| Douglastown and Seal Cove........ |  |  |  |  | , | 30 | 1500 | 30 | 300 | 60 | 30 | 10 | 2150 | 1080 | 1 | 150 | 150 | .. |  |  |
| Chien Blanc and Red Head.......... |  |  |  |  |  | 22 | 1320 | 22 | 160 | 44 | 22 |  |  |  |  |  | ...... | ... | . |  |
| Point St. Pete |  | 8 | 900 | 40000 | 60 | 59 | 4500 | 22 | 220 | 117 | 78 | 1 | 160 | 60 |  | . | ..... | . | . |  |
| Malbaie......... |  | 1 | 52 | 1400 | 5 | 23 | 1740 | 9 | 84 | 46 | 28 | 2 | 450 | 150 | ... | ..... | ..... |  |  |  |
| Barachois |  | 1 | 81 | 2300 | 5 | 30 | 1800 | 15 | 150 | 60 | 10 | 4 | 1600 | 750 | ... |  |  |  |  |  |
| Belle Anse... |  |  |  |  |  | 3 | 150 | 5 | 40 | 6 | 1 | 2 | 820 | 300 | - | ..... |  | . | ..... |  |
| Corner of the Beach |  | 2 | 103 | 2400 | \| 9 | 16 | 610 | 20 | 146 | 32 | 19 | 1 | 250 | 60 | ... | . |  | - | ...... |  |
| Cannes de Roches |  | 1 | 65 | 1200 | 5 | 1 | 40 | 1 | 7 | $\stackrel{2}{7}$ | 1 |  | ...... |  |  | ...... |  |  | - | ..... |
| Bonaventure Island |  |  |  |  |  | 38 | 762 | 29 | 220 | 79 | 53 |  |  |  |  |  |  |  |  |  |
| Percé |  |  | $\cdot \cdot$ |  | ...... | 300 | 5515 | 55 | 483 | 200 | 119 |  |  |  |  | ...... | ...... |  |  |  |
| Anse a Beaufils |  |  | ..... |  |  | 19 | 523 | 19 | 124 | 38 |  | 1 | 80 | 30 |  |  |  |  |  |  |
| Cape Cove |  | 3 | 195 | 4600 | 17 | 39 | 1202 | 19 | 141 | 79 | 27 | , | 240 | 40 |  |  |  |  | 100 | 40 |
| Cape Despair......... .................... |  |  | \|..... |  |  | 11 | 379 | 18 | 112 | 28 | 10 |  |  |  | ... | ....' |  | ... | ...... | ...... |
| Little River ................................ |  |  |  |  |  | 35 | 1138 | 15 | 105 | 72 | 20 |  |  |  |  | -•• |  |  | ...... |  |
| Grand River.............................. |  |  |  |  |  | 60 | 3140 | 21 | 194 | 120 | 67 | 3 | 1190 | 280 | ... |  | ...... | ... | ..... | ..... |
| Grand and Little Pabos............... |  |  |  |  |  | 39 | 2856 | 15 | 190 | 78 | 16 | 5 | 1010 | 400 |  | -•'• |  |  |  | ..... |
| Newport and Anse aux Canards ... |  |  |  |  |  | 70 | 3500 | 25 | 220 | 140 | 60 | 1 | 220 | 85 |  |  |  | $\cdots$ | ...... |  |
| Total, Gaspé Division ....... |  | 33 | 2372 | 78400 | 190 | 686 | 33310 | 479 | 4012 | 1418 | 612 | 100 | 26434 | 7817 | 1 | 150 | 150 | 1 | 100 | 40 |

Retorn showing Number and Value of Vessels, Boats, Nets, \&c., in South Shore Diviwion, oxtending from Cape Chatte to Ristigouche, \&c.-Continued.
magdalen river division (Claude River to Cape des Rosiers, inclusive.)-Concluded.


| Anse is Fougère .................... | 3 | do |  | 4 | 160 | 70 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Anse au Grisfond................... 8 | 80 | do |  | 92 | 3100 | 1800 |  |  |  | 10 | 300 | 150 | 3 | 250 | 225 | ... |  |  |  |  |  |  |  |
| Trois Ruisseaux | 8 | do |  | 10 | 400 | 160 |  | ... |  |  |  |  |  |  |  |  | ..... |  |  | ...... |  |  |  |
| Jersey Cove........................ | 12 | do |  | 18 | 700 | 275 |  | .... | ...... |  |  |  |  |  |  |  |  | ..... |  |  |  |  |  |
| Anse à la Louise................... | 28 | do |  | 40 | 1500 | 700 |  | . | . | 6 | 220 | 100 | 1 | 50 | 40 | ... | ... | , | ... | ..... |  |  |  |
| Cap des Rosiers.................... | 40 | do |  | 80 | 3000 | 1500 |  |  |  | 6 | 220 | 100 | 3 | 150 | 160 | ... |  |  | ... |  |  |  |  |
| Total of Magdalen Division |  |  |  | 929 | 35340 | 15780 | 1 | 75 | 90 | 58 | 2110 | 856 | 21 | 1300 | 1375 |  |  |  |  |  |  |  |  |

GASPÉ DIVISION (Cape Gaspe to Newport)-Concluded.

| Ship Head ............................. |  | 21 | 934 | 322 |  |  |  |  |  |  |  |  | .... ... |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Indian and St. George's Cove... |  | 24 | 954 | 332 | ... |  | . | [1... 4 | 186 | 54 |  |  | ....... |  | ...... |  |  |  |  |  |
| Grande Greve and Little Gaspé |  | 56 | 2448 | 976 | ... | ... | ....... | 14 | 595 | 218 | 2 | 130 | 954 | 190 | 210 |  | .... | . |  |  |
| Cap aux Os........................... |  | 11 | 510 | 120 | ... | ..... |  |  |  |  | .a... |  |  | ... |  |  |  |  |  |  |
| Peninsula............................. |  | 1 | 50 | 8 | ... |  |  | ..... | . |  | ..... | ........ |  | ....... | ....... |  | ..... |  |  |  |
| North West Bay.............. ..... |  | 2 | 70 | 14 | ... | . | ... |  | ......... |  |  |  |  |  |  |  | ..... |  |  |  |
| Gaspé Basin and South West Bay |  |  |  |  |  | ....... | ...... | . |  |  |  |  |  |  | …". |  | ….... | ....... |  | - |
| Sandy Beach. |  |  |  |  |  |  |  |  |  |  |  |  | $\ldots$ | 80 | 30 |  |  | ...... |  | . |
| Douglastown and Seal Cove.... |  | 30 | 1200 | 600 | 1 | 160 | 300 | 3 | 120 | 60 | 1 | 60 | 601 | 12 | 30 | -1 | 40 | 10 | ... |  |
| Chien Blanc and Red Head...... |  | 44 | 1560 | 440 |  |  |  |  |  |  | 4 | 190 | 80 ... |  |  |  |  | ...... |  |  |
| Point St. Peter. |  | 131 | 5236 | 1420 | ... | .... | ..... | 7 | 280 | 74 | 3 | 140 | 130 | 180 | 230 | ... | ... |  |  |  |
| Malbaie................................ |  | 42 | 1680 | 492 | .. | .... | ... |  |  |  | 1 | 60 | 50.1 | 60 | 90 |  | .... | ...... | ... | ...... |
| Barachois ......... ................... |  | 50 | 1800 | 500 | ... |  | . $\cdot$ | . |  |  | 10 | 500 | $300 .$. |  | ...... | ... | ...... | ...... |  |  |
| Belle Anse.............................. |  | 4 | 160 | 32 | $\cdots$ | . |  |  |  |  |  |  |  | ...... |  |  | $\cdots$ | ...... | ... |  |
| Corner of the Beach .............. |  | 34 | 960 | 277 | $\left\lvert\, \begin{aligned} & \cdots \\ & \cdots \end{aligned}\right.$ |  | ..... |  | ........ |  | 10 | 500 | $500 . .$. | ...... | ...... | . | ...... |  |  |  |
| Cannes de Roches. ................. |  | 2 | 80 | 24 |  |  |  |  |  |  |  |  |  |  |  |  | , | - |  | .. |
| Bonaventure Island ...... . . . . . . . . |  | 95 | 4209 | 860 | ... |  |  | 7 | 252 | 70 | 2 | 82 | $80 \mid 2$ |  | 124 |  |  |  |  | . |
| Percé.............. |  | 280 | 4648 | 1836 | . | $\cdot$ | ... | , | 50 | 12 | 7 | 480 | $290 \mid \ldots$ |  |  | -. |  | .... |  |  |
| Anse à Beaufils ...................... |  | 36 | 1440 | 309 |  |  | . |  |  |  | 8 | :188 | $191 .$. | ...... |  | $\cdots$ | ..... | - |  |  |
| Cape Cove............................ |  | 80 | 3200 | 690 | ... |  |  |  |  |  | 3 | 150 | $75 . .$. |  |  |  |  |  |  |  |
| Cape Despair ......................... |  | 34 | 1320 | 319 | ... | $\cdot$ | ...... | 1 | 40 | 10 | 2 | 100 | 20. | ..... |  |  |  | ...... |  |  |
| Little River ........................... |  | 72 | 2864 | 687 | ... | - | ...... | ...... |  | ........ | 4 | 200 | 149 ... | ...... | ..... |  | ..... | ..... |  |  |
| Grand River. |  | 139 | 3956 | 1606 | .... | . | ...... | ...... |  |  | 8 | 430 | 230 | - |  |  | . $\cdot$ | $\cdot$ |  |  |
| Grand and Little Pabos . ......... |  | 59 | 2572 | 875 |  |  |  |  |  |  | 4 | 210 | 180 | ...... |  |  |  |  |  |  |
| Newport and Anse aus Canards |  | 156 | 4200 | 1560 |  |  |  | 5 | 160 | 45 | 7 | 560 | 320 |  |  |  |  |  |  |  |
| Total, Gaspé Division.... |  | 1393 | 46071 | 14299 | 1 | 160 | 300 | 42 | 1683 | 543 | 76 | 4210 | 275013 | 616 | 714 | 1 | 40 | 10 |  |  |

Return showing Number and talue of Vessels, Boata, \&e., in South Shore Division, extending from C'ape Chatte to Ristigouche, \&c.-Continued.
PORT DANIEL DIVISION (Point Maquereau to Paspebiac Point.)

| Paspebiac................... ............. | ........ ........................ | 41 | 4340 | 200580 | 249 | 50 | 2460 | 50 | 500 | 100 | 120 | 20 | 490 | 230 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New Carlisle ............................ |  | 1 | 45 | 2000 | 4 | 7 | 350 | 7 | 70 | 14 | 6 |  |  |  | ... |  |  |  |  |  |
| Big and Little Bonaventure. |  |  |  |  |  | 60 | 4660 | 62 | 600 | 120 | 65 |  |  |  |  |  |  |  |  |  |
| Capelin .............. ................... |  | ..... | ..... | ........ | ..... | 17 | 850 | 18 | 180 | 34 | 17 | 21 | 511 | 260 | ... | ..... |  | ... | . |  |
| New Richmond and Black Capes... |  |  |  | ......... | ..... | 4 | 200 | 4 | 40 | 8 | 2 | 175 | 3890 | 1660 |  | , |  | ... | . |  |
| Maria ..................................... | ........... ..................... | .... | ..... | ......... | ...... | 17 | 680 | 8 | 80 | 34 | 13 | 251 | 8576 | 4288 |  | ..... | . | ... | ..... |  |
| Carleton ................................. | ................... ............. | ..... | ..... | ......... | ..... | 9 | 390 | 12 | 120 | 24 | 12 | 200 | 5475 | 2635 |  | ...... | ...... | ... | ..... |  |
| Nouvelle........... ........ ............. | ........................ ....... | .... | ..... | ........ |  | 6 | 300 | 7 | 70 | 14 | 6 | 26 | 760 | 380 |  | ...... | ...... | ... | ...... |  |
| MagaasEa...... ......................... |  |  | ..... |  |  |  |  |  |  |  |  | 64 | 1460 | 730 |  |  |  | ... |  |  |
| Total, New Richmond Division |  |  | 4385 | 202580 | 253 | 170 | 9890 | 168 | 1660 | 348 | 241 | 757 | 21162 | 10193 | ... | ..... |  |  |  |  |

## Retorn showing Number and Value of Vessels, Boats, \&c., in South Shore Division, extending from Cape Chatte to Restigouche, \&c.-Continued.

PORT DANIEL DIVISION (Point Maquereau to Paspebiac Point)-Concluded.


NEW RICHMOND DIVISION (Paspebiac to Maguasha Point)-Coneluded.

| Paspebiac........................... |  | 50 | 1800 | 600 |  |  |  | 50 | 1800 | 600 | 17 | 680 | 612 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New Carlisle............................. |  | 6 | 216 | 72 |  |  |  | 6 | 1216 | 72 | 8 | 120 | 280 | ... |  |  |  |  |  | $\ldots$ |  |
| Big and Little Bonaventure...... |  | 60 | 2120 | 750 |  |  |  | 58 | 1240 | 690 | 25 | 1000 | 900 | ... | .... |  |  |  |  |  |  |
| Capelin..... .......................... |  | 14 | $6 \% 0$ | 230 | ... |  |  | 9 | 4011 | 180 | 7 | 280 | 252 | ... | . |  |  |  |  |  |  |
| New Richmond and Black Capes |  | 12 | 432 | 200 | ... |  |  | 9 | 340 | 180: |  |  |  |  |  |  |  |  |  |  |  |
| Maria. |  | 20 | 720 | 240 | ... | . | ...... | 15 | 540 | $180^{\prime}$ | 1 | 40 | 36 | ... | ....... | ...... | ... | ..... |  | 7 | 70 |
| Carleton............................ |  | 15 | 600 | 180 | .. | ..... |  | 9 | 324 | 108 | ..... |  |  | ... |  | ...... | ... |  |  | ... | .... . |
| Nourelle ......... ................... |  | 6 | 200 | 75 | . | ...... | ...... | 5 | 180 | 60 | ...... |  |  | ... | ...... | ...... | ... | ...... | ..... | ... | ...... |
| Maguasha |  |  |  |  | .. |  |  |  |  |  |  |  |  | - |  |  |  |  |  |  |  |
| Total, New Richmond Div. |  | 183 | 6688 | 2347 | ... | ..... |  | 5 | 161140 | 2070 | 58 | 2120 | 3080 | ... |  |  |  |  |  | 7 | 70 |

Return showing Number and Value of Vessels, Boats, Nets, \&c., in South Shore Division extending from Cape Chatte to Ristigouche, \&c.-Continucd.
Ristigouche division (Maguasha to Head of Tide.)

totalis of all the sodth shore divisions.

| vision... |  | 4 | 203 | 5520 | 15 | 98 | 4875 | 161 | 1815 | 196 | 51 | 3 | 98 | 39 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Magdalen River do ... |  | 3 | 75 | 1300 | 6 | 495 | 28960 | 414 | 4106 | 910 | 392 | 9 | 1020 | 450 | 1 | 175 | 200 |  |  |  |
| Gagpé ${ }^{\text {Maper }}$ do. |  | 3.1 | 2372 | 78400 | 190 | 686 | 33310 | 479. | 4012 | 1418 | 612 | 100 | 26434 | 7817 | 1 | 150 | 150 | 1 | 100 | 40 |
| Port Daniel do ... |  |  |  |  |  | 179 | 6890 | 117 | 1160 | 428 |  | 16 | 4192 | 1450 |  |  |  |  |  |  |
| New Richmond do ... |  | 42 | 4385 | 202580 | 253 | 170 | 9890 | 168 | 1660 | 348 | 241 | 757 | 21162 | 10193 |  | .. .. |  |  |  | ..... |
| Ristigouche do ... |  |  |  |  |  |  |  | 23 | 239 | 29 |  | 26 | 12460 | 3615 |  |  |  |  |  |  |
|  |  | 82 | 7035 | 287800 | 464 | 1628 | 83925 | 1362 | 12992 | 3329 | 1296 | 911 | 65366 | 23564 | 2 | 325 | 350 | 1 | 100 | 40 |

Retorn showing Number and Value of Vessels, Boats, Nets, \&c., in South Shore Division extending from Cape Chatte to Ristigouche, \&c.-Continued.

totals of all the sodth shore divisions.

| Crpe Chatte Division... |  | 244 | 6520 | 4840 |  |  |  | 2 | 30 | 20 | 3 | 215 | 170 |  |  |  |  |  |  |  | 111 | 4 | 105 | 35 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Magdalen River do | ......................... | 929 | 34340 | 15780 | 1 | 75 | 90 | 58 | 2111 | 856 | 21 | 1300 | 1375 | ... |  |  |  |  |  |  |  |  |  |  |
| Gaspé do | ......................... | 1393 | 46071 | 14299 | 1 | 36 | 300 | 42 | 1683 | 543 | 76 | 4210 | 2751 | 13 | 616 | 714 | 1 | 40 | 10 |  |  | ..... | ..... | ...... |
| PortDaniel do ... |  | 415 | 15181 | 3320 |  |  |  |  |  |  | 27 | 985 | 535 | ... |  |  |  |  |  |  |  | ..... | ...... |  |
| New Richmond do ... | ........................ | 183 | 6688 | 2317 |  |  | .... | 161 | 5140 | 2070 | 58 | 2120 | 2080 | ... |  |  |  |  |  |  | 70 | ..... | ...... | ...... |
| Ristigoucho do ... |  |  |  |  | ... |  |  |  |  |  |  | ......... | ....... | ... | ...... | ..... |  |  |  |  | ...... | ..... |  |  |
|  |  | 3164 | 108800 | 40586 | 2 | 235 | 390 | 263 | 8963 | 3489 | 185 | 8830 | 6900 | 13 | 616 | 714 | 1 | 40 | 10 | 12 | 181 | 4 | 105 | 37 |

## NORTH SHORE DIVISION.

## COD FISHERY.

This fishery has been an abundant one, and though showing a slight falling in the shore fishery as compared with the previons year, yet, on the whole, a larger quantity of fish have been taken in the division. There is no doubt that this fishery would have been far in advance of any we have had, had it not been for the very extensive fires which prevailed on this coast, from Seven Islands to Cape Harrington, during the greater part of the month of July. Almost all the fishing stations were, at various times, in great danger, and it was only by the untiring exertions of agents and men, that many of these valuable properties wore saved. As it was, at Thunder River, the splendid establishment of Messrs. LeBoutillier Bros. was completely destroyed. This establishment was considered the best and most complete on the north shore. Many houses owned by fishermen living along the coast have also been destroyed. It will thus be seen that as the fishermen had to remain on shore, to protect either their own property or that of their employers, off and on during the greater part of the month of July, during the very height of the fishing season, a very great loss must have occurred to the fishery by these fires. The following table will show the catch made by shore boats and by schooners as compared with last year:-

| - | 1880. | 1881. | $1881 .$ |
| :---: | :---: | :---: | :---: |
| Summer catch........................ | 89,917 | 287.217 | 197,360 increase. |
| Fall catch............................. | 12,330 | 10,567 | 1,763 dccrease. |
| 500 schooners.................. .... | 175,000 | 200,000 | 25,000 increase. |
| Totals..................... | 277,247 | 497,784 | 220,537 increase. |

## SALMON FISHERT.

In this fishery on the north shoro, as on the south shore, there has again been a falling off. This deficiency in the quantity takon has been somewhat inado up to the fishermen by the increased price of salted salmon. I think the same causes I have mentioned as tending to spoil the fishery on the south shore, may be taken to have influenced the north shore fishery as well. As far as I have been able to gather, the north shore rivers have been well stocked with salmon this season. I myself was up the Watscheecootai River, in September, and I then noticed plenty of salmon in the lower pools, and fish continually jumping the falls. The gentlemen owning rivers on the north shore have lost considerably by the fires, as all the camps have been destroyed. The picturesqueness of the scenory on the rivers has been sadly marred by these fires, as now the banks are lined on either sides by charred stumps. The French steamer "Stella Maris" came up as far as Natashquan in search of fresh salmon, but finding the catch so poor she returned to Chateau Bay, and took all she could got there. These French steamers hare boen unfortunate, as
during the last three years, while they have been coming to the coast, the catch has been getting`smaller and smaller each year.

| - | 1880. | 1881. | $\begin{gathered} 1881 \\ \text { Decrease. } \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Salmon, salted......... ......................brls fresh in ice................................lbs | 148, ${ }^{750} 5$ | 524 107,520 | $\begin{array}{r} 226 \frac{1}{2} \\ 40,635 \end{array}$ |

SEAL FISHERY.
The only other fishery of any moment prosecuted on the north coast is the seal fishery, and this fishery shows a considerable gain over the fishery of 1880, which itself was not a bad one. Most of the seals were taken by vessels from Esquimaux Point and Natashquan, in the ice, either towards the Straits of Belle-Isle, or off the east point of Anticosti, during the month of April. There is no doubt that once the Gulf telegraph system is completed, it will be made uso of to learn the whereabouts of the ice and the seals. I was informed this year on the north shore by a gentleman from Newfoundland, that he telegraphed to the Magdalen Islands in the spring to find out about the ice, and from the information he then received he sent his two steamers into the gulf instead of to the north as usual, and that they both made the ice off the east of Anticosti and loaded. Our Esquimaux Point schooners saw the smoke of these steamers, and making in their direction, secured a good catch of seals. A few seals are taken in sedentary fisheries along the Labrador, and a fuw are shot about the rivers and bays.

| - | 1880. | 1881. | $\begin{gathered} 1881 \\ \text { Increase. } \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Seal-skins....... | 22,566 | 36,170 | 13,604 |
| Seal oil.................. ................gallons | 109,936 | 120,848 | 10,912 |

\footnotetext{
The other fisheries of the north shore do not amount to a great deal, a few barrels of halibut and trout being taken on the upper part of the coast. The halibut are getting more plentiful, and a number of American halibut schooners were seen about the coast. The herring fishery was a failure all along the Labrador. A number of schooners from Esquimaux Point and Natashquan went down to the Straits for the fall herring fishery, but they returned with nothing.解采The following table will show the catch of bait; the principal baits on the north shore are herring and capelin :-

|  | Barrels. |
| :---: | :---: |
| Capelin. | 78,321 |
| Herring. | 693 |
| Cod Roes | 75 |
| Launce.. | 188 |
| Clams. | 150 |
|  | 79,427 |

The following is a list of vessels that have called at Bonne Esperance during the season, prepared by Mr. Whitely:-

List of Vessels calling at Bonne Esperance during the Season of 1881.

| Name of Vessel. | Port where from. | Name of Vessel. | Port where from. |
| :---: | :---: | :---: | :---: |
| Ellie.. | Mingan. | Excel. | Newfoundland |
| Swallow ........................... | Nova Scotia. | Escort............................ | Nora Scotia. |
| SS. Tiger ......................... | Newfoundland. | W. M. Boak. .................... | do |
| SS. Delta.......................... | do | Express.......................... | do |
| Snow Queen....................... | Nova Scotia. | Boreas............................. | do |
| Stadacona....................... | Quebec. | Nimble........................... | do |
| Morning Star. . ................... | Newfoundland. | Spring Bird............ ....... | do |
| Maria........................ ..... | Quebec. | Ocean Friend.................. | do |
| Minnie D........................... | Nova Scotia. | Flash............................. | do |
| Village Belle........... .......... | do | Sadie.......................................... | do |
| Leonis ......................... | do | Pleasantrille................... | do |
| Isabel ............................. | Newfoundland. | Allas................. ............ | do |
| S. W. Dodd....................... | do | Mary E.......................... | do |
| Janet.............................. | do | Susan ............................ | Newfoundland, |
| Wild Rover....................... | do | Minnie Gray...... ............. | do |
| Seafower.......................... | do | Margaret ........................ | do |
| Flash................................ | do | Ripple........................... | do |
| Dawn............ .................... | do | Hope ............................. | do |
| Venus............. ................... | do | Guide............................ | do |
| Elizabeth .................. .......... | do | Enterprise ........................ | do |
| Victory.................................... | do | Fortunate............................................... | do |
| Bay Queen................................. | Nova Scotia. | SS. Plover............................ | do |
| Hound.............................. | Newfoundland. | Pbゅbe.................................. | Nova Scotia. |
| Five Brothers..................... | do | Red Rose.............................. | England. |
| Florence Bell.................... | Nova Scotia. | A deline.............. ...... ..... | Quebec. |
| Guiding Star. . . . . . . . . . . . . . . . | England. | S.S Lax Canadienne......... | do |

Total Catch and Value of North Shore Fisheries for the Season of 1881.


Return showing the Kinds and Quantities of Fish in the North Shore Division, ex

GODBOUTEDIVISION-(Manicouagan


TRINITY DIVISION-(Pointe


MOISIE DIVISION

tending from Manicouagan to Blancs Sablons, Province of Queboc, for the Year 1881.
to Pointe des Monts.

des Monts to Baie des Rochers.)

(Pigou to Jambons.)


Retorn showing the Kinds, Quantities and Prices of Fish in the North Sbore

ST. JOHN'S DIVISION


Division, extending from Manicouagan to Blanc Sablons, \&e.-Continued.

## -Concluded.


(Sheldrake to Esquimaux Point.)


Return showing the Kinds and Quantities of Fish in the North Shore

WATSHEESHOO DIVISION


NATASHQUAN DIVISION

| Nabissippi... | 16 | ........ | .. |  | 864 | 30 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agwanus........................... | $25 \frac{1}{2}$ | ........ | ... | ... | 80 | 20 | ... |  |  | 7 | ..... |  |  |  |  |
| West Avocat......... .............. |  |  |  | ...... | 260 |  | ... | .. | ... | 100 | ..... |  |  |  |  |
| Natashquan Harbour.............. | 7 | ........ | ... | ...... | 4314 |  | ... | ... | ... | 60 | ..... |  |  |  |  |
| Little Natasbquan ............... | 151 |  | ... | ...... | 1200 | 400 | ... |  |  | 200 | ..... |  |  |  |  |
| Nátashquan River................ | 45 | 25000 |  |  |  | 40 |  |  |  |  |  |  |  |  |  |
| Schooners owned in and fish. ing from Natashquan- |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Notre Dame de la Garde .... |  |  | ... |  |  |  |  |  |  | 20 | ..... |  |  |  |  |
| Esperance...................... | ..... |  | ... | - |  |  |  | ... |  |  |  |  |  |  |  |
| Sancta Maria.................... | $\cdot$ | . | .. | ...... | 104 | 30 | ... | ... | .... | 50 | ..... |  | - |  |  |
| Triompbe ...................... |  |  | ... |  |  |  | ... | ... | . |  |  |  |  |  |  |
| - Ocean Bride ..................... |  |  | ... |  |  |  | ... | ... | ... | 40 |  |  |  |  |  |
| ' Marie Lousie ................... Fly fishing ...... .............. |  |  | ... | ..... | 40 | 40 | .. |  |  | 65 |  |  |  |  |  |
| Fly bshing ...... .................. | 9 |  | . |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 118 | 25000 | ... |  | 6862 | 560 |  | ... | $\ldots$ | 532 |  |  |  |  |  |

WASHEECOOTAI DIVISION

| Kegashka River. | 24 |  |  |  | 70 | 20 |  |  |  | 7 |  |  | 2 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Kegusbka Harbor................. |  |  | ... |  | 779 | 128 | ... | .... |  | 121 |  |  | 4 |  |  |
| Big Musquaro River.............. | 3 | ......... | ... |  |  |  | ... | ... |  |  | ..... |  |  |  |  |
| Little Musquaro River .......... | 2 | .. |  |  |  |  |  | ... | .... |  | ....... |  |  |  |  |
| Cloudberry Point................. | 10 | ......... |  |  |  | . |  | . | .... |  | …'. |  |  |  |  |
| Wasbeccootai River .............. | 12 |  |  |  |  |  | ... | ... | . |  |  |  | 4 |  |  |
| Romaine River........ | 9 |  |  |  |  |  |  | ... | . |  |  |  | 4 |  |  |
| . $\quad . .1$. |  |  |  |  |  |  |  |  | .... |  |  |  |  |  |  |
| Total....................... | 60 |  |  |  | 849 | 148 | ... |  |  | 128 |  |  | 14 |  |  |

Division extending from Manicouagan to Blanc Sablons, \&c.-Continued.
(Betchouan to Little Watsheeshoo.)

(Natashquan River to Nahissipii)

(Kegashka River to East Romaine River).


Return showing the Kinds and Quantities of Fish in the North Shore

ST. AUGUSTINE DiVISION


Division, extending from Manicouagan to Blanc Sablons, \&c.-Continued.
(Coacoachoo to Chicatica).


## Return showing the Kinds and Quantities of Fish in the North Shore

BONNE ESPERANCE DIVISION


Division extending from Manicouagan to Blanc Sablons, \&c.-Continued.
(Chicatice to Blanc Sablons.)


Return showing the Kinds and Quantities of Fish in the North Shore

TOTALS FOR ALL THE


Division extending from Manicouagan to Blanc Sablons, \&e.-Continued.

NORTH SHORE FISHERIES.


[^0]Return showing Number and Value of Vessels，Boats，Nets，\＆c．，in the North Shore Division extending from Manicouagan to Blanc Sablons，in the Province of Quebec，for the year 1881.

GODBOUT DIVISION－（Nanicouagan to Point ${ }^{2}$ des Monts．）

| Namir of Plater． | Vessels． |  |  |  | Fishing Boats． |  | Flat Boats． |  |  | No. of Shoremen. | Nets and Seineg． |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Salmon Nets | Cod Seines． |  |  |  |  | Herring Seines． |  |  | Herring Nets． |  |  |
|  | 号 | 官 | 㚖 |  |  |  | $\dot{8}$ |  |  |  | $\dot{z}$ | $\begin{gathered} \text { ® } \\ \stackrel{\rightharpoonup}{\mathrm{a}} \end{gathered}$ | $0$ | $\begin{gathered} \dot{\infty} \\ \stackrel{\rightharpoonup}{\omega} \\ \stackrel{\rightharpoonup}{\omega} \end{gathered}$ |  | $\dot{8}$ |  | $\begin{aligned} & \dot{\Xi} \\ & \stackrel{\rightharpoonup}{\square \prime} \end{aligned}$ | $\dot{8}$ | $\begin{aligned} & \dot{0} \\ & \text { 号 } \\ & \text { p } \end{aligned}$ | $\begin{aligned} & \dot{\Delta} \\ & \stackrel{\Xi}{\square} \\ & \hline- \end{aligned}$ | $0^{\circ}$ | 宫 | － |
| Godbont River．．．．．．．．．．．．．．．．．．．．．．．．．．． | 1 | 50 | \＄${ }^{\$} 8000$ | 8 |  | $\$$ |  |  |  | $\$_{15}$ |  | 9 |  |  | \＄ |  |  | 8 |  |  | $\$$ |  |  | \＄ |
| Pointe Jes Monts．．．．．．．．．．．．．．．．．．．．．．．．．．． | 1 | 2 | 100 | 1 | 1 | $\cdots$ | 2 | 15 | 2 | 9 2 | 3 | 275 | 150 | ．．． |  |  |  | ．．．．＇ | － |  |  | ．．．． |
| La Table ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  | ．．．．．．．．． |  | 1 | 20 | 2 | 2 | 1 | 100 | 150 50 |  |  | ．．．．．． | ．．．．． | …… | ．．． | ．．． | ．．．．．． | ．$\cdot 1$. |
| Red Point．．．．． |  |  |  | ．．． | ．．．．．．．．．．．． |  | 2 | 15 | 2 | 2 | 2 | 160 | 80 | ．．．．．．． |  | …．．． | …．． |  | － | …． | ． | ．．．．．． |
| Little St．Nicholas．．．．．．．．．．．．．．．．．．．．．．．． |  | ．．．． |  |  | ．．．．．．．．． 1 | － | 2 | 15 | 2 | 2 | 1 | 100 | 50. | ．．．．．．． |  |  |  |  |  |  | 60 | 20 |
| Grand St．Nicholas ．．．．．．．．．．．．．．．．．．．．． |  |  | ． |  | 1 | 100 | 2 | 15 | 2 | 2 | 1 | 120 | 60 | ．．．．．． |  |  |  |  |  |  | 60 |  |
| West St．Nicholas．．． | ． |  |  |  | 1 | 20 | 1 | 15 | 1 | 1 | 1. | 60 | － 30 | $\cdot$ | － | ．．．．．． |  |  | ．．．．．． |  | ．．．．．． | $\ldots$ |
| Pointe à la Croix．．．．．．．．．．．．．．．．．．．．．．． | ．．． | ． | ．．． |  | ．．． | 20． | 1 | 15 | 2 | 2 | 1 | 120 | 60 | ． | － | ．．．．．． | ．．．．．． | ．．． | ．．．．．． |  | ．．．．．． | ． |
| East Becscie．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  | ．．．．． |  | ．．．．．．．．．．． |  | 1 | 20 | 2 | 2 | 1 | 120 | 60 | $\cdot$ | ． | ． | ． | $\cdot \cdot$ | ．$\cdot$ | $\cdot \cdot$ | ． | $\cdot \cdot$ |
| Becscie River．．．． |  |  |  | ． | ．．．．．．．．．．．． | ． | 3 | 15 | 4 | 4 |  | 120 | 60 | ． | ．．．．．．． |  | ． | ．．．．．． | ．．．．．． | $\cdot$ | ． | ． |
| East St．Pancras． |  |  | ． |  |  |  | 1 | 15 | 1 | 1 | 1 | …00 | $\cdots$ |  |  |  | ． |  |  |  |  | ．．．．．． |
| West St．Pancras．． |  |  | ．． |  | $\cdots$ | －7．．．．． | 1 | 15 | 2 | 2 | 1 | 150 | 80 | …… |  | …… |  |  | ．．．．．． |  | …… |  |
| English Bay．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | ．．．．．． |  | ．．．．． |  |  |  | 1 | 15 | 1 | 1 | 1 | I00 | 50 |  |  |  |  |  |  |  |  | ．．．．．． |
| Maniconagan．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  | ． | ．．．．．． | 1 | 10 | 2 | 2 |  | ．．．．．． |  |  |  |  |  |  |  |  | ．$\cdot$ |  |
| Godboat Bry．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 1 | 32 | 800 | 4 | ． |  | 4 | 20 | 11 | 11 |  |  | ．．．．． |  |  | ．．．．． |  | …… |  |  | ． | ．$\cdot$ |
| Total． | 3 | 84 | 25900 | 13 | 5 | 275 | 28 | 235 | 45 | 45 | 14 | 1365 | 700 |  |  |  |  |  |  | 1 | 60 | 20 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Trinity Bay ．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 1 | 9 | 325 | 2 | 1 | 40 | 5 | 50 | 4 | ．．．．．．． | 12 | 950 | 385 |  | ．．．．． | $\cdot$ | ．．．． | $\cdot \cdot$ |  | 1 | 60 | 15 |
| Petit Mai．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 1 | 8 | 80 | 1 | 6 | 143 | －6 | 16 | 15 |  | 2 | 150 | 55. |  |  | ．．． | ．．．． | ．．．．．． | ．．．．．． |  |  |  |
| Cariboo Islands |  |  | ．．．．．． |  | 40 | 927 | 74 | 80 | 80 | 1 | 10 | 600 | 210 | 1 | 100 | 15 |  |  |  | 8 | 406 | 98 |
| Calumets．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  |  | ．．．．．．．．． | 1 | 3 | 1 | ．． | 1 | 120 | 40 | ． |  | ．．．．．． | ．．．．．． | ．．．．．． | ．．．．．． |  |  |  |
| Egg Island（main land）．．．．．．．．．．．．．．． | ．．． |  | ．．． |  | ． | ．．．．．．．．． | 1 | 5 | 1 |  | 1 | 120 | $6 \cap$ | ．．． |  | ．．．．．． |  |  | ．．．．．． |  |  |  |
| Egg Islaud．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | ． |  | ． |  | 1 | 60 | 1 | 12 | 2 |  | ．．．．．． | ．．．．．． | ．．．．．． | ．．．．． | ． | ．．．．．．． |  | ．．．．．．． |  | －1．． 4 | 180 | 57 |
| Point aux Anglais ．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  | 15 | 210 | 5 | 19 | 30 |  |  | ．．．．．． |  |  |  |  | ．．．．．． |  | ．．．．．． | 13 | 592 | 114 |
| Portage de la Rivière Pentecost．．．． | 1 | 21 | 500 | 2 | 8 | 198 | 5 | 30 | 16 | 2 | ．．．．． |  | ． | 1 | 440 | － 80 | ．．．．．．．． |  |  | 1 | 50 | 15 15 |
| Pentecost River ．．．．．．．．．．．．．．．．．．．．．．．．．． | 2 | 61 | 2250 | 10 | 12 | 445 | 4 | 44 | 26 |  |  |  |  |  |  |  | ．．．．．． | ．．．．．． |  |  |  |  |
| Cailles Rouges．．．．．．．．．．．．．．．．．．．．．．．．．．． | 1 | 15 | 200 | 4 | 8 | 328 | 7 | 38 | 16 |  |  |  |  |  |  |  |  |  |  | 1 | 64 | 12 |
| Total ．．．．．．．．．．．．．．．．．．．．．．．． | 6 | 114 | 3355 | 19 | 91 | 2351 | 109 | 297 | 191 | 3 | 26 | 1940 | 750 | 2 | 540 | 05 |  |  |  | 28 | 1352 | 311 |

## Return showing Number and Value of Vessels, Boats, Nets, \&c., in the North Shore Division extending from Manicouagan to Blane Sablons, \&c.-Continued.

godbodt division (Manicouagan to Pointes des Monts)-Continued.


Retuan showing Number and Value of Vessels, Boals, Nets, \&c., in the North Shore Division, extending from Manioouagan to Blanc Sablons, \&c.-Continued.

MOISIE DIVISION (Pigou to Jambons.)



Return showing Number and Value of Vessels，Boats，Neta，\＆ce，in the North Shore Division，extending from Manicouagan to Blanc Sablons，\＆c．－Continued．

MOISIE DIVISION（Pigou to Jambons）－Continued．

| Namb of Plata． | Nets and Seines． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Herring Nets． |  |  | Mackerel Seines． |  |  | Mackerel Nets． |  |  | Capelin Seines |  |  | Launce Seines |  |  | Seal Nets． |  |  | Brush Fisheries． |  |
|  | 울 | 感 | － | ${ }^{\circ}$ |  | 岂 | $\dot{z}$ |  | －¢ | 8 | 窵 | 㗊 | $0^{\circ}$ | 范 | 岂 | ${ }^{\circ}$ | 号 | $\stackrel{\text { ¢ }}{\text { ¢ }}$ | ${ }^{\circ}$ | － |
|  |  |  | \＄ |  |  | \＄ |  |  | \＄ |  |  | $\$$ |  |  | \＄ |  |  | \＄ |  | \＄ |
|  | ${ }^{6}$ | 135 | 70 |  |  | ． | 2 | 160 | 75 |  |  |  | ． | ．．． | ． | $\cdot$ | ．．．．．．．．． | ．．． |  | ．．．．．．．． |
|  | 3 | 160 | 47 | ．．．．．． | ．．．．．．．．．． | ．．．． |  |  |  |  | －．．．．．．．． | ．．．．．．．．．． | ．．．．．．． | ． |  | ． | …．．．．． | $\bullet$ | －．．．． | ．．．．．．．． |
|  | 3 | 120 | 42 | ．．．．．．． | ．．．．． |  |  |  |  | ．．．．．．． | ．．．．．．．．．． | …．．．．．．． | ．．．．．．． |  |  | ．．．．． | ．．．．．．．．． |  | ．．． | $\cdots$ |
|  | 12 | 265 | 105 | ．．．．． | ．．．． | ． | 3 | 150 | 50 | ．．．． | ． | ． | i | －．．．．．． | ．．．．．．．． | ．．．．． | ．．．．．．． | ．．．．．． | ．．．． | ．．．．．．．．． |
| Ste．Marguerite $\qquad$ ．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  | ．．．． | ． | ． |  |  |  |  |  | i． | 1 | 80 | 72 | ．$\cdot$ ．．． | ．．． | ． | ．．．．． | ．．．．．．．． |
| Seren Islands ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 2 | 72 | 42 |  |  | ．．． |  | ．．．．．．．．．． | …．．．．．． |  |  |  | 1 | 70 | 40 |  | ．．．．．．．．． | ． | 1 | 40 |
| do ．．．．．．．．．．．．．．．．．．．．．．．．． | 3 | 120 | 45 |  | －．．．．．．． | ．．．．．．．． | 5 | 250 | 85 | ．．．．． | ．．．． | ．．．．．．．．． |  |  |  |  | $\cdot$ |  |  |  |
| do ．. ．．．．．．．．．．．．．．．．．．．．．．．． | 3 | 150 | 70 |  | ．．．．．．． | ．．． |  |  |  |  | ．．． | ． |  | 0 |  | ．．．．． | ．．． |  |  |  |
| do $\begin{aligned} & \text { do } \\ & \text { do }\end{aligned}$ | 2 | 70 | 20 | ．．．．． | ．． | ． | ．．．．．． | ．．．．．．．． | ．．．．．．．．． | $\cdot$ | ．．．．．．．． | ．． | 1 | 60 | 75 | ．．．．． | ．．．．．．．． | ．．．．．．．．． | ．．．．． |  |
| do do ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 2 |  | 3 |  | ．．．．．．．．． |  | ．．． |  | ．．．．．．．．． |  |  |  | －1．．． | 80 | 25 | ．．．．． | ． | ．．．．．．．． | 1 | 40 |
| do | 1 | 76 | 40 | ．．．．．． | ．．．．．．．． | ． | ． | ．．．．． |  | ．．．．． | ．．．．．．．． |  |  |  |  |  |  |  |  |  |
| do $\begin{aligned} & \text { do } \\ & \text { do．．．．．．．．．．．．．．．．．．．．．．．．．} \\ & \end{aligned}$ | 1 | 40 | 10 |  | ．．．．．．． | ． | ．．．．． | ．．． |  |  |  |  | 1 | 60 | 40 | ．．．．．． | ．．． | ．．．． | ．．．．． | ．．．．．．．． |
| do do ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 3 | 120 | 48 |  | 580 | 1000 | ．．．．． | …… | ．．．．．．．． |  |  |  | ．．．．．． |  |  | ．．．．． | ．．．．．．． | ．．．．．．．． |  |  |
| Moisie ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  |  |  |  |  |  |  |  |  | $\cdots$ | － 60 | 80 |  |  | ．．．．．．．． |  |  |
| do ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  | ． | ．．．．．．．． | ．．．．．． | ．．．．．．．． |  |  |  | ．．． |  |  |  | ．．．．． | ．．． | $\cdots$ |  |  |
| do ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | ．．．．． | ．．．．． | ．．．．．．． | ．．．．． | ．．．．． | ．．．．．．．． | ．．．．． | ．．． | ．．．．．．．．． |  | ． 6. |  |  | － |  | ． | ．．．．．．．． |  |  |  |
| do ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  | ．．．．．．．． | ．．．．． | ．．． | ．．．． | ．．．．． | ．．．．．． |  |  |  |  | 1 | 64 | 35 | ．．．．． |  | ．．．．．． |  |  |
| do ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | ．．． | ．．．．．．． | ．．．．．．． | ．．．．． | ．．．． | ．．．．．．． | ．．．．． | ．．．．．．．． | ．．．．．．．． |  |  |  | ．．．．． |  | ．．．．．．．． | ．．．．． | ．． |  | ．．．．．． |  |
| do ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | ．．． | ．．．．． | ．．．． | ．．．．． | ．．．．． | ．．．．．．．． | ．．．．． | ．．．．．．． | ．．．．．．．． |  |  |  | ．．．． | $\cdots$ |  | ．．．．． | ．．． | ．．．．．．． |  |  |
| do | ．．． | ．．．． |  | ．．．．． |  |  |  |  |  |  |  |  |  | ．．．．．．． | ．．．．．．．． | ．．．．． | ．．．．．．．． | ．．．．．．．． | ．．．．．． |  |



ST. JOHN'S DIVISION (Sheldrake to Esquimaux--Contin'red.

| Sheldrake................................... | 14 | $56)$ | 280 |  |  |  |  |  |  | 8 | 400 | 480 | 6 | $30 \%$ | 360 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Primrose Qove............................... |  |  |  | ...... | ... |  |  |  |  | 1 | 50 | 60 |  |  |  | .....' |  |  |  |  |
| Thunder Cove.. |  | ........... |  |  |  | ....... | ...... | …… |  | 1 | 50 | 60 | 1 | 60 | ……6 | ...... |  | -......... | ...... | ......... |
| Indian Harbor |  |  |  |  |  |  | ....... | ........... |  | 2 | 100 | 120 | 1 | 50 | 60 | ....... | ........... | ......... | ....... |  |
| Point Rich ......... ........ . . . . . . . . . . . . | 3 | 150 | 6 |  |  |  |  | ......... |  | 2 | 100 | 120 | 3 | 150 | 180 | ........ |  | .......... |  |  |
| Jupitagan River......... ....... ......... |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ...... | $\cdots$ | ........ | ..... | . |
| Magpie....................................... | 3 | 150 | 60 |  |  |  |  |  |  | - 6 | 300 | 360 | - 3 | 150 | 180 |  | ........ | ......... |  |  |
| Magpie River.............................. | 1 | 40 | 20. | .. |  |  |  |  |  |  |  | ......... |  | ........ | .... | ...... | ......... | . |  |  |
| River St. John. .......................... | 4 | 200 | 80 |  |  |  |  |  |  | - 2 | 100 | 120 | 3 | 150 | 180 | ...... |  |  |  |  |
| Long Point....................... ......... | 2 | 100 | 40 |  |  |  |  |  |  | 3 | 150 | 160 | 3 | 150 | 180 | ...... |  |  |  |  |
| Mingan......... ............... ................ |  |  |  | ....... |  | .......... | $\cdots \cdot$ | $\cdots \cdot$ |  |  | ......... | ........ |  | 1.... |  | ...... |  | .......... |  |  |
| Mingan River............................ | ...... | - | $\ldots$ | , |  |  |  | $\cdots \cdot$ |  | .. | .......... | ......... | ...... | ... |  | ...... |  | ........ |  |  |
| Romaíne River. ........................... |  |  |  |  | ... |  |  | ... | , |  |  | ... ..... | . | ... |  | ...... |  |  | ... |  |
| Esquimuax Point........................ | 30 | 1500 | $6^{10}$ |  |  |  |  |  |  | 10 | 500 | 600 |  |  |  | ..... |  |  |  |  |
| Total... | 57 | 2700 | 114! | ..... | ....... | ......... | ..... | - |  | 35 | 1750 | 2080 | 20 | 1000 | 1200 | ...... | ... |  |  |  |

WATSHEESHOO DIVISION (Betchouau to Little Watsheeshov)-Continued.

| Betchouan .............. ................. | 3 | 160 | $4 \%$ |  |  |  |  |  |  | 2 | 140 | 83 |  |  |  | 5 | 130 | 15 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Atepeetal Bry......... .................... |  |  |  |  | - | . |  | ......... |  |  | ......... |  | ...... | ... |  | 2 | 50 | 3 | ...... |  |
| Corneille River.................... . . . . . |  |  | . | .. | ......... | ... | ...... | ......... |  | ...... | ......... | .. | ...... | ... | - |  | ......... | .......... | ..... |  |
| Piasther Bay .............................. |  |  | . |  | ......... | . | ...... | ... | . | ….. |  |  |  | . |  | 5 | 140 | 12 | ...... |  |
| Grand Watsheeshoo .................... |  |  |  | ...... | ......... | . |  | ... |  | ...... | ... | . | - | . | ......... | ...... |  | ......... | ...... |  |
| Little Watsheeshoo...................... |  |  |  | ...... |  |  |  |  |  |  |  |  | . |  |  |  |  |  | ...... |  |
| Total. | 3 | 160 | 46 | .....' | ......... | ......... | . ${ }^{\text {a }}$. | $\cdots$ |  | 2 | 140 | 83 | ..... | ... |  | 12 | 320 | 30 | .... | ........ |

Refurn showing Number and Value of Vessels, Boats, Nets, \&c., in the North Shore Division extending from Manicouagan to
Blanc Sablons, \&c.-Continued.
NATASHQUAN DIVISION (Natashquan to Nabissippi.)


Lltale Musquero.... ...........................
ST. AUGDSTIN DIVISION.

| Cocoach00... |  |  |  |  |  |  | 1 | 18 | 1 |  | 2 | 160 | 28 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Manichouachi | ... | ..... |  |  | 1 | 25 | 1 | 18 |  | ............ | 2 | 175 | 100 | .....' |  | ............. | ...... | .... | ...... |
| Nitagamiou River |  |  |  |  |  |  | 2 | 40 |  | .......... | 5 | 100 | 80 | ..... | .......... | …........ | ….... |  | ........... |
| Point Du ${ }^{\text {a }}$ aurier . |  |  |  |  | 1 | 50 | 1 | 10 |  | 1 | 2 | 80 | 100 |  |  |  | ...... |  |  |
| Wastagastique. |  |  |  |  | 1 | 28 | 2 | 30 |  |  | ........ | ......... |  |  |  | ........ | ... |  |  |
| St. Mary's Island. |  |  |  |  | 2 | 40 | 1 | 13 |  |  | ........ | ........... |  |  |  |  | ..... |  |  |
| Nitagamiou River |  |  |  |  | 9 | 191 | 5 | 64 | 14 |  | 3 | - 200 | 40 | …… |  |  |  |  |  |
| Harrington Harbor | 1 |  | 300 | 4 | 1 | 36 | 1 | 6 | 1 | $\ldots$ | 2 | 75 | 75 | ... |  |  | 2 | 400 | 360 |
| Pointe d la Croix. |  |  |  |  | 1 | 12 |  |  | 1 |  | 1 | 60 | 20 |  |  |  |  |  |  |
| Little Mecattima |  |  |  |  | 4 | 96 | 1 | 12 | 2 |  | 2 | 160 | 40 |  |  |  |  |  |  |
| Guli IsIand ... |  |  |  |  | 1 | 12 | 1 | 1 |  |  |  |  |  |  |  |  |  |  |  |
| Providence Island | ........ |  |  | . $\cdot$ | 2 | 35 | 1 | 5 | 3 |  | 1 | 75 | 25 | …… |  |  | ...... |  |  |
| Rigolet au Chat... |  |  |  |  | 3 | 171 | 2 | 100 | 3 |  | 1 | 50 | 25 | … |  |  | 1 | 80 | 100 |
| Sloop Harbor ... |  |  |  |  | 4 | 77 | 1 | 16 | 5 | 1 |  |  |  |  |  |  |  | 60 | $30^{\prime}$ |
| Whale Head.. |  |  |  |  | 5 | 85 | 1 | 16 | 4 |  | 3 | 140 | 120 |  |  |  | 5 | 630 | 6SU |
| Mutton Bay River. | ...... | ...... |  |  |  |  | 1 | 20 | 2 |  | 7 | 300 | 2.0 |  |  |  |  |  |  |
| Mutton Biay - 18 propriet |  |  |  |  | 26 | 448 | 9 | 99 | 39 | 4 |  |  |  |  |  |  | 4 | 730 | 230 |
| Big Meccatina.............. ......... . .... | $\ldots$ | . |  |  | 2 | 50 | 2 | 50 | 3 | 1 | 4 | 240 | 65 | 1 | 160 | 165 | 1 | 160 | 190 |
| Big Meccatina Island |  |  |  |  | 2 | 56 | 5 | 80 | 3 | ......... | 5 | 175 | 90 |  |  |  |  |  |  |
| Red Bay | ...... |  |  |  | 2 | 30 | 1 | 20 | 1 |  | 3 | 100 | 85 |  |  |  |  |  |  |
| La Tabatière. | ...... | ...... |  |  | 4 | 100 | 6 | 65 | 3 |  | 3 | 409 | 30 | ...... |  |  |  | 50 | 18 |
| Spar Point.. |  |  |  |  | 2 | 40 | 2 | 25 | 3 | 1 | 4 | 125 | 225 | .... |  |  | 1 | 136 | 25 |
| Sandy Cove | ...... | ...... |  |  | 1 | 20 |  |  | 2 |  | - |  |  | .. |  |  |  |  |  |
| Lac Salé Tabatiere. | ...... |  |  |  | 2 | 55 | 1 | 16 | 4 | 2 |  |  |  |  |  |  |  |  |  |
| Fonderie à Fecteau | ..... |  |  |  |  |  | 2 | 25 |  |  | 3 | 200 | 150 |  |  |  |  |  |  |
| Kikapoe Island...... |  |  |  |  | 1 | 18 | 1 | 10 | 1 |  | 5 | 150 | 100 | $\cdot$ |  |  | ...... |  | ......... |
| Kikapoe River. |  |  |  |  |  |  | 1 | 18 | 1 |  | 5 | 55 | 55 |  |  |  |  |  |  |
| Caucasippi River. | ..... | - |  |  |  |  | 1 | 18 | 1 |  | 7 | 240 | 10 |  |  |  |  | . $\cdot$ | . |
| St. Augustin River | .... | ...... |  |  |  |  | 1 | 8 | 1 | - ...... | 3 | 50 | 20 |  |  |  |  |  |  |
| St Augustin Bay......................... | ...... | . |  |  |  |  | 1 | 10 | 1 | ......... | 6 | 150 | 100 |  |  |  |  |  |  |
| Lac Salé (St. Augustin)............. |  |  |  |  |  |  | 1 | 161 | 1 |  | 7 | 200 | 99 |  |  |  |  |  |  |
| Red Point.. |  |  |  |  |  |  | 1 | 10 | 1 | .... | 2 | 50 | 30 |  | ......... |  | ....' |  |  |
| Little Rigolet. | ..... |  |  |  | 1 | 19 | 1 | 18 | 1 | . | 9 | 300 | 250 | ..... |  |  | ... |  |  |
| Pocachoo Island | ...... |  |  |  |  |  | 1 | 12 | , | ........ | 6 | 250 | 200 | ...... |  |  |  |  |  |
| Big Rigolet. |  | ...... |  |  |  |  | 1 | 15 | 1 |  | 6 | 150 | 150 |  |  |  |  |  |  |
| River Island | .... | ...... |  |  |  |  | 1 | 15 | , |  | 2 | 45 | 30 |  |  |  |  |  |  |
| Grosse Isle, St. Augustin............ |  | ...... |  |  |  |  | 1 | 12 | 1 |  | 3 | 110 | 50 |  |  |  | ... |  |  |
| Dog Island................................. |  |  |  |  | ........ |  | 1 | 16 | 1 |  | 3 | 80 | 120 | ..... |  |  | ..... |  |  |
| Sandy Island. ........................... |  |  |  |  |  |  | 2 | 60 | 1 | ........ | 3 | 70 | 100 | ..... |  |  |  |  |  |
| St. Augustin Harbor. ................... |  |  |  |  | 1 | 20 | 2 | 70 | 9 | 1 | 3 | 100 | 127 | . $\cdot$ | . | . | ...... |  | ......... |
| Pointe a Giroux........ .,................. |  |  |  |  |  | ........ | 1 | 8 | 1 |  | 41 | 190 | 130 |  |  |  |  |  | ........ 4 |

Retorn showing Number and Value of Vessels, Boats, Nets, \&c., in the North Shore Division extending from Mauicouagan to Blanc Sablons, \&c.-Continued.
NATASHQUAN DIVISION (Natasluquan to Nabissippi)-Continued.



ST. AUGUSTIN DIVISION-Continued.

| Cocoachoo .................... ............ | ..... |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Manichouachi. . | ... |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Etamamion River. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Point Du Maurier......................... | ... |  |  | ...... | ........ |  |  |  |  |  |  |  |  | .......... |  |  | ........ | ......... | ..... |  |
| Wastagastique. | ...... | - | : | ...... |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| St. Mary's Island |  |  | , |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nitagamiou River........................ | 20 | 1114 | 179 | ...... | ......... |  |  |  |  |  |  |  |  |  |  |  | ......... |  |  |  |
| Harrington Harbor......... ........... |  |  |  |  |  |  | ...... |  |  | 2 | 120 | 120 | ...... |  |  |  |  |  |  |  |
| Pointe a la Croix ........................ |  |  |  | $\cdot$ |  |  | ...... |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Little Mecattina | ...... | . $\cdot$ |  | ..... | -• | ......... | ...... |  |  |  | 60 | 50 | ...... |  |  |  |  |  |  |  |
| Gull [sland .................... ..... |  | . $\cdot$ |  | . $\cdot$ |  |  |  |  |  |  |  |  |  |  |  |  | 200 | 175 | ..... |  |
| Providence Island....................... |  |  |  | . | . |  | . $\cdot$ |  |  | . | . | ......... | . | . |  |  |  |  | ... |  |
| Rigolet au Chat......................... | 3 | 60 | 30 | . |  |  |  |  |  |  |  |  |  |  |  | 2 | 400 | 400 |  |  |
| Sloop Harbor...................... ...... | 17 | 480 | 209 | . |  |  | ...... | ..... |  | ..... |  |  | ..... |  |  |  |  |  |  |  |
| Whale Head ................. . . . . . . . . . |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mutton Bay River........................ |  |  |  | ...... |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mutton Bay-18 proprietors........ | 33 | 910 | 451 | …… |  | $\cdot$ | ...... |  |  | 3 | 160 | 105 |  |  |  |  |  |  |  |  |
| Big Meccatina............................. | 1 | 60 | 20 | ...... |  | ....... | ...... |  |  | 1 | 56 | 40 | : ... |  |  |  |  |  |  |  |
| Big Meccatina Island.................. | 1 | 20 | 8 | $\cdot \cdot$ |  |  | ...... |  |  | 1 | 40 | 20 |  |  |  | 1 | 450 | 300 |  |  |
| Red Bay .................................... | 1 | 20 | 16 | . |  |  | ...... |  |  |  | 45 | 45 | ...... |  |  | 1 | 900 | 245 |  |  |
| La Tabatière.............................. |  |  |  | ..... |  |  | ...... |  |  | 1 | 40 | 163 | ...... |  |  | 1 | 800 | 750 | ...... |  |
| Spar Point......... ... .................... | 2 | 40 | 40 | ...... |  |  | 8 | 160 | 190 | $\cdots$ |  |  | .... | $\cdot$ |  | $\frac{1}{5}$ | 700 | 260 |  |  |
| Sandy Cove........... . . . . . . . . . . . . . |  |  |  |  | 160 | 160 |  |  |  | 1 | 120 | 60 | ...... |  |  | 5 | 50 | 75 |  |  |
| Lac Sqle Tabatiere...... ............... | 2 | 60 | 20 |  |  |  | ..... |  |  | ..... |  |  | ...... |  |  | 1 | 350 | 320 |  |  |
| Fonderie à Fecteau..................... |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kikapoe Island........................... | - |  |  | ... .. |  |  | - |  |  |  | . |  | . |  |  | 1 | 300 | 120 |  |  |
| Kikapoe River............................ |  | '........ |  | ..... |  | $\cdot$ | - |  |  | $\ldots$ |  |  |  |  |  |  |  |  |  |  |
| Caucasippi River....................... | ...... | ......... | $\cdot$ | . |  |  | ...... |  |  | ...... |  |  | ...... |  |  | …… |  |  | ..... |  |
| St. Augustin River |  |  |  |  |  |  | . |  |  |  |  |  | ..... |  |  |  |  |  |  |  |
| St. Augustin Bay........................ |  |  |  | ...... |  |  | ..... |  |  |  |  |  | ..... |  |  |  |  |  |  |  |
| Lac Sale (St. Augustin)............. |  |  |  |  |  |  | ..... |  |  |  | ..... ... |  |  |  |  |  |  |  |  |  |
| Red Point.......... ..................... | ...... |  |  |  |  |  | …' |  |  | . |  |  | ' |  |  |  |  |  |  |  |
| Little Rigolet............................ |  |  |  |  |  |  | ..... |  |  | ...... |  |  | . ... |  |  |  |  |  |  |  |
| Pocachoo Island........................ | ...... |  |  |  |  |  | ..... |  |  |  |  |  | ...... |  |  |  |  |  |  | . |
| Big Rigolet...... ..... .................... | ...... |  |  |  |  |  | ...... |  |  |  |  |  |  |  |  |  |  |  |  |  |
| River Island.......... . .......... ..... |  |  |  |  |  |  | ..... |  |  |  |  |  | ...... |  |  | …… |  |  |  |  |
| Grosse Isle, St. Augustin ........... |  |  |  |  |  |  | ..... |  |  |  |  |  |  |  |  | ...... |  | ......... |  |  |
| Dog Island................................ | - |  |  |  |  |  | ..... |  |  | ...... |  |  | ….. |  |  |  |  |  |  |  |
| Sandy lsland............................ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ...... |  |
| St. Augustin Harbor................... | 1 | 60 | 4 |  |  |  | .... |  |  |  | ........ |  | *.... |  |  |  | 250 | 400 |  |  |

Return showing Number and Value of Veseels, Boate, Nete, \&e.. in the Nurth Shore Division extending from Manicuugan to Blane Sablons, dr.-Contimucd.
ST. AUGUSTIN DHVISION-Comin'e?.


Return showing Number and Value of Vessels，Boats，Nets，\＆c，in the North Shore Division extending from Manicouagan to Blanc Sablons，\＆c．－－Continued．
St．AUGUSTIN DIVISION－Continue ？

| Name of Place． | Nets and Seines． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Herring Nets． |  |  | Mackerel Seines． |  |  | Mackerel Nets． |  |  | Capelin Seines． |  |  | Launce Seines． |  |  | Seal Nets． |  |  | Brush Fisheries． |  |
|  | \％ | － | 守 | \％ | － | $\xrightarrow[\text { ¢ }]{\substack{\text { ¢ }}}$ | $\stackrel{8}{8}$ |  | $\begin{aligned} & \stackrel{\beth}{\Xi} \\ & \stackrel{\Xi}{\Xi} \end{aligned}$ | $\stackrel{\circ}{8}$ | ＊ | $\stackrel{\text { ¢ }}{\stackrel{\text { d }}{\text { ¢ }}}$ | $\stackrel{\circ}{\mathbf{z}}$ | 覅 | － | $\stackrel{\circ}{7}$ | 淢 | － | $\stackrel{\square}{\square}$ | － |
| L＇Anse au Portage Canso Harbor．．．． <br> Mistinague Island <br> Chicatica <br> Quacoosippi River． <br> Total．． |  |  | \＄ |  |  | \＄ |  |  | \＄ |  |  | \＄ |  |  | \＄ |  |  | \＄ |  | \＄ |
|  |  | ． |  | ．．．．．． | ．．．．．．．． | ．．．．．．．． | － | ． | ．．．．．．．． | ． | ．．．．．．．． |  | ．．．．． | ． | ．． | $\ldots$ | ． | ．．． | ．．．．．． | ．．．．．．． |
|  | ${ }^{-1.1} 3$ | 180 | ．．．．．．．． | ．．．．． | ．．．．．．．． | ．． | ．．．．．． | …．．．． | ．．．．．．．． | i | ．．．．．．．70 | 170 | ．．．．． | ．．．．．．． | ．．．．．．．． | ．．． | ．． | － | ．．． | ．．．．．．．． |
|  |  | 180 | 20 | ．．．．．． | ．．．．．．．．． |  | ．．．．． |  | ．．．．． | 1 | 140 | 160 |  | ．．．．．． | ．．．． | ．．．．． | ．．．．．．． | ．．．．．．．． |  | ．．．．．．． |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | －84 | 3004 | 997 | 1 | 160 | 160 | 8 | 160 | 190 | 12 | 781 | 763 |  | ．． | －．．．．．．． |  | 4400 | 3045 |  | ．${ }^{1}$ |

Return showing Number and Value of Vessels，Boate，Nets，\＆c．，in the North Shore Division extending from Manicouagan to Blanc Sablons，\＆c．－Continued．
BONNE ESPERANCE DIVISION（Chicatica to Long Point．）

| Name of Plate． | Vessels． |  |  |  | Fishing Boat． |  | Flat Boats． |  |  |  | Nets and Seines． |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Salmon Nets． | Cod Seines． |  |  |  |  | Herring Seines． |  |  | Herring Seines． |  |  |
|  | $\dot{8}$ | $\begin{array}{\|c\|} \hline \text { 㻤 } \\ \text { E. } \end{array}$ |  |  |  |  | 品 | 岕 |  |  | \％ | $\stackrel{\text { ¢ }}{\stackrel{\text { ¢ }}{\text { ¢ }}}$ | \％ | 尷 | 岸 | $\stackrel{\circ}{8}$ | 宽 | 岸 | io | 永 | 岂 | $\dot{8}$ | 嵒 | 安 |
|  |  |  | $\$$ |  |  | \＄ |  |  |  | \＄ |  |  |  |  | \＄ |  |  | \＄ |  |  | \＄ |  |  | \＄ |
| St．Paul＇s River．．．．．．．．．．． | ．．．． | ．．．．．． |  | ．．．．．．．．． | 2 | 100 | 4 | 60 | $\stackrel{2}{1}$ | ${ }_{2}^{2}$ | 10 | 400 | 200 | ．．． | ．．． | ．．．．．．． | ．．．．． | ．．．．．． | ． | ．．．．． |  | ．．．． |
| Napitipi River．．．．．．．．．．．．．． | ．．． | ． |  |  | 1 | 20 100 | $\stackrel{1}{2}$ | 20 50 | 1 | 1 | $\stackrel{1}{4}$ | 100 200 | 50 100 | …… | ．．．． | － | ． | ．．．． | ．．． | ．．．． | ．． | ． |
| Bay of Rocks．．．．．．．．．．．．．．．． | ．．．．．．． | ．．． | ．．．．．．． |  | 2 | 100 | 3 | 100 | 4 | 4 | 2 | 100 | 50 | ．．．．．． | ．．． | ． | $\cdot$ | ．．．． |  | ．．．．． |  |  |
| Lydia＇s Cove．．．．．．．．．．．．．．．． | ．．．．． | ．．．．．． | ．．．．．．． | ．．．．．．．． | $\stackrel{2}{2}$ | 50 | ${ }_{3}^{2}$ | 40 | $\stackrel{2}{2}$ | 1 | 2 | 100 | 50 | ．．．．．． | ．．．． |  | ．．．．． | ．．．．．．．． | ． | ．．．．． | ．．．．． |  |
| Dog Island．．．．．．．．．．．．．．．．． | ．．．．． | ．．．．． | ．．．．．．．． | ．．．．．．．． | 2 | 100 | 3 | 150 | $\stackrel{2}{2}$ | 1 | 2 | 100 | 50 | ．．．．．． | ．．．． | ．．．．．．．． | ．．．．． | ．．．．．．．． | ， | ．．．．． | ， | ．．．．．．．．． |
| Pêche à Lizotte ．．．．．．．．．．．． | ．．．．．． | ．．．．．． | ．．．．．．．． |  |  |  | 1 | 20 | 2 | ， | 3 | 100 | 60 | ．． | ．．．．．．． | ．．．．．．．． | ．．．．． | －• | －．．．．．．． | ．．．． | ．．．．．．．． | ．．．．．．．．． |
| Burnt Island ．．．．．．．．．．．．． | ．．．．． | ．．．．． | ．．．．．．．． |  | 2 | 160 | 2 | 40 | ${ }_{8}^{4}$ | 2 | ．．．．．． | －．．． | ．．．．．．．． | ．．．．． | ．．．．．．．． | ．．．．．．．． | ．．．．． | $\cdot$ |  | ．．．．． | ．．．．．．．． | ．．．．．．．．． |
| Old Fort Island ．．．．．．．．．．． | ．．．．． | ．．． | ．．．．．．．． | ．．．．．．．． | $4^{4}$ | 200 | $4_{4}^{4}$ | 100 | 8 | 4 |  |  |  |  | 400 |  |  |  |  | ．$\cdot$ | ．． | $\cdots$ |
| Bonne Esperance．－．．．．．． | ．．．．． | ， |  |  | 16 | 1200 | 10 | 1000 | 40 | 10 | 2 | 200 | 100 | ${ }_{2}^{2}$ | 400 | 800 |  | 200 | 400 | － |  | ．． |
| Pidgeon Island ．，．．．．．．．．．． |  |  |  |  | 6 | 500 | 5 | 400 | 12 | 6 | 2 | 200 | 100 | 2 | 400 | 800 |  |  |  | ．．．．． | ．．．．．．．． | － |
| Salmon Bay－ll proprie－ tors $\qquad$ | 3 | 400 | 13000 | 16 | 47 | 3690 | 24 | 1430 | 100 | 62 | 2 | 200 | 100 | 7 | 1400 | 2500 | 1 | 200 | 400 | ．．．．．． |  |  |
| Stick Point ．．．．．．．．．．．．．．．．． |  |  |  |  | 5 | 400 | 4 | 300 | 10 | 4 | 2 | 200 | 100 | 1 | 200 | 300 | $\cdot$ | ．．．．．．．． | ．．．．．．．．． |  | ．．．．．．．．． |  |
| Little Fishery．．．．．．．．．．．．．． |  |  | ．．．．．．．． |  | 1 | 80 | $\stackrel{2}{2}$ | 80 | $\stackrel{2}{6}$ | ， | 2 | 200 | 100 | ．．．．． | ．．．．．．．．． |  | ．．．．．． | ．．． | ． | ．．．．．． | ．．．．．．． | ．．． |
| Five Leagues ．．．．．．．．．．．．．． | ． | ．．．．． | ．．．．．．．． | ．．．．．．．． | 2 | 120 | $\stackrel{2}{2}$ | 100 | 6 | 2 | 2 | 200 | 100 | $\cdot$ | －• | ． | ｜．．．．． | ．．．．．．．． | ．．．．．．．． | ．．．．．． | ．．．．．．．．． | ．．．．．．．．． |
| Belles Amour．．．．．．．．．．．．．．． | ．．．．． | ．．．．．． | ．．．．．．． |  | 1 | 60 | 2 | 40 | $\stackrel{2}{8}$ | 1 | ．．．．．． | ． | ．．．．．．．． | ． | ．．．．．．．． |  | ．．．．． | ．．．．．．．． | ．．．．．．．． | ．．．．．． | ．．．．．．．． | ．．．．．．．． |
| Bradore．．．．．．．．．．．．．．．．．．．．．． |  | ．．．．． | ．．．．．．．． |  | 4 | 200 | 4 | 150 | 8 | 4 1 1 | ． | － | ． | － | ．．．．．．． | ．． | ．．．．． | ．．．．．．．． | －．．．．．．． | ．．．．． | ．．．．．．．． | ．．．．．．．． |
| Middle Bay．．．．．．．．．．．．．．．．． |  | ．．．．． | ．．．．．．．．． |  | 1 | 301 50 | 1 | 20 100 | 2 | 2 |  |  |  | ．．．．．． | ． | ．．．．．．．．． | ．．．．． | ．．．．．．． | ．．．．．．．． | ．．．．． | ．．．．．．．．． | ． |
| L＇Anse des Dunes．．．．．．．． |  |  |  |  | 1 | 50 | 2 2 2 | 100 60 | 2 5 | 1 |  |  | 30 | ．．． | ．．． | ．．．．．．．． |  | ．．．．．．．． | ．．．．．．．．． |  |  |  |
| $\underset{\text { do }}{\text { Long Point．．．．．．．．．．．．．．．．．．．．．．．．．}}$ |  | 40 | 1000 |  | 3 | 8 | 4 | 60 120 | 6 | 3 | 1 | 80 | 50 |  |  | ．．．．．．．．．． |  | ．．．．．．．．． | ．．．．．．．．． |  |  |  |
| Total．．．．．．．．．．．．．． | 4 | 440 | 14000 | 20 | 103 | 7230 | 84 | 4380 | 222 | 114 | 39 | 2480 | 1240 | 12 | 2400 | 4400 | 2 | 400 | 800 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

total returns of vessels, boats, soc, in all the north shore divisions.

|  | 3 | 84 | 25900 | 13 | 5 | 275 | 28 | 235 | 45 | 45 | 14 | 1365 | 700 |  |  |  |  |  |  | 1 | 60 | 20 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TTrinity.......................... | 6 | 114 | 3355 | 19 | 91 | 2351 | 109 | 297 | 191 | 3 | 26 | 1940 | 750 | 2 | 540 | 95 |  | - | ..... | 28 | 1352 | 311 |
| ©Moisie ............ . . . . . . . . . | 10 | 350 | 8000 | 44 | 91 | 4129 | 81 | 785 | 17: | 32 | 42 | 5580 | 4034 | 2 | 310 | 140 |  |  | ......... | 54 | 1919 | 691 |
| St John's.................... | 24 | 959 | 28000 | 110 | 45.5 | 17980 | 134 | 1608 | 912 | 718 | 11 | 1440 | 670 | 10 | 500 | 600 | 4 | 200 | 240 | 57 | 2700 | 1140 |
| Watsheerhoo | 6 | 157 | 3650 | 39 | 15 | 215 | 13 | 68 | 15 | 3 | 8 | 544 | 160 |  | . |  |  |  |  | 3 | 160 | 46 |
| Natashquan................. | 7 | 173 | 4700 | 66 | 82 | 3182 | 92 | 655 | 184 | 131 | 51 | $452{ }^{\prime \prime}$ | 1213 |  |  |  | 2 | 220 | 180 | 97 | 4760 | 1178 |
| Warheecootai ............... | 2 | 32 | 1340 | 8 | 53 | 1070 | 56 | 453 | 89 | 12 | 14 | 780 | 610 | 1 | 120 | 110 |  |  |  | 63 | 2400 | 744 |
| St. Augustin...... ........ | 1 | 15 | 300 | 4 | 83 | 1793 | 71 | 1124 | 133 | 19 | 137 | 5365 | 3469 | 1 | 160 | 165 | 16 | 2246 | 1533 | 84 | 3004 | 997 |
| Bonne Esperanco......... | 4 | 440 | 14000 | 20 | 103 | 7230 | 84 | 4380 | 222 | 114 | 39 | 2480 | 1240 | 12 | 2400 | 4400 | 2 | 400 | 800 |  |  |  |
| Ef Total ............. | 63 | 2324 | 89245 | 323 | 978 | 38225 | 668 | 9605 | 1969 | 1077 | 342 | 24014 | 12846 | 28 | 4030 | 5500 | 24 | 3066 | 2753 | 387 | 16355 | 6127 |

Retorn showing Number and Value of Veseels, Boats, Neta, \&c., in the North Shore Division extending from Manicouagan to Blanc Sablons, de.-Cortmued.
bonne esperance division (Chicutich to Long Poiat.)


TOTAL RETURNS OF VESSELS, BOATS, \&O., IN ALL TEE NORTH SHORE DIVISIONS.


## MAGDALEN ISLANDS DIVISION.

SEAL FISHERY.
This fishery shows a very decided increase this season-most of the vessels that went out into the ice did well; the fishery from the shore was poor.


COD FISHERY.
The cod fishery was not so good as that of 1880 , the falling off was due to scarcity of bait and rough weather; the boats from Etang du Nord, which is the principal fishing station of the island, being frequently obliged to remain ashore for weeks. There is no doubt that the erection of the breakwater at this cove will be a grent boon to the fishermen there. The fishing banks to the westward of the Magdalen Islands are among the best in the gulf, but owing to the fact that they have no sheltor on the west side of the island from any kind of west wind, the Etang du Nord fishermen are obliged to have small fast-sailing boats with which they can land through the rurf, and they can never venture to remain on the banks if there is any indication of west wind; as this wind presails in the gulf during the fall, it will be seen that the Eting du Nord fishermen must base great difficulty in prosecuting the cod fishery. When they get their breakwater completed they will be able to keep larger boats and hold on longer on the fishing grounds. The schooner which fitted out from the islands for the north shore cod fishery did well.

|  | 1880. | 1881. | 1881 decrease. |
| :---: | :---: | :---: | :---: |
| Summer Cod, cwt. | 17,287 | 15,235 | 2,052 |
| Fall " " | 989 | $43 \pm$ | 5.55 |
|  | 18,276 | 15,669 | 2.607 |

## LOBSTER FISEERY.

The lobster fishery has proved a very alundant one; several new canneries were opened. The season was rough, and a good deal of damage was sustained at various times to the traps. With one exceprion, there was no violation of the law, but I think the local tishery officer will need help during the lobster fishing season in carrying out the provisions of the law, with regard to the taking of small lobsters.

|  | 1879. | 1880. | 1881. | 1881 inerease. |
| :---: | :---: | :---: | :---: | :---: |
| Lobsters in tins, lbs......... | 376,641 | 227,952 | 173,564 | 245,612 |

The mackercl and herring fisheries were both poor, there having been taken only 2,850 brls. of herring and 1,941 brls. of mackerel. Only one or two American mackerel schooners were seen about the islands.

Total Catch and Value of the Magdalen Islands Fisheries for the Season of 1881.


Return showing the Kinds and Quantities of Fish,


TOTAL OF ALL THE

in the Magdalon Islands Livision for the Year 1881.

ISLANDS DIVISION.


## MAGDALEN ISLANDS.



## Return of Fishing Stations, Kinds of Vengels, Number



TOTAL OF ALL THE

| Amherst Island................ | 3 | 83 | 2,500 | 17 | 91 | 2,275 | 71 | 426 | 221 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Grindstone Island ............ |  |  |  |  | 82 | 7,300 | 73 | 438 | 238 | 100 |  |  |  |  |  |  |
| Allright Island ............... | 15 | 660 | 27,000 | 135 | 80 | 1,600 | 42 | 252 | 211 | 6y |  |  |  | ... |  |  |
| Grosse Isle \& Grand Entry. | 1 | 35 | 1,600 | 8 | 42 | 1,050 | 111 | 16 | 84 | 12 |  |  | ..... | ... |  |  |
| Bryon Island................... |  |  |  |  | 28 | 770 | 20 | 120 | 60 | 15 | … |  |  | … |  |  |
| Tratry Island .................... |  |  |  |  | 5 | 125 | 4 | 24 | 12 | 3 | ... |  |  |  |  |  |
| Total. | 19 | 778 | 31,100 | 160 | 328 | 13,050 | 220 | 1,420 | 826 | 221 |  |  |  |  |  |  |

of Men，Kinds of Nets used，\＆c．，\＆c．－Continued．

ISLANDS DIVISION．

Nets and Seines．

|  | ring | Seines． |  | rring N | Nets． | Mack Sein | $\begin{aligned} & \text { cerel } \\ & \text { ies } \end{aligned}$ |  | ackerel | Nets． |  | apel <br> еine： |  | Lau | $\begin{aligned} & \text { nce } \\ & \text { nes. } \end{aligned}$ |  | Seal N |  | 号品 | ．${ }_{\text {a }}^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 208 | － | $\stackrel{\text { ¢ }}{\substack{\text { ¢ }}}$ | $\dot{0}$ | 号 | － |  | $\frac{\dot{1}}{x}$ | $\dot{\mathbf{z}}$ | 菏 |  | \％ |  |  | \％ | $\dot{y}$ | $\stackrel{0}{8}$ | 完 | － | 8 | $\stackrel{\text { ® }}{\stackrel{\text { ® }}{\square}}$ |
|  |  | \＄ |  |  | \＄ |  | \＄ |  |  | $\$$ |  |  | \＄ |  | \＄ |  |  | \＄ |  | \＄ |
| 4 | 720 | 960 | 31 | 1，116 | 310 |  |  | 84 | 3，528 | 840 |  |  |  |  |  | 83 | 4，980 | 830 |  | － |
| － |  |  | 31 31 1 | 1,021 993 | 340 | ．．． | ．．．． | $\begin{array}{r}68 \\ 150 \\ \hline\end{array}$ | 2,856 6,000 | 680 1,500 | ．．．． |  |  |  |  | 10 | ．．．．．． | 100 |  |  |
| ．．． |  |  | 60 | 1，800 | 600 | ．．．... | ．．．． | 45 | 1，350 | 450 | ．．．． | … | … | … |  | 10 | 600 | 10. |  | ．． |
| ．．． |  | ．．．．．．．． | 9 | 270 | 90 | ．．．．．． | ．．． | 7 | 210 | 70 | ．．． |  |  | ．．． |  |  |  |  |  |  |
| 4 | 720 | 960 | 165 | 5，198 | 1，681 | ．．． | ．．．． 3 | 354 | 13，944 | 3，540 | ．．． | ．．． |  | ．．． |  | 93 | 5．580 | 930＇ |  | ．． |
| 3 | 360 | 225 | 70 | 2，100 | 700 | ．． | ．．．． | 55 | 2，200 | 550 |  |  |  |  |  | 80 | 4．800 | 800 | ．．． | － |
| $\cdots$ |  |  |  | － | ．．．．．．．．． | $\cdots$ | ．．．． | 20 | 800 | 200 | ．．． | ．．．． | ． | ．．． |  | 25 | 1，500 | 250 | ． |  |
| 5 | 360 | $2: 5$ | 70 | 2，100 | 700 | ．．．．． | ．．．． | 75 | 3，000 | 750 | ．．． | ．．．． |  | ．．．．．． | ．．． | 105 | 6.300 | 1，050 | ．． |  |
| 1 | 200 | 200 | 12 | 360 | 120 | ．．． | ．．． | 20 | 800 | 200 |  | 320 | 100 |  |  | 50 | 2，000 | 500 | ． | － |
|  |  |  | 5 | 180 | 60 | ．．． | ． | 15 | 600 | 150 | ．．．．． | ．．．． | ．．．． | ．．． |  | 10 | 600 | 100 | ．． |  |
| ．．． |  |  | 15 | 450 | 150 |  | ．．． | 24 | $96 \cdot$ | 240 | ．．． | ．．． | ．．．． |  |  | 20 | 1，200 | 200 | ．．． |  |
| 1 | 200 | 200 | 33 | 990 | 330 |  |  | 59 | 2.3611 | 590 |  | 3201 | 100 |  |  | 80 | 3，800 | 800 |  |  |
| ．．． |  |  | 20 | 600 | 200 |  |  | ． |  |  |  |  |  |  |  | 15 | 900 | 150 |  |  |
|  |  |  | 28 | 840 | 280 |  |  | ．．． |  |  |  |  |  |  |  | 15 | 909 | 150 |  |  |
| ．． |  |  | 6 | 180 | 60 | ．．．．．． | ．．． | 33 | 1，320 | 330 | ．．． |  |  |  | ．． |  |  |  |  |  |

## magdalen iscands．

| 4 | 720 | 961 | 165 | 5，198 | 1，681 | ．．． | ．．． |  | 354 | 13，944 | 3，540 | ．． |  |  |  |  |  | 93 | 5.580 | 930 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3 | 360 | 225 | 70 | 2，100 | 700 | ．．． | ．．． |  | 75 | 3，000 | 750 | ．．． |  |  |  |  |  | 105 | 6．300 | 1，050 | … |
| 1 | 200 | 200 | 33 | 990 | 330 | ．．． | ．．． | $\cdots$ | 59 | 2，360 | 590 | 4 | 320 | 100 | ．．． | ．．． |  | 81 | 3，800 | 800 | ．． |
|  |  |  | 20 | 600 | 200 |  |  |  |  |  |  | ．．． |  |  |  |  |  | 15 | 900 | 150 | ． |
| ．．． |  |  | 28 | 840 | 280 |  |  |  |  |  |  | ．．． | ．．．． | ．．．． |  |  | － | 15 | 900 | 150 | ．． |
| ． | ．．．．．．．．． |  | 6 | 180 | 60 | ．．． | ．．． |  | 33 | 1，320 | 330 | ．．． | ．．．． |  | ．．． |  | ．．． |  | ．．．．．．． | ．．．．．． | ．．．．．． |
| 8 | 1，280 | 1，385 | 323 | 9，908 | 3，251 |  | ．．． | ．．． 5 | 521 | 20，624 | 5，210 | 4 | 320 | 100 |  |  |  | 368 | 17，480 | 3，080 | ．．．．．． |

## ANTICOSTI DIVISION.

All the fisheries of this island show a decided falling off. I consider that this is due solely to the want of evergy of the inhabitants. The island is peopled mainly by a lot of fishermen from Newfoundland, who were induced to settle on the island by the late Anticosti Company. These people have proved useless as emigrants, and have had to be fed by the Government at various intervals during their residence on the island. Those with energy enough left, to seek to better themselve $\uparrow$, were removed from the island this fall on the Government steamer Napoleon. A good many others remain on the imland, and it is hoped, for the peace of mind of the lighthouse and depot-keepers, and the security of whatever wrecked property may lie cant on the island, that the rest of them may be removed without delay. Most of those who have come to settle on this island lately are not of a desirable class, they are people who have failed to make a living elsewhere, and have drifted here as a dernier ressort. There is no doubt that bonest, industrious and thrifty people would get along well enough on the island, but these " ne'er-do-wells" will always be a nuisance there.

A number of people from Douglastown and other parts of the Gaspe coast visit the is'and during the summer season, and as a rule these fishermen do well, showing plainly enough that there is plenty of fish about the island, if the people had only energy enough to take them.

## COD FISHERY.

This fishery was poor at Fox Bay, English Bay and Strawberry Coze, the principal settlemerits on the island. At Macdonald's Cove, and the other covea adjoining along the north side of the island, the fishery was good.

|  |  | 1880. | 1881. | 1881 decrease. |
| :---: | :---: | :---: | :---: | :---: |
| Cod, Summer, | cowt. | 10,2〇8 | 8,719 | 1,509 |
|  | " | 2,259 | 181 | 2,078 |
|  |  | 12,487 | 8,890 | 3,587 |

HERRING FISHERY.
This fishery also shows a considerable falling off. Notwithstanding this, herring were plentiful along the north side of the island during the spring and fall; those taken during the fall were of a very good quality.

$$
\begin{array}{cccc} 
& 1880 . & 1881 . & 1881 \text { increase. } \\
\text { Herring, salt, brls.................... } 1,472 & 1,645 & \text { ‘3 }
\end{array}
$$

SALMON FLSHERY.
This fishery was a complete failure, but 12 barrels of salmon being taken on the island; in fuct, the fishery was abandoned. When salmon fishermen found, after keeping the nets out a few weeks, that they were taking nothing to pay for their time, they simply took up their nets and abandoned the fishery. I am told that a good many fish has been seen up in the pools.

|  | 1879. | 1880. | 1881. | 1881 decrease. |
| :---: | :---: | :---: | :---: | :---: |
| Salmon, salt, brls............ | $41 \frac{1}{2}$ | 22 | 12 | 10 |

## SEAL FISHERY.

A fow seals are taken about the island; these are mostly taken in the spring and fall about the bays and in the mouths of the rivers. They are generally killed with the gun.

|  | 1880. | 1881. | 1881 decrease. |
| :--- | ---: | :--- | :---: |
| Seal skins................................ 321 | 235 | 86 |  |
| Seal oil, gallons....................... 685 | 614 | 71 |  |

No mackerel were taken. Halibut are reported more plentiful, and several American halibut schooners were seen trowling around the island. It is reported that some of them did well.

The fishermen report bait as having been very scarce and uncertain.
Total Catch and Value of Anticosti Fisheries for Season of 1881.

| Description. | Quantity |  | Price. | Value. |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | \$ cts. | \$ cts. |
| Salmon, Salt | 12 | brls. | 1500 | 18000 |
| Cod, Summer............................................... ............. | 8,719 | cwt. | 400 | 34, 8.1500 |
| Cod, Fall................................................................. | 181 | do | 400 | 72400 |
| Halibut......... .... .......................................................... | 69 | bris. | 600 | 41400 |
| Herring......... ........................... ...... ......................... | 1,645 |  | 500 | 8,22500 |
| Trout.......................................... ......... .................... | 13 | do | 800 | 9600 |
| Cod Tongues and Sounds ........................ .................... | 2 | do | 900 | 1800 |
| Seal-skins ................ ......... ........ ......... ....................... | 235 | pieces. | 100 | 23500 |
| Seal Oil ........ ....... ................. .................... ............ |  | galls. | 050 | 30700 |
| Cod Oil...... ........ ........ .................... ............................ | 5,893 |  | 040 | 2,357 20 |
|  | 2,877 | brls. | 100 | 2,877 00 |
| Fish for local use......... |  |  | 400 | 2,176 00 |
| Total for 1881. ........ ........ .................... |  |  |  | \$52,485 20 |
| do 1880...................................... | .... | ......... |  | 67,263 50 |
| Decrease, 1881..................................... | ........ | ........... | ......... | \$14,778 30 |

Retcrn showing the Kinds and Quantities of Fish in the ANTICOSTI


ANTICOSTI


TOTAL FOR THE


Division of Anticosti, in the Province of Quebec, for the Year 1881.
west.


EAST.


ISLAND OF ANTICOSTI.


Return showing Number and Value of Vessels，Boats，
ANTICOSTI

| Name of Place． | Nami of Fitter Out | Vessels． |  |  | Fishing Boats． |  | Flat Boats． |  |  |  |  | $\begin{aligned} & \text { Salmon } \\ & \text { Nets. } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\dot{8}$ | $\stackrel{\text { 号 }}{\text { ¢ }}$ |  | $\stackrel{\circ}{4}$ | $\stackrel{\text { ® }}{\stackrel{\text { ® }}{ \pm}}$ | $\stackrel{8}{4}$ | $\stackrel{\dot{0}}{\stackrel{y}{x}}$ |  |  |  | 茙 | 状 |
|  |  |  | \＄ |  |  | \＄ |  | \＄ |  |  |  |  | \＄ |
| English Bay | Messrs．J．\＆E．Collas do <br> Capt．Setter |  |  |  |  |  |  |  |  |  |  |  |  |
| Strawberry Cove Becscie River |  | ．．． | ．． |  | 1n |  | 10 1 | （100 10 | 2 |  |  | 30 | 10 |
| Otter River．．．．．．．．．．．．． |  | ．．．．．．． |  |  |  |  | 1 | $\ldots$ |  |  | 3 | 38 | 100 |
| South－West Point，．． |  | 135 | 5600 |  |  |  | 7 | 95 | 10 |  |  |  |  |
|  | Total ．．．．．．．．．．．．．．． | 135 | 35600 |  |  | 2450 |  | 705 |  |  |  | 4310 | 110 |

ANTICOSTI


TOTAL FOR


Nets, \&c., in Division of Anticosti, \&e -Continued.
WEST.

Nets and Seins.


EAST.


ANTICOSTI.


## Extracrs from the log of "La Canadienne," Government Sieamer for Protection of Fisheries.

Wednesday, June 23, 1881. -Left Quebec at 4 p.m., proceeded to Crane Island, where anchored at 8.10 p.m. ; had on board Capt. Graburn, of Department of Marine and Finheries, Ottawa.

Thursday, 23 .-Left Crane Island at 4 a.m., at 10 p.m. opposite Matane, eased to half speed as did not wish to make Cape Chatte before daylight.

Friday, 24.-Landed at Cape Chatte, $3.50 \mathrm{a} . \mathrm{m}$.; supplied light with oil and sundries left at 5.25 a.m.; landed at Martin River at 8.45 a.m., supplied light, left at $9.40 \mathrm{a} . \mathrm{m}$. for Magdalen River, where anchored and landed at $1.35 \mathrm{p} . \mathrm{m}$., landed and supplied light, saw Mr. Laurendeau, Fishery Overseer ; fourd that a party had just landed who intended fishing Magdalen River on a permit from the Seigneur, and without a license from the Department; advised them not to get into trouble by breaking the law, and told Laurendeau to see that they did not fish without a license. In the meantime the gentlemen were to telegraph to the Department for permission. Ordered Laurendeau to wire me at Gaspe how the affair stood. Left here at 4 p.m. and proceeded to Fame Point where landed, and supplied light at 7 p.m.; returned aboard at 8.35 p.m. aud proceeded for Capodes Rosier's, where anchored for night at $11.30 \mathrm{p} . \mathrm{m}$.

Saturday, 25.-Lancled at Cape at 4 a.m. with engineer, Mr. Marry ; landed supplies and revented fog gun ; left here at 7.30 a.m. ; landed at Grand Greve at 9 a.m., visited fishing rooms, (tishing good,) left for Gaspe at 10.30 a.m., anchored at Gaspe at 12.30 p.m.

Sunday, 26.-Left Gaspe at 8.30 p.m. ; having on board Lady Price for Jupiter River, Anticosti.

Monday, 27.-Anchored at Jupiter River at $5.30 \mathrm{a} . \mathrm{m}$. ; landed at 8 a m with Lady Price; returoed on board at 9.30 a.mn., found Capt. Graburn dead in bed, left at ouce for S. W. Point to try and cable; cablo not working ; continued at noon for Gappe; anchored at Gaspe at 6.15 p.m.

Tuerday, 28. -Put body ashore at 3 a.m. and had it put on board Beaver for Quebec at 8 a.m.; at 3 p.m. left Gaspe for Magdalen Islande, proceedod out of the bay and finding weather getting thick, and wind freshening from S.E., decided to anchor for night; anchored at 4 p.m. off Sandy Beach .

Wednesday, 29.-Blowing a gale from E.S.E., glass still falling and there being a heavy sea in the bay, got up anchor at $7 \mathrm{a} . \mathrm{m}$. and roturned to inner bay; at $7 \mathrm{p} . \mathrm{m}$. weather clearing up, left Gaspe; wind N.E. of Cape Gaspe, with heavy tumbling sea; ship rolling considerably.

Thursday, 30.-Heary sea through the night; weather cleared up towards noon; sea modcrating, made the Dead Man at 3 p.m. Anchored off the Moulin at 6 p.m; landed and met the Fishery Officer, Mr. Chevrier. He reports but few American schooners. Cod fishing poor; bate scarce; summer herring good; spring mackerel plenty, but boing poor price was not prosecuted to any extent. Lobster fishing tair; all well and quiet at the Islands; remained here all night.

Friday, July 1.-Got under way at 4 a.m. and anchored off A mherst in Pleasant Bay at 7. 80 a.m.; blowing fresh trom N.E.; landed and visited Amberst ; returned on board and procoeded for House Harbor, where landed at 1 p.m. and visited fishing establishments. Gale of the day before had done much damage to lobster pots; Schooners in spring had done well at seal fishing, but the shore fishing poor. Drovo in the afternoon across Grindstone Island to Etang du Nord; cod fishermeu doing well; breakwater progressing slowly; this will be a great boon to the fishermen of Etang du Nord, as their landing place is so exposed that they cannot venture either out or in with the least sea; drove back in evening to Cape aux Meules, and retarned on board at 8 p.m.

Satarday, 2.-Waiting for sea to modorate that I might land at Bird Rocks to deliver new code signal book to keeper; weather moderating left House Harbor at 4 p.m. ; came too off Bird Rocks at 9.30, signalled the light and tried to land but was
unable; managed to get near enough tbrough the breakers to fling the book ashore ; returned ou board and proceeded for Blancs Sablons.

Sunday, 3.--dll sail set, wind S.E., running eight knots; wind died away towarde ovening.

Monday, 4.-Strong N.E. wind with fog and rain, made Greenly Island by the foggun at © : i.m.; made eisis point if Isle à Bois soon after and entering by the east , Mssare, anchored in Blancs Sabons at 9.45 arm ; landed and visited the fishing establisbments of Messrs. Le Boutillier, Bros., Luce and Cimon. Two brigantines Aurora and Dovi, which were driren ashore, by the gale we met on leaving Gaspe, wure condemned and sold to d:y; many boats had been destroyod by this gale. Seal fishing has heen good; cod tishins; just beginning, average; salmon fishery just opened badly. Mr. Luce complains that bis sedentary seal fishery is disturbed each spring by peoplo from the Newfoundl ind sido.

Tuesday, 5.-At 5 a.m., crossed to Greenly Island, lande 1 and visited fiching establi-hment and lighthouso; all well at light; a shipwrecked crew wore here waiting for a passage to Nowfoundland; three scbooners had been cast ashore and many toats destroyed by the gale of the 29 th ult. Returned on board and praccedod for Silmon Bay at 8.15 a.m., coming too off Pradore Bay; no vosels in Bradore Bay; this i. iy is not now frequented by ressels as it used to be. There were seen to day anchored at Greenly Island, 56 vessels, besides over 100 sail which we counted on the banks between Greenly Island and Bunue Experance.


Not so many cod semers this senson as usual, but more trowler's; landed at Mr. Joy's, Salmon Bay, at noon; Mr. Joy's steamer the Tiger was at anchor here, also a United States schooner the Midnight. Mr. Joy complains of want of protection; he also says that a bell buoy is needed to show fishormen the bost and most direct channel into Salmon Bay; in dirty weather boats havo to go a long way rouad by way of Bonno Esperance to maike thoir way to Salmon Bay. If this buoy were furnished by the Department, Mr. Joy, I have no doubt, would see to its being put in position and removed befure and after the fishing season. I consider that all our fisbing houses bave something to learn by the enterprise and means of saving labor shown by Mr. Joy in the managemont of his fishing room. He has a tramway running from his stage in all directions among his flakes; be keeps constantly employed a powerfal steam launch; this launch can tow the boats backwards and forwards; when necessary she goes for bait and keeps the fishing boats served; she can also tow vessels in and out of tbe harbor; in her, Mr. Joy can visit the fishing grounds and see how the fishing is going on; he brings his crew with him from Nowfourdlend in his sealing steamer the Tiger; she lays up in Salmon Bay during the fishing season and when that closes she returns with all hands to St. John's; Mr. Joy ships his fish direct from Salmon Bay to the foreign market, and mostly by steamer; cod fishing good; in the afternoon crossed to Bonne Esperance and saw Mr. Whitely; his harbor was full of versels; saw many of the fishermen doing well; hand and line men nothing ; cod in great abundance, close in against the rocks; water tull of fish, can stir them up with the oars; one seine to-day took 160 cwts ; salmon a failureChevalier, in river, being the only one who has done anything.

Wednesday, 6.-Being unable to proceed through the reacbes on account of the fog; I went up the St. Paul's River in my boat and saw Chevalier; he assures me that the salmon in this river won't take the fly; returned on board at 6 p.m.; weather still thick.

Thursday, 7.-Left Bonne Esperance at 3.15 a.m., having on board Monseignear Guay, the Acting Bishop of Rimnuski and Chaplain, and Mr. Gibaut, the Collector of Customs for this ceast, passed up inside the islands; at

> Dog Island.
> 15 schooners
> Burnt Island
> 9 "

Anchored at noon at Chicatica and landed; returned on board and proceeded to the Despres; when anchored went up the St. Auguetine River to Driscoll's and Lavallier's. Salmon a failure.

Friday, 8.-Left the Depres at 7 a.m., proceeded through the middle passage to Whale Head East, where found Legouve, the overseer, very ill; took him on board and procceded to Kikapoe Island, Fonderie de Fecteau, Pocachoo, La Tabatière, and Grand Meccatioa Island; salmon fisbing joor at all these places. Cod in great abundance; bait not very plentiful. Left Jeenuvé with Gaumont at Grand Isle de Meccatina, he being too ill to proceed (he died a few days after we left him). I instructed his son to continue on his duties. Weather clondy with north-west wind and beary squalls. We continued on to Red Bay and anchored for the night in Mutton Bay; found here 51 schooners all doing well with cod; warned the seiners to be careful how they hanl their seines, as many of the shore people are complaining.

Saturday, 9.-Left Matton Bay at 9 a.m., and proceeded for Whale Head West; many boats and vessels on the fishing grounds; cloudy weather; light west wind; anchored at Whale Heid at 11.30 a.m.; landed and visited the inhabitants among the islands.

Sunday, 10.-Thunder with heavy rain and qualls; all hands to church; arranged a number of disputes after church, and at atout '2 p.m. got under way and proceeded to Harrington Harbor, where anchored in the evening; inhabitants here complaided that certain Newfoundiand reswel, were moored in a shoal part of tho hirbor, where they used to get their bait (cajelin), and that these Newfoundlanders had been throwing gurrie into the harbor; I visited the ressels in this harbor, and warned them all that they must not foul the harbor; I notice that it is everywhere the complaint that the local rules are broken by the Newfoundlanders; there were 23 schooners in this harbor.

Monday, 11.-Left at 8.20 a m., for the westward, calling at Ship Harbor, where we saw six Nerfoundland schooners; and at Yurk Hartor, where, were nine schoouers; all the echooners and sliore-boats along vhis coast were doing well with cod ; capelin was abundant; salmon everywhere a failure; anchored during the afternoon in a harbor called Syvret. and at 4 p.m. sailed in my boat down to Mr. Blais at Etamamu River about four miles; blowing in heary squalls from the north-wost; not much ealmon; a heavy tire bad been raging along the bills for eome days, and Mr. Blais was in considerable ansiety about his property; returned on board at 9 p.m.

Tuerdiry, 12.-At 3.15 am . got under way and proceeded for Washeecootai; weather foggy; made the land near Kegashla, and having taken a local pilot on board, went into the mouth of the Wisheceootai up to the anchorage. I went up as far as the falls, where 1 found Mr. McLeod, who returned on board with me; we left at $4.30 \mathrm{p.m}$. for Kegashka, calling off Murquaro Harbor, where were four schooners from Betchouan; anchored in Kerashka Harbor at 8 p.m., and remained here for the night. People doing well with cod.

Wednesday. 13.- Loft Kegarhika harbor at 6 a m., and came too off the mouth of Kegashka River. Went up the river with McLeod and Foreman and gave Foreman some powder with which to blow up somo rocks that impeded the passage of the salmon over the first fall in the river. Left there at 9 a.m., and anchored in Natashquan harbor at noon. Cod fishery good. Two American schooners are trawling for balibut off bere. From one of them we learn the news of the shooting of President Garfield. I am told that several other Gloucester sohooners are halibuting around Anticosti, and that one of them in three days had taken 8,000 lbs. Saw Mathurin, who reports all quiet. Had here to visit a large number of sick, as I have at every place along the coast where there are a few families together. Landed and
visited the large fishing station of Mossw. C. Robin \& Co. Mr. Romeril roports his fishermen doing well.
lhursday, 14 . - In the morning rowed into the cast cove and saw the leading inhabitants. Scttled several disputes about trespass. Left at 9 p.m. for the East Point of Anticosti; night smoky, with a light air of west wind; all the bush between Cape Harrington and Natashquan is on fire, and as far to the westward as we can see the fire is raging.

Friday, 15.-Landed at East Point Light at 5 a.m.; all well; the telegraph poles are all in their place as far as the Sand Tops; a number of men are campod here working at the wreck of the steamship Cybelle; left at 9 a.m. for Fox Bay; landed there at noon; not much doing with cod-no salmon; visited a number of sick in this place-scarlet fever and low typhoid; there had been several deaths: four schooners anchored in here ; left at 1.31 p.m. for Macdonald's Cove, where anchored at 8.30 p.m.; found here about sixty fishermen from Dougliastown all doing well, bait, herring, being abundant; remained here all night.

Suturday, 16.-Left at 2 a.m, for the North Shore; weather, thick fog and smoke; made the land at St. Genéviève; too thick 10 make Watsheeshoo, so went on * along shore to Betctouan; when anchored and landed found hero a large settlement of Acradians from the Magdalen Islands, doing well; remained here a couple of hour and the weather clearing up we went on to Esquimaux Point, where we anchored and landed at. 4 p.m.; poople here in great alarm about the fires; vessels had done well with seals.

Sunday, 17.-Gale of S. E. wind during the night, with heary rain; left at 1.30 p.m. for Mingan, where wo arrived at 2.45 p.m. ; many Indians camped here; mission just over; the post has been in great danger, and only the most untiring exertions on the part of the agenta, assisted by the Indians, have saved it; the woods all round has been burning for weeks; Mr. Molson's houses up the Mingan River have been destroyed, and his guardian had had a hard matter to escapo down the rivor.

Monday, 18.-East wind and fog with heavy rain-an American yacht from Boston (the Arethusa), with a party of scientists, came in during the night; she had been to the Magdalen Islands, Gaspe and Anticosti, and was now bound down among the Islands.

Tuesday, 19.-Still raining and blowing in the morning. Clearing up at 2 p.m., wo got under way and proceeded for Long Point-still a good deal of swell on-left Lons Point at 5 p.m. tor St. John's where we anchored and landod at 6.40 p.m. Fishing poor. Much delay and loss had been caused by the Gires, which it was hoped the heavy rains of the last few days would thoroughly quench. Messrs. Garland and Bland, the lessees of the St. Joha's River, had been burnt out up the river and had bcen compelled to run down beeween the burning banks. Thoy had not jet been able to return back to learn the extent of the damage done.

Wednesday, 20.-Left St. John's at day light, calling at Magpie; fishing here, average; some inhabitants at Magpie River had been burnt out; at 1 p.m. landed at Point Rich; off this place arrested and tried one T. Gagnon for deserting from the employ of the Messrs. Collas at St. John's; sentenced him to a month in gaol at Perce; anchored off dock for the night calling at llhunder River; here found that the whole of the fine establishment of Messrs. LeBoutillier Bros. had been destroyed by fire the weok before, together with many of the residences of the inhabitant fishermen.

Thursday, 21 .-Left for Sheldrake at daylight; landed at Sheldrake at 5 a.m.; fishing not very good. The fire here had also caused great anxiety and delay. Left at $10.15 \mathrm{a} . \mathrm{m}$. for Moinie ; passed Moisie at $3.15 \mathrm{p} . \mathrm{m}$., but too much swell on to land, so went into Seven Islands to anchor for the night; found here the American schooner Yankee Lass of Boston, mackerel fishing, also the Right Bower fiom Barrington, N.S. Met Mr. Migneault, the fishery officer here; reports all quiet. Some Indians from Matane had threatened trouble in Moisie, but he had frightened them off.

Friday, 22.-Landed at Moisie at 11 a.m.; met Mr. Holliday, who reports salmon net fishing a failure, but all report a great many fish in the river; cod fishing good; $5 b-10 \frac{1}{2}$
returned on board and left for English Bay, Anticosti, at 2.30 p.m., taking over the census enumerator for the Island, who was waiting for a passage.

Saturday, 23.-English Bay at daylight, landed and met James Roy, guardian, who reports fishing poor and much distress in this Bay; many of the inhabitants had been burnt out, and bait was so scarce that they could not fish; settled a number of disputes here, and left at $9 \mathrm{a} . \mathrm{m}$. for Strawberry Cove; people here badly off; fishing poor; wreck of Pamlico being dismantled here; left at 1 p.m. for Becscie River; landed at 3.15 p.m. ; large crew working here dismantling and taking timber out of the wreck of Bristolian; continued on to Jupiter River, whero landed at 7 p.m. Setter had only taken three barrels of salmon; saw Mr. Henderson, who reports a good many salmon up the rivor, left for S.W. Point at 8 p.m., and anchored there at $9.30 \mathrm{p} . \mathrm{m}$. for the night.

Sunday, 24.-Remained at anchor here all day ; people in the South-east Cove had not done much; several American halibut trowlers had been seen about this summer; saw Captain Setter and Mr. Pope.

Monday, 25.-Left at $4 \mathrm{a} . \mathrm{m}$. for Shallop Creek; landed there at $10 \mathrm{a} . \mathrm{m} .$, and the Bradieys' telegraph line working from here; continued on, calling at Dauphine River and Cormorant Point; at neither place had anything been done in salmon; left Cormorant Point at 5 p.m. for Percé.

Tuesday, 26.-Arrived at Percé at $5 \mathrm{a} . \mathrm{m}$. and landed prisoner Thos. Gagné; visited establishmenis, but coming on to blow, left Percé at 1 p.m. for Gaspé; arrived in Gaspé at 4.30 p.m.; weatber wet and foggy; made fast to Eden's wharf and got all ready to take in coal.

Wednesday, 27.-Coaling.
Thursday, 28.-Coaling; American steam yacht Yosemite, commander Belden, in barbor.

Friday, 29.-Finisbed coaling ( 105 tons) ; cleared up and left Gaspé at 2.30 p.m. for Douglastown, taking in tow the brig Cornucopia clear of the harbor; landed at Douglastown at 4 p.m.; anchored here for night.

Saturday, 30.-Lett for Point St. Peter at 6 a.m. ; landed at the Point at 8 a.m.; visited fishing rooms; left at 1 p.m. for Grande Grève; landed in Grande Grève at 3.50 p.m.; left Grande Gròro for Gaspé at 5.15 p.m., and anchored in Gaspé at 7.15 p.m.

Sunday, 31.-All hands to church.
Monday, Auguit 1.-Drove into jam, on Douglastown River.
Tuesday, 2.-Took on board the Hon. P. Fortin and left for Rimouski to meet the Hon. Mr. Mousseau, at 3.15 1.m.; called at Peniosula ; returned on board at 7 p.m. ; weather too thick to procced.

Wednesday, 3.-Left for Grando Gıèvo at 4.30 p.m. (thick fog); landed at Grande Grèvo at $9 \mathrm{a} . \mathrm{m}$. ; returned on board at 10.45 t.m. (fishing poor, bait scarce) ; proceeded for Cape des Rosiors, where we landed at 3 p.m ; fishing bad; returned on board at 4.3 ' p.m., and left for Griffiu's Cove, whero landed at 7 p.m.; risited fishing rooms; fishing had begun well, but latterly was very poor.

Thursday, 4.-Left for Fox River at 5.50 a.m. and landed thero at $6.15 \mathrm{a} . \mathrm{m}$. ; visited rooms, fiohing joor ; left hero at $11.30 \mathrm{a} . \mathrm{m}$. , calling at Famo Point; landed at Chloridorme at 1 p.m.; fishing here better than at Fox River; left at 4.30 p.m. for Grande Vallée ; anchored at Grando Valléo at 6 p.m. ; landod and risited peoplo; fishing fair, better than last year; returned on board at $9 \mathrm{p} . \mathrm{m}$. ; remained here all night; heavy thunder storm during the night.

Friday, 5.-Anchored and landed at Magdalen River at 6 a.m. ; visited people; returned on board at 8 a.m., and left for Mont Louis, where landed at $10 \mathrm{a} . \mathrm{m}$. As it was blowing hard from the N.W. We had to hold on here all day, and at night, when the wind lulled, we left for Rimouski direct.

Saturday, i.-Arrived and landed at Rimouski at 12.30 p.m., drove to the town and met Mr. Mousseau by the outgoing English mail, he came on board at once, accompanied by Dr. Mount, of Montroal, and we left at midnight for Cape Chatte.

Sunday, 7.-Landed at Cape Chatte at 11 a.m., drove to St. Anne's at 5.30 p.m., and returned on board at 11 p.m.

Monday, 8.-At 2 a.m., left for Mont Louis, where landed, at 5.30 a.m.; visited fishing establishments and returning on board at $10.30 \mathrm{a} . \mathrm{m}$. , we left for Seven Ielands Bay, North Shore, which place we reached at 6 p.m, landed at 7 p.m., and visited the inhabitants, and the Hudson Bay post; returned on board at 9.30 p.m.

Tuesday, 9.-Left for Moisie at 4.30 a.m., landed at Moisie at 6 a.m., visited the establishment of Mr. Holliday and Messrs. Collas. Cod fishery not so good as it had been, returnod on board at 8 a.m., and left for Sheldrake, were landed at 1.15 p.m. Fishing the last three weeks had been very poor-bait was plentiful-but cod could only be got in deep water; left at 2.35 p.m. for Magpie, where landed at 5 p.m.; visited the establishments of Messrs. C. R. C. and Le Boutillier Bros. ; returned on board at 7.30 p.m.; weather getting thick and coming fresh from the eastward, we had to continue to Mingan for shelter, anchored here at $11.30 \mathrm{p} . \mathrm{m}$. , with a gale of east wind.

Wednesday, August 10.-Landed at 9 a.m., and visited the Hudson Bay post and the River Mingan, left for Esquimaux Point at 11 a.m., and anchored there at $2.30 \mathrm{p} . \mathrm{m}$. ; thick fog with rain and strong east wind; vessels had all returnod and had done well at the cod fishery; weather lately had been bad for curing the fish, and prospect was that much fish would be of inferior quality.

Thursday, 11.-Still raining and blowing with thick fog; busy visiting the sick and listening to complaints and disputes; at midnight weather clearing up a little, left for English Bay, Anticosti.

Friday, 12.-Landed at English Bay at 8 a.m.; much sickness and distress; no fishing; left at 9 a.m. for South West Point, but wind coming on fresh from W.N.W., and knowing we could not land along the south side of Anticosti with this wind, we hore up for Fox River with a strong breeze crossing, landed at Fox River at 3 p.m., and visited fishing rooms, left at 5.30 p.m: for Cape dos Rosiers, where anchored at 7.30 p.m., landed and visited the light and returned on board at 9 p.m.

Saturday, 13.-Left for Grando Gròve at 4.30 a.m., landed there at $6.15 \mathrm{a} . \mathrm{m}$, and visited the rooms of Messrs. Twing and Hyman, returned on board at 8 a.m., and left for Gaspé, where anchored at 10.15 a.m.

Sunday, 14.-Raining hard.
Monday, 15.-Left at noon for Point St. Peter, strong N.E. wind:
Monday, 15th.-Could not land at the Point, so went round into Malbaic, where landed at 3.30 p.m., and walked to the Point. Mr. Mousseau and party visitgd the fishing establishments of the Messrs. J. \& C. Collas and Messir. Faurel. Returned on board at $6 \mathrm{p} . \mathrm{m}$. and left for Perce, where anchored at $7.30 \mathrm{p} . \mathrm{m}$. Blowing too hard to land.

Tuesday, 16th.-Blowing too hard to land this morning, we ran over at 8 a.m. to the Barachois of Malbaie, whore we landed; returned on board at noon and left for Malbaie anchorage. Here received a telegram from Mr. Gregory informing me of the accident at the Bird Rocks' Light, and asking me to go there and render help noeded.

Wednesday, 17.-Left for Percé at $5.30 \mathrm{a} . \mathrm{m}$. Still blowing fresh. Anchored in tho South Beach. Party landed at 9 a.m. and visited the establiubments of Messrs. C. Robin \& Co. and Messrs. Valpy and LeBas. Returved on board at 4.30 p.m. At 6 p.m. left for Bird Rocks with a light air and swell from the east.

Thursday, 18-Kaining, with fog; made the Bryon Island at 8 a.m., and anchored off the Bird Rocks at 10.30 a.m.; landed at once the Hon. Mr. Mousseau, Dr. Fortin and Dr. Mount ; went up in the box to the summit of the rock. We found that the accident had occurred by the explosion of a barrel of powder which had been kept in the gun bouse. The keeper, Chiasson, his son, avd an old man named Paul Chenel, had been killed outright by the explosion, and a servant of Chiasson, named Turbide, had been considerably injured; the fog gun was damaged in the vent and we sent one of our guns up on the rock to replace the injured one for the present; arrangements were made for continuing the service of the light; the remains were lowered from the rock and put on the deck of a schooner, Marie Euphrosyne, which had arrived from House Harbor, M. I., the same time as our-
selves; we took the schooner in tow and left at 3 p.m. for House Harbor in a thick fog; fog continuiner, at $10 \mathrm{p} . \mathrm{m}$. wo anchored in about 15 fathoms of water about 10 miles outside of Pleastent lias.

Friday, 19.-Got under way at $4 \mathrm{a} . \mathrm{m}$. and jproceeded by the lead into Pleasant Bay, coming to anchor abreast of the church at House Harbor; attended the funeral, and in the afternoon drove, with a large party, to Etang du Nord; inspected the work going on at the breakwater, and returned to the ship at 8 p.m. by way of Cap aux Meules.

Saturday, 20.-Anchored at Amherst at 8 a.m. ; landed and visited the pris cipal fishing establishments, \&c.; the party drove in the afternoon to the West Point light, and the steamer came round by way of Entry Island, and at 2 p.m. we left West Point for Cape Cove.

Sunday, 21,-Anchored at Cape Cove at 7 a.m., landed and attended service; visited the Cove and returned on board at 3 p.m., when we left at once for Grand River; landed there at 5 p.m., returned on board at $6 \mathrm{p} . \mathrm{m}$. , and left for Paspeliac, with fog and wind freshening from the east, with rea; at 9 p.m., wind having increased and weather being vory thick, headed tho ship to sea and laid too utder easy steam for night.

Monday, 22.-Made Point Maquereau at $7 \mathrm{a} . \mathrm{m}$, and ran into Paspebiac Harbor at 10 a.m., blowing a gale from the eastward; party landed and visited the lirge establishments of Messrs. C. Robin \& Co. and the Messirs. LeBoutillier Bros., afterwards drove to the residence of His Honor the Lieutenant Gevernor.

Tue day, 23.-Left Paspetsiac at 5.45 a.m. and anchored at New Carlisle at 6.15 a.m. ; took on board His Honor Lieutenant-Governor Robitaille and proceeded for New Richmond; wind still in east with fog; landed at New Richmond at 10.4 ; a m.; remained ashore till noon, when returned on board and left for Bathurst, N.B.; anchored off Bathurst Bar at 4.45 p.m.; proceeded at once to land the party at Bathurst in the boat.

Wednesday, 24.-Returned to the ship at daylight and Ieft for Carleton at S a.m.; anchored at Carleton at noon; landed and visited inhabitanis and saw the whari in courso of construction; took pilot on board and left at $5.2 ;$ p.m. for Dathousie; anchored at Dalbousie at $7.45 \mathrm{p} . \mathrm{m}$.

Thursday, 25.-Left at 7.30 a.m. for Campbellton; arrived at Campbellon 9.15 a.m.; landed and procecded by train to Metapedia and drove out to Deeside, where met Mr Mowat ; roturned aboard at $8.30 \mathrm{p} . \mathrm{m}$. ; engineer bury repairing boilers, which had been leaking for some time.

Friday, 26.-Campbellton-repairing boilers; drove orer to Cross Point.
Saturday, 27.-Campbeliton-cleaning, paintug, fillins tanks with frenh water.
Sunday, 28. - Left ai daylight, but owing to fog had to come to anchor off Point LaGarde; at $8: 15$ a.1n. proceeded again and anchored at Carleton; at 9.20 a.m. sent all hands to church; remained here all day.

Monday, 29.-Left Carleton at 1 a.m. for New Carlisle, where anchored at 6 a.m. ; took on board the Hon. A. P. Caron, Minister of Militia and Defence; called at Newport after leaving Paspebiac; left Newport at $6 \mathrm{p} . \mathrm{m}$. for Grand River; remained at Grand River an hour and a half, when left for Percé, where anchored at 10 p.m.

Tuesday, 30 .-Landed at Percé at 7 a.m.; remained ashore an hour, when crossed to Bonaventuro Island; the Minister visited the various fishing establishments, and enquired into the manner of taking and curing the fish; left Bonaventure Island at $10 \mathrm{a} . \mathrm{m}$. for Point St. Peter, where landed at $11.30 \mathrm{a} . \mathrm{m}$.; the fishing at the Point had been bad all season, both fish and bait seeming scarce; returned on board at 1 p.m., and left for Gaspé Basin, where anchored at $3.55 \mathrm{p} . \mathrm{m}$. and remained for the night.

Wednesday, 31.-Left Gaspé with Minister of Militia at 9.45 a.m. for Dalhousie, N.B. ; anchored at midnight off the west end of Herring Island in a thunder storm.

Thursday, September 1.-Got under way at daylight, and ran in under the land at Charlo, where at $7 \mathrm{a} . \mathrm{m}$. landed Hon. A. P. Caron and party; left at once
for Port Danicl, where landed at $3.30 \mathrm{p} . \mathrm{m}$. , and met Mr. Phelan, fishery officer; returned on board an 6.15 p.m., and left for ( $\dot{x}$ : 1 pe to coal.
 coaling and repairing boilers, which had been leakins.

Saturday: 3.-Finished coaling at 11 a.m.; hanled into stream; still repairing boilers.

Sunday, 4.-
Monday, 5.-All repairs being finishel at 11.30 a.m., left Gaspé for Blancs Sablons by way of the Magdalen Islands, having on Iomed M. Jos. L. Lavoim.

Tuesday, 6.-Landed at Etang du Nord at 6 a.m. ; lobster packing bouses were all shut down and closed for the season ; finding that complaints wero made that one canning firm at Amberst had not shat down at the rirhtecason, I proceeded at 10 a m. for the Moulin, where I landed at 1 p.m., and met, Mr. Chevrier, fi-herg oticer; continued on to Amberst, where ancholed and landed at 5 p.m., having bronght Mr. Chevrier with me.

Wednesday, 7.-Having enquired into tho matter of lobster finhing. I inflicted a fine of $\$ 50$, and left at $\because$ p.m. for the Bi:d Rocks with a light south wind and fog; being unable to land at the Rocks, and finding the we:ther clearing up, with a strong north-west wind, clecided to keep right on for Blances Sablons.

Thursday, 8. - Fresh breezo and heary se:t during nisht, ship rolling a great deal.
Friday, 9.- Made Blancs Sablons at 6 a.m., and litnded at once on Isle au Bois, and later at Elancs Sablons and Long Point; cod tivhery nearly ovor; hai been very gord; all the fishing vessels had left before this; left at $3 \mathrm{p} . \mathrm{m}$. for Salinon Bay, where landed at $5.30 \mathrm{p} . \mathrm{m}$.

Saturlay, 10. -S.S. Zelini cleared from here to-day with fish ( $11,000 \mathrm{cwt}$ ) for Leghorn; S.S. Tiger was waiting to remove MLr. Joy an 1 his crew to St. John's; the brigantine Guiding Star was also louding fish fir foreign; all the rooms in the. neighborbood of Salmon Bay bad done well; the fishing season was over; left at 10 a.m. for Stick Point, and from here continued to Bonne Esperanco, where tound the brigantine Red Rose loading fish for foreign; saw Mr. Whitely, and left at 12.30 p.m. for Chicatica, where anchored at $4.25 \mathrm{p} . \mathrm{m}$.

Sunday, 11.-Left Chicatica at 5.15 a.m., and went outsicle throuph the went pass, weather boing thick and foggy; at noon made Big Meccatina Irland, anl at 1.30 p.m. anchored at La Tabatiere; left bere at 3 p.m., and ran into Mutter Bay.

Monday, 13.-All day setuling disputes in Mutton Bay.
Tuesday, 13.-Foggy with rain this morning, clearing up at 10 a.m.; we left Mutton Bay and anchored at Whale Head west, at $11.30 \mathrm{a} . \mathrm{m} . ;$ left bere at $1.45 \mathrm{p} . \mathrm{m}$. for Cape Itarington; left Cape Harrington at 5 p.m. and anchored for the night at 7 p.m. in Ship Harbor ; vessels had all left this coast; tho cod tishery had everywhere been good; salmon a failuro.

Wednesday, 14.-Left Ship Harbor at 5 a.m. for Romaine; weather thick and foggy, with strong east winds; passed Romaine and went into Washeecontai Kiver and anchored at $12.30 \mathrm{p} . \mathrm{m}$. ; blew off steam and engincer set to work to tighten boilers, which were leaking again.

Thursday, 15.-Rowed up the river, found plenty salmon going over the falls.
Friday, 16.-Left at $10 \mathrm{a} . \mathrm{m}$. ; on going out of river ship touched on a boulder or rock, slightly; did not lose way; we went on to Kegashka where we anchored at 1 p.m., and made careful examination of the vessel; could detect no damage save a slight twisting of two stanchions in the forebold; vessel making no water, and engine working smoothly; left Kegashka at 2.15 p.m. for Natashquan; anchored off Natashquan in 17 fathoms in a thick fog.

Saturday, 17.-Went into Natashquan at $5.30 \mathrm{a} . \mathrm{m}$. and landed; passed day here settling disputes about trespass and land bounclary, \&c.; left at 4 p.m. for Watsheeshoo, whero arrived at 8 p.m.; but being too dark to land we stood over to Mc Donald's Cove, where we laid too for the vight at 11 p.m.

Sunday, 18.-Landed at Macdonald's Cove at daylight; found fishermen had done well; berring were abuadant; left for Watsheeshoo at 8 a.m.; landed at

Wat heeshoo at 1 p.m. ; found that Gobeil had already left for home; left Watsheeshoo at 3 p.m. for Esquimaux Point, where landed at 7 p.m.

Monday, 19.-Left Esquimaux Point at 5.30 and anchored at Mingan at 7.30 a.m.; met bere H.M.S. Tenedos, Captain Fane; met here all the Esquimaux Point schooners on their fall voyage to $Q$ newer ; such of them as had been below had done nothing at the herring fishery, which was a fuilurs on the Labrador; left at 10.30 for Long Point, where landed at noon; fishing here had been a failure and the resident fishermon were badly off; lett here at 1 p.m. for St. John's River where landed at 3 p.m. Arrested here one Johnny Sutton on a complaint, and he pleading guilty, was sentenced to Percé jail for one month; left here for Magpie where anchored and landed at $7.30 \mathrm{p} . \mathrm{m}$. ; remained anchored off bore for the night. The fishery had been poor at St. John's, but at Magpie it was good.

Tuesday, 20.-Left Magpie at 4.30 a.m. for English Bay, Anticosti ; anchored and landed at English Bay at 8 a.m.; found tishing here a failure, and about seventy families here and in the adjoinining Cove (Stravberry Cove) with actually no provision for the winter. Left for Becscie River at 9.45 a.m.; landed at Becscio at 1 pm ; found that old Gamache had dentroyed the house which he had been compelled to transfor to the telegraph operator about to be placed at this stat on; after demolishing the house Gamache had left the Island. Left Becscie at 2 p.m. for South-West Point; wind freshening from the W.N.W., and finding we could not land on the south side of the Island, we decided to stand over to the South Shore; crossed through a very heavy sea; pasel Cape des Rosiers at 8 p.m., and anchored off Douglastown :at 11 p.m. for the night.

Wednesiay, 21.-Left at daylight for Percé, where we anchored at 8:30 a.m.; blowing a half a gale trom N.W.; landed prisoner and left Percé for Grand River at 3:30 p.m ; anchered at Grand River tor the night at 7 p.m.

Thurwlay, 23.-Left Grand Rirer at 7 a.m. for Pabos, wherolanded at 9 a.m.; visited Mill and River and left for Newport at 11 a.m. ; landed at Newport at voon; left Newport at: p.m. for Cape Cove. The fishery at Grand River, Pabos, Newport and Cape Cove had been remirkably good throughout the season, and was still holding out. Unable to land at the Cove on account of strong S.W. wind; kept on to Point St. Petur, wh ere, anchored for the night at $8 \mathrm{p} . \mathrm{m}$., and landed.

Frilay, 3.-Left Point St. Peter at 9.30 a.m., and anchored and landed at Chien Blans: at $1015 \mathrm{a} . \mathrm{m}$. ; left here for Douglastown, where anchored and landed at 1.30 pm . left here at 5 p m for Gaspe, where anchored at $7 \mathrm{p} . \mathrm{m}$.

Saturday, 24.-Tightening boilers and painting bottom.
Sunday, 25.-
Mondiay, 26.-Left Gaspé at daylight for Cape Chatto by way of South Shore statious; anchored and landed at (ape des Rosiers at 1 p.m.; remained ashore an hour ; stroner N.W. breaze in the river; when leaving found the schooner Glen coming rounil Cape, disabled; towed hor into safety at Grand Grève; returned from Giand Grève and anchored at Crpe do Rosicu for the night at 6 p.m.

Tuend:y, 27.-Left at 5 a.m. for liriffu's Cove; landed hero at $8.30 \mathrm{a} . \mathrm{m}$. ; risited fishing eatablishmonts and left at 10:11 a.m. for Fox River, where landed at $11.10 \mathrm{a} . \mathrm{m}$. remained ashore until 1 p.m., when luft here for Little Foz River, where landed and remainel until 3p.m. From Grand Grèro up this far the fi-hery has beon a complete failure; such of the people an can will be forced to leave in the fall and seck employment in the western lambering shanties. Arrived off Magedalen River at $7 .: 0 \mathrm{p} . \mathrm{m}$.; dark and raining, with equalls from S.S.E. ; anchored for night in oight fethoms.

Wednenday, 28-Landed at daylight; returned aboard at 8 a.m.; wind coming round to N.W., stood on to Mont Louis, where landed at $11.30 \mathrm{a} . \mathrm{m} . ;$ left Mont Louis at 1 p.m. for Grand Rivor, but wind freshening tos much to land on South Shore, at 4.10 we stood over for North Shore; at 8 a.m. heavy sea from N.W. Cape Chatte light off the port bow.

Thursday, 29.-At 1 a.m. passed Point des Monts, and landed at Borsimis at 8 a.m.; visited the Mission Station and the H. B. Post and the mill, returning
on board at 1 p.m.; left for Godbout, where anchored for the night at 6.30 p.m. Found both Comeau and Deschène absent.

Friday, 30.-Landed at Point des Monts at 6 a.m. ; all well at the light; mackerel had been abundant here all season and of a good quality; landed at Trinity Bay at 8 a.m. and mot Belanger, fishery officer, who reports all quiet; left here at $9.15 \mathrm{a} . \mathrm{m}$. for Pentecost River, calling on the way at Baie des Anglais, and Egg Island light; left Egg Island at noon, and at 1.20 p.m. landed at Pentecost River; from Point des Cowees to Point des Monts the boats were all doing well at the fall cod fishery; mackerel were plentiful, but herring were very scarce; left here at 2 p.m. for Seven Ielands, where anchored for the night at 7 p.m.

Saturday, October 1.-Left Seven Islands at $6.15 \mathrm{a} . \mathrm{m} . ;$ passed Moisie at 8.15 ; unable to land, strong wost wind with some sea. Kept on for Sheldrake, but passed Sheldrake at 2 p.m., unable to land; kept on to Magpie, rounded too here at 4.15, but was unable to land, wind blowing fresh from west with heavy sea; ran on for Mingan, where, anchored at 7 p.m.; seven schooners were here wind-bound. Mr. Hardisty, the agent of the H. B. Company, reports but little doing in the way of fishing as the weather had been very rough for some days back.

Sunday, 2.-At auchor in Mingan all day, blowing a gale of W.N.W. outside.
Monday, 3.-Left Mingan at $6 \mathrm{a} . \mathrm{m}$. for Macdonald's Cove, Anticosti, and the South Shore, landed at Macdonald's Cove at 12.35 p.m.; fishing over, herring still abundant; finding here some Irishmen from Douglastown, who were hard up for provisions, I gave them a passage over to the South Shore; at 3.20 p.m. left for English Bay, but wind coming round to westward with heavy squalls and rain we were unable to call at English Bay; heary sea all night, passed West Point at midnight.

Tuesday, 4.-Anchored and landed at Douglastown at noon; left Douglastown at 2.30 p.m. for Gaspé, where anchored at 5 p.m.

Wedneeday, 5.-At 10 a.m. hauled into Eden's wharf and began coaling; blowing a gale all day with snow.

Thursday, 6 .-Finished coaling at $5 \mathrm{p} . \mathrm{m}$. and hauled into stream.
Friday, 7.-Left Gaspé at 2. p.m. for Peninsula to embark Ascah for Becscie River, finished taking in his luggage at $6.30 \mathrm{p} . \mathrm{m}$., and left for L'Anse à Fugère (below Fox Rivor) to remove the cable instruments from the shore cnd of the cable, taking with us Mr. John Annett to unship the instruments; called at Bernier's at midnight and remaining an hour, left at once for West Pont, Anticosti.

Saturday, 8.-Called at West Point at 7 a.m., and brought off Mr. LeBourdais, the manager, and Mr. Denoault, the repairer of the Anticosti Telegraph Line, left at 8 a.m. for Becscie River, wind S.W., anchored at Becscie River at 11 a.m., and after Ianding Mr. Le Bourdais, and Ascah and his family, we began landing Ascah's effects; this was accompanied with considerable difficulty as the sea was freshening on shore all day; however, we got through at 5 p.m., and left for South.Wet Point, hoping to be able to pass the nisht there, but the sea and wind increase! ss that there was no prospect of our being able to land on the South side of the island for some days and we stood over for the South Shore.

Sunday, 9.-Anchored at Percê at 6 a.m., after a rough night; left Porcè at 6 p.m. for the Magdalen Islands.

Monday, 10.-Passed the Dead Man at 8.30 a.m., and anchored at Etang du Nord at 11 a.m.; much damage had been done to boats by the late N.W. galex; some fish going, but no herring or mackerel. Left Etang du Nord at noon for the Bird Rocke, but at 1 p.m., finding the wind increasing from the N.E., decided that it was u eless to try to land on the rock, put the ship about and came by the wost and south of the islands, intending to run into Pleasant Bay; when abreast of the Basin the gale struck us from the N.E., and we came to anchor under the land abreast of the Basin Church at 4 p.m.

Tuesday, 11.-Still blowing a gale from N.E.; very cold with flurries of snow; p.m. wind falling and varying to E.

Wednesday, 12.--Left the Basin at dajlight and ran into Amherst at 8 a.m. ; all well here; left here at noon for House Harbor, where landed at 2.30 p.m. ; all hands
on shore lusy weighing fish and shipping it to Halifax; no fish being caught now though firh is reported plenty on the Banks; North Sbore fish had turned out well; weuther of late had beon very rough.

Thursday, 13.-Gale of wind during night from S.S.W.; at 5.30 a.m. steamed over to get under the lee of the land at Amherst, anchored there at $8 \mathrm{am} . \mathrm{m}$; blowing a gale all day with sleet, rain and hail.

Friday, 14.-At 1.30 a.m., the wind euddenly chopped round to the N.W., and blew harder than ever; we held on where we were until daylight, when we steamed oser under Cap aux Meules and anchored under the land off Grindstone Island. The Chief Engineer has just informed me that he has jusi discovered two considerable cracks in the end of the high-pressure cylinder. He advises me to return 10 Quebec as soon as possible as this may gire out any day; blowing a gale all day w.th snow flurries.

Saturday, 15.-Blowing a gale all day, but signs of moderating; in the ovening the wind came into the S.W. with milder weather and rain; at midnight wo were compelled to leave our anchorage and seek shelter in the south part of the hay as the wind was now S.S.W.

Sunday, 16.-At 8 a.m. wind changed back into the N.W. and we were again obliged to leave onr anchorage and haul cut into the bay, where we anchored under both ancloos. 430 p.m., weather moderating; took in starboard anchor; wind hauling round to N. 6 p.m., finding the wind in the N. and sea moderating, we decided tr get under way and go round to the Moulin; paseed south of Entry Ialand light at 7.30 p.m. and decided to keep right on for Prapebiac; abreant of the West Point light at 8.45 p.m. ; wind now more 11 om the N.W. with a long heavy swell; night clear and cool; at midnight had to givo it up, found the chip could make no headway, we had not made three knots in three hours; came back under the Moulin and anchored for the night.

Morday, 17 .-Left again at 6 a.m., light N.W. air, less sea; up to noon ship had made :lout 20 miles; $61 . \mathrm{m}$. , no wind, evening clear; made about 40 miles today; at midnight wind N.E. with now.

Tuesday, 18. -Made Point Maquereau at 6 a.m.; blowing hard from N.E. with snuwntorm; anchored in Panpebiac at $11 \mathrm{a} . \mathrm{m}$.; blew a gale all day from E.N.E. with snow.

Wedncoday, 19.—Still blewing all night with anow, clearing up 1.30 p.m.; left for Perce; heavy sea outside; anchored at Perce for night at $10.30 \mathrm{p} . \mathrm{m}$.

Thurvaly, 20.-Landed at Percé at $8.30 \mathrm{a} . \mathrm{m}$. ; remained here till 2.30 , when on receipt of telegram from Mr. Smith, proceeded to Gusié, where anchored at 8 p.m.

Fiday, „ 1 . - Painting.
Saturday, 22-Painting. Waiting for orders about proceeding to Anticosti
Sunday, 23. -Snowntorm. $\} 10$ take "ffistarving people.
 ordered, Mr. Roy being the engrineor of the Public. Works Department charged with reporting on tho various breakwaters arked for along the coast; landed at Porcé at 1.30 p.m., and Mr . Roy being ready came on board at $2.45 \mathrm{p} . \mathrm{m}$., when we left for Cape Core whero wo landed and saw the principal people about the necessity of the breakwater; returned on boad at $6.30 \mathrm{p} . \mathrm{m}$. and remained at anchor here for the night.

Tuesday, 95 . - Left Cape Cove at 5 a.m. and anchored at Pabos at 8 a m., landed with Mr. Koy for a rhort time behind tho Jsland, but the gale was freshening no fast that we had to return to the ship at once; could not land at tho mill. Left Pabos at 9.30 with a gale of S.E. wind and anchored at Paspebiac at 2 p.m. ueder both anchors.

Wednesday, 26.-Wind right round to N.W.; left Paspeliac at 6.30 a.m. to return with Mr. Roy to Perce. Made Perce at 2 p.m. but were unable to land and kept on to Douglastown; blowing a gale from N.N.W. with snow flurries; anchored at 7 p.m. off Douglastown with both anchors down. Snow during night with very heavy squalls. Glass, 28.7.

Thursday, 27.-Got under way at 7 a.m. and proceeded into Gaspé Basin. Still blowing a gale. Landed Mr. Roy.

Friday, 28. $\}$-Gaspé. Waiting for orders; cleaning up and repairing boilers, Saturday, 29. $\}$ which leaked considerably.
Sunday, 20.-Gaspé.
Monday, 31.-SS. Napoleon arrived to-day. Orders received; Napoleon will proceed to Anticosti and take off the distressed, as we have no room. We took on board the master, mates and men, twenty-one all told, of the Imperial, foundered off Bird ILe:ks, and left during the night for Quebec ly way of Egg Island and Point des Monts.

Tuesday, November 1.-Passed Cape des Rosiers at 8.15 a.m. ; wind N.W. ; at 8 p.m. wero abreast of Cape Magdalen; light wind N.W.; stood over for Egg Island.

Wednesday, 2.-Landed at Egg Island at 6 a.m. Keeper reports all well at the light, but the people on the mainland he reports to be badly off for flour for the winter. Landeil at Point des Monts at $8.30 \mathrm{a} . \mathrm{m}$. Mr. Faffard reports all woll. Left here at $9 \mathrm{a} . \mathrm{m}$. for Quebec. No wrecks or cafualties about this part of the coast. At 8 p.m. were off Bic Light and the captain requesting it, decided to take a pilot. Three pilot schooners together off Bic. Signalled for a pilot, and two boats coming alongside, Pilot J. B. Bernier took charge of the ship.

Thursday, 3.-At 1.45 a.m. I was roused from my berth by feeling the ship go gently ashore. On getting on deck found the ship was ashore on White Island lieef. As soon as I found the ship would not move after a few trials, I sent a boat with the second officer to Rivière du Loup for help. We remained on the reef until Tuesday, the 8th Nuvember, when the pumps being got to work, and the tugs hauling on, the came off a little before high water, at about 4 p.m., and we left at once for Quebec in tow of the tuge Contest and Anglesea, and the Government stemmer Druid. We arrived in Quebec next day at $7.30 \mathrm{p} . \mathrm{m}$. and made fast to the Queen's Wharf.

In concluding this report I desire to bear testimony to the promptitude and onergy shown by Mr. Gregory, the agent of your Department in Quehec; had it not been for his prompt action in coming to our rescue with such efficient means and appliances as he did, it would have been impossible to have got La Canadienne safely back to port.

> I have the honor to be, Sir,
> Your obedient servant,
> W. WAKEHAM.

No．
STATISTICS OF FISHERIES ON THE SOUTH
Return of Fiseing Stations，Number and Value of Fishing Boats and Nete， Shore of the River St．Lawrence，from Poin $t$

| Names of Places． | Fishing Boats． |  |  | Kinds of Nets Used． |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \text { Salmon } \\ & \text { Nets. } \end{aligned}$ | Brush <br> Fisheries with Nets． |  | Brush Fisheries． |  | Eel <br> Fisheries． |  |  |
|  | 安 | － |  |  | $\begin{gathered} \text { 密 } \\ \substack{⿷ 匚} \\ \hline \end{gathered}$ | $\stackrel{\dot{J}}{\dot{\Xi}}$ | 安 | $\underset{\text { ® }}{\stackrel{\text { ® }}{\text { ® }}}$ | $\dot{8}^{\circ}$ | $\underset{\text { ¢ }}{\substack{\text { ® }}}$ | \％ | $\stackrel{\text { ® }}{\text { ® }}$ |  |
|  |  | \＄ |  |  |  |  | \＄ |  | \＄ |  | \＄ |  | \＄ |  |
| Point Levis．．．．．．．．．．．．．．．．．． | 5 | 140 | 5 |  |  |  |  | 1，550 |  |  |  |  | 89 |
| Beaumont．．．．．．．．．．．．．．．．．．．．． | 2 | 140 | 3 | ． | ．．．．． |  | 3 | 1，150 |  |  | ．．．．．． |  | 124 |
| St．Michel．．．．．．．．．．．．．．．．．．．．． | 4 | 270 | 5 | ．． |  | ．．．．．． | 5 | 1，800 |  |  | ．．．．． | ．．．．．．．．．．．．． | 54 |
| St．Valier．． | 4 | 160 | 4 | ．． |  | ．．．．．．． | 5 | 5，700 | ．．．．．．． |  | ．．．．．． | ．．． | 69 |
| Berthier．．．．．．．．．．．．．．．．．．．．．．． | 4 | 40 | 15 | ．．． | ．．．．． | ．．．．．． | 2 | 1，250 |  |  | 13 | 810 | 46 |
| St．Tbomas．．．．．．．．．．．．．．．．．．． |  |  | 26 | ．．． | ．．．．．． | ．．．．．． |  |  |  | 750 | 17 | 760 |  |
| Cap St．Ignace．．．．．．．．．．．．．．． | …… | ．． | 18 | ．．． |  | …… | ．．．．．． | ．．．．．．．．．．．．．． | 12 | 437 | 6 | 265 | ．．．．．．．．． |
| Crane and Goose Islands | ．．．．． | ．．．．．．．． |  | ．．． | ．．．．．． | ．．．．．． |  | ．．．．．．．．．．．． |  |  |  |  |  |
| L＇Islet．．．．．．．．．．．．．．．．．．．．．．． |  | ．．．．．．．． | 24 |  | ．．．．． |  |  |  |  |  | 24 | 1，230 |  |
| St．Jean Port Joli．．．．．．．．．． | ．．．．． | ．．．．． | 44 | ．． | ．．．．．． |  |  | ．．．．．．．．．．． |  |  | 44 | 1， 905 |  |
| St．Roch．．．．．．．．．．．．．．．．．．．．．．． | ．．．．．．． | ．．．．．．．．． | 32 | ．．． | ．．．．．． |  |  | ．．．．． | 10 | 595 | 22 | 1，080 |  |
| Ste．Anne．．．．．．．．．．．．．．．．．．．． | ．．．．． | ．．．．．．．． | 24 | ．．． | ．．．．． | ．．．． |  | ．．．．．．．．．．． | 24 | 1，177 |  |  |  |
| Lac Trois Saumons．．．．．．．． |  |  |  |  |  |  |  | ． |  |  |  |  |  |
| Rivière Ouelle ．．．．．．．．．．．．．． | 2 | 20 | 93 | 3 | 300 | 100 | 1 | 200 |  |  | 58 | 4，595 | 200 |
| St．Denis．．．．．．．．．．．．．．．．．．．． | 2 | 20 | 31 | 3 | 150 | 50 |  |  | 5 | 400 | 20 | 740 | 175 |
| Kamouraska．．．．．．．．．．．．．．．．．． <br> do $\begin{gathered}\text { Isle aux Pa－} \\ \text { tins．．．．．．．．．}\end{gathered}$ | 2 |  | 24 |  |  |  | ．．．．．． | ．．．．．．．．．．． |  | 230 200 | 13 | 630 | 5 |
| St．André．．．．．．．．．．．．．．．．．．．．．． |  |  | 30 | ．．． | ．．．．．． |  |  |  | 7 | 840 | 17 | 585 | ．．．．． |
| Notre Dame du Portage ． |  |  | 30 |  | ．．．．．． |  |  |  | 1 | 90 | 24 | 402 | ．．．． |
| Rivière du Loup．．．．．．．．．．．． | 19 | 240 | 36 |  | erring | Nets |  |  | 12 |  | 10 | 515 | 216 |
| Cacouna．．．．．．．．．．．．．．．．．．．．．． | 12 | 120 | 10 | ．．． | ．．．．． |  |  |  | 6 | 560 |  |  | 130 |
| Isle Verte（Island）．．．．．．．．． | 37 | 370 | 41 |  |  |  |  |  | 19 | 1，585 |  |  | 130 |
| do（Mainland）．．．． | 1 | 20 | 18 |  |  |  |  |  | 11 | ＋600 | …… | ， |  |
|  |  |  |  |  |  |  |  |  |  |  | ．．．．． |  |  |
| Lake Temiscouata and Touladi River． $\qquad$ | 7 | 70 |  | 6 | $120$ |  |  |  |  |  |  |  |  |
| Pointe a la Loupe．．．．．．．．．．． | $\gamma$ | 70 | 12 |  |  | － 48 | 1 | ．．．．．．．．．．． 20 | 1 | 30 |  |  | 36 |
| Trois－Pistolcs ．．．．．．．．．．．．．． | 2 | 16 | 13 | ．．． |  |  |  | 15 | 10 | 355 |  | ．．．．．．．．．．．．．． | 82 |
| Cap a L＇Aigle．．．．．．．．．．．．．．． | 1 | 5 | 2 | ．．． |  | …．．． | 1 | 20 | ．．．．．． | 365 | ．．．．． | ．．．．．．．．．．．．．． | 50 |
| St．Simon．．．．．．．．．．．．．．．．．．．． | 2 | 20 | 9 | ．．． | ．．．．． |  | 6 | 106 | ． 1 | ……70 | …… | ．．．．． | 320 |
| Port au Pic．．．．．．．．．．．．．．．．． |  |  | 2 | ．．． |  |  |  | 20 |  |  | ．．．．． | ．．．．． | 60 |
| Pointe al la Cive． | 1 | 12 |  | ．．．． | ．．．．．． |  | 1 | 25 |  |  | ． | ．．．．．． | 40 |
| Anse a Mercier．．．．．．． | 2 | 14 | 3 | ．．． |  |  |  |  | 1 | 30 | ． |  | 60 |
| Baie de $\mathrm{Ha}, \mathrm{Ha}$ ，and Cap <br> a．l＇Orignal． | 3 | 22 | 5 | 5．．． |  |  |  |  |  | 135 | ．．．．． |  |  |
| St．Fabien and River．．．．．． |  |  | 10 |  |  |  |  |  |  | 135 | 10 | ．．．．．．．． | 55 |
| Anse au Bouleau．． | 1 | 6 | 3 |  |  | ．．．．．． |  |  | 2 | 60 | 10 | 95 | 1 |
| Cap Enragé．．．．．．．．．．．．．．．．． | 1 | 10 | 1 | 1 | 200 | 40 |  |  |  |  | ．．．．． |  | 140 |
| Islet au Flocon．．．．．．．．．．．．． | 1 | 4 | 2 | ． | ．．．．． | ．．．．． | 1 | ．1．．．．．．．． | 1 | 30 | ．．．．． |  | 125 |
| Islet $\stackrel{\text { a }}{ }$ Damour．．．．．．．．．．．．． |  |  | 2 | ．． |  |  |  |  | 1 | 20 | ．．．．．． |  | 9 |
| Islet Brulé．．．．．．．．．．．．．．．．．．． | 1 | 4 | 1 | $1 . .$. |  |  |  | ．．． | 1 | 20 | ．．．．． | ．．．．．．．．．．． | 1 |
| Islet au Massacre．．．．．．．．．．． |  | 10 | 1 | ．． |  |  |  |  | 1 | 20 | ．．．．． |  | 12 |
| Islet is Canuel．．．．．．．．．．．．．．． | 1 | 8 | 2 | $2 . .$. |  |  |  |  | 1 | 100 |  |  | 25 |
| Rivière Hítée．．．．．．．．．．．．．．． | 2 | 15 | 9 | ．．． |  | ．．．．． |  | －1．．．．．．． 50 | 3 | 130 | ．．．．． |  | 148 |
| Anse au Sable．．．．．．．．．．．．．．． |  | 35 | 17 |  | ．．．．． |  |  |  | 8 | 372 |  |  | 43 |

## 4.

SHORE, FROM QUEBEC TO CAPE CHATTE.
Number of Men, together with the Yield, Value and Kinds of Fish, on tho South Lévis to Cape Chatte, during the Year 1881.

Kinds of Fish.

|  |  |  |  |  |  |  |  |  |  |  |  | -suotibs 'itn asiodiod |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4,214 |  | 2,350 | 1 | ....... | 170 | ........ | ........... | ....... |  | . |  |  |
| 8,306 | .......... | 500 | 13 | ........ | 176 | …… | ........... | ......... | ........ | .... | ........... | ......... |
| 4,772 | .......... | 3,007 | 8 | ........ | 526 | ........ | ........... | ........ | ........ | ... |  |  |
| 4,154 | .......... | 4,306 | 20 | ........ | 914 | ........ |  |  |  | ... | . |  |
| 800 | .......... | 5,210 | 19 | ........ | 500 |  | ............ | ....... | 31 | .......... |  |  |
| ..... ...... | ........... | 3,485 | 105 | ........ | 636 | 10,900 | . | ....... | 55 | . | .......... | ........ |
| ........... | ........... | 1,653 | 107 | ........ | 216 | ........ |  |  | 44 | .......... | . | ........ |
| ............ | ............. | 14,587 10,886 | …...... |  |  |  |  |  | 71 |  |  |  |
|  |  | 17,795 |  |  |  |  |  |  | 107 |  |  |  |
|  |  | 12,837 | ........... |  |  |  |  |  | 64 |  |  |  |
| 750 |  | 9,234 | 72 |  |  | 500 |  |  | 52 |  | 5 | $3 \geqslant 0$ |
|  |  |  |  |  |  |  | 5,000 |  |  |  |  |  |
| 5,000 | 600 | 52,150 | 300 | 25 | ... | ........ |  |  | 100 | 200 | 3 | 168 |
| 7,050 | 140 | 5,010 | 12 | 175 | ... |  | ........... |  | 55 | 270 |  |  |
| 3,100 | 100 | 1,810 | 60 | 350 | ... |  |  |  | 50 | 130 | ............ | ......... |
| 4,000 | 150 |  | 10 | 125 | $\cdot$ |  |  |  | 4 | 200 |  |  |
| 1,650 | 445 | 2,370 | 100 | 330 |  |  | ............ |  | 5 | 1,050 |  |  |
| 100 |  | 1,980 | 20 | 10 |  |  |  |  | 10 | 40 |  |  |
| 6,550 | 3,055 | 1,225 | 87 | 730 | ......... |  |  |  | 630 | 2,815 |  |  |
| 2,070 | 1,250 |  | 18 | 305 | ... |  |  |  |  | 675 |  |  |
| 19,250 | 1,845 |  | 50 | 660 |  |  |  |  |  | 3,195 |  |  |
| 580 | 309 |  | 92 | 125 | ........ |  |  |  |  | 854 | . |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| ....1.100 | 60 |  |  | 5 | …....... | .......... | 5,500 |  | 2 | 25 |  | ......... |
| 304 | 804 | 300 | 12 | 99 | . | . | ............. |  | 25 | 490 |  |  |
| $20$ | 40 |  |  | 6 | ........ | .......... |  |  | 1 | 25 |  | ........... |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6 | 56 |  |  | 12 |  |  |  |  |  | 25 |  |  |
| 85 | 415 |  |  | 83 |  |  |  |  | 3 | 175 |  |  |
|  |  | 1,'765 |  |  |  |  |  |  |  |  |  |  |
| 125 | 100 |  |  | 33 | $\cdot$ |  |  |  | 4 | 145 |  |  |
| 100 |  |  |  |  |  |  |  |  |  |  |  | ...... . |
| 25 | 60 |  |  | 12 | ....... | -....... | . |  |  | 25 |  | ......... |
| 20 | 12 | 30 | ......... | 6 | ......... |  |  |  | 3 |  |  | ... |
| 10 | 16 | ........... |  | 4 |  |  |  |  | 3 | 6 | ..... | ... |
|  | 40 |  |  | ${ }_{8}^{8}$ |  |  |  |  | $\stackrel{2}{8}$ | 60 |  |  |
| 20 | 120 |  |  | 18 | . |  |  |  | 1 | 110 | .... | ....... |
| 55 | 1,400 |  |  | ${ }_{125}^{41}$ |  |  |  |  | 8 | 110 |  | ........ |
| 165 | 1,030 |  |  | 125 |  |  |  |  | 8 | 175 |  |  |

Return of Fishing Stations, Number and Value of Fishing Boats and Nets' shore of the River St. Lawrence, from Point Levis


Number of Men，together with the Yield，Value and Kinds of Fish，on the South to Cape Chatte，during the Year 1831－Continued．

Kinds of Fish．

| $\begin{aligned} & \text { 岕 } \\ & \text { 品 } \\ & \text { + } \\ & \dot{0} \\ & \dot{8} \end{aligned}$ |  |  |  |  |  |  |  |  | 呇 |  | cos |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2，000 | 550 |  |  | 100 |  |  |  |  |  |  |  |  |
|  | 2，995 | 200 | ． | 75 | ．．．．．．．． |  | ．．．． | ．． | 30 | ．．．．．．． |  | ．．．．．． |
| ．．．．．．．．．．．． | 3，070 | ．．．．．．．．．．．． | $\cdot$ | 585 | ． |  | ．．．． | ．．． |  | － |  | ．．．．．．．．． |
| ．．．．．．．．．．． | 650 450 | ．．．．．．．．．．．．．． | ．．．．．．．．．．． | 175 | ．．．．．．．．．． | ．．．．． | ．．．． | 14 | ． | ．．．．．．．．．．． | ．．． | ．．．．．．．． |
| ．．．．．．．．．．．．．． | 2，500 | ．．．．．．．．．．．．．． | ．．．．．．．．．．． | 60 55 | ．．．．．．．．．．． | ．．．．．． | ｜．．．．．．．．．． | 14 | ．． | ．．． | ．．． | ．．．．．．．．．．． |
| ．．．．．．．．．．．．．． | 2， 12 |  |  | 9 |  |  | ．．．．．．．．．．． |  |  | ．．． |  | ．．．．．．．． |
|  | 77 |  |  | 33 |  |  |  |  | 22 |  |  |  |
| ．．．．．．．．．．．． |  | ．．．．．．．．． | －．．．．．． | 82 |  | ． | ．．．．．．．．．．． | 3 | 33 | ．．．． |  |  |
| ．．．．．．．．．．．． | 73 | ．．．．．．．．．．． |  | ．．．．．．．． | ．．．．．．． | ．．．．．．．．．．． | ．． | 27 | 18 | ．．．．．．．．．．． | ．．．．．．．． | ．．．．．．．．． |
| ．．．．．．．．．． | ．．．．．．．．．．．．． |  |  |  |  |  |  |  | 7 |  | ．．．．．．． |  |
| ．．．．．．．．．．．．．． |  | ．．．．．．．．．．． |  |  |  |  |  | $\ddot{1}$ | ． | ．．．．．．．．．．．．． | ．．．．．．．．． |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| ．．．．．．．．．．． | ．．．．．．．．．．． | ．．．．．．．．． | ．．．．．．． | ．．．．．．． | ． | ．．．．．．．．．． | ．．．．．．．．．．． | ．．．．．．．． | ．．．．．．．． | ．．．．．．．．．． |  | $\ldots$ |
| ．．．．．．．．． | ． |  |  |  | ．．．．．．．．．． |  |  |  |  |  |  | $\ldots$ |
| 75，377 | 22，482 | 152，685 | 1，105 | 4，458 | 3，138 | 11，400 | 10，500 | 46 | 1，418 | 10，730 | 8 | 488 |
|  |  |  |  |  |  |  |  |  |  |  |  | 480 |

## RECAPITULATION.

Yield and Value of the different Fisheries from Point Lévis to Cape Chatte in 1881.

erRetorn of Fishing Stations, Number and Value of Fishing Boats and Nets, Number of Men, together with the Yield, Value and Kinds of Fish, \&c., within the Districts on the North Side of the River St. Lawrence, from Quebec to Bersimis, during the Year 1881.


Return of Fishing stations, Number and Value of Fisbing Boats and Nets, Numler of Men, together with the Yield, Value and Kinds of Fish, \&c., within the Districts on the North Side of the River St. Lawrence, \&c.- Continued.



## RECAPITJLATION.

Yield and Value of the different Fisheries from Quebec to Bersimis in 1881.


## Return of Fishing Stations, Number and Value of Fishing Boats and Nets, Number of Men, together with the Yield, Value and

 Kinds of Fish, \&c., within the District extending from Quebec to the Upper Ottawa, during the Year 1881.

## RECAPITULATION.

Yield and Value of the different Fisheries in the districts above Quebec for the Year 1881.


SYNOPSES OF FISHERY OVERSEERS AND GUARDIANG' REPORTS IN THE PROVINCE OF QUEBEC, FOR THE YEAR 1881.

## SOUTH SHORE DIVISION, FROM POINT LÉVIS TO CAPE CHATTE.

(Clovis Caron:-Point Lévis to River Ouelle. | Jules Gautread:-River Ouelle to 1sle Verte.<br>Overseers. $\quad\left\{\begin{array}{l}\text { Hermenegilde Martin :-Isle Verte to Rimouski. }\end{array}\right.$<br>1 L. E. Grondin :-Rimouski to River Blanche.<br>(Vital Charest :-River Blanche to Cape Chatte.

The following comparative table exhibits the yield and value of the Fisheries in this Division:-

| Kinds of Fish. | 1880. |  | 1881. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantities. | Value. | Quantities. | Value. |
|  |  | \$ cts. |  | \$ ets. |
| Codfish........................................ Cwt. | 580 | 2,320 00 |  |  |
| Shad.......................................... ... Pieces. | 43,267 | 2,163 35 | 75,:77 | 6,783 93 |
| Herring ........................................ Barrels | 21,218 | 84,87200 | 22,483 | 112,410 00 |
| Salmon................ ....................... Pieces. | 4,738 | 4,738 00 | 3,297 | 4,945 50 |
| Sturgeon ............. ............... ....... Barrels | 686 | 3,430 00 | 1,105 | 5,525 00 |
| Bar and Whitefish............................ Dozen. | 2,727 | 2,727 00 | 3,138 | 3,922 50 |
| Bar Fish........................................ Lbs. | 29,000 | 1,450 00 | 11,400 | 91200 |
| Sardines................ ....................... Barrels | 3,755 | 11.26500 | 4,458 | 13,374 00 |
| Eels ...........................................Pieces. | 233,459 | 23,345 90 | 152,685 | 15,268 50 |
| Small and Mixed Fish ...................... Barrels | 1,01,8 | 2,016 00 | 1,418 | 2,836 00 |
| Mackerel ...................................... do | 371 | 3,710 00 | 46 | 46000 |
| Grey and Speckled Trout...... ........... Lbs. | 10,000 | 50000 | 10,500 | 84000 |
| Porpoise Skins .................................. Pieces. | -68 | -26400 | 8 | 3200 |
| Oil $\qquad$ Gails. | 3,580 | 1,790 48 48 00 | 488 | 24400 |
| Cod Oil...... .............................. do do | 120 10 | $\begin{array}{r}48 \\ \hline\end{array}$ |  |  |
| Fish used as manure........................ Barrels | 10,327 | 2,581 75 | 10,730 | 2,682 50 |
| Total Value.. |  | 147,221 00 | ................ | 170,235 93 |

The catch show.s an increase in the following kinds of fish :-

|  | Shad. | Herring. | Sturgeon. | Sardines. |
| :---: | :---: | :---: | :---: | :---: |
| 1880 .............. | 43, 267 | 21,218 | 686 | 3,755 |
| 1881 ............... | 75,377 | $22^{\prime 2}, 48$ | 1,100 | 4, 5 5 8 |
| Increase..... | 32,110 | 1,264 | 419 | 703 |

And a falling off in the following:-

|  | Salmon. | Eels. | Bar-fish. | Mackerel. |
| :---: | :---: | :---: | :---: | :---: |
| 1880 .............. | 4,738 | 233,459 | 29,000 | 371 |
| 1881 .............. | 3,297 | 152,685 | 11,410 | 46 |
| Decrease .... | 1,441 | 80,774 | 17,600 | 325 |

Overseer Caron explains the falling off in his division by continued droughts and the high temperature of water. The scarcity of salmon and eels is abundantly counterbalanced by the increase in shad, which yielded one hundred per cent. more than last year.

Overseer Gauvreau reports the catch of fish about the same as last year. Shad and stuigeon were abundant, but salmon and eels yielded less than formerly; this the overseer accounts for by unfavorable weather.

Overseer Martin reports an almost complete disappearance of salmon, although these fish were abundant in 1878. Shad were more numerous than ever. Sardines and other small fish were pleutiful; a slight falling off being however noticeable in herring. This was caused by delay on the part of fishermen who, being engaged working at their farms when the fish struck, lost the best part of the season.

Overeeer (irondin reports sardine and herring on the increase with a noticeable falliug off in salmon and mackerel, owing to strong winds prevailing during most of the finbing eation.

Orerorer harest reports a general falling off. This he attributes to the fishing grounds being frequented by achools of porpoises. Thirty-six salmon were caught with the fly in Matane River, the largest weighing $24 \frac{3}{4}$ lbs. No spearing was attempted this year. This was evidently due to the stringent measures adopted against puachors in previous seasons. A horse-mackerel weighing 300 lbs . was caught in a fancine tishery.

## FROM QUEBEC TO BERSIMIS.

The following statement shows a slight falling off in the yield of the following kinds of fish:-

| Salmon. | Herring. | Trout. |
| :---: | :---: | :---: |
| 1881................... غ34 | 68 | 317,600 |
| is80.................... 876 | 96 | 378,950 |
| And a marked increase in- |  |  |
|  | 1880 | 1881 |
| Shad, pieces.. | .. 1,536 | 4:050 |
| s:urdines, brls | .. 67 | 190 |
| Winvonish, pieces | .. 24,736 | 36,600 |
| Eels, pieces........ | .. . 39,070 | 49,124 |
| Bar and Whitefish, doz. | .... 1,931 | 2,132 |
| Sturgeon, brls .. | 7 | 31 |
| Mixed Fish, brls. | 589 | 685 |

## QUEBEC AND MONTMORENCY DIVISIONS.

L. P. Hoot, Overseer.

The following is a comparative statoment of the Fisheries in this Division :-

| - | 1876. | 1877. | 1878. | 1879. | 1880. | 1881. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Salmon............................ No. | 52 | 135 | 100 | 150 | 60 | 195 |
| Shad..... ......................... " | 2,450 | 1,500 | 1,000 | 500 | 1,460 | 4,050 |
| Eels ................................ | 8,628 | 14,676 | 24,042 | 17,203 | 20,735 | 25,767 |
| Sturgeon ......................... Brls. | 18 | 14 | 12 | 34 | 13 | 31 |
| Bar and Whitefish ......... ..... Doz. | 338 | 192 | 591 | 797 | 707 | 1,293 |
| Small Fish ..................... Brls. | 51 |  | 92 | 125 | 96 | 52 |

MURRAY BAY DIVISION.
Ulysse Bheredr, Overseer.
$\left.\begin{array}{l}\text { Ant. Filion, } \\ \text { Jos. Simard, }\end{array}\right\}$ Wardens. E. Tremblay,
The catch of fish in this division is given as follows:-
No, of Eels ..... 22,757
do Ibs. Trout. ..... 57,200
do Salmon ..... 55
do brls. Sardines ..... 178
do do Herring ..... 1
do do Small and Mixed Fish ..... 42
do do Fish for manure ..... 876

A few slight violations of the law were detected by Overseer Bhéreur and speedily punished.

## SAGUENAY DIVISION.

Josepf Radford, Overseer.
$\left.\begin{array}{l}\text { Jos. Boilp, } \\ \text { Jacques Girard, }\end{array}\right\}$ Wardens.

The yield of fisheries in this division is reported as follows :-

$$
\text { No. of Salmon ............................................................. } \mathbf{5 8 4}
$$

do Eels ..... 600
do lbs. Trout ..... 250,000
do brls. Sardines ..... 12
do do Herring ..... 67
do do Small Fish ..... 328

The following is the score of Angling in the Saguenay Rivers for the past six years:-

|  | 1876. | 1877. | 1878. | 1879. | 1880. | 1881. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| River Ste. Marguerite, N.W. Branch | 25 | 159 | No returns | 51 | 16 | 22 |
| do N.E. Branch. | 49 | 46 | 63 | 34 | 9 | 8 |
| River à Mars ............................. | 57 | 51 | 28 | 3 | 3 | 37 |
| do Anse St. Jean.................... | 25 | ${ }^{8}$ | 3 | 9 | 6 | 5 |
| do Petit Saguenay................... | 14 | No returns | 7 | 16 | 8 | 1 |
| do Laval.............................. | 6 | Notangled | Notangled | Notangled | Notangled | Notangled |
| do du Gouffre .......................... |  | do ... | - 7 | 5 | do ... | $\mathbf{3}$ |
| do Murray ............................ |  | do ... | - 8 | 3 | 3 | 3 |

Overseer Radford states that salmon net-fishing was very poor, even worse than in 1880. Trout tishing was good, especially in the Saguenay River and its tributaries. Owing to remunerative prices and the great demand for mill hands, fewer people than heretofore were engaged in fishing. This accounts for the small quantity of herring and sardines eaught. The different w:rrdens report having seen large numbers of breeding fish on the spawning beds, especially in the Little Saguenay and Ste. Marguerite Rivers.

## LAKE ST. JOHN DIVISION.

\author{
Job Bilodeaj, <br> $\left.\begin{array}{l}\text { Chas. Potvin, } \\ \text { R. Maltais, }\end{array}\right\}$ Wardens.

}

The yield of fisheries in this division is stated as follows:-

|  | ish. | fisb. | sed Fish. |
| :---: | :---: | :---: | :---: |
| 1880 | No. 24,736 | 1,149 doz. | 244 brls . |
| 1881. | do 36,600 | 835 do | 263 do |

The officers report a steady increase in winnonish. This they attribute to fishermen better appreciating the beneficial effects of the close season and the wisdom of the measure adopted by the Department in limiting this kind of fishery to hook and line fishing and compelling all parties to take out licenses. This is done to regulate fishing and to prevent encroachments and abuses by foreigners, who, under pretence of sport, used to catch large quantities of this delicious fish for the American markets. The license system has put a check on these operations and given greater security to residents and to Canadian anglers. A few violations of the law were detected and the guilty parties punished by the loss of their seines and the imposition of fines.

## FROM QUEBEC TO THE UPPER OTTAWA.

Tue following comparative table shows the approximate yield and value of the Fisheries in these districts :-

| Kinds of Fish. | 1880. |  | 1881. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantities. | Value. | Quantities. | Value. |
|  |  | \$ cts. |  | \$ cts. |
| Shad. | 8,420 pieces.. | 42100 | 37,550 pieces... | 3,379 50 |
| Eels. | 137,062 do . | 13,706 20 | 131,458 do . | 13,145 80 |
| Sturgeon | 195 barrels.. | 97500 | 149,400 lbs ...... | 7,470 00 |
| Whitefislı | 3,100 dozen.. | 3,100 00 | 46,620 do ...... | 3,729 60 |
| Tom Cod. | 10,000 bushels. | $5,0: 000$ | 6,890 barrels. | 10,335 00 |
| Trout ........ | 230,400 lbs .... | 11,520 00 | 224,942 lbs..... | 17,995 36 |
| Maskinonge. | 3,650 pieces.. | 3,650 00 | 127, 160 do ...... | 3,729 60 |
| Bass.......... | 1,050 barrels.. | 8,40000 | 161,950 do ...... | 9,717 00 |
| Pickerel | 973 do . | 7,784 00 | 252,100 do ..... | 15,126 00 |
| Pike......... | 975 do | 7,800 00 | 295,200 do ..... | 14,760 00 |
| Mixed Fish. | 15,305 do | 30,610 00 | 1,349,400 do ...... | 26,988 00 |
| Total Value. |  | 92,966 20 |  | 130,275 86 |

RICHELIEU DIVISION.
$\left.\begin{array}{l}\text { Pierre Latraverse, } \\ \text { J. F. Picotin, }\end{array}\right\}$ Overseers.
The yield of fish in this division is given as follows:-
No. of Shad ..... 6,000
do Eels ..... 14,600
do lbs. Sturgeon. ..... 20,000
do do 'I'rout ..... 240
do do Whitefish ..... 1,200
do do Maskinongé ..... 1,500
do do Bass ..... 1,800
do do Pickerel ..... 26,000
do do Pike. ..... 15,400
do do Mixed fish ..... 50,000
CHAMBLY AND IBERVILLE DIVISIONS.
$\left.\begin{array}{c}\text { H. W. Austin } \\ \text { J. B. Chetalier }\end{array}\right\}$ Overseers.
The catch of fish in this division is reported as follows:-
42,5:50
No. of Eels
800
do lbs. Sturgeon
5,400
do do Bass
5,100
5,100
do do Pickerel.
do do Pickerel.
16,800
16,800
do do Pike
do do Pike ..... 77,800
CHATEAUGUAY AND BEAUHARNOIS DIVISIONS.
Joachim Laberge,
$\left.\begin{array}{l}\text { Wm. Clyde, } \\ \text { J. B. McMillan, }\end{array}\right\}$ Overseers.
The following statement shows the approsimate catch of fish in this division : -
No. of Eels ..... 3,320
do lbs. Sturgeon. ..... 88,000
do do Maskinongé ..... 112,000
do do Bass. ..... 106,000
do do Pickerel ..... 65,000
do do Pike ..... 85,000
do do Mixed Fish ..... 120,000
MISSISSQUOI BAY DIVISION.
P. E. Loke, Overseer.

Comparative Statement of the yield of the fisheries in this division:-


## MAGOG DIVISION.

## N. A. Beach, Oversepr.

It having been found necessary to dispense with the services of the former Overseer, Mr. J. P. Williamson, Mr. Beach was appointed in his stead. The change has proved beneficial.

The catch of this division is stated to have been as follows:-
No. of Shad 5,000
do lbs. Trout..... ........ ..................................... 6,000
do do Mixed Fish............................................ 3,000

## SHERBROOKE AND LAKE MEGANTIC DIVISIONS.

\author{
$\left.\begin{array}{l}\text { W. C. Willis, } \\ \text { J. B. McDonald, }\end{array}\right\}$ Overseers.

}

Overseer Willis reports fishing good in the Sherbrooke Division. The fishery laws were strictly enforced and several fines imposed. Trout fishing with the fly on the Magog River is reported to bave been fair. Large quantities of pickerel were eaught in Magog Lake. A mill dam built at the outlet of Magog Lake has been provided with an efficient fishway. It had the effect of keeping the water at a proper level and affording an easy passage to fish. Large numbers of salmon were noticed in the vicinity of Lennoxville on the St. Francis River. Three boats, five nets, four night lines, one spear and a number of hooks and lines were confiscated during the season by Overseer Willis for being illegally used.

Overseer McDonald reports lunge on the increase in Lake Megantic since the use of nets is prohibited. He complains that settlers take no interest to protect fish during the spawning seasons. Trout fishing was very fair, especially on the Chaudiere River.

## THREE RIVERS DIVISION.

A Finhery Oversoor will soon be needed in this dipision. Mr. Austin, who had chare of it this season, estimates the yield of fish as follows:-
No. of Shad..................................... ........................ 16,000
do Eols................. ................ ........ ........... 24,000
do brls. Tom Cod........ ...................................... 6, 890
do Ils. Trout..................................................... 3,500
do do Maskinongé .......................................... 1,200
do do Whitefish ........................ ................... 3,000
do do Bass..................................... ............... 5, 5,000
do do Pickerel ...... .......................................... 26,000
do do Pike .......................... ............................. 18, 0.00
do do Mixed Fish ............ ................................ 84, 800

## BERTHIER AND JOLIETTE DIVISIONS.

## $\left.\begin{array}{l}\text { O. Lafleche, } \\ \text { M. Hurteag, }\end{array}\right\}$ Overseers.

The catch of fish in this division is estimated as follows:No. of Shad -6,500
do Eels ......................................................... 20, 300
do lbs. Trout ... . .......................................... 51,152
do do Whitefish .......... ....... .......................... 13,920
do do Sturgeon. ............................................... 27,600
do do Maskinongé................................ ......... 5,050
do do Bass .............................. ...................... 5,400
do do Pickerel................................................ 31,000
do do Pike.................................. ................. 18,400
do do Mixed Fish............. .............................. 814,400
MONTREAL DIVISION.
John Morris, Overseer.
Comparative Statement of the Yield of Fish in this division.

| - | 1879. | 1880. | 1881. |
| :---: | :---: | :---: | :---: |
| No. of Eels............................................................. ...... | 11,000 | 10,200 | 13,600 |
| do Maskinongé .................................... ............... | 150 | 272 | 3,500 lbs. |
| do brls. Bass....................................................... | 100 | 70 | 14,000 do |
| do do Pickerel......... ................................. ........ | 100 | 80 | 21,200 do |
| do do Pike............................................... ........ | 100 | 70 | 18,600 |
| do do Mixed Fish .............................................. | 1,400 | 320 | 85,200 do |

## TERREBONNE DIVISION.

$\left.\begin{array}{l}\text { Joseph Ladzon, } \\ \text { L. J. Loranaer, }\end{array}\right\}$ Overseers.
The following is given as the yield of fisheries in this division:-
No. of Eels ............................. ............................... 2,088
do lbs. Trout.................................................. 9, 500
do do Bass..................................................... 7,000
do do Pickerel . ............. .............................. 8,200
do do Pike................... ................................ 12,400
do do Mixed Fish....... . ..... . .......................... 25,000

## LAKE OF TWO MOUNTAINS AND LOWER OTTAWA DIVISIONS.

$\left.\begin{array}{l}\text { Jos. L. Lamoureux, } \\ \text { Robert W. Jones, }\end{array}\right\}$ Overseets.
Statement of the yield of fisheries in this division :-
No. of Eels.............................................................. 8,000
do lbs. Maskinongé........................................... 1,560
do do Bass ................................................... 2,600
do do Pickerel............................................... 7,60. 600
do do Pike .............. .................................... 52,000
do do Mixed Fish......................................... 29,000
UPPER OTTAWA AND GATINEAU LAKE DIVISIONS.
$\left.\begin{array}{l}\text { Joseph Marion, } \\ \text { James Mohr, } \\ \text { J. T. Coughlan, }\end{array}\right\}$ Overseers.
Estimated Statement of the Yield of Fish in this division.


No. 5.

## PRINCE EDWARD IডLAND.

Alberton, 1st December, 1881.

## To the Hon. the Minister of Marine and Fisheries.

Sir,-I have the honor to tranemit tabular returns showing the quantities taken and estimated values of the fisheries in Prince Edward Island waters during the past fishing seavon of 1881, to date, together with the number of men, and number and value of boats and outfitemployed therein. Reports are also presented showin features of the respective fisheries.

## SUMMARY.

Prevalence of northerly and north-casterly winds have been unfavorable to the fisheries.

Compared with average years, and especially with the unprecedentedly large catch of lant rear, the mackerel fishery this seaton has been a failure as regrards the quantity taken. While 1880 produced the very high result of : 2,550 barrelr, $185^{\circ} 1$ can only show 36,083 barrels. Last year the quality;was of the most inferior description, and prices were of the lowest; this year the general quality is good, and the prices are unusually high. It is believed the fishermen with their diminished catch will net as much in actual cash as with the almost unsaleable superabundance of last year. A large advance has been made in the quantity of mackerel canned; last year 6,960 cans, this year 228,953 , which adds about 2,500 barrels to the fishery, making a total of 38,583 barrels.

The fishery of cod has in like manner fallen off more than one-third; hake about the average of last year. In 1880, 28,045 cwt. of cod and 8,213 cwt. of hake. In $1881,16,934 \mathrm{cwt}$. of cod and $8,023 \mathrm{cwt}$. of bake, being a decrease of cod and hake together of $11,301 \mathrm{cwt}$. This has proportionately reduced the yield of fish oil, although apparently not of dried tongues and sounde.

Herring show an increase of 6,425 barrels; total catch, $\mathbf{3 4 , 4 4 5}$ barrels. Of the whole quantity taken about 20,000 barrels were used as bait, and only 4,500 preserved for food. Of alewives or gasperaux, $6 \sim 0$ barrels of the total 1,917 taken were for food, the remainder for bait, or about the same quantity as last year, notwithstanding which gasperaux continue to ebb gradually out of the list of island products.

More men have been engaged on the water the past season, but the distribution of labor has been different. It is not to be inferred that the deep-sea fisheries have fallen off in productiveness, but they have been less pursued. Explanations are given under the respective headings of this Report.

Lobster fishing has suddenly increased to colossai proportions, and now ranks first of the Island's fishing industries. Within a few months the canning factories have increased in number from fifty-six to one hundred and eighteen, and more are being built. Many of the occasional fishermen have been attracted by the higber ready-money wages offered at the lobster factories. In 1880 were produced $3,551,050$ cans; this year $6,312,865$ cans, being an increase of $2,761,815$ cans. At the estimate generally accepted of four and one-third fish to a can, these figures represent the enormous catch of $27,355,748$ lobsters. The increase alone of 57,537 cases of four dozen cans over last year, valued at the very low wholesale prices now current, reaches $\$ 259,793$ cash receipts, or, if estimated at the
standard official rate, would be set down at $\$ 556,363$-a som which more than compensates for the deficiency of the year's fishery of mackerel. An additional number of fishery wardens is demanded by this increase in the lobster fishery. Twenty-four factories are situate in districts in which are no wardens. The lobster fishery must be considered as adding 1,500 men to the fishermen afloat.

Oysters have been in demand for export at prices higher than the average, consequently the fishery has been actively pursued. Total taken 20,815 barrels, a slight increase over last year. With care this fishery might be further extended. Charts of existing beds and of grourds where new beds might be planted have been forwarded to the Department.

The fish of the creeks and streams (with the exception of 5,005 pounds less salmon) show a considerable increase, the result, it is believed, of the past turee year's careful protection:

The yield of the respective fisheries may be thus summed up: Fish of the streams, $\$ 4,333.80$; of the coast, $\$ 7,187.25$; of tho deep sea, $\$ 618,730$; shell fish, $\$ 1,339,018$.

## SECTION 1, FISH OF THE STREAMS.

Having last year sent in an elaborate statement touching all the fisheries of the Province, l shall be careful to avoid repetition excepting by reference to the printed pages of previous reports.

## RESERVED AND OTHER RIVEBS.

The rivers reserved for the natural and artificial propagation of fisb are the Dunk River, on which is the salmon hatchcry, the Winter, Morell and Midgell, to which I should like to add the Marie.

Unreasonable outcry is sometimes made that there is little probability of the fish in the streams being restored to a like countless abundance as in the early days of settlement. Probably not. When cultivation was young the streams were deeper and shaded by trees, the current puro, the ground to the wator's edge covered with sward, insect and other foods that hatch in torests and become scarce as the woods fall were plentiful, few or none of the fish themselves were abstracted by their archenemy man, and all the conditions of fish-life were in their fullest development. The axe and plough have changed all that. Trout do not thrive comfortably unless in pure water, not warmer than seventy degrees. Now, as the rivers run for miles at a heightened temperature between banke, denuded of trees, exposed to the sun, shoaled by the tricklings from farms, muddied by the washings of roads, paved with sunken water-sodden slicks, that no one took the trouble to remove, and which the diminished curvents are not strong enough to wash out to sea, it is not to be complained of that the quantity of trout and salmon have fallen away, even without the added nuisances of poachers and saw-mills. All that can now be done is to attempt to restore the streams to the extent of their present capacity, and to this end the fishery officers have addressed themselves.

A letter of enquiry sent to all the River Wardens contained these queries: "Are trout more plentiful than three years ago? Is poaching nearly stopped?" Fourteen of the Wardens answered definitely: "Trout are more plentitul;" five others say, respectively, "considerably more; much more; quite perceptibly more; fifty per cent. more;" four report no improvement; and in the district of Crapaud, to which a warden has been recently appointed, trout are stated to be fewer than they were three years ago, which may safely be set down to want of protection during that period. Twenty wardens report poaching as stamped out; one, "nearly so;" and one, Mr. Dingwell, Morell, "to a great extent." From these authenticated reports it will be seen that the service is accomplishing the objects for which it is kept up. In some of the wilder parts of the Island the people have still need of information as to the supervision of the Fishery Department over the running streams.

Settlers, who, from childhood, have been accustomed to draw on the water at all seasons for all the fish they needed, cannot understand what they call "new laws" of protection. It is difficult to bring before their minds that tish of the streams are not ferce nature but are either public or private property, and as such are amenable to protection in like manner as any other property. The people of Prince Edward Island are, however, a law-abiding people, and no more trouble has been met in dealing with even the least intelligent than might have been anticipated.

Notwithstanding that there has been rather less engling owing to unfavorable fishing weather, the catch of trout has considerably exceeded that of last year. The very considerable take of 19,830 pounds, or about three tons to each of the three counties, all the product of hook and line, as against 10,110 pounds last year shows, at least, that the streams are becoming more productive. The increase is more in weight than number, and does not represent anything like the full capacity of the waters, being, as it is, merely the recreation of persons who have but little leisure. It may, however, be said that angling is a favorite pastime of the Prince Edward Islander, and almost every man who can spare a day on the water takes it. One hundred and forty-five gratuitous "passes" to angle in the reserved rivers were current the past season. Of these some were for one day, others for the season, but were probably used only a few times. A few exceptionally large trout were taken by bait, noticeably one or two in Pisquid Lake, and one in Wheatley River. These, of course, are no criterion as to average size, but equally, of course, were made much of by their captors. A number of American anglers, with the very newest and most elaborate thing in rods and flies, tried our waters and seem to have had fair sport, without any complaint reaching me, except in one instance, of overfishing.

The numbers of spawning fish that have come up the reserved rivers indicate a good year for salmon generally. The number observed would make a full average of any year previous to last year, which was exceptionally poor. A few have been noticed in the West River at Bonshaw, also in Wheatley River and Trout River, lot fourteen, and passing up the new fish-way in the Montague River. The Wardens on the reserved rivers cannot do justice to themselves or to their duties without boats. Two light dores are wanted on the Morell, namely, one at the Forks for general use of the three Wardens on the upper stream, and one above the floating bridge for use of Warden Dingwell. This last is especially required, as in his district the best angling part of the river flows three miles through forest and islets of tall reeds where it is impossible to reach the banks on foot, so that, with the best intentions, Warden Dingwell can only detect poachers if he happens to see them land. Indeed, in a canoe trip I made over the ground I found in the best fishing places several netstakes that looked suspicious. It might be well to have a light skiff on Winter River. Dank River has been supplied with a serviceable craft.

A high mill-dam completely blocks the Marie River, King's County. A fish-way has been ordered for next season in this dam. When I have seen what is the effect of the fish-way, I may submit to the Department a recommendation that the Marie be reserved.

FISH-WAYS.
Observation has shown that no one form of fish-way is suitable for every dam, hence the adoption of one uniform shape is a mistake. The principle being established, an adaptation is easily made to suit requirements. The expensive fishways in use on the continent are on too imposing a scale to suit our petty streams.

This being the case, I have endeavored to design a fish-way of the simplest structure, and of the least possible cost, to suit our little rivers and the little money value of most of our mills. The features sought were : that it could be cheaply built without other labour than that of the ordinary mill hands; economy of water; ease of current, with as little eddy in the backwater as may be, and such a rush at the outlet as will guide the fish into the way. The design has answered expectation. A
simple gralation of the bulkheads to each other on an inclined plane of one in ten, even without cross-checks, produces an eany flow, while the width of four feet with ten inches depth and twelve to sixteen-inch openings, expends no unnecessary waste of water. Four of these were permanently opened this year, having been held over since 1880 on account of the famine of water in that year. Unfortunately, the best of the ladders, that of Messrs. McDonald and McKenzie, Montague River, King's County, built even better than the specification, was carried away, together with the mill-dam, by the bursting of an upper dam. The way answered its destined purpose fully while it stood, and will be rebuilt. Trout, in quantity, have been observed passing up the ladder in Trout River, Lot 10, Prince County, in which stream salmon fry were last year deposited. Of the ladder at Keith's Mills, on Brown's Creek, a branch of the Montague, Warden Reilly writes:-"Since the entrance chancel was doepened I have scen as many as thirty-five large trout in the fish-way at onco. The fish are going up by the hundred, and yesterday (9th Nusember) I saw a few salmon making their way up. I have no doubt they are up the inh.way before now."

The construction of other fish-ways on suitable streams will be suggested to the Department in due season.

It is difficult to persuade the many that sawdust and buckwheat hulls, \&c., are injurious to fish. Indeed, it has been argued with me that sawdust is favorable to trout. Some of the millers are especially dull in comprehending that the running water is not theirs, and that they are bound to deliver it to those below the mill in the same coudition of purity in which it was received from above. A circular sent last spring to saw-millers requiring that after the lapse of fourteen days from date no sawdust or other rubbish must be permitted to drift into streams, has had a favorable effect. Although a good deal has been done in checking the practice, much remains to be done, and I take the opportunity of thanking those millers, who, at considerable trouble and expense, have complied with the regulations. Seventeen of the wardens report their districts free from sawdust; two partially free, while others bave considerable trouble, for there is no doubt that some millers' men, taking advantage of high tides, turn in their accumulated heap and thus get rid of it by its being drifted out to sea. It is difficult to prevent this unless one lived on the spot, but even that is better than a continual dribble of sawdust the year round. On the whole, it may be said that the mill nuisance is begimning to be kept in check. The protection of streams from defilement is in reality a matter of police, and should be Letter attended to than it is by the local magistrates.

## OARP.

The scope of the Fisheries Department may be considered to be the introduction and prescrvation of food-fishes, or of such as are of use for economic purposes. No "introduction" (except the hatching of salmon may be so called) has yet beon made into this Provinco.

The United States, ever in the van of progress, have for some time past, given attention throngh their general government as well as through most of the individual States, to the introduction of a large table fish of the same family as the common goldfish, namoly, the German carp (cyprinus carpio) from the fish ponds of Europe. The success is roportod as remarkable. Tons of thousands now boing distributed from the breeding-ponds at Washington are the product of 130 fish imported five years since.

The flesh of the carp takes the royal rank among the perch tribe that salmon does among the salmonide. The fish is of great fecundity, easily propagated, and its growth is rapid. It does not require running water, but will thrive and multiply in any pond of half an acre extent that does not dry up or freeze to the bottom. Spring is the spawning time, and the fish hybernate on the mud in winter. A summer temperature of about $66^{\circ}$, or that of our months from the ond of May, suits it well, and in milldams or artificial ponds a pit sunk in the centre is sufficient to preserve
from frost. Boing a vegetable-feeder it is easily fed by scraps from the farm. Where vegetation is scarce the wild rice of the Canadian lakes-which I observe is advertised for sale at $\$ 2$ per bushel by Mr. Gilchrist, one of the Ontario fishery inspectorsif sown in the ponds would supply it. Under proper conditions, carp should grow, even in the climate of Prince Edward Island, to the weight of three to five pounds in four years from the egg. Says the American Agriculturist" the introduction of this new food-fish will be of great interest and importance to all inland communities, for there is no ditch, pond or milldam, or any boggy, muddy spot which can be converted into a pond in which they will not thrive. It will be strange if, within twenty years, carp do not become as common domestic animals as ducks or pigeons."

The existing ponds in this Province, twenty-two in number, (besides $350 \mathrm{mill}-$ dams) more or less suitable for carp culture, cover an area of about four hundred acres, or sufficint to render an experiment trustworthy. There are as yet no private fish ponds, although many might be made were the attention of persons having means and facilities directed to the subject.

I have devoted some space in this Report to the carp, as it is evidently the "coming" domestic fish, and we Islanders would like to share in the benefits of its early introduction.

## STARCH FAOTORIES.

In accordance with orders, I have visited the factories for the manufacture of potato starch, of which there are seren in more or less operation. This is a new industry here. The result of observation is that the factories will do much less injury to the small streams on which they are built than was at first apprehended. They work only during a brief period of the year. On an average 75 per cent. of the raw potato is wator and the remaining 25 per cent. dry matter. Of one hundred parts of the dry basis about sixty-two are farina and (although not a part of the presont process of manufacture) science can extract 25 per cent. more of proteinic and other matter, leaving a residuum of only about 13 per centum of woody fibre. In like manner as the debris of lobster factories, which until recently was a nuisance, has now become of marketable value, it is quite probable that the waste material of the potato may, by-ind-bye, be profitably utilized. Care has, meantime, been taken that starch factories, or any other erections on streams, do not slip from under the supervision of the Department.

## SECTION 2.-FISH OF THE COAST.

## SALMON.

Estimated take last year, 7,550 pounds; this year 2,545 pounds, a decrease of $\mathbf{5 , 0 0 5}$ pounds, being chiefly at St. Peter's. Continuous northerly winds kept the catch small.

As stated in previous Reports there are, as yet, few places where salmon are fished on the Island coast. The principal of these are within a range of thirty miles along the north shore of King's county from west of Savage Harbor, eastward to beyond Naufrage, but chiefly around St. Peter's Bay. Salmon fishing is not followed as a regular pursuit, but every year the owners of boats in the district catch what they can with the imperfect appliances at their command. There are no stake or other fixed nets. Anchored gill-nets, of no great stretch, are set from boats when appearances indicate that fish may be taken. No stations are claimed, but the fishermen fish wheresoever they will and (as they are beyond the reach of being checked) with any size of meshes they choose. I fear the result is that many small fish are taken. This year all persons proposing to fish for salmon were required to take out licences, which were issued gratuitously, and thus one step has been taken towards bringing the fishery within the reach of the fishery officers. No salmon-angling.

There seems no reason, excepting the want of better means, why a productive fishery should not be established on that part of the shore above referred to. A glance at the coast of New Brunswick, where at Gaspe and elsewhere the map is obscured with salmon stations, raises the question why are no similar stations on the Prince Edward Island shore? The few caught by the rude methods at present in use show that fish really are here in greater or less quantity, and in a short time when the $1,300,000$ of fry already sent out from the hatchery return grown, the number will be increased many fold. It would, therefore, seem advisable to anticipate the return of the matured fish by laying off regular fishing stations where they might be caught and turned to account. As a set-off against this it has to be borne in mind that the number of fish that approach the shore near the outlets of our comparatively small streams is nothing like so great as off the larger rivers of New Brunswick. As a beginning a certain number of stations might be laid off on the north shore of King's County, and the leases be put up at auction for a brief term of years. This would serve as the nucleus of a permanent and legitimate fishery, and would, at the same times introduce an industry worthy of the name. The sites could be surveyed and laid off, at little expense, by the present local fishery staff. Although only a trifling revenue would at first be derived, the stations would probably all be taken up and would be worked in partnership or by means of small joint-stock companies. As our people are a proverbially imitative race, the success of one or two would induce applications from others, until eventually many places of the coast would be occupied. Something of the kind is wanted.

An application has been forwarded to the Department requesting lease of a salmon fishing station on and around Indian Island, Bedeque Bay. This enterprise, if gone into, will likely prove either a fair success or a sigual failure. It is not certainly known whether or not the locality is a special haunt of salmon, and it may be doubted whether the proximity of the breeding-river Dunk, up which gravid fish go in October and November, is any guarantee that clean fish will be found in more than nsual quantity off the estuary during the fishing season of summer. If this station is occupied it will probably be worked to the best advantage.

The other places where stations might be assigned are Cascumpec Harbour, Kildare Capes, and it may be Tignish, Princu County, with perhaps one or two on the east coast of King's County. Stray fish have been observed making their way up several of the streams this fall,-an indication that fish ladders are needed.

The few salmon taken were used fresh or offered in market; prices about 12 cents per pound. Average weight, ten pounds.

## gaspereaux (alewives.)

Alewives shuw no improvement over the very small catch of last year, the total take of the year being only 1,917 barrels, of which only 500 barrels were for food, the remainder being bait for othor fisheries. It must not be considered that the small quantity taken is a measure of the capacity of the waters. Were a market to spring up double the quantity could be taken although the fish are very much scarcer than they were a few years ago. There being no export there is no demand, and only enough are fished for present needs, say a few for domestic supply and such quantity as may be wanted for bait. Nevertheless, a good catch of alewives is a matter of importance, they being the only fresh cod-bait obtainable after spring herring leave the coast. In Vernon and some other rivers they were observed in some quantity, but were suffered to go unmolested. This year they seem to have partially abandoned their former haunts. North Lake, King's County, good for 3,000 barrels in the days of export and more recently for 800, shows only 600 barrels taken in thirty nets of thirty fathoms each. Cousin's Pond, Queen's County, the second best locality, which in last return was set down for 200 barrels, has only produced forty barrels, although a spocial watchman was appointed at a cost of $\$ 30$. On the other hand, Blooming Ponds, near Tracadie, Queen's, which have been partly silted up for some years, were this season crowded with alewives as far up as the water would allow,
causing thereby some small troubles among the fishermen, which, however were settled by the fishery officers. Should the fish return to these ponds, regnlations for the placing of nets will be laid down at the commencement of next season. The only other places where a few barrels have been caught, but in every instance less than in former years, are at Tignish Run, Tyne Valley, Percival, Tryon and Grand Rivers, Prince County; Cavendish and West River, Qucen's ; St. Peter's, Naufrage and Lot. 56, King's County. It is reported that alewives are to be found all summer in two fathoms water in the Narrows, Prince County, but I have had no opportunity of verifying the statement. I'he quality of those taken has been better than usual. The Island seems only to suffer alike with the other Maritime Provinces in the destitution of this once most abundant fish. I offer no theory to account for the lamentable decay in what was, not so many years since, a valuable domestic and export fishery.

## BASS.

Bass continue to suffer for want of a close season. Their habits appear to be to come insbore late in fall, remain in the ponds until the ice breaks, then go and come with the tides until about the time the gaspereaux arrive, after which they remain until their own spawning season is over, when they go to sea, to return in fall. It is during the period of their spawning that they are liable to be destroyed. The only locality in which these excellent game-fishes are taken in quantity is in the ponds at Miminigash, Prince County, although once plentiful in other places. Tbe main pond in which they are now taken is cumbered with floating logs that ground with every tide and crush numbers of fish. Sisteen hundred pounds weight taken this year as against 2,000 pounds in previous year. Size of the fish from three to seven pounds, mostly taken by net or mackerel hooks, baited, none that I have heard of having been taken by scientific angling, notwithstanding that Dr. Henshall's recent "Book of the Black Bass" is making bass fishing fashionable. Comparatively few are spared, and all are used fresh for immediate food, or cured for home supply. With protection and a small outlay in clearing the ponds the yield would be greater. A close season of April and May would have a beneficial effect.

## smelt (Osmerus mordax, eperlanus.)

Our isolated position during the winter and earlier spring months offers no market for smelts, although they are caught in every brook in most liberal abundance as well as through the ice in winter. A stop has been put to the wasteful custom of feeding them to pigs and using them for manure. As we have no market, the official price of six cents per pound is much too bigh, and, therefore, in the returns I have substituted three cents per pound, which is a fair valuation for food. It is well known that smelts readily establish themselves in fresh water wholly cut off from the sea, and therein much increase in size. Trials of this are promised in several milldams next spring. While the lobster-canning factories employ the close months in canning mackerel, beef, mutton, veal, hares, grouse, clams and berries, it appears strange that no attempt has been made to can smelts. Doubtless a market could be found, but perhaps it is just as well, else the general supply of this delicate little member of the salmon tribe might soon be cut off. There is no close time in this Province.

## EELS.

Eels are but too abundant for the good of trout and salmon spawn. In King's County they are caught in pots; elsewhere, by other means on the shallows of creeks, although occasionally ascending to running water. They are met with of large size and are said to be of superior table quality. The considerable quantity of 17,500 lbs. taken this year were all used fresh. I have not heard of any but one attempt-and that on a small scale-to pickle for market, which is rather to be wondered at as in
the United States they tetch what should be a remunerative price. It is desirable a market should spring up. For decrease of eels means increase of salmonidæ.

## THE HATCEERY.

The public from all parts of the Province visit the hatchery, where they are respectfully received. The beauty of the situation and the simple jet mysterious processes going on in the little river within the building combine to render it attractive.

The waters have been higher this fall and more prolific of fish. A scarcity of males has been experienced. One million and a quarter of egge bave been secured to date, in excellent condition, all from the Dunk River. With some further appliances in coming seasons an additional supply might be obtained from Winter and Trout Rivers and probably from other streams. The capacity of the establishment, with one tier of trays, is $1,728,000$ ova.

The fry placed in 1879 and 1880 in Dunk and Trout rivers have been frequently observed and appear to be thriving. In the larger rivers, Morell and Brudenel, it is more difficult to distinguish them, but there is no reason to believe the deposit is other than a success.

A number of applications from various localities for young fish show that the institution is appreciated. These applications will be decided in due time by the Superintendent of Hatcheries.

## SECTION 3.-FISH OF THE DEEP SEA.

## MAOKEREL.

The greatest catch of mackerel within rememorance, so far as regards quantity, around the shores of this Province, was made last jear, 1880. Every bay and creek swarmed with " tinkers," or " number threes"-the lowest grade-with but a small proportion of the best. Consequently the take reached the rery high figure of 82,570 barrels, which, at the exceedingly low prices then current, would place to actual credit of the fishery a sum of perhaps 8500,000 . This year rather less thau one-half the quantity of fish at the exceptionally high rates now going, will prodace to the fishermen nearly four-fifths as much, say $\$ 395,000$, which is close on the value calculated at official rates. The quality of this year's transactions is extimated at onehalf number ones and twos and one-half number threes. In November, 1880, Boston pricns were guoted exceptionally low with but slight demand. On 1st December, 1881, number ones, $\$ 18.00$; number twos, $\$ 10.50$; number threes, $\$ 8.50$. At these rates a very few barrels pay the fisherman.

The main body of fish arrived later than usual. The season came in rather discouragingly, but improved progressively to the close. A good doal of interruption was experienced from gusty weather. All the mackerel are taken by hook, line and trawl-bait, there being but twelve seines, and those not constantly used.

It is said, with some appearance of truth, that lobster fishing is changing the character of the Island fisheries. The sole question on the part of the fishermen at the beginning of each season is, what fishery will pay the best wages? In 1880, although the catch was enormous, the dividend in cash per nan was small. This year the mackerel came late, the earliest catch was poor and the prospect looked rather blank. The result was that many men, instead of fishing, made engagements to work traps for the lobster factories. The matter of calculation was whether or not better wages could be made by catching lobsters at a definite price of 50 to 55 cents per hundred, or run the risk of delivering mackerel at the curing stages and wait until the end of the season for a settlement at such prices as the market might fix. As matters have turned out, perbaps mackerel fishing would have been better pay. To make an altogether successful year's fishing quantity is wanted as well as fair prices, for the reason that the dependent industries, such as cooperage, etc., suffer when the demand
for their wares is less than was anticipated. For instance, 46,000 fewer barrels were required than last year, in consequenco of which $\$ 30,000$ less money has been paid into the hands of coopers, wood-cutters, teamsters and others. Equal to the number of men traneferred to the lobster fishery, there will also be permanently a proportionate decrease in the product of mackerel.

Somewhat vague complaints having been made that the setting and handling of lobster traps, as allso the washing of putrid bait out of the traps, hurt the mackerel by breaking up the schools and frightening the fish so as to prepent their biting, I enquired of all the lobster packers, by circular, whether, in their opinion, such is the case. With but one exception, all scouted the idea. Theoretically, the complaint looks feasible, but in the face of the evidence of so many respectable opinions, it must, for the present, be laid aside.

## HERRING.

The returns show a catch of 24,445 barrels, being an increase of 6,425 barrels over last year. These figures are deceptive. Of the total quantity only 4,500 barrels were for food, the remaining 19,945 being bait for mackerel and cod. In addition to those taken in our own waters considerable quantities were brought from the Magdalen Islands for use of the lobster fisheries.

All the nets extending to 32,416 fathoms, and valued at $\$ 13,290$, were set for spring herring, excepting a few spare fathoms used in the taking of gaspereanx. Persons preparing to fish for herring provide salt, barrels and tubs only to the extent of the quantity they mean to take, such quantity being limited to a few for home use and to pay store bills, besides as many more as will find a market for bait at the nearest fishing stages or lobster factories. Salt is an expensive article of import, therefore no superflous stock is laid in, and when it is exhausted the fisherman's resources are at an end. Mackerel fishing next begins, which pays better inasmuch as the market is steadier, the price much higher per barrel, and the outfit nothing begond a few hooks and hand lines and a supply of bait, whereas herring nets cost money and are liable to tear and wear, as well as to be damaged and carried away by storms. Therefore, until an export trade shall revive, the berring fishery will not be pursued to any great extent. Canadian trade with Brazil and the West Indies may offer markets.

Spring herring are tound on our whole water-line for about six weeks from the first of May. Fall herring might be taken from July till November, but are not fished, for during that time mackerel are in full 8 w im and pay better. If, as scientists say, that despite the immense quantities fished by man, and still greater quantities by birds, as well as devoured by predatory fish, the numbers of berring cannot be sensibly diminished, this fishery may be looked upon as worth following on a large scale. This year, although the schools were small, the quantity was sufficient. The laws of the armies of herring breaking on the coast are unexplained, and this year their visit to and absence from various localities seemed capricious. Notwithstanding that of late years we have had nothing like the "herring mountains" that, drifting from the wiater of the arctic circle, visit Norway, and sometimes precipitate avalanches of fish into the Gulf of St. Lawrence, get the geographical position of Prince Edward Island must always secure a supply only limited by insufficient means of securing it. The herring fishery is, therefore, a fishery to be dereloped in the future in these waters. Eighteen hundred and eighty-one may be called an average herring year in quantity and quality.

Codfishing has shared in the general neglect, but in a lesser degreo. The year's transactions show a falling off of 11,111 cwt. Prices, however, have kept up, and were last quoted abroad at a trifle above the official estimated rate.

A beginning has been made in the packing of boneless cod to the extent of $\mathbf{3 , 5 2 0}$ pounds. The market for this neat preparation will probably grow.

Fish skins for the manufacture of glue are an article of commerce elsewhere, but not here. Tongues and sounds were reported scarce. Fish oil shows a falling off in quantity.

The weather has been unfavorable for cod fishing. The boats engaged in it are altogether too small. The best ground for cod may be said to be now outside the three miles limit, and hence too far off for the present manner of fishing. This fishery differs from the herring and mackerel fishery in that it may be followed the whole season from May till the end of October or the first half of November, and in consequence it generally foots up a respectable product if pursued at all. Besides, it is followed more or less by many persons who do not formally hire out for the fisheries. The cause of this is that the fish command a market less fluctuating than for mackerel or herring and the catch is surer. Fish that swim in schools are uncertain in their whereabouts, and when found are not always in a mood for biting, while cod are generally found in a known locality and are always ready for the bait. Much the greater proportion of cod were taken by hook and line with herring or gaspereaux bait. Ten thousand fathoms will cover the stretch of trawls. No seines are used.

The cod gillnets recommended by Professor Baird, and that have found acceptance amond the Gloucester fishermen, have been tried here and found wanting. Thirtyone, setting 1,000 fathoms were imported and used at Tignish, Nail Pond, Miminigash, New London, Rustico, Tracadie, Murray Harbour and Georgetown At Georgetown alone were they found to meet expectation. Everywhere else they were pronounced a failure. It may be that they were set in too shallow water.

It is safe to say that cod fishing will not attain its full development in the waters of this Island until a better class of boats is generally adopted. On other coasts large sea-going boats are employed, or decked vessels that need only to run into port to discharge cargo either fresh or green. This, however, from the want of accessible landing places on our shore would be apt to centralize the fishery in a few places instead of being as now scattered along the whole coast line.

The quality of the cod caught this season was about an average, and the curing has been good.

Hake are taken in the ordinary cod fishing by hook and line. No special preparation is made for the capture. Hake affect a muddy bottom, which they find chiefly on the eastern face of the island. Late prices are favorable. No attempt is made to smoke hake as is done in the south of England.

The few halibut taken were caught by accident on cod hooks: Halibut fishing requires a peculiar and expensive outtit and is not pursued here.

Haddock are an accessory of the cod fishery.

## SECTION 4.-SHELL FISH.

## LOBSTERS.

Lobster fishing has, at one leap, taken the first place among the fishing induatries of the Province. This year the 1.8 factories have turned out $2,761,815$ cans more than were on the market last year. Total number of cans, according to a careful official count (rather higher than the estimate made by some commercial firms,) $6,312,865$ cans. Lobster fishing, in comparative (official) value, goes $\$ 871,400$ ahead of the mackerel total. Market prices being so low, I bave changed the nominal rate in the returns from 25 cents to 20 cents, with the view of placing more accu. rately the actual product to credit of the fishery.

The weather is an important factor in the fisheries. The following are statements for the north and scutb sides of the Island for the period of lobster fishing, kindly supplied by Henry Cundall, Esq., Charlottetown, and James Hunter, Esq., Alberton, official meteorological observers:

South (Charlottetown.) "Year 1880, total miles of wind from 20th April, May, June, July to 20th August, 21,255, including eleven days on which 300 miles passed in twenty-four hours. Corresponding period of $1881,20,525$ miles, with three days on which over 300 miles passed; with greater prevalence of north east and northerly winds. Temperature, except in August, about one degree lower than in 1880; 56 rainy days in 1880; 65 in 1881. Apart from tables, and speaking generally, the season of 1880 would be referred to as a finer season than that of 1831 , for most purposes as there were very many wet and cold days in the latter."

North (Alberton.) "According to scale used in the meteorological service, ' light' is an approximate velocity of eigbt miles per hour ; ' moderate' eigbt to sixteen; 'fresh' above sixteon miles per hour. In 1880 observations taken thrice a day showed 213 light winds, 99 moderate, 54 fresh in the period from 20th April to 20 th August. In the corresponding period of 1881 were, 235 light, 111 moderate, and 20 fresh; with a greater prevalence of north and north-east winds. Fresh breeze would be unsuitable for handling lobster traps, besides the effects of the previous weather not unfrequently causes 'a nasty jabble,' with a very moderate or even light breeze. Number of fine days in 1880, 42 ; in 1881, 37 . Rainy, 53 days in $18 ะ 0 ; 64$ in 1881. Temperature, except in August, lower than in $1880 .{ }^{\prime \prime}$

Fish were abundant, and had weather been suitable more would have been taken. While some factories in sheltered localities had more than they could conveniently handle, others in situations exposed to the prevalent winds made a comparatively small catch.

On the 12th of October, a convention of the lobster-packers was held at Charlottetown. Over sixty of the leading Island packers attended, together with one or two from New Brunswick. The object of the meeting was to take united action in matters affecting the industry. Preparatory to proposing the resolutions it was agreed that the minority should be bound by the action of the majority, and the following was proposed by Malcolm McFayden, Esq., seconded by Hon. Peter Gavin :
"That in the opinion of this meeting the present fishery law is unnecessary and operates against the best interests of packers and the Island generally, inasmuch as it cripples the very important industry of lobster canning during the summer season, without affording that protection to the female fish aimed at in the Order in Council under the Fishery Act. That the packers here assembled declare it as their conviction that no lobster factory can be operated successfully if the spawn fish are thrown away or rejected, and that therefore the present law fails in its object, as it cannot be obeyed without ruin to the packers and the entire loss of the industry to the country;
"That further, the business will regulate itself if left in the bands of the packers themselves, whose interest it is to perpetuate the fishing and keep up the character of the goods they send abroad and place on the markets of the world;
"Further resolved, that the Dominion Government be petitioned at its first Session to repeal said Order in Council, and that a committee be appointed by this meeting to draft petitions and secure signatures to the sanie as early as possible this fall,"

The following amendment was moved by George D. Longworth, Esq., seconded by Hon. J. O. Arsenault:
"Resolred, That it is the opinion of this meeting that it would be beneficial to the lobster packers and fisbermen of Prince Edward Island if the fishing season were extended to four months, commencing from the 15 th of May to the 15 th of September in each year.
"Further resolved, that it is the opinion of this meeting that the best protection to the lobster fishing interests could be ensured by a law or Order in Council providing that no traps be set in less than four fathoms of water, and that any lobsters be allowed to be taken in this depth, not less than nine incbes in length."

Which amendment was lost on a vote of fifty-seven by a majority of five. The original motion was then adopted, nem dis., as the expression of the meeting, and a committee appointed to memorialize the Government, which memorial bas doubtless ere this been submitted.

With reference to the prayer of the memorial, my otficial opinion has been already expressed. (Annual Report Fisheries Blue-Book, 188n, page 233 et seq.) Further observation has shown nothing to change the conclusion already arrived at, namely, that it would be hazardous and short-sighted in the extreme to withdraw protection from lobsters in ova. It is admitted that any protective regulation fails in the impossibility of guarding the ova before extrusion, when it is as much required as after. And further, due weight can be given to the point, so weli put by one of the speakers at the meeting, who pleaded that the packers, knowing that lobsters in ova would make their way to the factories in spite of all reasonable care, find themselves in the uncomfortable position of breaking the law without any intention of evil. Against these admissions must be set the glaring and incontrovertible fact that on every coast where protection has been removed from the spawning fish, the whole fishery bas been speedily made non-productive and become exhausted. No ingenuity of reasoning or setting forth of plausible hypotheses can over-leap that fact. The partial protection, however imperfect, now given to fish in ova, is the only protection that is practicable; and as regards the uncomfortable feeling of being an unintentional law-breaker, the perturbed spirit may be soothed by referring to the instructione attached to the Order-in-Council of date 13th March, 1879, wherein fishery officers are directed to be chary of pains and penalties unless where the destruction of spawn is on a large scale, wilful or habitual. The Order-in-Council has been so administered in this Province. Moreover, it is difficult to admit that factories cannot be carried on unless the comparatively small percentage of fish in ova are cast into the boilers. There are factories of the bighest respectability within the limits of the Province that claim to admit no spawners within their walls, and $y$ ct the confidential statement of their product of canned fish per hand does not exbibitany falling bebind their competitors. Another objection hat has been advanced is that it is little use to protect the females if males may be taken without restraint, thus destroying the numerical equality of the sezes. To this objection it is answered that it is not known that the lobster is monogamous, but the probability is that it is not, therefore the objection passes. As regards the protection of young lobsters less than nine inches in length, very little regulation is required, for the reason that they are not worth canning, but cost more in wages than the value of the meat they produce, altbough I bave heard of a factory or factories whore small lobsters are said to be taken in tale, two counting as one. New Hampshire has fixed the minimnm legal size at eleven inches, and the Fishery Commissionery of that State, tiaght by experience, as I am informed, have memorialized the Legislature to restore the law protecting spawners, which had been removed from the statute-Book. Were ally furtber argument required in favor of retaining the protection, it would be readily tound in cypbering up how long any reproductivencess could stand the ruin of hundreds of millions of eggs, in addition to the $\because 7,000,100$ of mature fish slaughtered on our limited coastlive during a few weeks of the present year. Such giant dostruction would almost exceed the capacity of figures. I do not violate confidence in saying that a good many of the packers themselves are not in favor of a removal of the rentriction in regard to spawners. The Government, without doubt, will do what in best to render the industry permanent.

While regarding protection in ova as absolutely necessary, I definitely believe that the present fishing season is not suitable for Prince Edward Island. The New Brunswick packerr, in convention assembled, are demanding a change of their fishing season from A pril 20th to May 15th. If this claim of New Brunswick be well founded, a similar claim on the part of Prince Edward Island is doubly so. Lying further north than most parts of Kent County, N.B., and with our North Cape on the same parallel as Cape Escuminac, our northern most shore, on which ale many factories, is surrounded by drift ice or cold water from ice for nearly three weeks later than on the Nova Scotia and New Brunswick sides. Lobstering is pormitted to begin bere on the 20th April. at Kildare, Prince County, where the factories of Messrs. Robert Boll and Gordon \& McRae are, horses crossed the ice on the 22nd April this year, and few or none of the factories got to work until a fortnight or three weeks
later than that date. Lobsters do not approach until the mean temperature reaches $45^{\circ}$ to $50^{\circ}$, which does not occur here until far on in May. It is self-evident that the Island packers do not really have the 123 days intended by the Government, but practically only 90 days, less Sundays, thus reducing the time in which to make return for labor and capital to no more than 80 working days, apart from the risk of unfavorable weather,-and the weather is quickly changeable in this part of the Gulf. This has a tendency to make unscrupulous packers (and I think they are bat few) can spawners and all they can catch, to the detriment at once of the fishery, and the character of Canadian produce. From much reflection and enquiry I feel that I am justified in again recommending that the fishing season for lousters be from 20th May to 20th September in each year in Prince Edward Island, without reference to the mainland. [See Fishery Blue Book, 1879, page 267, and 18\&0, page 237.]

If the views should be acceded to of those who consider that July and-according to locality and temperature-the first part of August should be the close time, the inconvenience would fall more on the packers themselves than on the officers of the fisheries. The taking up, landing and piling of traps and trawls, shutting the factory, and dismissing and re-assembling the hands, would be found a grievance, and probably would evoke greater complaint than the present arrangements judiciously administered. It is possible, however, that as mackerel strike in about the end of June and are in plenty in July, the factories might employ themselves in the canning of mackerel without dismissing their hands. In this way only does it soem practicable to have a receas from lobster fishing in the middle of the season.

In this connection I leg to bring to your honor's notice that a factory has not unlimited canning power. Each is built and fitted up of a given capacity in boilers, cooling-tables, boats, traps, bait, stock of tin and labels, fuel and other necessaries proportionately, and according to such capacity a certain number of hands for shore and sea are engaged for the season. What these hands can do, runniug full time, is the estimated capacity of the tactory, whose owner is quite satisfied if the product reaches his estimate. The factory may can less, but cannot can more. Yet an estimated number of cans must be filled to each hand employed, whether the season be long or short, otherwise the year's work is a loss.

It becomes apparent that when the first of the four months, from 20th April to about 20th May, cannot be fished in, there is a continual rush throughout the remainder of the season, including the spawning month of July, to make up for that lost time, and to fill as many cans as will represent the factory's capacity. The same quantity spread more leisurely over a period of four months, instead of being crowded into three, would most likely be of a superior quality and compensate for the additional wages by higher prices.

The amendment to the resolution proposed at the Packers' Convention, that fishing for lobsters in less than four fathoms be forbidden, and that all caught in greater depth be legal, does not at present come before the Department, and its consideration may, therefore, be held in abeyance. I may, however, state that a letter of enquiry, containing the query: "Are the lobsters larger and better in deeper water?" addressed to every factory, has been replied to with singular unanimity that lobsters are better and larger in deeper water. Observation further shows that there are fewer with ova attached This may form a basis for future action.

How far greater or less protection may affect prices is, of course, beyond my metier. Nevertheless, it has been attempted to explain to me that the United States consume, or soon will consume, all the lohsters taken in their own waters, consequently United States product does not compete with Canadian lobsters abroad, that (Newfoundland doing as yet but little) the Maritime Provinces of Canida regulate the import markets of Europe, hence a period of no more than two months' fishing, at the right time, would so advance prices over the present very low wholesale rate of $\$ 4.50$ to $\$ 4.80$ per case of forty-eight one pound tins, as not practically to damage the industry. I mention this incidentally and neither as endorsing it, nor suggesting such a shortening of the fishing season. Further, it has been indicated that to throw open the lobster fishery without restraint would ere long swamp the smalier factories
and convert the whole fishery (so long as it might last) into a giant monopoly in the hands of a few strong firms who, with capital in reserve to sell or withhold their stock, might manipulate the market to their own advantage more than to that of the public.

Some few cases shipped this fall to the United States are understood to have fetched a remunerative price, and hence it is likely that a trial will be made to open up that market next season.

From various sources an estimate has been made that it now takes a general average of four and one-third raw lobsters to fill a one-pound can of the best quality. The shells have not been well-filled this year, still I think the estimate rather high. The comparative size and weight of well filled raw lobsters are about as follows. Twenty to twenty-five per cent. is lost in boiling:


Bait has been in fair supply: Besides the offal of cod and a good local catch of berring, considerable quantities of herring have been imported from the Magdalen Islands for use of the traps.

The random assertion of a New Brunswick newspaper correspendent to the contrary notwithstanding, the factories shut down on 20th August with commendable promptitude.

Several new factory buildings are in process of erection for next season. Some of them are large and spacious, which, with perfect cleanliness, is an important feature in buildings wherein food is preserved, for the reason that in the cramped space and heavy atmosphere of small curing houses zymotic disease is apt to be produced in the meat, causing what is known to the solderers as "blown" cans and other names.

If within the duty of the Canadian cruisers, a series of thermal observations in the Gulf at different depths might lead to a more intelligent plan of setting traps,tending probably to their being set at greater depthe,-and without doubt would afford valuable information for mackerel tishing. If beyond the duty of the Government:l marine, local observations could be made along this coast by shore boats at the exper se of a moderate appropriation.

The lobster fishery in Prince Edward Island is essentially a local industry. By actual count nine tenths of the persons directly engaged in it, male and female, afloat and ashore, are Prince Efward Islanders. The wages paid to them for their summer work goes to lessen the severity of our long winters, when of other employment, for cash, there is none. Hence good government would indicate that something is due to the public as well as to the packers to render the iodustry permanent. It is curious to trace the many channels through which the money received from this fishery percolates through every stratum of life, and rather startling to calculate that (at the present rate of catch) every unit of the Island population is richer $\$ 5$ per annum because of lobsters. Any radical change in the regulation of the fishery might bring this pleasant state of things to an end. Would it be well to let the smaller factories ruin the business and themselves in a year or two by throwing open the fishery? Scarcely, for work carried on spasmodically under higi pressure is a species of gambling and not beneficial either politically and morally or financially, but tends (especially where dependent on a "streak or luck,") to make labor unstable, and is anything but favorable to the recognised and steady industries of the country.

There remains but to notice the still open question of the granting of leases for lobster-fishing stations. Nearly one-half of the packers have applied for leases. In my opinion the assigning and leasing of stations is desirable if it could be done
without raising complications. On this subject please see last year's report, page 238. The matter might readily be put on a basis by a test case heard in the Provincial or other Court. The Inspector could prepare such a case, if so instructed.

## OYBTERS.

According to orders there have been forwarded to the Department charts of all existing oyster beds in Island waters, together with reports on localities in which the planting of new beds would have prospect of success.

The question of oyster culture was discussed at some length in previous reports. Therein it was pointed out that in addition to the ordinary causes of decay which sooner or later destroy all oyster deposits, the practice of digging shells for manure is exceedingly detrimental to the fishery. Suggestions were made as to the means most readily available to check the rapid destruction.

Prince Edward Island is comparatively thickly settled, esperially along the estuaries, creeks and coast, where oysters most abound. No restriction has hitherto been placed on their being fished by any resident. Neither has any claim been set up to individual rights of proprietorship. Prior to Confederation, the Local Government assumed the right-if it had it not-to the ownership of all oyster-beds, but except in one feeble instance of legislation to regulate the granting of leases, no restriction on general fishing was imposed. The valuable fields of oysters were abandoned as a common and were by the public so accepted. With the single exception of the field at Squirrel Creek, Prince County, the property of Hon. J. C. Pope, no leases, of any account, were taken up when offered. This position remains now. The public regard the taking of oysters anywhere, or everywhere, in the light of a common fishery.

The articles of Confederation appear to have settled the ownership of oyster-beds not specially covered by land grants as resting with the Dominion Government, but the question of regulating the fishery, to its injury, by local enactment does not seem to have yet come up between the General and Local Governments.

When Prince Edward Island joined the Confederation of British North America, ofster fishing was signified to remain under existing local laws until regulations should be made, but no special regulations have been made. The local close time as previously established, from 1st June to 1st September, has since been acted on. In fact the local laws of the Province, even now, regulate the ofster fishery in Prince Edward Island. Those laws permit the digging of shells, "even although some of the oysters or ofster-brood should be thereby unavoidably taken, removed or disturbed." The popular reading of the Act is that all beds may be dug over, even if all the oysters be destroyed. During the milder days of winter, hundreds of maddigging machines are at work cutting-up the beds. It was expected that, as these machines are an institution almost peculiar to Prince Edward Island, the Island Census returns would have a column in which to show the number in use, but the enumerators took no account of them. There must, however, be not a few hundreds.

It is, of course, the object of the diggers to strike on dead beds from which can be obtained shells in such a state of decay as to be readily crushed before the plough, when spread on the land, or to disintegrate into pure lime by the action of the winter's frost. Such beds are rarely found. If beds are below the reach of freezing the surface is covered with a layer of live oysters, while if the centre of a bed has risen to the level of ice the sides of the mound with a surrounding radias are thickly coated with live bivalves. It will thus bo seen that shell-digging does of necessity presently injure and must ultimately destroy the oyster fishery, unless remedial measures be adopted.

In proposing a remedy the question is how, if possible, to protect the live shellfish without preventing the farmers from digging shell manure, a privilege of which they are justly tenacious.

The possibility of restoring the fishery in any given locality depends on the area of beds and the present and prospective number of diggers. Few farmers set their
machines for two consecutive seasons in the same place, but wander about over the area looking for a better location. The consequence is, that all the beds are more or less cut up, scarred and seamed with trenches in all directions. Where the area is of some extent as in bays and the larger estuaries, spaces selected with reference to existing beds, currents, depth of water and the locality where dead beds would give the farmers a clear space for digging, might be staked off as Government reserves, which it would be illegal to disturb for a period of, say, three years, which is the term in which the oyster comes to maturity. This is practicable, and in riew of the relatively small area that would be reserved could offer to the farmers no reasonable ground of objtction. In creeks and small stretches of water the plan would be less applicable. A three years reservation of a limited number of sites would allow the fishery officers time to acquirs experience in the management of the reserves, and would also feel the pulse of the farmers who, no doubt, would at first be somewhat suspicious of what they may deem an infringement of their rights.

But the project that would the most speedily place the fishery on a permanent basis would be the throwing open of sites to private lease. Localities leased would be protected by the lessees, under general supervision of the Department.

The local statutes above referred to are 28 Vict., chap. 13, with an amendment of date 17th April, 1871, wherein it is provided that the Executive has power (individual rights reserved) to grant the exclusive right to fish for oysters or oyster-brood, and to form rew oyster-beds or feeding-beds in certain rivers specified. [Note.-In Prince Edward Island parlance, "river" means an estuary.] The leases to be sold at auction for not less than twenty years, renewable at expiry for a further term of forty years, under engagement that within five years new beds shall be made or old beds cultirated so as to increase the annual yield. In .addition to this, the owner of any land fronting on suitable water might obtain a grant of bis frontage.

This offer, proper in all respects excepting the forty years' renewal, which would constitute a monopoly, was but sparingly taken advantage of, and some of the best sites are yet open. The localities first opened to offer were the following, which are still available: Shemody, Richmond Bay, Dunk River, Prince County. Charlottewn harbour and certain parts of Hillsborongh River, Queen's County. In King's County, Cardigan Bay, In the event of its being decided to plantnew beds, any one or all of these localities are suitable for a first experiment.

While it would be illegal to disturb such beds by digging or otherwise, an additional proviso might be made that no digging be permitted within a distance of a specified number of yards from any planted or leased beds, so that the ooze raised by digging and held in suspension by the tide, might settle before reachiog the live beds. Further, the quantity of seed oysters to be laid down within a given time, say not fewer than one to each square of two to three feet, or about twonty-four to fifty-four barrels per acre, should be a feature in the lease. There should also be, as in France, legal dimensions under which no oysters may be taken from the water. It is for your Honor to consider whether with a view to revive the perishing oyster supply it would be advisable (in like manner as Section 12, sub-section 3 of the Fisheries Act permits to be done in the case of fishways) to assist persons who will undertako, under due bonds, to plant new beds in suitable locations and protect them from being fished for the first three years, and afterwards only in such quantity as the beds will bear. 'This would give the Government a proprietory interest that would justify reversion at the expiry of the term of grant. If the beds were judiciously cultivated they would be a property yearly becoming more valuable.

As in most other matters dependent on the peculiar tenure of land in this Province, it would be necessary in each individual case to ascertain whether the owner of shore holds a title to the " land covered by water" to mid-channel. I have reasun to believe that in some instances this is the case, and in others not. At all events the prospective value of the fishery deserves all that can be done for it.

The Wardons report that on beds that have not been disturbed otherwise than by moderate fishing during the past two years the ofsters are noticeably much more numerous.

On bottom less suited for oyster culture mussels (mytilus edulis) might be grown with little trouble in extensive fields in sheltered coves or the brackish water of crecks. The firhermen of Scotland find mussels the bost of all bait, besides being used for food. They are found scattored in clumps in the creeks of the Island.

Two or thrce boats have been seized for illegal fishing during the past close season, but there has been less habitual poaching. The legitimate trade has been (and at the date of writing this Report is) brisk. Prices have ruled high and the persons employed have made fair returns.

## SECTION 5, MISCELLANEOUS.

The value of the Prince Edward Island fisheries is not sufficiently appreciated. Last year, 1880, were taken from strictly Island waters 11,232 tons avoirdupoid-or $\mathbf{2 5}, 159,041$ pounds weight of food, equal to $251 \frac{1}{2}$ pounds weight for every head of the 100,000 population. This year, 1881, owing to the small catch of mackerel, the total is less, but still shows (besides large quantities of edible fish used for batit), a harvest of 8,120 tons a voirdupois, or $18,187,228$ pounds weight of food, equal to 181 pounds per head of the whole population. It is believed that no other Province of the Dominion can show a like exhibit. One person in every twenty is directly engaged in the fisheries and all are interested in their success.

It will be noticed by a glanee at the tabulated statement that the Gulf fisheries of Prince Edward Island, of mackerel, herring, cod, hake and haddock, producing likewise sounds and oil, and reaching an official value of $\$ 583,758$, are altogether a boat fishery. From the number of men, 3,606, in the 1,135 boats it will be further observed that the boats are small, not exceeding an average value of 870 each, all found. Were the nets of 32,416 fathoms stretched end to end they would cover but forty miles, or fifty miles including trawls. The Island coast with its indentations is 400 miles . Boats manned by three men each, that wait for a fine day, run off a mile or two, hasten home at nightfall and average on a year's fishing (1881), no more than thirty-five barrels of mackerel and fiftecn quintals of cod and hale, do no manner of justice to the Gulf fisheries. It is the very rudiment of sea-fishing. The question whether jersons whose ostensible occupation is tillers of the soil either benefit themselves or contribute to the national wealth by partially occupying themselves in fishing for hire, has long ago been answered in the negative. A purely tishing population is required. To produce this requires capital and knowledge. The former might readily be obtained, the latter requires sources from which to derive it. When the American fleet talk of night-fishing for mackerel by the calcium light and by day aided by Negretti and Zambra's thermometers, we Islanders have evidently much to learn. In these days of immigration it is to be regretted that no effort has been inade to induce hardy fisher-folk of the Scotch and Cornish coasts to settle along the Gulf of St. Lawrence. The example and the superior boats, outfit and methods of caplure, of even one fishing village on our coast, would work a revolution in the listless manner now in use among us, and would extract from the teeming waters a return indefinitely more productive. Satisfaction is expressed here that Canada will take part in one or other of the forthcoming Fishery Expositions in Great Britain. A good deal is expected from the information acquired thereby, if it be bronght within the reach of our people.

In this connection it may be well to draw attention to the circumstance that the Census returns taken this year will be apt to mislead in regard to the statistics of fishing in this Province. The returns-compiled at a time when the fishers who assemble at due seasons on the beaches were scattered among the farms-purported to give a record of the quantity of fish caught by each fisherman, or rather by each person who had fished. These people do not fish individually but in crews. The crew of a mackerel or cod boat take (so many) fish by hook and line, which tale is delivered at the curing-stages and all record of the number or weight taken by any one hand is lost. In the case of net-fishing the impossibility of procuring a correct statement is even more apparent, it being beyond possibility to apportion the relative
quantity taken by each man in the nets of a season. Consequently, an aggregate deduced from the statements of individuals as recorded in the columns of the Census returns must, of necessity, be wildly astray.

As to offences, besides the comparatively greater transgressions against the Fisheries Act that have been brought to the knowledge of the Department as they occurred, a number of minor offences bave been heard and adjudicated upon by the Inspector as Fishery Magistrate. These petty lapses have been dealt with with severity, but without oppression. As they were mostly laid at the door of poor men to whom a fine would have been grave, a warning or the payment of a trifling sum of actual costs seemed to meet requirements, pledges being exacted in all cases to sin no more-pledges which, I think, have been mostly kept.

The correspondence of the Inspector's office continues to increase, which fact is to be accepted as an indication that the public are beginning to take an interest, and that the Department is regarded as the proper source of information.

The administration of the Fisheries Department in this fishery division may be called, on the whole, good. In no branch is there any glaring defect, and no backward step has been taken during the past year. The lepresentatives of the Province in Parliament have given aid and support to the fishery officers.

I beg to recommend to your Honor's favorable consideration the suggestions made in my last Annual Report (1880, page 247) in reference to the fishery wardens, namely, an increase in number to meet the largely increased number of lobsterfactories, and a readjustment of salary in proportion to the work each warden has to do. At present all of all grades have a uniform pay of $\$ 30$ each per annum. I am satisfied with the manner in which these gentlemen have discharged their duties. The want of officials in several important localities has caused some expenditure for extra service in the collection of statistics, \&c., but at a considerably lesser expense than would have been the cost of resident officers.

# I have the honor to be, Sir, <br> Your obedient servant, 

HUNTER DUVAR,
Inspector of Fisheries, P.E.I.

## Recapitulation of the Yield of the Fisheries of the Province of Princo Edward Island, during the Year, 1881.

| Kinds of Fish. | Quantities. | Value. |
| :---: | :---: | :---: |
|  |  | \$ cts. |
| Salmon, fresh.............................................................. Lbs. | 2,545 | 38175 |
| Backerel........................ ........................ ................... Brls. | 36,083 | 360,830 00 |
| do canned ......................................................... Cans. | 228,953 | 34,342 95 |
| Herring.................... ............................................ ..... Brls. | 24,445 | 97,780 00 |
| do smoked............................................................. Boxes. | 60 | 1509 |
| Alewives................. ........ ......................... ................... Brls. | 1,917 | 6,709 50 |
| Cod........................ ................................................... Cwt. | 16,934 | 71,969 50 |
| Cod and Hake Sounds.................................................... Lbs. | 18,923 | 14,192 25 |
| Hake................................. .......................... ............... Cwt. | 8,023 | 28,080 50 |
| Haddock..................... ................................................ Lbs. | 72,610 | 4,356 60 |
| Halibut......................................................................... ${ }^{\text {a }}$ | 4,575 | 27450 |
| Bass.............. ............................. .................................. " | 1,600 | 9600 |
| Trout.................................. . ................ ....................... " | 19,830 | 1,189 80 |
| Smel t............................................................................ ${ }^{\text {a }}$ | 69,800 | 2,094 00 |
| Eels............................................................................ 6 | 17,500 | 1,050 00 |
| Oysters........................................................................ Brls. | 20,815 | 62,445 00 |
| Lobsters, canned................. ......... ................................ Lbs. | 6,312,865 | 1,262,573 00 |
| Fish Oil........ ............... .......................................... Galls. | 9,313 | 6,053 45 |
| Fish Guano............ ................................................... Tons. | ${ }^{2}$ | 3000 |
| Fish Manure................................................................. " | 4,130 | 82600 |
| Total value of the products of Prince Edward Island fisheries | $\left\lvert\, \begin{aligned} & \mid \text { for 1881............ } \\ & \text { for 1880........... } \end{aligned}\right.$ | $\begin{aligned} & 1,955,28980 \\ & 1,675,08890 \end{aligned}$ |
| Increase......anti... | $\cdots$ | 280,200 90 |

Return showing the Number，Tonnage and Value of Vessels and Boals engaged in the Fisherios；Quantity and Value of Fishing Material，Kinds and Quantities of Fish，and the Total Numbor of Men employod，\＆c．，in the Province of Prince Edward Island，for the Year 1881.

| Cousties． | Vegsels and Boats amployed in Fishing． |  |  |  |  |  |  | Fishing Matemial． |  |  |  | Kinds of Fish． |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Vessels． |  |  |  | Boats． |  |  | Nets． |  | Weirs． |  |  |  |  |  | $\dot{\dot{j}}$ |  |  | 馬 |
|  | \％ | 感 | 浆 | 这 | $\dot{8}$ | $\begin{aligned} & \dot{\beth} \\ & \stackrel{\rightharpoonup}{\sigma} \end{aligned}$ | $\underset{\underset{\sim}{\Xi}}{\stackrel{\Xi}{\Xi}}$ |  | $\stackrel{\dot{\Xi}}{\stackrel{\Xi}{\sigma}}$ | $\stackrel{8}{4}$ |  |  |  |  |  |  |  |  |  |
| Prince．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 2 | 75 | 1500 | 15 | 368 | 16295 | 1257 | 7550 | 3610 | ．．．．． |  | ．．．．． | 400 | ．．．．．． | ．．．．． | 8969 | 46420 | 9830 | 60 |
| Queen＇e．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  | 309 | 22865 | 1255 | 11220 | 4925 |  |  |  |  |  | ．．．．． | 16466 | 14000 | 10095 | － |
| King＇s ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 13 | 81. | 10850 | 61 | 440 | 9515 | 1047 | 13646 | 4745 |  |  |  | 2145 |  |  | 10648 | 168533 | 4520 | ．．．．． |
| Total．．．．．．．．．．．．．．．．．．．．．．．．．．． | 15 |  | 12350 | 76 | 1117 | 48675 | 3659 | 32416 | 13280 |  |  |  | 2545 |  |  | 36083 | 228953 | 24445 | 60 |


| Counties． | Einds of Fisa． |  |  |  |  |  |  |  |  |  |  |  |  | Fisf <br> Products． |  |  | Valce． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \dot{\vec{E}} \\ 0 \\ \dot{0} \end{gathered}$ |  | $\begin{aligned} & \dot{B} \\ & \text { B } \\ & \text { E } \\ & \text { 要 } \end{aligned}$ |  |  |  |  |  |  |  | Oysters，barrels． |  |  | $\begin{aligned} & \text { o. } \\ & \text { 总 } \\ & 0 \\ & 0 \\ & \text { ⿹ㅡㄹ } \\ & 0 \\ & \text { 总 } \end{aligned}$ |  |  |
| Prince．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 100 | 3607 | $4155 .$. | 1272 | 8100 | 3100 | ．．． | 1600 | 6600 | 33000 | 2900 | 18535 | 3283285 | 1779 |  | 730 | $\begin{array}{ccc} \$ & \text { cts. } \\ 875,188 & 35 \end{array}$ |
| Queen＇s．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 740 | 1685 | 60. | 90 | 1000 |  | ．．． |  | 5830 | 29200 | 9800 | 2980 | 1189800 | 1100 | ．．．．．． | 1200 | 464，926 55 |
| King＇s．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 1077 | 11642 | 14708 ．．． | 6661 | 63510 | 700 |  |  | 7400 | 7600 | 4800 |  | 1839780 | 6434 | 2 | 2200 | 615，174 90 |
| Total．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 1917 | 16934 | 18923 ．．． | 8023 | 72610 | 4575 | ．．． | 1600 | 19830 | 69800 | 17500 | 20815 | 6312865 | 9313 | 2 | 4130 | 1，955，289 80 |

Retcrn showing the Namber, Tonnage and Value of Vessels and Boats

engagel in the Fisheries, \&c.-Prince Edward Island-Continued.


Return showing the Number, Tonnage and Value of Vessels and Boats

engaged in the Fisheries，\＆c．－Prince Edward Island－Continued．

| Kinds of Fise． |  |  |  |  |  |  |  |  |  |  |  |  |  | Fisi <br> Prodocts． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \dot{B} \\ & \text { B } \\ & 0 \\ & 0 \end{aligned}$ |  |  |  |  |  | $\begin{gathered} \text { 思 } \\ \underset{A}{5} \\ \text { 苟 } \\ \text { H } \end{gathered}$ | $\xrightarrow{\text { 总 }}$ |  |  |  |  |  |  | Faice． |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | \＄cts． |
| 2100 |  | 30 | 500 |  |  |  |  |  | 500 | 4000 | 4000 | 400 | 120000 | 400 |  | 500 | 91，805 00 |
| 800 |  |  | 25 | ．．．．．． | ．．． | …… | ．．．． | ．．． |  | ．．．．．．． |  |  | 209000 |  |  |  | 62，231 25 |
| 130 |  | 80 | 40 | ．．．．．． | ．．． 10 | ．．．．．． |  | ．．．．．． | 1800 | 1200 | 800 | ．．．．．． | ．．．．．．．．．． | 25 | ．．． | ．．． | 4，483 25 |
| 4320 |  |  | 625 |  |  | ．．． | 375 | ．．． | 400 |  | 2000 |  | 110000 | 245 | ．． |  | 104，832 00 |
| 1050 |  |  | 140 | ．． | ．．．．．． | ． | 400 | ．．．．．． |  | ．．．．．．．． | 500 | ．．．．．． | ．．．．．．．．．．．． | 200 | ．．． | ．．．．．． | 19，179 00 |
| 750 |  | 600 | 210 |  | ．．．．．． |  |  | ．．．．．． | 1000 | 2000 | 1000 | ．．．．． | 56200 | 150 |  |  | 28，510 00 |
| 160 |  |  |  |  | ．．． 80 | 1000 |  | ．．．．．． |  | 5000 | 500 |  | 424000 |  |  | 600 | 87，026 00 |
| 45 |  |  | 40 |  |  |  |  |  | ．．．．．． | ．．．．． |  | $\ldots$ | 201600 |  |  |  | 41，420 00 |
| 700 | ．．．．．． | ．．．．．． | ．．．．． |  | ｜．．． |  |  | ． | ．．．．． | ．．．．．．．． | － | ．．．．．． | 69000 | ．．． | ．．． | 100 | 18，770 00 |
| 40 |  | 30 | 5 |  |  |  |  |  | 1730 | 17000 | 1000 | 1880 | ．． |  |  |  | 6，670 05 |
| 10095 |  | 740 | 1685 | 60 | ．．． 90 | 1000 | 775 | ．．．．．． | 5830 | 29200 | 9800 | 2280 | 1189800 | 1100 | ．．． | 1200 | 464，926 55 |

## Retorn showing the Number, Tonnage and Value of Vessels and Boats


engaged in the Fisheries, \&c.-Prince Edward Island-Concluded.


No. 6.

# BRITISH COLUMBIA. 

Fictoma, Britisif Colcmbia, 11th January, $185 \%$.

## The IIonorable <br> Minister of Marine and Fisherica, Ottawa.

Sir,-I havo the honour to transmit herewith Return, statement and other documents relating to the fisherics in this Province for the past year.
2. Thore has been, as you will perceive, a very large increase on the gield of the preceding season ; arising from the extension of the fishing industry, partly, and partly from the copious run of salmon upon the Fraser, which this year enabled the ranners there to sccure a quantity of that fish far in excess of any previous year. From all sources there appears, in the important articlo of canned salmon, a total of 177,276 cases, as against 61,849 in 1880 , an increase of 115,427 cases (each containing four dozen one-pound cans.) The canncries upon the Fraser, however, notwithstanding the abundance of fish, were not worked up to their full capacity owing to the deficiency of labour, arising from the increased demand for railway and other jurposes. Henco, too, the cost of putting up the fish was somewhat increased. Withal the cannery proprietors have had a prosperous season, and it is satisfactory to know that a ready market, at remuncrative prices, has rewarded their enterprise.
3. Overseer Pittendroigh roports farourably of the general condition of affairs upon the Fraser, and states that no infractions of the Fishery regulations have been apparent. Good order was maintained, and there wore no unseemly disputes among the fisbermen, the wholo of whom, both whites and Indians, were well-bohaved.

The early spring run of large salmon was very limited, so that none of the anneries could atford to fish for them. This deficiency was, however, amply com. pensated by the subsequent runs, which compose the staple product of this river. 'Tho largest salmon known to bo caught on the Firaser during the past summer woigbed sixty-fivo pounds. Soveral labour-saving contrivances havo beon adopted at some of the Fraser Rivor cannories, and the examplo thus set (introduced I beliero from the large factories on the Columbia River) will presumably be followed by all the other canneries in the Province, since a saring in the cost of the manipulation of the cans, estimated at nearly 30 per cont., is thereby eflected. Among these ingonious contrivances is a soldering maehine, by means of which cans-placed, after being filled, on a travelling platform worked by an endless chain-aro successively presented to the soldeling tool, and pass out complote without the intervention of liard labour. There is also a patent apparatus for filling the cans; but this, it is alleged, requires some improvoment to render it perfoctly effective. It is satisfactory to add that all the machinery connected with such improvoments is manufactured within the Provinco.
4. As authorized, by your instructions of the 16 th May, the weekly close-time of 30 hours was suspended upon the Fraser during the Sack-kai run; namely, from the 10th July to the 25th August. Tho vast numbers of fish which passed up tho river, beyond the tidal limit, gave evidence that no appreciable injury had resultod from the concession mado to the request of tho cannery proprietors. I respectfully suggest that the concession bo continued, subject to rerocation if hercafter found necessary.
5. Indian fishermen, fishing above tide-water with their own appliances, had been eacouraged by several of the canneries to bring ealmon down for sale, for canning purposes. On the report of Mr. Pittendreigh, I went to New Westminster, early in October, and after enquiry the praciice was interdicted. A wide field for abuse was being opened, both in regard to the Indian privilege and the maintenance of the character of the River brands; since the fish thus procured in a stale condition were not fit for canning. Representation had been made to me by tho Municipal Council of the Fraser River Delta, that the water in the neighbourhood was polluted by the salmon offal, thrown into tho river by tho canneries. Captain Pittendreigh afterwards went to examino the locality, but his report did not fully substantiato the facts alleged. Nevortholess, thero is doubtless ground to believe that, with the great extension of the fishing operations, a doleterious effect may arise, and a notice was issued to modify, inasfar as practicable for the present, the evil complained of. I bave since been in communication with a company (to be presently mentioned) who have in view the extraction of tish-oils and the drying of the scrap for shipment, in the hope that they will undertake the manufacture of this offal during the coming roason. If they consent to do so, the present nuisance will be converted into a valuable export, otherwise it will be diffeult to contrive means for getting rid of it without partially polluting the strean as at present. It is, howeror, necossiny that nome effectual measure should be taken to obviato the evil, and I shall of couse keep this ond in view, under the provisions of the Act.
6. A Joint-Stock Company (limited) has been organized, of which the chief promotors aro Messrs. J. A. Raymur, Charles A. Vernon and B. W. Pcarse, of Victoria, tho object being to extract fish oils and dry the seritp for shipment. Preparations on an extensive scale wore made during the summer, the location selected being Coal Harbor, within the entrance of Burrard Inlet. In thoso preliminary measures an outlay of some twenty-five thousand dollars has beon incurred. The establishment, which 1 was invited to visit when near completion, is on an extensive scale, and apparently well planned. On trial, howerer, somo of the arrangements were found defective. The presses were not sufficiently poworful; bence the scrap was not sufficiently deprived of oil and moisture betore passing to the drying house. Here, too, the plan adopted was a failure, for the process was too slow to accomplish the desired ond. There was a fooring of steam-pipes surfacel with sheet-iron, upon which the serap was pitched, to be dried liko hay. I have since obtained from Oregoo, where there is a factory for obtaining oil from the salmen-offal, some valuable hints which I have communicated to the Agent. It is probable, however, that an expert from the Atlantic Coast will be engaged to superintend contemplated improvements after the expiration of the present season-a step, doubtless, in accordance with prudent economy. As it is, from fifteen to tirenty thousand gallons of oil (chiefly herring) have been secured; but of the scrap a small proportion only is in marketable condition. As a commodity for oxport it is of course necessary that this fish.guano, or scrap, should be prepared cheaply on a large scale, as it would not pay for shipment by tho cargo only, if indeed, owing to its repulsive odour, it could be otherwise shipped as portion of a general cargo. Its value in Liverpool (assuming it to be in all respects equal to the Menhaden scrap of the Atlantic) is stated to be from $\$ 35$ to $\$ 40$ per ton, American. Its cost here-seeing that after the oil is extracted, if not dried, it is wasted-is simply that of drying and bagging for shipment. Freights to Liverpool during the past season have been in great demand and have ruled all the way from 60 s. (under charter from home) to 80 s. and unwards. Just now they stand at about 653. in San Francisco, and this might probably reprosent a standard figure. Under all these circumstances, it does appear that there is in the prosecution of this oil and guano business, duly systematized and well conducted, a profitable source of industry capable of very large extension.

As I hare before mentioned, I am in hope that the Burrard Inlet Company will undertake to utilize the offal of the canneries on the Fraser; and if their drying and other arrangements can be effectirely completed in time, it is not probable that they
will neglect this branch of business, which will be available at a period when the herring fishery will be suspended. So far the heads and other offal of the salmon canned upon the Fraser havo been thrown away; and this practice, in fact, is now complained of as a nuisanco. This, also, till recently, was the condition of things on the Columbia River. But now there is an oil factory on that stream, some distance above Asteria, and a portion, at leant, of the offal, is utilized. I am indebted to Mr. G. B. Roberts, of Washington Territory, for some notes regarding this establishment, and it appears that the occupation, though not redolent of roses, is sufficiently profitable. The heads, bought from the canneries at a nominal price ( 50 conts per thousand), are collected in buats and conveged to the factory. 'Twenty-five gallons of oil are the average yield of a thousand heads. This oil sells wholesale in San Francisco for 85 cents per gallon, and at Portland, in small lots, for 50 cents. It is said to be free from gum and a good Jubricator, and is reported to make a superior "ruby-coloured" soap.
7. It is to be borne in mind that the large Columbia salmon ( $S$. Quinnatt) is here spoken of-a fish similar to, if not identical with, the Saurquai, or apring salmon of the Fraser, but much larger than the later varieties of that river:
8. As notified in my letter to Mr. Commissioner. Whitchor of the 18th August, I returned to Victoria on the 10 th of that month after haring availed niyself of the opportunits presented by a eruise of H.M.S. "Rocket" to visit several inlets of the coast, not included in my former visit in 187!. I shall now note some of the most prominent features of our recent cruise.
9. The serviecs of the "Jocket" were onlisted, as before, primarily for the objects of the Indian Department in this Provicce, under the superintendence of Dr. Powell; and ly that Department the cost of the fuel consumed daring the cruise was discharged. Begond this the role outlay by either Department was for mess expenses under the established Admiralty seale.
10. Learing Victoria on the 15th June, and after baving coaled at Doparture Bay (Nanaimo), we reached Cape Mudge, near the entrance to Johnston's Strait, on the morning of the 18th. We here found, encamped and awaiting our arrival, Mr. Gerge Blenkinsop, the recently appointed Indian Agent of the District. From this sontleman we learnt that mull oxcitement was abroad among the natives in consequence of a murder which bad recently been committed, both the victim and his slaycr being Indians. With tho practical concurrence of Superintendent Powell (who, this being an Indian case, judged it to be inexpediont that he should actively participate) I recoived the information and iseued, in my capacity of Justice of the Peace, a warrant for the approhension of the murderer. We learnt that he was concealed at a village some twenty miles distanc, at the mouth of Salmon River. Anchoring in a secluded cove till after night-fall, we reached the neighbourhood of the village about midnight; the special constables, supported by sevoral armod boats directed by Commander Orlebar and some of his oflicers, were landed, the village was surrounded; and at dawn the culprit was arrested as ho was attempting to escapo. I may add that he was detained on board till wo reached Knight's Inlet, where some of the wincsses were. An examination there took place, and the prisoner was committed for trial, being afterwards sont to Victoria by a passenger steamer from Alort Bay.
11. Salmon River, on Vancourer Island, though a considerable stroam, does not apparently yiold a large supply of the richer varicties of salmon, which are alone suitable for canning. Large quantities of fine trout were, however, caught with the reine in the bay, by the sailory, during our day's delay there. The country is rich in animals of the chase; and the valley contains, apparently, a considerable oxtent of rich cultivable land, so far unoccupied.
12. At Alert Bay, on CormorantIsland, a cannery has been established, replacing the small fisbing station before oxisting there belonging to Mr. Huson. This establishment, though not perhaps at present of first class capacity, is well built, and in its arrangements satisfactorily dovised. It belongs to Mr. Thomas Earle and others of Victoria, and with them is associated the Mr. Huson before adverted to, the original founder of the station. 'The supply of fish is drawn from the estuary of
the Nimkish River of Vancouver Ssland; a prolific stream which [ have already noticed in a previous report (1879). The pack of this cannery for the past season has not been large, having been short of 6,000 cases; but as the season was somewhat advanced betore operations were fairly in train, there is good earnest of future success.
13. Procceding up Knight's Inlet wo reached Sawatti, at the head of that extensive arm, on the 21 st of June. A river of considorable volume discharges at this point, but as the Coast Range of mountains (too often erroneously confounded, even by professed authoritios, with tho Cascade Range) here approaches closely to the sea, the course of this stream is nccessarily short and its current rapid. It does not apparently afford large supplies of the earlier and more valuable kinds of salmon, but, liko all the rivers along the coast, yields doubtloss a copious harvest of the bater runs-to the nalives the more valuable for wintor food supply, as being the more readily cured by drying. The Indian village is seatod on the left bank of the river, about a mile up, and extends some distance along the border of the streambounded below by a broad, alluvial flat, covered at the period of our visit with herbage of extreme luxuriance. The tribes from a wide distance around resort thither annually in great numbers to prosecute the oolahan fishery, in early spring. We found them still congregated there, and ostimated the number of those whom we met on visiting the village at about two thousand. These men and thoir families wore all well and cleanly dressed in European style, but it is needless to say that the surroundings of a fishing village, such as this, are not attractive. Dr. Powoll explained to the assembled crowd the course which had been pursued with regard to the homicide who had been arrested at Salmon River, and who that morning, after examination of witnesses fon board the "Rocket," had been committed for trial, as already mentioned. The prompt assertion of the law in this matter, in which the services of the naral force were conspicuously useful, effectually checked the progress of an internecine feud such as of yore but too frequently existed among these barbarous races, and the disposition to which has not yet been entirely cradicated. Hence, on all grounds, both of humanity and public policy, it is essential that in all similar cases the majesty of the law should be promptly vindicated-a necessity of which the Provincial Government does not lose sight.
14. The Oolahan fishery at this point, like the corresponding fishery on the Nase, is of extreme importance to the natives of the adjacent coast. The astounding numbers of this small anadromous fish, in size even inferior to the herring, may be conceived of when it is considered that from it, during spring and early summer, many thousands of the natives derive their chief, if not sole, support. Enormous quantities of oil, too, aro extracted from it, which is greedily sought for as a luxurious article of diet both far and wide. It is, indeed, an important object of commerce among the native races, and, stored in imporvious cedar boxes of ingenious construction, is bartered for furs even with the native races of the remote interior, who prize it for their feasts. There are in this oeighbourhood soveral glaciers said to bo not difficult of access, and it was bere that the American schooner "Emily Stephenson," referred to in paragraph 43 of my report for 1875, procured. through the natifes, her supply of ice.
15. At Sawatti several of the hoad men, accused of trafficking in intoxicating liquors in contravention of the law, were arrested under warrant, and examined on board the "Rocket." The evidenco in most of these cases was insufficient to convict; but as all the accused voluntarily pleaded guilty and promised amendment, it way judged sufficient to reprimaod and discharge them with a caution for the future. We serured, howorer, the means of bringing the mattor home to the fountain head; and it is probable that Superintendent Powell has since substantiated a charge against, as alleged, the primo offender. The necessity of checking, if it be impracticable to supprese, this nefarious commerce, whereby all the industries of the coast are injured and the improvements of the natives preventod, is too obvious to require comment.
16. After landing our prisoners, in clarge of a special constable, at Alert Bay, to be thence conveyed to Victoria in a steamor expected soon to arrive, we steamed
on to Fort Rupert, and thence to Newitty, in the Goletas Channel, bordering on Queen Charlotte Sound. I havo mentioned this point in a former Report (1379), and my more recent experience does not lead me to modify in any way the conclusions before arrivedat. On the contrary, I am persuaded that ere long, under a more extonded development of tho fishing interest, this noighbourhood will establish a prominent claim to attention. I could learn nothing of any further attempt by foreign vessels to fish in these waters, as was illegally done two fears ago by the schooner already referred to.
17. Bithoola, our nest station, is situated at the eastern extromity of tho North Bentinck Arm, a continuation of the Burke Chanuel of Vancouver. This point, under the travestied appellation of "Bellacoola," attracted much attention some twenty years ago, as being the terminus of a road communicating with the Caribou gold-mines, on the upper Frasor. A considerable stream, called the Nook-balk, discharges at this point, which, though rapid, is navigable with canoes at least as far as the Village of Shtooiht, some forty-five miles up. A good deal of outlay, in money and labour, was made in exploring and partially opening the road to which I have alluded. In connection with it, too, a town site was laid off at Kö.omkootz, near the month of the river, where, for a while, speculative adventurers found what appeared to be a promising field for their investmonts. But the glory of the place has long since departed. More attractive lines of approach superseded this route of somewhat difficult access; the enterprise was abaudoned, and with its alandonment fell also the hopes of those who had contidently invested as prospective town-builders. There now remains nothing to mark the seene, save a small trading port belonging to the Hudson's Bay Company, and the charred remains of a large Indian village, clostrosed accidentally by fire two winters ago, and amid the ruins of which new lodges of split cedar boards are being rebuilt.
18. But the Village of $\mathbf{K o ̈}$-omkootz, albeit now of little note, must ever remain :t point of mark to the student of North American history ; and to Canadians, especially, has special claims of interest. It is the Rascal's Village of Mackenzie; and it was at this point that, in 1793, Sir Alesander Mackenzie, of the North-West Company, reached the sea from Peace River, as will more fully appear on reforence to his published journal. This journey of Mackenzie (who I may mention narrowly missed falling in with the boats of Vancouver, at the time engaged in his elaborate exploration of the coast-line), effectively set at rest the speculations of those carpet-goographcrs who, in Europo, had contended for tho osistence of a sea communication horeabout with the Atlantic, in confornity with the mythical relations of De Fuca and De Fonte.
19. The Nook-halk River, as I have montioned, bas a vory rapid current, and like most of the streams along the north-west coast is, during the summer season, turbid with suspended allurium. Hence there are extensive shoals at the mouth, and the alluvial land is obviously encroaching constantly, though slowly, on the ocean-arm into which the river discharges. The anchorage, on the limit of these flats, is contracted in oxtent, and in a less sheltered position would be somowhat insecuro. As it is, the current issuing from the river counteracts favourably the force of the soa-wind, which, during the summer months, blows with some strength up all the inlets of this coast. The Oolahan resorts to this river in the spring to spawn; and during the months of July and August salmon of the best quality are reported as being abundant. Should the facilities for netting in the cstuary be judged farourable, the position will probably ere long be selected for the establishmont of a salmon cannery.
20. We crossed by the Labouchore Channel, eastrard of King Island of Vancouver, to Dean's Canal. The south-eastern point of this cross-channcl, where it unites with Bentinck Arm, is, by the Indiau tradition, corrosponding in all material particulars with his own relation, the spot whence Mackenzio turned back to retrace his way across the continent. The inscription on the rock, however, which he then left as a memorial-"Alexauder Mackenzie, from Canada, by land, the twenty-second of July, 1793,"-has long since been obliterated. But the Indian tradition has boen
vividly preserved even to minute particulars; and it is interesting to note the different aspect which the same circumstances assume, when regarded from the opposite point of view.
21. We anchored abreast of the Village of Kemsquit, near the head of Dean's Canal. The Kemsquit River, which discharges here, has a short course, is very swift, and at no great distance from its mouth is interrupted by a fall, beyond which an extensive lake is reported. It is apparently a good salmon stream, though probably of limited capacity. The chief river of the neighborhood is the Dean, or Salmon River, discharging at the extreme head of Dean's Canal, four or five miles beyond the Komequit. The Dean River, issuing from the interior lake of Nâcootloon, has a course of more than 100 miles, and drains a wide area of country. It is known as a prolific salmon stream, and will doubtless become an important point of future operation. The Dean flows through a comparatively wide and open valley, and is navigable, with canoes, for a considerable distance. The upper villages, where there was yearly a large superfluity of salmon for winter consumption, werc, in the past, resorted to by the Nautlay Indians and others of the upper Fraser, for winter support, when there was a failure in their own local supply. Hence the familiar name of "Salmon River" applied to this stream, in common with many others, so commonly, indeed, as to be objectionable because no longer distinctive.
22. After a brief delay at Bil-bella, in Millbank Sound, where thero is a small outpost of the Hudson's Bay Company, the relic of the original port of Fort Macloughlin, we proceeded to Methlakatla. I have alroady described this interesting Mission station in a previous Report (1879), and it is needless here to repeat a notice of it, leyond stating that, since our last visit, improrements had taken place and new indnstries sprung up. Among these was the business of spinning and weaving, carried on in a large and airy apartment by a number of young Indian women. In this work they had already attained much proficiency; and cloths of excellent texture, with good shawls of tastily varied patterns wero on hand, giving evidence of their sucess. Mr. Duncan, the head of the Mission, informed me that he parposed establishing a salmon cannery, to be carriod on entirely with native labour, under his own supervision, on a partially co-operative system. Measures, I have since learnt, have been taken to carry these plans into effect, and it is intended that operations shall commence with the coming season. The scene of action will be the estuary of the Skeena, under the general rules which govern the operations of the other canneries.
23. Leaving Methlakatla wo ran up the Nass Straits, and anchored near Kincolith, at the mouth of the Nass River, on the third of July, Mr. Henry Croasdaile, of the Uppor Fishery, having received intimation of our arrival, visited us next morning in his steam launch, and afterwards conveyed our party up the river, where, at his residence, we were hospitably entertained. The following morning our party, consisting of Superintendent Powell, Commander Orlebar and myself, embarked in a canoe manned by natives, and ascended the river as high as Kit-la-dalmax, some 40 miles above the mouth, which village we reached about noon of the following day. We afterwards, on our way down, visited the village of Kit-manshilp, near our encampment of the preceding night.
24. It seems annecessary that I should enter anew upon the questions which have arisen with reference to the fisheries on the Nass, as affecting the interests, real or imaginary, of the native residents. The subject has been reported on at length to your Dopartment in my letter of the 5 th of December last. To that letter I respectfully refer you; and I venture to suggest that, if judged advisable, it should be considered as forming a portion of this General Report.

Victoria, B.C., 5th December, 1881.
W. F. Whitcher, Esq.,

Commissioner of Fisherics, Ottawa.
Sir,-With further reference to gour enclosures of the 28 th October, the receipt of which I acknowledged on the 1 ith November, I have now the honour to report as under:

1. I have since seen Mr. O'Reilly, the Commissioner for the settlement of Indian Reserves in this Province, and have discussed with that gentleman the subject of the complaints made concerning the fisheries on the Nass River, in particular, and yenerally the important subject of the Provincial Fisherios as affecting the interests if the native population.
2. Mr. Commissioner O'Reilly has rocently returnod from tho Nass, where, up to a point some forty miles up the river, he has definitely assigned the native reservations. He unhesitatingly expressed to me his conviction that, in so far as the deprivation of the Indians is concernect, no valid grounds for the complaints made has existed.
3. Mr. O'Reilly, without exprossing an opinion as to tho question of the summer fishery, of which ho had no opportunity of judging, informs mo that, so far from sutfering from any deficiency of fish, the natives, at the period of his autumn visit, had already secured enormous quantities of salmon which they had dried for winter use, while the river was teeming with salmon of the later runs so that it was optional with them to secure a practically unlimited supply. With regard to the petition which had been forwarded, and of which a copy bad been supplied to him, Mr. O'Reilly could ascertain no satisfactory particulars as to its origin or the grounds on which it was based. He informed me that he would immediately address his Department on the subject, and his report, doubtle:s, will correspond substantially with the tenor of this paragraph.
4. So far, then, as the potition itself is concerned, I assume it to be adequately disposed of. Similar complaints, upon grounds equally baseless, have been made in other directions-upon the Fraser, the Skeena and elsewhere in this Province, and along the adjacent coast-and similar complaints will doulutless continue to be made, at the outsct, wherever the fishing industry on the Pacific Coast may hereafter extend.
5. With special referonce to the Nass, however, and in view of the ground tahen in Mr. Vankoughnet's letter, I may be permitted respectfully to point out the conditions of that river in relation to the recently established fishing industries, and the reasonable conservation of the Indian rights.
6. The Nass ranks, in point of magnitude, the third among our Provincial rivers, issuing on the Pacific coast, the Fraser and the Skeenâ alono oxceeding it. Though comparatively shallow in parts, where the bed is expandod, it emits, by the rapidity of its current, a very large body of water. It is easily navigable, with large canoes, for a distance of some 60 mi es ; one rapid alono (that of Litmanshilp, 33 miles up, formed by the intrusion of a stream of lava of modern date) interrupting its courso up to the limit of navigation. 'The channol, near the mouth, having been buoyed, steamers drawing ten fect of water ascond it for cargo as far as Croasdaile \& Co.'s Cannery, some twelve miles up. In 1865 a steamer of light draught (the "Union," belonging to the Westorn Union Telograph Company) ascended it for many miles above that point. The total course of the river is about 130 miles, the tide ascending it for some 20 miles.
7. The Cbimsyans (or Toimpsyans) numbering, in all, probably 5,000 persons, resort annually, in the early spring, to the tidal portion of the river for the purpose of catching the oolâhan, a small fish which resorts thither in immense shoals at that scason to apawn, and from which iarge quantities of oil are extracted. This fishing terminates in May, after which the concourse of Indians disperses-not to return, for fishing purposos, till tho following spring. It is the Niss-gah branch of the tribe alone (those inhabiting the upper villages) and thoir more romote offsets, familiarly alluded to as the "Stick Indians," who dopend in any measure on the salmon fisheries of the Nass for winter provision. The rest of the Chimsyans derive their supplies from the lower Skeena, and from minor streams disomboguing along the coast in their immediate neighbourhood.
8. By reference to par.: 11 of my report for 1878 , in which the Nass is specially treated of, you will perceive that six distinct varieties of salmon, having welldefined periods of ingress, are noted as resorting to that river. There is also, late
in the season, a copious run of the large sea trout, locally known as the $A$-alh, equivalent to the salmon, and which therefore may be regarded as a seventh run of that fish. The natives, amply provided for summer consumption with the products of the spring fishery of oolahans, are cureless of the earlier runs of salmon, when the waters are high, and the difficulty of capture is consequently enhancel. A few are caught for teruporary consumption; and there is the less inducement to catch more since, owing to the fat quality of these early runs, they find it difficult to cure them, during the hot weather, for winter use, by the simple process of drying. Hence it is to the later runs alone that they devote their serious attention, and on which they really depend, the runs referred to by Mr. O'Rielly as having been witnessed by him in all thoir abundance during his recent visit.
9. The operations of the canneries, on the other hand, are confined to the earlier runs; the later varieties, prized by the natives for drying, are valueless for canning, the whiteness of the flesh and comparative dryness disqualifying them for the market. Thus while we were anchored at the mouth of the Skeenal last sumner (the conditions of which river, with slight differences of period, are similar to those of the Nass), the canneries closed for the season as soon as the light-colorod fish began to run, which, this year, was on the 30th July. On the Nass the canning season closed a little later.
10. To exemplify the copiousness of the later runs of the salmon in these northern rivers (the conditions of all being nearly alike), I may mention that, during our stay al Skeenâ-mouth, a boat's crew from the "Rocket" with a net boriowed from the Inverness cannery secured in a single drift about three hundred fish. These wore of the Stummaun or Hone variety (the "hump-backed salmon," S. proteu)-an excellent fish, but for the reasons before stated not available for canning.
11. By reference to par. 23 of my report for the year 1879 , while treating of Lowe Inlet and some complications that had previously arisen there, you will perceive that I have already drawn attention to the expediency of securing to the natives, free from vexatious interference, their hereditary rights in such small rivalets along the coast as have heretofore been used by them as fishing.stations, and on which they are largely dependent for subsistence. This recominendation is in accordance with the policy which I had already pursued while representing the Dominion Government in the late Joint Commission having for its object the settlement of the more pressing questions at that time in issue. The opinion of the present sole Commissioner, Mr. O'Reilly, coincides entirely with my own; and he informs me that, in accordance with this view, he has alroady made several such assignments. Commercially viewed, the principles they conferred are nugatory: but to the Indians themselves the confirmation of a prescriptive and to them a valuable right is not therefore the less pleasing. I shall continue to confer from time to time as occasion may require with Mr. O'Reilly-and I may here add that both with that gentleman and the local superintendent, Dr. Powell, a mutual confidence has existed, and will, I doubt not, continue to prevail in all our communications.
12. A $*$ mentioned in my previous letters, I found it expedient during my last summer's visit to the Nass to make some regulations with regard to the fishing arrangements in that locality. Among these was the length of the nets employed by a fishery then recently established (that of Welwood \& Co.), which was judged to be excessive and bad given rise to complaint. I also intimated to a Mr. Gray, who sought to establish a fishing station in the Indian village, in close proximity to the cannery already established adjacent, that for reasons which I explained to him, it was inexpedient for him to continue his preparations on a site already occupied by the natives, and so near to a cannery which had been previcusly established. I recommended Mr. Gray to occupy a vacant position several miles below, as in all respects better adapted for his purpose. My recommendation I afterwards found was not immediately attended to ; but Mr. O'Reilly now informs me that, in his capacity of Indian Commissioner, he had judged it necessary to insist on the removal of Mr. Gray from the Indian Reservation, and thus, indirectly, the object I had in view was accomplished. My motive in seeking to establish a proper distance between the
fishing stations on the Nass was to prevent, on a stream where the channel is comparatively narrow and the facilities limited, a systom of crowding which would be generally obstructive. Indirectly, too, I sought thereby to prevent the probable establishment of future canneries in number beyond the working capacity of the river. It was in view of such circumstances that I framed recently the recommendation of a system of licenses, in order to obtain for the future an effectual restraining power. The sanction of this measure, in time to meet the requirements of the coming season, I again respectfully urge.
13. Without further reference to the complaints that have been forwarded, and with reference only to the commercial point of view, I may state that I am nowise of opinion that the Nass has so far been fished to anything near its real capacity, nor do I anticipate that under due regulation, and with the weekly close time of thirty hours strictly oberred, any undue strain will be put upon the resources of this st ream. I estimate that in ordinary years it is capable of yielding about 25,000 cases of salmon out of the summer runs, ceasing early in August-the catch of the past year having been short of 8,000 cases of 48 lbs each. In other words, I consider it capable of supporting two moderate sized canneries, with perhaps a little outside fishing on a smaller scale for barrelling. This estimate I make, however, with reference cliefly to the limited fishery area available, and the confusion and obstruction that must necessarily ensue were unrestricted fishing to be permitted. As regards the suppiy of fish alone, and setting the question of pernicious orer-erosding aside, I am of opinion that no ordinary and permissible amount of fishing, properly regulated, and with due obscrvance of the weekly close time, can appreciably alfect the supply in this river or elsewhere. It is to the atose of fishing privileges, and not to their prudent and regulated prosecution, that the deterioration of rivers is to be justly ascribed.
14. In conclinion, I may be permitted to repeat that I shall continue to co-operate in every way with superintendent Powell and Mr. Commissioner O'Reilly, bearing the general interests in view. In this view the welfare of the Indian population constitutes an important feature; but no lens does the healthy extension of the tishing industries of the Prorince demaud fostering care. That I am fully aive to the first consideration the records of the Indian Bureau, my reporta to your own Department, and ny whole antecedent career, afforl, as I flatter myself, conciusive proof. Intelligently viewed there is nothing inconsistent in the two asperts of the question. On the contrary, the extension of our industries, and esprecially of our fishing industry with its large consequent expeuditure of money, has been, and duly regulated will continue to be a powerful instrument in eliciting the powers and ameliorating the condition of our native population.

> I have the honour to be, Sir,

Your obedient servant,
ALEXANDER C. ANDERSON, Inspector of Fisheries, B.C.
25. The Nass is interrupted at the point called Kit-manshilp, some thirty miles up, by a rapid, fomed by the intrusion on the left ride of an extensive bed of lava, which here approaches closely to a rocky promontory on the opposite bank. Beyond this, upwards, as far as the eye can reach along the valley on the left bank, there is a sea of lava, quite devoid of vegetation and deatitute of covering of any kind. The eruption, whence the flow of lava originated, occurred, according to the Indian tradition, six generations ago-probably about one hundred and fifty years.

There is, of course, a marvellous tradition connected with this eruntion, the details of which, compounded of superstition and common sense, are sufficiently interesting, but which it is unnecessary here to repeat. The effect of the eruption has obviously been t., force the river from its original bed; and thus, while the lara field occupies the whole of the left side of the valley, the opposite bank of the river exhibits a wide extent of fertile soil, well adapted for cultivation. The vast expanse of lava, too, stor-
ing ap the sun's heat and emitting it by night, acts doubtless powerfully in tempering the summer climate of the environs, and preventing the action of those night-fiosts which might clse interfere with vegetation. The volcanic peaks, now dormant, from which the lava flow originated, are not remote, and form evidently a portion of the great volcanic sy-tem which, crowing the Stickine River at a distance from its mouth, extends along the western slopes of the Coast Range, in the dircction of Mount St. Elias.
26. The establishment of Mr. Croasdaile, the operations of which, outside of the oolahan business, had been previously directed to the salting of the salmon for exportation, was last jear converted into a cannery. In this new branch of the lusiness Mr. Groasdatile, I am happy to say, has been moderately successful-a return of 7,700 cases being the quota be has contributed to the general result of the season. The appropriation of one thousand dollars, which was made two years ago for improvements in the channel of this river, bas been well appliel. Snags have beon removed; and the channel being now well marked with par buoys steamers drawing ten feet of water reach the upper fishery (Croasdaile's) some twelve miles above the ontrance. Tho Niss River Fishing Company (Welwood \& Co.) occupy a position lower down. Their business has hitherto been limited to the salting of fish; and they have during the past season put up several hundred barrels of salmon, with about the same quantity of salted Oolahans, besides some of the last mentioued fish in a smoked condition.

27 . We anchored in the harbor of Fort Simpson in the morning of the 8th of July. We bere reccived a mail from Victoria, and had intelligence of the attempted assarsination of the President of the United States-the latest telogram reporting his present survival, with the faint hopes at that time entertained of his possible recovery. I found letters at Fort Simpson from Mr. W. Duncan, J.P., of Methlakatla, covering a communication from the manager of the Inverness Cannery at Skeena asking for magisterial interference to quiet a disturbance which had occurred between some Chinese emplofés and white men, also employed at the cannory. I wrote to Mr. Duncan in reply, requesting him to use his infleneo to tranquillize matters ad interim, with the aisurance that on the return southward of the "Rocket" we would visit the Skeen $\hat{a}$ and settle the matter in dispute. This arrangement proved effective; and, as will afterward appoar, the promised enquiry was made daring our subsequent vivit.
28. Leaving Fort Simpson we entered the waters of the territory of Alaska; and, proceerling through the channels of Revilla Cigedo and Clarence Surai's, by the usual steamer route, reached Fort Wrangel, near the mouth of the Stickine River, on the 10th of July. We hero found the flags flying at half-mist; and Captain Orlebar having ascertained through an officer despatchad with a boat to make enquiry, that the demonstration was on account of the supposed death of the Prosident, our own ensign was also lowered in conformity. We had afterwards the satisfaction to communicate the hopeful, though dubious, intelligence which we had more lately received; subsequently, it is true, confirmed, only to excite hopes which were to be mournfully frustrated.
29. Wrangel, founder by the Russians in 1834, and named áser the well-known traveller and author, Baron Wrangel, at that time Governor of tho Colonies in Russian America, is in latitude 5: deg. 28 min, north. The trading fort built by the Russiane was afterwards transterred under" lease to the Hudson's Bay Company and for some years occupied by them. After the purchase of Alarka by the United States Government ia military post was established here, the buildings of which continue, bat the garrison has been withdrawn. The surrounding village, consisting of a few stores and a number of dreary-looking cottages, is supported by the taaffic incident upon the communication with the Cassiar gold mines of British Columbiathis being the stopping place of the steamers from both directions. There are, however, two neat churches, Protestant and Roman Catholic. There is hera a mission station, under charge of the Rev. Mr. Young, an envoy of the American Board of Foreign Missions in New York, and also an admirably conducted Home, in which young native females are received and educated. Ihis excellent establishment is under the
management of Mrs. S. MacFarland, and the whole details connected with it merit the highest encomiums. Every kind attention was shown to us during our stay at Wrangel by the authorities there, and the citizens, generally, vied with each other in the manifestation of good will.
30. Superintendent Powell, having some Indian matters to attend to beyond the thirty-mile boundary on the Slickine, ascended that river in a local steamer called the "Gertrude." Captain Orlebar also availed himeclf of the opportunity thus afforded to visit scenes which for him had all the charm of novel.y.
31. Hence it was not till the 23rd of July that we were able to leave the anchorage on our southward way. Meanwhile our supply of coal bad been replenished; a quantity having been freighted up from Departure Bay by the steamer "Grappler," under arrangements previously made. Throughout our cruise, I may here mention, a constant increase in the sea temperature as we proceeded northward was noted. Regular observations, it is needless to say, were taken on board the "Rocket," as in every ship of war. Thus, while at Esquimault the registered temperature was $48^{\circ}$ of Fahrerheit only, the observed temperature at Wrangel, in lat. $56^{\circ} 28^{\circ}$, was as high as fifty six degrees-an increase within eight degrees of latitude of as many degrees of temperature of Fahrenbeit's scale. The following table will exhibit the gradation, and occasional fluctuation, of this increase:

| 15th Ju | Esquimault Harbour. | $48^{\circ}$ |
| :---: | :---: | :---: |
| 20th do | Alert Bay. | $47^{\circ}$ |
| 24th do | Queen Cbarlotte Sound. | $50^{\circ}$ |
| 29 th do | Bil-bella (Millbank Sound). | $53^{\circ}$ to $55^{\circ}$ |
| 8th July, | Fort Simpson........... | $58^{\circ}$ |
| 9th do | Ward's Cove (Clarence Strait | $53^{\circ}$ to $57^{\circ}$ |
| 11th do | Wrangel. | $53^{\sim}$ to $56^{\circ}$ |
| 23 rd do | do | $54^{\circ}$ to $56^{\circ}$ |

We must hence infer that a warm ocean-stream passes down the coast from the northward, originating, apparently, in the China Sea, flowing north-eastward along the Japan coast towards the Aleutian Islands, and finally deflecting southward along the A merican shore. Much of the mystery which attends the consideration of the mild winter-temperature which wo enjoy on the Pacific slope, as contrasted with the Atlantic neighbourhood-a difference equal, at least, to ten degrees of latitude-may be thus simply explained.
32. Issuing from Clarence Strait and crossing Chatham Sound we regained the waters of our own Province, and on the 25 th of July, anchored at Mannett, at the north end of Queen Charlotte Islands. I have already noticed this point in a previous report, and little occurred daring our recent visit to call for special comment. It is noteworthy, howerer, that rince my former visit, in 1879, a manifest improvement has taken place in the surroundings of the Indians of this village-an improvement ascribablo as well to the excellent teachings of the local missionary, Mr. Sneath, of the Church Missionary Society, as to the good example and firm police discipline maintained by Mr. Alezander Mackenzie, the resident agent of the Hudson's Bay Company, and who is also a Justice of the Pcace. By means of regularly appointed Indian police constables, selected from the more trustworthy of the rising generation, good order is maintained-and this, too, among a people who, in their unreclaimed condition, were formerly numbered among the most formidable ruffians of the NorthWest coast. It is necdless to add that the occasional visit of a ship of war, such as the "Rocket," adds greatly to the beneficient influence of the gentlemen I have named, secluded as thoy ordinarily are for months togother from external intercourse.
33. No fisheries have, so far, been established in this neighbourhood. It is, however, only a question of time, since fish, and especially halibut and othor valuable kinds, abound in the adjacent waters. Moanwhile the natives make some oil out of the livers of the dog-fish, for which they find a market with the Hudson's Bay Company.
34. Leaving Massett early on the 9 ith Jaly we reached the Sksenâ anchorare that afternoon, a run of about 75 marine miles. We found that at tho Inver. ness Cannery, opposite to which wo lay, a successful season was noar its practical conclusion. Upwards of 11,000 cases of salmon had been secured. A fow of the SuckKai variety (one of the select varieties for canning) were still entering the river; but as these were intermixed with a great preponderance of the Hones or Stummaun (the "Hump-backed Salmon," S. proteus) it was judged unadvisable to continue fishing. ln effect, the nets were finally withdrawn on tho 30th of July. The Stummaun or Hones abovo mentioned, are a handsome fish; but from the light color of their flesh and comparative dryness, they are not available for canning as a marketable fish. By the Indians, for drying as winter provision, they are specially prized; and to the families of those who were in the neighbourhood, the rejectsd Stummaun from the cannery, taken during our stay there, were gratuitously assig ad. Some notion of the numbers of these fish, the shoals of which were then commencing to enter the river, may be formed, when I state that a boat party from the "Rocket," with a net borrowed from the canne:y, caught about three hindred at a single drift. I state this fact passing by; but in connection with the Indian fisbery relations, some points regarding which have recently been mosted, it has an ulterior boaring.
35. Mr. Duncan, of Methlakatla, having been notified of our arrival, ran down in a canoe from his station, and a court was formed to enquire into the disturbances of which he had before apprized me, as mentioned in paragraph 27 . A body of Chinese, employed in the cannery, were the complaiuants on the one hand; a Eucopean blacksmith, likewise employed there, a counter complainant on the other. There was, doubtless, room for blame on both sides; but the overbearing conduct of the European complainant haderidently originated the riotous outbreak. Under these circumstances the several charges were dismissed with a general reprimand. It is obvious that in dealing with large bodies of men, such as those Chinese labourers, and especially in remote localities like this, a certain degree of suavity and forbearance is indispensible. In this case, for instance, the rashness of an individual might have ruined the season's prospects of this cannery, and entailed great loss upon the proprietorssave only that, through the assurances conveyed to them, the Chinese labourers were induced by the manager, to resume their suspended work. As a rule ihese men are easily managed, when kindness and consideration are shown; but they, not unnaturally, combine to resist a fancied or real wrong.
36. A case wherein a man was charged with supplying intoxicating liquor to an Indian, in contrarention of the Act, was also brought before the court. The evidence was conclusive; and the offender, a Chinese, was sentenced to pay a fine of $\$ 50$, with the alternative of six monthe imprisonment with hard labour.
37. The estuary of the Skeenâ is divided by a large island into two channels, upon the northern of which the Inverness Cannery is seated. The portion above the island is known as Port Essington; at the upper extremity of which, about fifteen miles from Inverness, the river may be judged fairly to commence. Near this point the Aberdeen Cannery is situated ; and on the opposite side is the establishmont of Mr. James Cunningham, where a few hundred barrels of salmon are annually packed for exportation. We visited Port Essington in the commander's gig, and thus had the opportunity of making divers uzeful enquiries. The varions fishery regulations, as provided by the Act and modified by Order in Council or otherwise, had apparently been well attended to, as might indeed have boen anticipated in view of the high character of the gentlemen who own these canneries. The weekly close time of thirty hours, in particular, I was assured had been rigidly observe 1. On the whole I had every reason to feel satisfied with the way in which the season's operations in this quarler had been conducted. The yield of the Skeenâ for the past year has somewhat exceeded 21,000 cases of canned salmon, with about 600 barrels of salted salmon. The coming season will, however, probably witness a large increase upon these figures.
38. Directing our course once more towards Queen Charlotte Islands we passed through the Pitt Archipelago, anchoring for a night near Kit-Kâhtla, at one time
the stronghold of Sebassa, a native chief, who oppressed with much barbarity the weaker sopts around. It is perhaps needless to say that a different condition of things now exists; and that here, as elsewhere, the power of the law has been vindicated. Prolific halibut fisheries exist in these localities. A stretch of some sixty miles took us to Skidegate Harbour, on Queen Charlotte Islands, which we reached on the 2nd of August. We here found that the operations of the skidegate Oil Company, mentioned in paragraph 35 of my Report for 1879 , were being conducted with much success. The fish from which the oil is extracted is a small specios of shark (squalus acanthius) locally called the dogfish, or more specially the "piked dogfish." 'I'wo qualities of the oil are separately procured; the one, of superior quality, from the livers alone, the other from the carcases of the fish. Much care is taken in refining the oil before it is put up in cans for shipment. A specimen can of this oil h:ad been supplied to the "Rocket" for trial, by the agents in Victoria; and I had a serond can, drawn directly from the vat and soldered up in my presence, supplied to me bere for further trial. I nubjoin extracts from the report made to the commanding officer, and through him to the commander in chief, by Mr. Robert Anderson, the chief engineer of the " Hocket."
"The trial which was made by your authority took place during the recent cruise (April, 18s1) to New Westminster, Burrard Inlet aud Nanaimo. The dog-fish oil was applied to the starboard engines, whilst the port were worked with the ordinary service Rangoon oil. The engines were driven at 140 revolutions, at which specd it is almost necossary to use a littlo water on the bearings with the fiangoon oil. This was founc to be unnecossary on thoso lubricated by the dos fish oil, and the eipenditure by eapillary attraction is less than when vegetable oils a.o used.
"My opinion therefore i- that as a lubricant the new oil is exccouingly good; and, as ascertained ly experiment, equally so for lighting purposes.
"One defect it possesses, and the only one which I discovered, that when warm it throws off rather a disagreeable odour. This, however, the manufacturers informs me will be remedied this season by some change be is about to make in the process of extracting it.
"The price of the oil. delivered into store at Esquimalt, will be 60 conts, or about 2s. 6d. por Imperial gallon."
39. The above remarks apply to a trial made in $\Lambda_{j}$ ril liat with oil, the product of 1880 . The following addendum was made after further trial, with the same general results, of the oil produced during the past season:
"Tho Skidegate Oil Company have done extremely woll, haring succeeded by extra boiling in diminishing the smell of fish, wo that now their oil is equal, if not superior, to oil supplied to Her Majesty's ships by the Serrice--both for lubricating and lighting purposer."
40. These remarks apply, of course, only to the best quality of the liver oil; and its commondation bas been even murestrongly expressed to me, orally, by the chief engiveery, undor whome direction the most searching trials appear to have been made. As the oil, nuporior in some important respects to the ordinary Sorvico oil, could be supplied hero at a cheaper cost, it inay be hoped that the attention of tho Admiralty will be drawn to it, under considerations both of efficiency and econony. Much encourarement wonld thus be given fir the development of a local industry, capable of practically unlimited extension. The yield of oil during the past sotason at this establishment, I may here mention, wats 27,000 gallons.
11. A complaint was made by the master of a sinall steaner belonging to the Oil Company, againit one of the head mon of the Skidegate village, who was alleged to have used threats of violence. This man was summoned to attend on board the "Rocket," and an examination took place. He was bound over to keep the peace for six months; and, in default of customary security, deposited twenty blankets in pledge, to remain in the possession of Superintendent Powell till the expiration of the term, as surety for his good behaviour.
42. Returninis by way of Queen Charlotte Sound, we visited, in passing Fort Rupert, Alert Bay and the Comox Rivers; and, after re coaling at Departure Bay,
reached Victoria Harbour on the 10th of August. I may be permitted to acknowlcdge the kind attention shown to us by the commander and officers of Her Majesty's ship, and their cordial official co-operation.
43. In my last year's report I dwelt at some length on details relating to the furseal business, an important industry of the Province. The proceedings during the past season were conducted on a larger scale and with more efficient preparation; but, owing to the exceptionally boisterous weather, the result was not proportionally successful. As nearly as I can ascortain between thirteen and fourteen thousand skins, in value from $\$ 150,000$ to $\$ 150,000$, were obtained-about the same as last year. The following vessels were employed, all equipped in Victoria :-


Employing 146 canoes for the hunters' use.
44. As appears above, two of the schooners were provided with small steam engines; but it is questioned whether much benefit was derived from the use of these. Generally I may refer to the remarks made in my previous report; and I may here correct an error which therein appears: the relative shares of the ship-owners, and the Indian employes who hant for them, are in the ratio of two-thirds to the hunter and one-third to the ship-the converse of my previous statement.
45. The fur seals are shipped, preferably, in a salted condition, though some are packed in a dry state like other furs. The following description of their aftertreatment, which I extract from a San Francisco newspaper, may not be uninterest-ing:-
"When shipped to Europe for curing the skins average about \$15 each, but when returned here, prepared for making up into garmente, they have increaserl in value to from $\$ 40$ to $\$ 6{ }^{\circ}$. There has been no successful treatment of the skins in this country, althougn a concern in New York is experimenting, with a fair probibility of final success. It is estimated that there are over $\$ 60,000,000$ invested in this country in sealskin garments of various kinds. The natural colour of the tur seal is a light silver grey. The short, thick fur is hidden by long hair. This hair penetrates more deeply into the skin than the fur; and by an ingenious and delicate operation the skin is so shaved or split as to cut off the ends of the long hairs, which are then easily plucked out, leaving the soft fur uninjured. The final and most difficult operation in the dressing of the fur seal-skin is in dyeing it the rich dark brown so much admried, and which we have not been able to successfully match on this side of the water." With reference to this passage, I may add that one firm in London alone, as I have been informed, possesses the valuable secret, and so enjoys, virtually, a monopoly of the manufacture.
46. The canned salmon business of the past year may be thus recapitulated :-

cases, each containing four dozen one pound tins, representing an aggregate of $8,509,248$ pounds. Of this total the following shipmonts have been made:-

> Савез.

Per "Regia," for London ............................................ 17..................355
do "Longfellow," for London ..................... ............. 35,275
do " Prince Rupert," for London ........................ 18,236
do "Prince Rupert, "Chiloe," tor London.................................................... 19, 675
do "Rover of the Seas," for London............................. 19,2:29
do "Ganges," for London ......................................... 21,709
do "Bustonvale," for London ................................... 16,000
147,157
Shipped to Canada, Australia, \&c., and sold in local
market ..................................................................................
$177, \because 76$
Although the pack of the past season has been greatly in excess of any preceding gear, it would have been much larger had the labour supply been adequate to meet the demand of the cannerien, and especially upon the Fraser. The railways and otber public works in progress, both in the Province and in the adjoining territory of Washington, absorbed all the labour which was disposable, outside of what bad been proridently pre-engaged by the canuery agents early in the searon. Whatever casual aid was afterwarde secured was obtained with difficulty, and it is needless to add that the cost of packing was thus somewhat enhanced.
47. The total salmon pack on the Pacific Coant is this year far in excess of any preceding season. From the San Francisco Journal of Commerce and other sources, 1 dorived some particulars, which I shall briefly epitomise as exhibiting the rapidly increasing proportions of this important business. The yield of 1881 is summed as under:-

## Cases.

Columbia River...... ............. .................................... 540,000
Sacramento River (spring)........................................... 140,000
do do (fall) .......... ............................... 40,010
Miscolianeous-outside rivers............ ......................... 30,000
British Columbia................................................................ $\begin{array}{r}750,0170 \\ \frac{927,276}{17,276}\end{array}$
A total of 927,276 cases is thus shown, representing $44,509,248$ cans of one pound each. The comparative gield of the Columbia for the last four years has been as follows:-

|  | Cases. |
| :---: | :---: |
| 1878. | 449,000 |
| $1879 .$. | +40,000 |
| 1880.. | 52i, 000 |
| 1881 | 540,010 |

Of British Columbia the pack for the same period has been, in round numbers, as under:

## Oases.

1878................................................................ 113,000
187............................................................ ......... 61,000

1 80....................................................................... 62,000
1881...................................................................... 17. 17,000

On the Sacramento River the incrase has been from 30,000 cases, in 1878 , to 180,000 in 1881. Of the distribution of the total pack, a conception may be found from the following list of shipment in San Francisco of a portion of the pack of 1880 :-


London, however, absorbs the greater proportion; and to that market nearly the whole of the British Columbia product is ordinarily consigned-a portion having again this year, as last, been despatched through San Francisco, by rail, to Eastern Canada, and a small consigoment made directly to Australia. 'the estimated demand for home consumption in the United Kingdom, as given by Messrs. Pelling, Stanley \& Co., of London, is not lese than one thousand cases per day-increased, during the months of July, August, September and October, which appear to be the great salmon-consuming period of the year, by at least 25 per cent. The surplus importations find a ready market on the continent of Europe and elsowhere, whether re-exportations are made. In the Eastern States, too, there is an increasing demand; and I notice that, up to the 26 th of October of the past year, 221,336 cases had already been sent eastward by rail.
48. I state these facts as illustrative of the present position of this important industry, and as indicative of the vast proportions to which it will probably soon attain. Its origin is recent, dating, upon this coast, only from the year 1864, when Mr. William Hume, a practical fisherman of San Francisco, first started a small cannery on the Sacramento River, California. He subsequently, in 1866, commenced operations on the Columbia River. In that year he put up four thousand cases, each containing four dozen one-pound cans, upon which be realized at the rate of four dollars per dozen cans-a prico, it is neelless to say, enormously protitable. The example of Mr. Hume was speedily followed by others, both on the Columbia River and elsewhere. The following table show the gradual extension of the business on the Columbia, with the varying prices afterwards obtained:

Total product.

| Year. |  | : (Cases 4 doz. 1 lb. cans.) |  | Price per case. |
| :---: | :---: | :---: | :---: | :---: |
| 1866 |  | 4,000 |  | \$16 00 |
| 1867 |  | 18,000 |  | 1300 |
| 1868 |  | 28,000 |  | 1200 |
| 1869 |  | 100,000 |  | 1000 |
| 187.1 |  | 150,000 |  | 900 |
| 1871 |  | 200,000 |  | 950 |
| 1872 |  | 250,000 |  | 810 |
| 1873 |  | 250,000 |  | 700 |
| 1874 |  | 350,000 |  | 650 |
| 1875 |  | 375,000 |  | 560 |
| 1876 |  | 450,000 |  | 450 |
| 1577 |  | 460,000 |  | $5 \cong 0$ |
| 1878 |  | 449,000 |  | 500 |
| 1879 |  | 440,000 |  | 460 |
| 1880 |  | 525,0 ${ }^{0}$ |  | 480 |
| 1881 |  | 540,000 |  | 25 to 550 |

There are now on the Columbia River 35 canneries and more than a dozen fishing stations, and the value of all the property invested in the salmon business is estimated at above $\$ 2,000,000$; the largest individual intereat being, according to the Oregonian newspaper, that of Mr. William Hume, above referred to, namely, \$150, $9 \theta 0$.
49. From the above table it will be perceived that the prices of the canned salmon gradually subsided from the higb rates which ruled at the outset of the business, when the article was regarded rather as one of luxury than of economical utility, to a more morlerate and reasonable average standard. It is to be noted, however, that the later rates are apparently somewhat under-stated, and do not represent the full market price obtainable when shipped without the intervention of a middle man. At no time, however, can the demand, on a large scale, exceed a moderate limit, since this canned salmon is the poor man's simple food luxury, and by his capacity to purchase must the chief consumption be regulated. It is hence that the later fluctuations originated, and thus, disconnected as it may at first appear, the condition of the salmon trade in this remote position is no fallacious index of home prosperity. Under this view it is on all accounts gratifying to know that there is now an active and remunerative demand.
50. There are now in this Province twelve canneries of varied capacity and in different stages of improvement, throngh the adoption by some of labour saving apparatus not yet in general uce. Some of these I have already mentioned, and they will, doubtless, be generally adopted with the coming season. A permanent investment of capital to the amount, approximately, of $\$ 244,000$, has been made in these canneries; and the current outlay to sccure the returns of the bygone year is computed at about $\$ 709,000$, leaving, with freight and other charges, and in the present favorable condition of the market, a very moderate margin for profit. Withal the propijetors are encouraged by the result. Strenuous exertions will continue to be mauc during the aplroaching season, and new enterprises are in contemplation which will greatly extend future operations. The successful use too of the new mechanical contrivances will tend to cheapen production while lessening the dependence upon manual labor, during the past weason so severely felt.
51. The grood vense of the cannery proprietors of British Columbia will, it may be hoped, obsiate the risk of their permitting any proceeding in their factorics likely to lower the character of their brande. This is for them, and for the Province, a very important consideration. Some yeare ago, during the infancy of the business, a short-sighted policy was pursued by the California puckers, the evil effects of which was quackly manifested, and is oven still apparent. In illustration of this I quote the following from the Journul of Commerce, belore referred to:-
"The demand in Enghand for California salmon is now increasing. This is direculy due to the greater attention now paid ly the canners to the seloction of the fish. Some threc or four years ago in their engerness to acquire a trade, they canned all kinin of salmon, in all conditions. The consequence was that in the English markets Califinia cinned salmon compared unfarorably with that put up on the Columbia River and other rivers of the Pacific coast. The Sacramento canners were quick $t$, dineover their error, and decided that it would be more profitable not to repeat it."

Since that time a difforent course has been pursued, and the California fish is gradually, though slowly establishing a higher reputation. It is diffecult, bowever, under any circumstances, to recover a lost frestige ; and, whatever their comparative morits, it is probable that the California brands will continue for some time to occupy a position inlerior to those whose reputation in the market has never been assailed.
52. In view of the rapid extension of the canning business in this Province, and of all attending circumstances, it seems advisable that a system of licenses should be established, wheroby effective control of the salmon fisheries may be maintained. On this subject I had the honor to address your Department under date the 15 th of November list, and I again respectfully suggest the adoption of the system in time to meet the requirements of the approaching season. It is needless for me here to repeat the arguments on this head already submitted. It is sufficient to say that the
suggestion meets with the approval of all the cannery owners whom I have had the opportunity of consulting, and that it has, I believe, since been officially supported by a resolution of the Board of Trade of Victoria.
53. The attention of the cannery owners of the Fraser is still strongly directed towards the extablishment of a salmon hatchery on that river, and a petition on the subject will probably be again this year submitted to you. It would be superfluous for me to add to the copious remarks which I have made on this subject in previous communications. The equalization of the annual runs of the Suck-kai (or summer fish), now periodically intermittent, and the introduction of the large spring salmon of the Columbia River, are objects worthy of special consideration. From this remark it will be perceived that, while the Columbia fish and our own spring fish are in external appearance nearly the same, there is probably a specific difference between them. This I infer from a difference of habit as they near their respective spawning grounds; accidental, possibly, but so well marked and invariable as to justify a different conclusion. The run of the Columbia fish, I may add, is less irregular than that of the spring salmon of the Fraser; though this, indeed, may be the effect, less of a difference of habit, than of extraneous causes. The success of the operations for artificial propagation on the Columbia River, to which I have referred in a previous report, appears so far to be questionable, at least as affecting the supply to any appreciable extent. I quote the following from the San Francisco Bulletin, of 12th October last:-
"It is believed that some measures will soon be taken in Oregon for increasing by artificial propagation the salmon in the Columbia River aud other rivers of that State. A lew individual attempts have been made, but it is now thought the State will take the matter in hand. The young fish require to be placed in the head waters of the rivers, and this creates an interrational difficulty, as the head waters of the Columbia River are in British Columbia. The Snake River tributary, which rises in Idaho, could be used, and the probability is, if no obstructions exist, that as many salmon would reach the head waters of the Snake as those of the Columbia, the source of the one being as high in elevation as that of the other."

The suggested alternative is fallacious, but it is fairly presumable that no "international difficulties" would in these enlightened days be allowed to impede a measure so commendable-if, indeed, co-operative measures might not be devised which might prove mutually beneficial.
54. The oyster business in this Province has not yet been practically entered upon. A lcase has been applied for (and the application has been tarourably entertained by gour Department), with the viow of establishing the culture at Mud Bay, near the difcharge of the Fraser. I have reported, as instructed, on other favourable localities, with diagrams of their position. There are of course many apots, not heretofore known as producing oysters for the market, where natural beds exist, and which are tnerefore available for fuiure cultivation. Upon these I shall continue to report as they successively come under more special cognizance.
55. The waters of this coast are obvionsly well adapted for the lobster; but, unfortunately, none of those shell-fish are found here. The lobster, however, has been introduced by the United States Fishery Departmont into the waters of California, and is reported to thrive there and multiply with great rapidity. Its introduction here would be an appreciable boon; and, duly protected for awhile, a valuable future industry would be thus originated. Some other valuable kinds of fish may, duabtless, with time, be profitably introduced; for instance, the shad, imported not long ago from the east, and now numerous in the Bay of San Francisco.
56. Since penning the foregoing pages, I have (25th Jauuary) completed the Return-list for the past year. The result, notwithstanding that the canned salmon has been valued at a lower rate than before, in order to correspond with the Customs valuation, shows a great increase, as under:-

$$
\begin{aligned}
& \text { Total yield, 1881..................................................81,454,321 } 26 \\
& \text { Do. } 1880 \text {. } \\
& \text { 713,335 32 } \\
& \text { Increase in 1881.................................................. \$ 740,985 } 9 \pm
\end{aligned}
$$

57. If the theory noted in paragraph 4, of my last jear's Report be admitted, (and its correctness has so far been amply sustained by the past season's experience) we shall probably be favoured with another productive salmon fishery during the present year. The operations, too, will be greatly extended, so that a very encouraging result may be anticipated. The necessity of a judicious regulation of this important business, such as I have before referred to, hence becomes all the more apparent, as well for the interests of those who are already deeply engaged in it, as for the future of the fisheries. For the rest I believe that the rules now in operation, with the observance of the woekly close-time, are amply sufficient to prevent deterioration of the river fisheries, provided that the ouber necessary checks which have been suggested be timely applied. The labour question, in connexion with the fisheries, is one of deep importance. At present the services of all the young men among the Indians who are accessible, and who have more or less been habituated to the work, have been eagerly sought by the canners. It should, I opine, be made a special object by the Indian Agents, stationed along the coast, to encourage the young mon around them to devote themselvos, during the season, to this industryprofitably alike to those who may engage in it, and to those who employ them. The capacity of these people to acfuire readily all the necessary arts connceted with a cannery, has been amply tested. The fact, before mentioued, that Mr. Duncan, of Methlakatla, is now, with Indian labour alone, constructing a cannery, the details of which will be carried on solely by themselves, is sufficient evidonce of this; while the experience of every establisbment now in operation would probably sustain the plea. I treat this subject solely from an economic point of view, as a fishery question, but ite mention opens a wide field for the consideration of those with whom the care of the natives more especially rests. Upon questions which have arisen in Indian matters generally, as connected with fisheries, I will not here re-enter, respectfully referring you to the communications on this subject which I have already had the honour to submit.

I have the honour to be, Sir,
Your most obedient servant, ALEX. C. ANDERSON, Inspector of Fisheries, British Columbia.
Number and value of vessels and nets engaged in the different fisheries of the Province of British Columbia, during the year 1881 :-
8 Steamers, fire at fifty tons ..... $\$ 24,00000$
10 Schooners, fifteen at eighty tons ..... 17,425 00
375 Fishing boats ..... 16,595 00
35 Flat boats ..... 3,940 00
146 Cedar canoes, with sealing-fleet ..... 000
495 Salmon nets, 141,900 yards ..... 52,159 00
1 Herring seine ..... 10000
3 Herring nets, 700 yards ..... 1,40000
12 Oolâhan nets ..... 40000
50 Fish seines. ..... 4,00000
$\$ 120,01900$
12 Salmon canneries, estimated value ..... $\$ 244,00000$
1 Oil factory, Queen Charlotte Island ..... 8,00000
1 Oil and scrap factory, Burrard Islet ..... 25,00000$\$ 277,000 \quad 00$
Sailors ..... 62
Fishermen ..... 1,580
Shoremen. ..... 1,251

## RECAPITULATION.

Yield and Value of the different Fisheries in the Province of British Columbia, during the Year 1881.

| Kinds. | Quantities. | Value. |
| :---: | :---: | :---: |
|  |  | \$ cts. |
| Salmon, salted ............................................................ Barrels. | 4,9161 | 39,332 00 |
| do fresh ................. ............................................... Pleces. | 153,800 | 38,450 00 |
| do smoked....................... ................................................. |  | 1,450 00 |
| $\mathrm{r}^{7}$ do canned................................................. ......... Lbs . | 8,509,248 | 1,063,656 00 |
| Fish (assorted) salted ..................................................... Barrels. | 75 | 45000 |
| Herring, salted $\qquad$ $\qquad$ do | 200 | 1,200 00 |
| do smoked . ....... .......................................................................... |  | 2,500 00 |
|  | 235 | 2,350 00 |
| Oolkhans, salted ..... .................................................. $\{$ Half-brls. | 230 | 1,150 00 |
| Kitts. | 50 | 12500 |
| do smoked...................... ...................................... Boxes. | 500 | 5000 ) |
| do fresh ................................... ........................... Lbs. | 3,100 | 18600 |
| Oil-Oolâhan .............................. ................................ Gallons. | 1,630 | 1,630 00 |
| Herring............................................................. ${ }^{\text {a }}$ do | 16,000 | 6,400 00 |
| Dog-fish, Seal and Porpoise.................................... ${ }^{\text {do }}$ | 142,240 | 56,896 00 |
| Refned Dog-6ish............................ . ....................... ${ }^{\text {do }}$ | 27,000 | 14,850 00 |
| Trout, fresh................................................................. Lbs. | 3,500 | 21000 |
| Sturgeon, fresh $\qquad$ <br> Haddock and other fish dried | 70,271 | 4,216 26 |
| Haddock and other fish, dried |  | 250 00 |
| Halibut, fresh, in ice to San Francisco-Customs return............................ |  | 57800 |
| Pur Seal Skins ...... ................................................................... No. | 13,541 | 162,49200 |
| Hair do ............................................................ do | 3,500 | 1,750 00 |
| Sea Otter Skins .............. .............................................. do do. | 150 | 6,000 00 |
| Fish-scrap, dried ........................................................... Tuns. | 10 | , 20000 |
| Fresh Fish sold in markets. | .................... | 45,00000 |
| Fish cured for private consumption................................................... | ........................ | 2,500 00 |
| Total for 1881 |  | 1,454,321 26 |
| Total for 1880 ................................. |  | 713,335 32 |
| Increase .................................................. | ................... | 740,985 94 |

Additional.
Value of computed consumption of Fish by the Indian population (35,000) as per previous detail :-

| Salmon | \$4,375,000 00 |
| :---: | :---: |
| Halibut. | 180,000 00 |
| Sturgeon and other Fish. | 250,000 00 |
| Fish Oils ............. | 80,000 00 |
|  | \$4,885,000 00 |

ALEX. C. ANDERSON,<br>Inspector of Fisheries B.C.

Victoria, B.C., 25th Jaquary, 1882.

CANNERIES OF BRITISH COLUMBIA, 1881.
Approximate Valuation, Names aud Nationality of Owners, \&c.

|  | Locality. | Owner. | Nationality. | Estimated Value of Plant. | $\begin{gathered} \text { Current } \\ \text { Outhay, } 1881 . \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Fraser River-Dease Island | Findlay, Durham \& Brodie......................... .................. | British................... | 15, ${ }^{\$}$ | $\stackrel{\$}{\$}$ |
| 2 | do Canoe Pass ........ | John Adair \& Co............................................................... | Uniterl States.. .......... | 25,000 | 72,000 |
| 3 | do Ladner's Landing......... ........ | Delta Cannery: Thwmas Ladner............. $\left.\begin{array}{c}\text { Jolin Page, and others.... }\end{array}\right\}$.................... | British .................. | 25,000 | 79,000 |
| 4 | do Opposite New Westminster...... | British Columbia Packing Co : J. Finlayson $\qquad$ <br> B. Wright. <br> Peter Birrell |  | 25,000 | 79,000 |
| 5 | do New Westminster... | Alexander, Ewen \& Co................ .................................... | British. | 25,000 | 78,000 |
| 6 | do Opposite New Westminster...... | M. M. Euglish \& Co................................................... | United States. ......... | 27,000 | 78,000 |
| 7 | do Coquitlam......................... | B. Haigh \& Sons.............. ........................................ | British................... | 25,000 | 80,000 |
| 8 | do Supperton, New Westminster... | J. Laidlaw \& Co....................... ................................ | do ................... | 21,000 | 70, 100 |
| 9 10 | Skeenâ River-Inverness............................ | Turner, Beeton \& Co................................................. | do ................... | 16,000 | 45,000 |
| 10 | do Aberdeen............................ | Wiadsor Canning Co.: Henry Saunders.......................................................... | $\begin{aligned} \text { do } & \cdots, \ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~ \end{aligned}$ | 15,000 | 40000 |
| 11 | Nass River................. .... ... .............. ...... | Henry E. Croasdaile. ......... . ...... ............................. | do ..................... | 15,000 | 28,000 |
| 12 | Alert Bay......................... ....... .............. |  |  | 10,000 | 20,000 |
|  |  | Total |  | \$244,000 | \$709,000 |

N. B.-The valuation in the first column is based, generally, on the cost of a cannery of the capacity of pono cases. modified in the increase by the解 in Victoria; and after shipment the consignments are drawn against, with Bill of Lading attached, to within 10 or 15 per cent. of prohalle value

## ALEX. C. ANDERSON, <br> Inspector, B.C.

Viotoria, B.C., 2j̄th January, 1882.

Retorn showing the Kinds, Quantities and Prices of Fish

| Name of Station. | Name of Owner. |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fraser River- <br> Canoe Pass | J. Adair \& Co.. |  |  | 17590 | \$ | 5000 | \$ | \$ |  | \$ |
| New Westminster.. | British Columbia Packing Co | 244 |  | 1998\% |  | 4500 |  |  |  |  |
| Ladner's Landing. | Delta Canning Co .............. | 221 |  | 19989 |  | 4600 |  |  |  |  |
| New Westminster. | Ewen \& Co.. ..................... | 410 |  | 18900 |  | 5071 |  |  |  |  |
| Dease Island......... | Findlay, Durbam \& Brodie.... |  |  | 10200 |  | 8500 |  |  |  |  |
| New Westminster., | English \& Co. .................... | $212 \frac{1}{2}$ |  | 18500 |  | 4000 |  |  |  |  |
| Coquitlam | Haigh \& Sons ..................... | 300 |  | 21000 |  | 6000 |  |  |  |  |
| New Westminster.. | Laidlaw \& Co...... .............. | 568 |  | 16350 |  | 4500 |  |  |  |  |
| New Westminster and other points. | T. Herring........................ | ..... | 25000 | ... .... | ....... | 10600 | . |  |  | ....... |
| do | J. Ibbotson......................... |  | 20000 | ........ |  | 10000 | .... |  |  |  |
| do ... | J. Powers .......... | 26 |  | ......... | ...... | ........ | ..... |  |  | ..... |
| do ... | W. Viencan |  | 6000 | - | -..... | ...... | ...... | .... |  | ..... |
| do ... | J. Wise. | 800 | 32000 | ........ | . | 4000 | ...... |  |  |  |
| do $\quad$... | F. Kaye | 550 | 30100 | .......... | ...... | 3500 |  |  |  | ...... |
| do ... | Residents above N. Westminster, for home consumption. | 160 | 40500 | ........ | ...... |  |  |  |  | ....... |
| do | T. Bateson ......................... |  | 200 |  |  |  |  |  |  | ...... |
| Burfard Inlet | Burrard Inlet Oil \& Guano Co |  |  |  | ..... | ......... |  |  | 200 | …… |
| Nass River......... ....... | H. E. Croasdaile............... | 30 |  | 7700 | ..... | ......... | ..... | .... | ... . | ...... |
| $\begin{aligned} & \text { do ................ } \\ & \text { Skeenâ River- } \end{aligned}$ | Nass River Packing Co. ....... | 290 |  |  | ..... | $\cdot$ |  | .... |  | ..... |
| Inverness... | Turner, Beeton \& Co. (Inverness Cannery) $\qquad$ | 15 |  | 11560 |  |  |  |  |  |  |
| Aberdeen ............ | Dempster \& Oo. (Windsor Cannery) |  |  | 10000 | ..... |  | ... |  |  | ..... |
| Essington............ | James Cunningbam ............... | 540 |  |  |  |  |  |  | .... | ...... |
| Alert Bay.................. | Thos. Earle \& Co. ................ | 200 |  | 6500 | ..... |  |  |  |  | ..... |
| Queen Charlotte Isiand | Skidegate Oil Co. |  |  |  | …… |  |  |  |  | . |
| Ooast of Brit. Columbia | Victoria Merchants, including Hudson's Bay Co. |  |  |  |  |  |  |  |  | . |
| do do | Oil export, per Customs' Return. |  |  |  |  |  |  |  |  |  |
| do do | Oil, local consumption, mills, mines, shipping, \&c. |  |  |  |  |  | ..... | $\ldots$ | .... | ....... |
| do do | Halibut, in ice, to San Francisco $\qquad$ | ..... |  |  |  |  |  | 578 | … | $\cdots$ |
| do do | Various parties in Victoria, Esquimalt and other places. | 350 |  |  | 1450 |  | 250 |  |  | $\cdots \cdots$ 2500 |
|  | Total.................... | 4916⿺𠃊 | 153800 | 177276 | 1450 | 70271 | 250 | 578 | 200 | 2500 |

Add-Estimated Sales of Fish in Markets
do Amount of Fish cured for private consumption..............................................
Total
$\$ 45,00000$
2,500 00
747,50000

Viotoria, B.C., 25th January, 1882.
in the Province of British Columbia，for the Year 1881.

|  |  |  |  | Oolâhans，smoked，boxes，at $\$ 1$ ． |  |  |  |  |  | ils． | —— |  | Where Mareeted． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A． |  | 1500 <br> 1600 <br> $\ldots \ldots$. <br> $\ldots \ldots$. <br> $\ldots \ldots$. <br> $\ldots . .$. <br> $\ldots . .$. <br> $\ldots . .$. <br> $\ldots$ <br> $\ldots$ | $\left.\begin{array}{c}\ldots \ldots \ldots . \\ \ldots \ldots \ldots . . \\ \ldots \ldots \ldots . . \\ \ldots \ldots \ldots . . \\ \ldots \ldots \mathrm{ks} \\ 235 \\ 230 \\ (\mathrm{Hs})\end{array}\right\}$ |  |  |  |  |  |  |  |  |  | England． <br> Eastern Canada and England． do do <br> Australia and England． <br> England． <br> England and Canada． <br> England． <br> England，Canada \＆Honolulu． <br> Local consumption，Victoria， Yale，\＆c． <br> do <br> do <br> do <br> do <br> do do <br> Barrels to England \＆Canadn． do do <br> Home consumption． <br> do <br> England． <br> do <br> do <br> do <br> do <br> Portland，Oregon，and local sale． <br> London，chiefly． <br> London． <br> Local consumption． <br> San Francisco． <br> Local sale，chiefly． |

$\triangle$ LEX．C．ANDERSON，
Inspector of Fisheries，B．C．

Retorn showing the Number and Value of Vessels, Boats, Nets, \&e., in the Province of British Columbia, for the Year 1881.



## ALEX. C. ANDERSON, <br> Inspector of Fisheries, B.C.

## Victoria, B.C.

25th January, 1882.

## No． <br> ONTA

Return of the Number and Value of Vessels，Boats，Nets，\＆r．，together with

| Station． | Yessels and Boats Em－ ployed Pisiing． |  |  |  |  |  |  | Nets，therr Numbr，Size， |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Vessels． |  |  |  | Boats． |  |  | Gill Nets． |  |  | Seines． |  | Pound Nets． |  |  |
|  | $\dot{8}$ |  | $\stackrel{3}{3}$ | 邑 | $\left\|\begin{array}{c} \dot{0} \\ Z \end{array}\right\|$ | $\stackrel{\dot{\Xi}}{\stackrel{y}{\Xi}}$ | gi | $\dot{8}$ | $\begin{gathered} \text { 邑 } \\ \underset{\sim}{0} \end{gathered}$ |  | $\dot{0}$ |  |  | $\begin{aligned} & \text { 官 } \\ & \underset{\sim}{0} \end{aligned}$ | 㗊 |
| Lake Superior Ditision． |  |  | \＄ |  |  | \＄ |  |  |  | \＄ |  |  | $\pm$ |  | \＄ |
| Victoria Island．．．．．．．．．．．．．．．．．．．．．．．．．．． |  | ．． | ．．．． |  | 1 | 100 | 3 | 12 | 600 | 260 | ． |  | ．． |  |  |
| Thunder Bay．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  | ．．． | ．．．．．． | ．．． | 4 | 300 | 9 | 38 | 1825 | 750 | ． | ．．． | ．．．．． | ．．．．．． | ．．．．． |
| Welcome Islands．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  | $\cdots$ | 4 | 385 | 10 | 38 | 2010 | 1000 | ． | ．．．．．． | ．．．．． | ．．．．． | ．．．．．． |
| Great Saganash．．．．．．．．．．．．．．．．．．．．．．．．． | 1 | 30 | 1000 | 4 | 1 | 150 | 3 | 18 | 950 | 375 | ．．． |  |  | ．．．．．． | ．．．．．． |
| Fluor Island．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  | ．．．．．． | ．．． | 7 | 250 | 15 | 30 | 160 | 100 | … | ．．．．．．． | ．．． | ．．．．．． | $\cdots$ |
| Roche Debout ．．．．．．．．．．．．．．．．．．．．．．．．．．．． | $\dagger 1$ | 6 | 150 | 2 | 10 | 150 | 20 | 35 | 210 | 160 | $\ldots$ | … | ．． | ．．．．．．．． | $\ldots$ |
| St．Ignace Island．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  | 1 | 100 | 3 | 16 | 350 | 200 | … |  | ．．． | ．．．．．．．． | $\ldots$ |
| Salter＇s Island．．．．．．．．．．．．．．．．．．．．．．．．．．．． | ． | ． | ．．．．．．． |  | 1 | 60 | 2 | 6 | 100 | 85 | ．．． | ．．． | －． | ．．．．．．． | ．．．．．． |
| Black Bay ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | ．．． | ．．． | ．．．．．． |  | 1 | 75 | 2 | 4 | 75 | 68 | ．．． | ．．．． |  |  | ．．．．．． |
| West Michipicoten Island．．．．．．．．．．．．．． | ． |  | ．．．．．． |  | 2 | 35. | 4 | 20 | 500 | 650 | ．．．． | … | $\cdots$ |  | ．．．．．．． |
| East Michipicoten Island ．．．．．．．．．．．．．．． | ．．． | ．．． |  |  | 2 | 325 | 4 | 20 | 500 | 600 | ．．．． | ．．． | ．． |  | ．．．．．．． |
| North Mamainse．．．．．．．．．．．．．．．．．．．．．．．．．． | ．．．． | ．．． | ．．．．．． |  | 2 | 250 | 4 | 14 | 584 | 625 | ．．．． | … | ．．． |  | ．．．．．．． |
| Sault St．Mary＇s Rapids | ． |  | ．．．．．．． |  | 6 |  | 12 | ．．．．．． |  | 625 |  | ．．． | ．．． |  | …．．． |
| Echo River $\qquad$ |  | 3i］ | ㅈ．．． |  | 2 | 150 | 4 | ．．．．．． |  | ．．．．．． |  | ．．． | ．．． | ．．．．． | ．．．．．．． |
| Grand Sable．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | $\bullet 1$ | 31 | 1500 |  |  | 3125 | 50 | ．．．．． | 2535 | 3000 |  | ．．． | ．．． |  | ． |
| Grand Batture |  |  |  |  | 6 | 600 | 12 | 300 | 1800 | 3000 | ． | ．．． | ．． |  |  |
| Total | 3 | 67 | 2650 | 10 | 75 | 6520 | 157 | 545 | 12199 | 10873 |  |  |  |  |  |
| Manitoulin Island Division． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $\because 2$ | 376 | 6500 | 111 | 19 | 2000 | 50 | 800 | 4800 | 8000 |  |  | 2 | 90 | 600 |
| Green and Cockburn Islands．．．．．．．．． | $\bullet 2$ | 501 | 1000 | 20 | 18 | 1800 | 50 | 800 | 5000 | 8000 |  |  |  | 200 | 1200 |
| Total． | 4 | 87 | 7500 | 31.3 | 37 | 3800 | 100 | 1600 | 9800 | 16000 |  | ．．． | $\cdots{ }^{-} 6$ | 90 | 1800 |

## 7.

RIO.
the Yield and Value of Fish in the Province of Ontario, for the Year 1881.


Return of the Number and Value of Vessels,


- Yacht. † Tugs.

Boats, Nets, \&c.-Ontario-Continued.


Return of the Number and Value of Vessels,


[^1]Boats, Nets, \&c.-Ontario-Continued.


Return of the Number and Value of Vessels,


Boats, Nets, \&c.-Ontario-Continued.


Retcrn of the Number and Value of Vessels，

| itation． | Vessels and Boats employ－ ed fisming． |  |  |  |  |  | r Mumber，Size， |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Vessels． |  |  | Boats． |  |  | Gill Nets． |  |  | Seines． |  |  | Pound Nets． |  |  |
|  |  |  | $\left\|\begin{array}{c} \dot{j} \\ \underset{\sim}{2} \end{array}\right\|$ | $\dot{8}$ | $\underset{\sim}{\underset{\sim}{c}}$ | $\underset{\sim}{\text { gi }}$ | 品 | $\stackrel{\dot{x}}{2}$ |  | $\dot{\circ}$ |  | 告 | $\bigcirc$ | 守 | $\stackrel{\text { en }}{\frac{8}{3}}$ |
| Niagara River and Lhe Ontario Itivesion． |  | \＄ |  |  | \＄ |  |  |  | \＄ |  |  | \＄ |  |  | \＄ |
| Point Abino ．．．．．．．．．．．．．．．．．．．．．．．．．． | ． |  | ， | 2 | 300 | 3 |  |  |  |  |  |  | 3 | 200 | 860 |
| Bertie ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | － |  | ．．． | 2 | 40 | 6 |  | ．． |  | 2 |  | 200 |  |  |  |
| Old Fort，J．ake Eric．．．．．．．．．．．．．．． | ．．． |  | $\cdots$ | 13 | 390 | 13 |  |  |  |  |  |  |  |  |  |
| Fort Erie． | ．．．．．．．．． | ．．．．．． | ．．． | 2 | 60 | 40 |  |  |  | 2 |  | 180 | ．．． |  |  |
| Cbippewa ．．．．．．．．．．．．．．．．．．．．．．．．．． | ．．．．．．．． |  | $\ldots$ | 3 | 60 | 3 | 3 | 150 | 90 |  |  |  |  |  |  |
| Niagara．．．．．．．．．．．．．．．t．．．．．．．．．．．．．． | ．．．．．．．． | ．．．．．． | ．． | 6 | 190 | 7 | 1 | 170 | 60 |  |  |  | ．．． |  | ．．．．． |
| Queenston $\ldots$ ．．．．．．．．．．．．．．．．．．．．．．．． | ．．．．．．．． | ．．．．．． | ．．． | 4 | 80 | 7 |  |  |  | 1 |  | 450 |  |  | ．．．．．． |
| Two Mile Pond．．．．．．．．．．．．．．．．．．．． | ．．． | ．．．．．． | ．．． | 3 | 180 | 4 | 4 | 633 | 280 | ， | 60 | 120 | ．．． |  | ．．．．． |
| Four Mile Pond． | ．．．．．．．． | ．．．．．． | $\ldots$ | － | 366 | 14 | 13 | 2770 | 1122 | 4 | 234 | 480 | ．．． |  | ．．．．． |
| Ten Mile Creek | ．．．．．．．． | ．．．．．． | ．．． | 1 | 40 | 2 | 9 | 230 | 110 |  |  |  |  |  | ．．．．． |
| Port Dalbonsie． | ．．． | ．．．．． | ．．． | 3 | 120 | 3 | 5 | 800 | 330 | 1 | 50 | 120 | ．．． |  | ．．．． |
| Sixteen Mile Pond．．．．．．．．．．．．．．．． | ．．．．．．．．． | ． | ．．． | 1 | 15 | 2 | 2 | 120 | 80 | 2 | 30 | 80 | ．．． |  |  |
| Louth ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | ．．．．．．．．． | ．．．． | ．．． | ， | 230 | 3 |  |  |  |  |  |  | 1 | 50 | 340 |
| Twenty Mile Pond | ．．．．．．．． | ．．．．．． | ．．． | 3 | 50 | 3 |  |  |  | 1 | 50 | 120 |  |  |  |
| Clintou．．． | ．．． | ．．． | ．．． | 2 | 100 | 2 | 4 | 600 | 210 |  |  |  |  |  | ．．．．．．． |
| Grimsby．． | ．．．．．．．．． | ．．．．．． | $\cdots$ | 1 | 50 | 2 |  | 660 | 220 |  | ．．．．．． |  |  |  | ．．．．． |
| Winona．．． | ．．．．．．．． | ． | $\cdots$ | 2 | 150 | 3 | 7 | 1270 | 462 |  |  | ．．．．． | … |  | ．．．．．．． |
| Burlington Beach．． | ． | ．．．．．． | ．．． | 25 | 1035 | 37 | 43 | 4556 | 1786 | 10 | 1244 | 1525 |  |  |  |
| Burlington Bay ．．．．．．．．．．．．．．．．．．．．．．． （spearing and |  |  | ．．． | 1 | 24 | 2 | \％ 2 | 182 | 60 | 1 | 1244 | 152 | － | ．．．．．． | ．．．．．．． |
| angling）．．．．． <br> Twelve Mile Creck（angling for domestic use）． |  |  |  |  |  |  | ．．．．．．． |  | ．．．．．． | ．．． | ．．．．． | ．．．．．． | ．．． |  | ．．．．．．． |
| Bronte．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  | 455 |  |  |  |  |  |  |  | ．．． |  |  |
| Port Credit．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | － |  |  | 2 | 40 | 156 | 14 1 | ${ }^{340}$ | 1060 | 2 | 150 | 130 | ．．． |  |  |
| do（angling）．．．．．．．．．．．．．． <br> The Humber | ． |  |  |  |  |  |  |  |  |  |  |  | … |  | ．．．．．． |
| Toronto Bay（hook and line fishing）． |  |  |  |  | 190 | 4 | 8 | 1120 | 368 | 1 | 50 | 150 .... | ． | ．．．．． | ．．．．．． |
| Turonto 1sland．．．．．．．．．．．．．．．．．．．．．． |  | ．．． | ．．． |  | 270 |  | 6 | 1323 | 540 |  | 100 | 400 | ．．． |  |  |
| Leslieville．．． |  | ．．．．． | ．．． | 4 | 360 | 8 | 14 | 910 | 430 | 1 | 50 | 150 | ．．． |  |  |
| Gate＇s Gully． | ．．． | ．．．．．． | ．．． | 1 | 10 | 2 | 14 | 910 | 430 | 1 | 20 | 30 | … | ．．．．．． | ．．．．．．． |
| I＇ort Union ．． | ．．． |  | ．．． | 1 | 40 | 3 | 3 | 470 | 136 |  | 20 | 3 | ．．． |  | ．．．．． |
| ＇The Rouge．， | ．．．．．．．．． |  | $\ldots$ | 1 | 20 | 3 | 3 | 47 | 136 |  |  |  |  | …．．． | ．．．．．． |
| Frenchman＇s Bay |  |  | $\cdots$ | 6 | 130 | 12 | 10 | 1180 | 330 |  | 40 | 120 |  |  | ．．．．．． |
| Whitby．．．．．．．．．．．． | $\left\|\begin{array}{c} \cdots \\ \cdots \\ \cdots \end{array} \cdot \cdots \cdot\right\|$ |  | ．．． | 4 | 50 | 2 | 2 | 45 | 30 | 1 | 40 | 120 | … | ．．．．．． | ．．．．． |
| Oshawa | ．．． |  | $\ldots$ | 1 | 20 | 2 | 2 | 45 | 30 | 1 1 | 40 | 120 |  | ．．．．．． | ．．．．．．． |
| Bowmanville． | ．．． |  | $\ldots$ | 3 | 120 | 8 | 1 | 500 |  | 1 | 70 | 160 |  | ．．．．．． | ．．．．．．． |
| Port Hope． | ．．．．．．．．． |  | $\ldots$ | 2 | 40 | 4 |  | 500 | 100 | 2 | 45 | 160 | … |  | ．．．．．． |
| Cobourg．．．． | ．．．．．．．．． |  | ．．． | 9 | 650 | 18 | 6 | 3000 | 600 | 2 | 90 | 170 | … |  | ．．．．．． |
| Colborne．． |  |  | ．．． |  | 180 | 6 | 3 | 900 | 180 |  |  |  |  |  | ．．．．． |
| Brighton．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | $\ldots \mid \ldots$ |  |  | 13 | 750 | 26 | 7 | 4500 | 840 | 2 | 130 | 250 | ．．．． |  |  |
|  | － |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total． | ．． |  |  |  | 6761 | 247 | 165 | 29639 | 9444 | 46 | 2773 | 5330 | 4 | 250 | 1200 |

Boats, Nets, \&c.-Ontario-Continued.


Return of the Number and Value of Vessels,


Boats, Nets, \&c.--Ontario--Continued.


Return of the Number and Value of Vessels;


Boats, Nets, \&c.-Ontario-Continued.


Retuin of the Number and Value of Vessels


Boats, Nets, \&c.-Ontario-Continued.

| Value, \&c. |  |  | Kinds and Quantities of Fisu. |  |  |  |  |  |  |  |  |  |  |  |  | Val | Le. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hoop Nets. | Scoop Nets. |  |  |  |  |  |  |  |  | $\begin{aligned} & \dot{m} \\ & \dot{\Xi} \\ & \tilde{E} \\ & \ddot{\ddot{a}} \end{aligned}$ |  |  |  |  |  |  |  |  |
| ¢ | $\dot{z}$ | $\stackrel{\text { ® }}{\Xi}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 定 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 号 |  |
| \$ |  | \$ |  | Eels |  |  |  |  |  |  |  |  |  |  |  | \$ | $\$$ | \$ |
| ...... ...... | ... | ...... | 2 | 2650 | ...... |  | .. ... | 10 | 30 | 25 | 25 | 240 | 308 | ...... | 651 | 2893 |  | 2893 |
| ..... |  |  | ...... |  |  |  | . ... | ...... | ..... | ...... | ..... |  | 100 | ...... | 100 | 400 |  | 400 |
| .. | ...... | ...... | 119 | ..... | .. ... |  | 83. | ..... | 70 | .... | 81 | ...... |  | ...... | 376 | 2811 | . | 2811 |
|  |  |  | 2. | ...... |  | 8 | -61... |  | 1 | ...... |  | ...... | ..... | . | 57 | 337 |  | 337 |
| ..... |  | ...... | 115 | ..... | . |  | $10 . .$. |  |  | ..... | ..... | .... | ...... | . | 180 | 1750 | ...... | 1750 |
| ..... | ...... | ..... | 1. | ..... |  |  | ...... | ...... | 1 | ..... | ..... | ..... | ..... | ..... | 15 | 147 | ... | 147 |
|  |  | ..... | 90 | ..... | ...... |  | 10 ... |  |  | ..... | ...... | ..... | ..... | ..... | 155 | 1500 | ...... | 1500 |
| ...... $\cdot . .$. |  | ...... | 481 | ..... | ...... | 18 | ... ... | ...... | ${ }^{1}$ |  | ... |  | ..... | ...... | 64 167 |  | ...... | 667 1610 |
| ...... | . | ... | 52 | ..... |  | 45 |  | ...... | 20 |  |  |  |  |  | 167 | 1610 | .. | 1610 |
|  |  |  | 4 | ...... |  | 10 | ...... |  |  |  |  |  |  |  |  | 140 | ... | 140 |
|  | ..... |  |  | .... | ...... | 50 | $\ldots$ | 30 | 50 | 100 | ...... | 10 | ..... |  | 240 | 1680 | ..... | 1680 |
|  |  |  | 312 | .... | ..... | 304 | 65 | 30 | 'i3 | 100 | .. | 10 |  |  | 895 | 7831 | ..... | 7831 |
| angling u | were is | ssued. |  | ...... | ..... |  | ... ... | 717 | 286 | ..... | 344 |  | 915 |  | 14.2 | 9341 | ...... | 9341 |
| ..... | ..... | ...... | .... | ..... | ... | 88 | 45 ... | 158 | 256 | ..... | ..... | ...... | 145 |  | 692 | 4280 |  | 4280 |
| 5100 | ...... |  |  | …' | $\ldots$ | 20 | ... ... | ..... | 25 | 12 | ..... | ..... | 120 |  | 177 | 807 | ..... | 807 |
| 1180 | ..... | .... | .... |  |  |  |  |  | 35 | 257 | 13 | ..... | 138 | ...... | 443 | 2305 |  | 2305 |
|  |  |  | 33 |  |  | $45 \frac{1}{2}$ | ... ... | 61 | 23 | 1082 | 40 | 15 | 157 | 7 | 483 | 2829 | ... | 2829 |

Redapitulation of the Number and Value of Vessels, Boats, Nets, \&c., together with the Yield and Value of Fish, in the Province of Oatario, for the Year 1881.


Reoapitulation of the Number and Value of Vessels, Boats, Nets, \&c.-Ontario-Concluded.


## RECAPITULATION

Of the Yield and Value of the Fislieries in tho Province of Ontario, during the Year 1881.

| Kinds of Fish. | Quantity. | Prices. | Value. |
| :---: | :---: | :---: | :---: |
|  |  | \$ cts. | \$ cts. |
| Whitefish........... ........ ................. ...................... | 5,079 ${ }^{1}$ brls........ | 1000 | 50,795 00 |
| do ............................ ............................ | 2,561,541 lbs......... | 005 | 128,077 00 |
| do ......................................................... | 677,320 pieces...... | 010 | 67,732 00 |
| Trout .............. . .................................. ............. | 9,578 ${ }^{\text {brls........ }}$ | 1000 | 95,785 00 |
| Herring.................. ................. ......... .............. | 17,760 do ......... | 400 | 71,040 00 |
| Sciscos...... ....................... ............................... | 580 do ........ | 400 | 2,320 00 |
| Maskinongé. .................................................... | 1,523 do ....... | 500 | 7,615 00 |
| Bass .................................................................................................................. | 2,767 do ........ | 500 | 13,835 00 |
| Pike ......................... ........ ................ ................ | 1,775 do ........ | 500 | 8,875 00 |
| Pturgeon ............................. ........................................ | 4.257 <br> 2,225 <br> do <br> do .......... | 500 500 | 21,285 00 |
| Coarse Fish............................................................................ |  | 500 300 | 11,12500 19,260 |
| Fish used for local consumption .............................. | 4,053 do .......... | 300 | 12,159 00 |
| Total value of Fisheries in 1881........ | - $\cdot$... | ............ | $\begin{aligned} & 509,90300 \\ & 444,49100 \end{aligned}$ |
| Increase................................... | ..... | ....... | \$65,412 00 |

SYNOPSES OF FISHERY OVERSEERS' REPORTS IS TILE PROVINCE OF ONTAKIO, FOR THL YEAR $1 \because \approx 1$.

LAKE SUPERIOR DIVISION.
$\left.\begin{array}{l}\text { James Diekson, } \\ \text { Joseph Wilson, }\end{array}\right\}$ Overseers.
Comparative Statement of the yield and value of the Fishcric: in this Division.

| Kinds of Fish. | 1873. | 1874. | 1875. | 1876. | 1877. | 1878. | '870. | 1880. | 1881. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Whitefish ................... Brls. | 2,275 | 2,580 | 2,117 | 2,043 | 2,178 | 832 | 230 | 1,372 | 859 |
| do fresh ............ Lbs. | 7,000 |  |  | 40,700 | 72,200 | :59,000 | $\underline{+1.80}$ | 80,400 | 359,144 |
| do do .......... Tront...................... Brls. | 500 | 1,684 | 995 | 3.392 | 4,414살 | 1,0] |  | 1.564 | 988 |
| Pickerel ..................... ${ }^{\text {a }}$ |  |  |  |  |  | 5. |  | 159 | 55 |
| Fish used for local consumption. |  |  |  |  |  |  | 320 | 426 | 136 |
| Total in barrels........... | 3,755 | 4,264 | 2,172 | 5,6421 | 6,963 ${ }^{1}$ | 3,21 ${ }^{\text {i }}$ | + | 3,923 | 3,832 |
| Value. | \$18,035 | \$44,664 | \$21,720 | $\times 56,425$ | \$69,635 | \$29,295 | 5, $5+1$ | 235879 | \$25,116 |

Overseer Dickson reports a slight falling off in the yield of io dihories in the upper division of Lake Superior as compared with that of lasi sur. This he attributes, first, to fewer boats being used; and second, to a smaller iniun:t of capital invested. Large quantities of fresh fish were sent to and sold it womerative prices in the United States markets. Fish were unusually plentifu! in :1, a around Thunder Bay. The fishery laws were weil observed, with the excep in: o one slight violation at Pie Island, and the parties were fined.

Overseer Wilson visited Nepigon River during the month of An..., , and found it in good order and fish very numerous. The fishery laws were well in whe The largest trout caught weighed about six pounds. Sixty-six angling: pumits were issued daring the season, yielding a revenue of $\$ 208$. The quantity oi speckled trout caught by anglers is retarned at 3,000 pounds.

## MANITOULIN ISLAND DIVISION.

Comparative Statement of the yield and value of the Fisheries in this Division.

| Kinds of Fish. | 1879. | 1879. | 1880. | 1881. |
| :---: | :---: | :---: | :---: | :---: |
| Whitefish .............. ....................... ....... Brls. | 337 | 250 | 241 | 125 |
| do ....................... ..................... No. | 3,000 | .... ........ | 190,000 | …….." |
| do .............. ........ ...................... Lbs. | , | 389.600 | 11,700 | 743,423 |
| Tront .................................................. Brls. | 293 | 330 | 1,352 | 2,000 |
| Pickerel ............................................... " | ...... | 780 | . $33.1 . .1$ | 151 |
| Fish used for local consumption................. | ......... ........ | 780 | 33) | ................. |
| Total in barrels...... ....................... | 660 | 3,308 | 4,99\%) | 5,992 |
| Value ....................... .................... | \$19,700 | \$28,400 | \$47,920 | \$30,085 |

Owing to the absence of Overseer Abrey, the Department is without reliable returns of the catch of fish around Manitoulin Island. The figures above given represent the yield and value of the fisheries at Ducks, Green and Cockbarn Islands, which were placed under the temporary charge of Mr. Wm. Purvis, lighthonse kecper.

GEORGIAN BAY DIVISION.

James Patton, Overseer, Collingwood to Killarney. William McGowan, Guardian, Moose Deer Point to Byng Inlet. Samuel Frazer, Overseer, Point Cockburn to Moose Deer Point. Geo. S. Miller, Guardian, Cape Hurd to Cape Rich.

Comparative Statement of the yield and value of the Fisheries of this Division.

| Kinds of Fish. | 1878. | 1879. | 1880. | 1881. |
| :---: | :---: | :---: | :---: | :---: |
| Whitefish ........................................... Brls. | 504 | 551 | 1,527 | 1,435 |
| do fresh........ ............................. Lbs. | 100,000 | ...... |  |  |
| do ............................................ No. | 341,600 | 167,500 | 486,700 | 561,550 |
| Trout..... ............................................ Brls. | 519 | 713 | 1,657 | 1,826 |
| Herring................. ............................. " | 176 | 177 | 63 | 156 |
| Pike................................................... " | ......... | 98 | ......... | 67 |
| Pickerel................................................ " | 58 | 30 | 52 | 127 |
| Coarse Fish........................................... " | ............. | 22 | 108 | 35 |
| Fish used for local consumption................ " | $\qquad$ | 1,123 | 785 | 1,000 |
| Total in barrels | 5,173 | 4,289 | 9,059 | 10,261 ${ }^{\frac{1}{2}}$ |
| Value | \$50,560 | \$34,318 | \$84,594 | \$76,581 |

The above returns show a slight falling of in the value of fish caught, which is attributed to there boing fewer hands employed fishing, they having found more profitable employment elsewhere, but fish are stated to have been just as plentiful as ever.

Overseer Patton reports the catch as very good during the first part of the season, but later on it did not pay so well.

Overseer Frazer is satisfied that fish are increasing in his division.
Overseer Miller reports the fishermen of his division as well pleased with the season's operations, although there was a falling off in the catch of whitefish owing to their not resorting to their usual feeding grounds. The cause of increase in the catch of trout he attributes to fishermen having better nets than formerly, and also to the great advantage of having a tug at hand to collect the fish. Large quantities of fish were sent fresh to the United States markets at remunerative prices.

## LAKE HURON DIVISION.

| Janes Moir, | Overseer, | Cape Hurd to Point Clark. |
| :--- | :---: | :--- |
| Huar McFayden, | do | Saugeen River. |
| A. C. McKinnon, | do | Point Clark to Kettle Point. |
| David McMaster, | do | Kettle Point to Baby's Point. |

Comparitive Statement of the yield and value of the Fishories of this Division.

| Kinds of Fish. | 1877. | 1818. | 1879. | 1880. | 1881. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| White fish........................... Brls. | 51 | 2 |  |  |  |
| do ............................. Lbs. | 118,100 | 361,600 | 726,600 | 762,800 | 907,000 |
| do ......................... No. | ........... | 321,000 |  |  |  |
| 'Trout ........ ........................ Brls. | 2,5942 | 1,048 | 1,920 | 2,345 | 2,154 |
| Herring............................. " | 4,262 | 3,262 | 5,159 | 916 | 5,999 |
| Bass ................................... " | 76 | 64 | 63 | 38 | 49 |
| Pike................................... " | 2 | 2 | 9 | 113 | 1 |
| Pickerel ................. ............ " | 524 ${ }^{\frac{1}{2}}$ | 568 | 528 | 113 | 698 |
| Sturgeon........................... " | ................. | 105 | 240 | 25 | 688 |
| Coarse Fish........................ " | ................. | 105 | 23 |  | ...... |
| Fish used for local consuraption " | ................. | ................. | 1,870 | 3,134 | 350 |
| Total in barrels........... | 13,409 | 10,069 | 13,435 | 10,385 | 14,474 |
| Value........ ................. | \$109,007 50 | \$81,480 00 | \$87,888 00 | \$78,670 00 | \$81,075 00 |

Overseer Muir reports a large increase in the catch of all kinds of fish in his division during the past year. This he attributes to a long and open season. The Fishery Laws were well observed.

Overseer McFayden reports a slight falling off in his district, which he thinks is due to dry, hot weather and the low state of the river. The close seasons appear to have been well kept.

Overseer McKinnon reports a large increase in the gield and value of fish in his district. Fishing was more vigorously prosecuted than in previous years. The Fishery Laws were well observed, with the exception of some slight violations of the Statute respecting saw-dust and mill rubbish, which were duly punishod.

Overseer McMaster also reports a large increase in the catch, especially in herring and sturgeon. The Fishery Laws were well observed.

LAKE ST. CLAIR AND THAMES RIVER DIVISION.
C. W. Raymond, $)$
J. B. Moody,
P. McCarron,

Peter McCann,
Angus Brady,
T. McQueen,
A. Quenneville,

## Overseers.

1路
Comparative Statement of the yield and value of the Fisheries in this Division.

| Kinds of Fish. | 1876. | 1877. | 1878. | 1879. | 1880. | 1881. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| White fish......... Brls. | 299 | 141 | 235 | 200 | 43 |  |
| do ........... Lbs. | ..... | ................. | ................ |  | 8,800 | 24,400 |
| do ........... No. | 140 | 190 |  |  |  |  |
| Trout................ Brls. | 140 | 190 | 135 | 110 | 35 | 175 |
| Herring ............ " | 500 | 445 | 378 | 288 | 350 | 300 |
| Maskinongé....... " | 1 | $1 \frac{1}{2}$ |  | 4 |  |  |
| Bass................. " | 96 | 302 | 233 | 310 | 167 | 344 |
| Pike................. " | 4 | 39 | 64 | 113 | 38 | 64 |
| Pickerel ............ " | 492 | 642 | 414 | 621 | 571 | 512 |
| Coarso Finh na: ${ }^{\text {a }}$ | 635 | 531 | 655 | 836 | 699 | 818 |
| Fish used forlocal consumption.... | ....... .. .... | ................. | ................ | 366 | 392 | 211 |
| Total in barrels .... | 2,167 | 2,2912 | 2,114 | 2,848 | 2,339 | 2,546 |
| Value.. | \$12,395 00 | \$12,581 50 | 411,767 00 | \$14,300 00 | \$10,864 00 | \$20,640 00 |

There is a large increase in the catch of white fish in this division, also in the value, owing to higher prices. Several parties were fined by Overseer McCann. during the season for spearing and other violations of the Fishery Laws.

In Overncor MeQueen's district there were no violations of the law, and the utmost hill mony prevailed among the fishermen.
detroit river division.
Ed. Boismier, Ouerseer.
Comparative Statement of the yield and value of the Fisheries in this Division.

| Kinds of Fish. | 1877. | 1878. | 1879. | 1880. | 1881. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| White fish........................... No. | 72,000 | 45,800 | 77,700 | 103,500 | 90,000 |
| Herring ............. ......... ...... Brls. |  | 623 | 301 | - 406 | 581 |
| Maskinongé........................ " | 4 | 10 | 8 | 14 | 4 |
| Bass.................................. " | 14 | 15 | 16 | 9 | 26 |
| Pike.................................. " |  | 39 | 13 | 36 | 40 |
| Pickerel ............................. " | 10 | 96 | 143 | 175 | 106 |
| Sturgeon............................ " |  |  | 460 | 381 | 316 |
| Coarse Fish......... ............... " | 217 | 436 | 157 | 235 | 236 |
| Fish used for local consumption " | ............ |  | 177 | 470 | .... |
| Total in barrels............ | 860 | 1,677 | 1,992 | 2,760 | 2,209 |
| Value........................ | 57,158 00 | \$10,239 00 | \$13,270 00 | \$17,864 00 | \$23,015 00 |

The above table shows a siight falling off in the catch of white fish, but a large increase in ralue, owing to higher prices. Overseer Boismior is of opinion that moro white fish entered the Detroit River this aeason than for a number of years past, and attributes this result to the artificial fish-breeding operations at Sandwich.

## POINT PELÉE DIVISION.

## William Prosser, Overseer.

Comparative Statement of the yield and value of the Fisheries in this Divisior.

| Kinds of Fish. | 1877. | 1878. | 1879. | 1880. | 1881. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| White fish ............... ............ Brls. | 161 | 127 | 200 |  |  |
| do ........................... Lbs. | 10,500 | 88,800 | 62,800 | 77,000 | 137,000 |
| do | 1.038 | 201 | 880 | 1.772 | 6,690 |
| Bass....................................... ${ }^{\text {a }}$, | 1,038 97 | 355 | 241 | 1,769 | 6,690 300 |
| Pickerel ............................... " | $75 \frac{1}{2}$ | 320 | 169 | 225 | 247 |
| Sturgeon............................. " | 2 |  | 174 | 218 | 180 |
| Coarse Fish......................... " | 285 | 373 | 44 | -7... | 45 |
| Fish used for local consumption " |  |  | 100 | 574 | ................. |
| Total in barrels............ | 1,710 | 1,820 | 2,124 | 3,443 | 8,147 |
| Value......................... | \$9,332 50 | \$11,582 00 | \$12,166 00 | \$16,794 00 | \$41,815 00 |

## PELÉE ISLAND.

James Cummins, Overseer.
Comparative Statement of the yield and value of the Fisheries in this Division.

| Kinds of Fish. | 1877. | 1878. | 1879. | 1880. | 1881. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| White fish........................... Brls. |  | 76 |  |  |  |
| do ...... ............... ...... Lbs. | 10,400 | 15,600 | 70,000 | 84,400 | 115,224. |
| Herring.............................. Bris. | 90 | 239 | 200 | 1,772 | 557 |
| Maskinongé.............. ........... " |  | 84 | 20 | .................. | ................. |
| Baes...................... ............ " | 10 | 84 | 80 | ................ |  |
| Pike.................................. " | ................ | ................ |  |  | 55 |
| Sturgeon............................ "، |  |  | 75 | 170 | 208 |
| Coarse Fish......................... " | 15 | 87 | 70 | 64 | ................ |
| Fish need forlocal consnmption " | ......... ........ |  | 100 | 311 | ................. |
| Total in barrels............ | 167 | 554 | 895 | 1,869 | 1,396 |
| Value. ......... .............. | $\$ 1,08000$ | \$3,463 00 | \$5,855 00 | \$10,178 00 | \$8,289 00 |

## LAKE ERIE DIVISION.

John McMichael, Overseer, Lake Erie frontage, Co. Kent.

| Alex. McBride, | do | do | Co. Elgin. |
| :---: | :---: | :---: | :---: |
|  | do | do | Co. Norfolk. |
| Henry Laive, | do | do | Co. Haldimand. |
| W. P. Croome, | do | do | Grand River and |

Comparative Statement of the yield and value of the Fisheries in this Division.

| Kinds of Fish. | 1877. | 1878. | 1879. | 1880. | 1881. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| White fish.............. ............ Brls. |  | 46 | 29 | 113 | 251 |
| do .............................. Lbs. | 87,000 | 22,000 | 22,400 | 21,600 | 7,700 |
| do ...... ............. ........ No. | 300 | 3,200 |  |  |  |
| Herring.............................. Brls. | 1,644 | 2,646 | 1,677 | 1,696 | 1,862 |
| Maskinongé................... ...... " | 7 | 4 | 9 | 10 | 30 |
| Bass................................... " | 76 | 134 | 115 | 78 | 208 |
| Pike.................................. " | 44 | 65 | 61 | 95 | $200 \frac{1}{8}$ |
| Pickerel ............................. " | 839 | 664 | 393 | 493 | 553 |
| Sturgeon............................. " |  |  | 459 | 1,455 | 422 \% |
| Coarse Fish......................... " | 872 $\frac{1}{2}$ | 1,046 | 1,119 | 185 | 1,099\% |
| Fish used for local consumption " |  |  | 245 | 774 | 18 |
| Total in barrels... | 3,9202 | 4,748 | 4,228 | 5,312 | 4,683 |
| Value........................ | \$20,920 00 | \$23,634 00 | \$18,849 00 | \$23,035 00 | \$27,129 00 |

There is a slight falling off in the catch of white fish in this district due to warm and stormy weather, but tho prices realized being better there is an increase in the value. In some localities the storms were so violent that several nets were carried away. The Fishery Laws and regulations were generally well observed.

Owing to Overscer Bingham's suspension Mr. Kerr was instructed to take charge of the Norfolk division.

NIAGARA RIVER AND LAKE ONTARIO DIVISIONS.


Comparative statement of the yield and value of the Fisheries in these Divisions.

| Kinds of Fish. | 1873. | 1874. | 1875. | 1876. | 1877. | 1878. | 1879. | 1880. | 1881. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| White fish. ......Brls. | 498 | 482 | 633 | 433 | 9 | 351 | 859 | 945 | 1,157 |
| do ........Lbs. | 93,958 | 96,500 |  |  | 59,600 |  | 100,000 | 125, 200 | 50,000 |
| do ........No. | 466 |  |  | 2,000 |  |  |  | 100 |  |
| Trout..............Brls. | 55 | 99 | 43 | $786 \frac{1}{2}$ | 943 | 1,172 | 825 | 416 | 8382 |
| Herring.......... " | 405 | 405 | 268 | $431 \frac{1}{2}$ | $462 \frac{1}{2}$ | 529 | 600 | 541 | 673 |
| Sciscos........ .. " | 288 | 134 | 188 | 304 | 1,495 | 770 | 650 | 378 | 577 |
| Maslinongé.... " | 12 | 42 | 77 | 35 | 32 | 500 | 636 | 25 | 509 |
| Pike and Bass. " | 488 | 620 | 251 | 271 | $487 \frac{1}{2}$ | 1,022 | 1,003 | 424 | 1,0562 |
| Pickerel.......... " | 444 | 723 | 156 | 337 | 216 | 120 | 494 | 453 | 878 |
| Sturgeon ........ " |  |  |  |  |  |  |  |  | 146 |
| Coarse Fish...." | - 780 | 798 | 236 | $524 \frac{1}{2}$ | $744 \frac{1}{2}$ | 835 | 1,175 | 938 | 1,430 |
| Fish used for local consumption....... |  |  |  |  |  |  | 554 | 950 | 459 |
| Tutal in barrels | 3,436 | 3,303 | 1,842 | 3,132 $\frac{1}{2}$ | 4,687 ${ }_{2}$ | 5,303 | 7,296 | 5,737 | 7:904 |
| Value ..... ....... | \$25,899 | \$24,783 | \$13,542 | \$31,286.50 | \$28,943 | \$33,295 | \$4,421 | \%35,818 | \$68,121 |

The above table shows a large increase in the yield and value of fish, although there is a slight falling off in white fish.

Overseer Kerr, whose division extends from the mouth of Grand Rirer, on Lake Eric, to Whitby, on Lako Ontario, states that whitefish were more than usually abundant in Lake Ontario and Burlington Bay, and he is sati=fied that the catch would have heen larger had not adverse easterly winds almost constantly prevailed. Speckied trout is said to be on the increase in Overseers Hull and Hughson's districts. Several persons were fined by Overseer Hull for violating the close season for trout, and neglecting to comply with the requirements of the Statuts respecting saw-dust and mill rubbish. Two large salmon in prime condition were caught during the past year, one near Winina, in Lake Ontario, and the other at Quecnston, in the Niagara River, and seceral others were also talsen in various parts of Lake Ontario, and, except two, all were liberated alive by the fishermen.

A very large salmon, a spent fish, Overseer Korr is certain from description given him, came over Niagara Falls. He appeared to be like those sturgeon and pickerel, who, from their lank appearance, are presusumed to have come over Niagara Falls. This fact is well knowu to fishermen at Queenston and Niagara. A new industry is attracting the attention of the fishermen; that of sturgeon fishing with hook and line at Fort Erie, in the Niagara River. These fish are disposed of fresh in the Buffalo marliots, at $5 \frac{1}{2}$ conts a pound.

## PRINCE EDWARD AND BAY OF QUINTÉ DIVISIONS. $\left.\begin{array}{l}\text { Comalè Wilkins, } \\ \text { Jos. Renmond. }\end{array}\right\}$ Overseers.

Conparative Statement of the gield and ralue of the Fisbetics in the e Divivions.

| Kinds of Fish. | 1876 | $187 \%$ | 1878. | 1879. | 1880. | 1881. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| White fish........................... Brls. | 1,162 | 361 | 1,435 | 355 | 199 | 715 |
| do ............................. Lbs. | 114,825 | 296,600 | 411,400 | 368,200 | 375.600 | 215,000 |
| do ........................ No. | 22,327 | 2,950 |  |  |  |  |
| Trout................................ Brls. | 853 | 7372 | 587 | 1,236 | 679 | 950 |
| Herring............................. " | 2,608 | 1,980 | 643 | 431 | 259 | 637 |
| Sciscos.............................. " |  |  |  |  |  | , |
| Maskinongé ........................ " | ..... | 10 |  | 5 | 3 | -1... |
| Bass.................................. " | 10 | 116 | 20 | 77 | 103 | 180 |
| Pike .................................. " | 35 | 73 | 9 | 94 | 109 | 373 |
| P'ickerel............................. " | 31 | 248 | 51 | 118 | 169 | 218 |
| Sturgeon............................. " |  |  |  | 3 |  |  |
| Coarse Fish ........................ " | 1,999 | 1,093 | 2,654 | 3,499 | 3,643 | 686 |
| Fish used for local consumption $\qquad$ |  | ............. |  | 682 | 515 | 1,880 |
| Total in barrels........... | 7,391 $\frac{1}{2}$ | 6,131 | 7,456 | 8,331 | 7,5:8 | 6,714 |
| Value ....................... | 349,539 95 | $\$ 42,617$ | \$55,021 | \$51,153 | \$47,112 | \$ 400,520 |

Overseer Redmond reports a slight falling off in the catch of tish iu his division. This he attributes to white fish not resorting to their usual feeding gromuds in as large numbers as usual.

Overseer Wilkins reports an incrense in tho catch of all kisds of fish, especially in las. Salmon were noticed in the River Trent and Mira. No violations of tho Fishery haws were reported in this disision. Mr. Wilkins reports fishways in his division in efficient condition.

LENNOX AND ADDINGTON DIVISION.
A. D. Sills, Overseer.

Comparative Statement of the yield and value of the Fi-heries in bis Division.

| Kinds of Fish. | 1876. | 1877. | 1878. | 1879. | 1880. | 1881. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| White fish........................ Brls, | 18 |  | 5 | 202 |  |  |
| do ........................... Lbs. |  | 7,800 | 400 | 4,800 |  |  |
| do ......................... No. | 6,500 |  |  | 300 | 31,600 | 25,770 |
| Trout............................... Erls | 54 | 13 | 3 |  | ............ | 12 |
| Herring............................. '. | 48 | 10 | ..... ......... | ..... ........ | ............... |  |
| Sciscos.............................. " | 12 | ... | .............. | ...... | ................ | .............. |
| Maskinongé........................ " | 20 |  | .... | ... |  | ........... . |
| Bass.................................. " | 14 | 50 | 21 |  |  | ........... |
| Pike............................ ..... " | 51 | 63 | 44 | 7 | 12 | .... 2 |
| Pickerel............................ " | 89 | 97 | 52 | 53 | 47 | 1212 |
| Sturgeon........................... "\% |  |  |  | .............. | 40 | .............. |
| Coarse Fish........................ " | 146 | 69 | 65 | 45 | 57 | 124 |
| Fish used tor local consumption $\qquad$ | ............... | ............... | ............. | 33 | 60 | ........... .. |
| Total in barrels.......... | 4972 | 341 | 191 | 367 | 612 | 506랄 |
| Value . ....................... | \$3,124 | \$1,896 | \$935 | \$2,902 | \$4,923 | \$4,459 |

## WOLFE ISLAND AND KINGSTON DIVISIONS.

$\left.\begin{array}{l}\text { P. Kied, } \\ \text { Juinin Cox. }\end{array}\right\}$ Overseers.
Cimparative Statement of the yieh and value of the Fisheries in thene Divisions.

| Kinds of Fisi. | 1873. | 1874. | 1875. | 1876. | 1877. | 1878. | 1879. | 1880. | 1881. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| White fish.............................. Brls. | 151 | 302 | 694 | 256 | 311 | 33 | 149 | 9 | 27 |
| do ...... ....................... Lbs. | 1,500 |  |  |  |  |  |  |  |  |
| do ............................ No. | 3,951 |  |  |  |  |  |  |  |  |
| Trout.................. ................ Erls. | 418 | 272 | 325 | 217 | 310 | 51 | 141 | 116 | 118 |
| Herring............................... " | 12 |  | 12 |  |  | 14 |  | 68 |  |
| Pike and Bass....................... " | 182 | 591 | 317 | 46 | 133 | 18 | 222 | 59 | 171 |
| Pickerel............................... " | 56 | 110 | 172 | 46 | 142 | 10 | 190 | 28 | 64 |
| Sturgeon ............................... " |  |  |  |  |  |  | 3 | 21 |  |
| Coarse Fish.......... ........... " | 217 | 639 | 647 | 564 | 539 | 355 | 442 | 565 | 555 |
| Fish used for local consumption. " |  |  |  |  |  |  | 74 | 62 | ......... |
| Total in barrels | 1,036 | 1,914 | $\because, 6$ | 1,129 | 1,435 | 481 | 1,2:1 | 928 | 935 |
| Value. | 58:915 | \$11,100 | \$15,342 | \$7,446 | $\pm 9,711$ | \$2,470 | \$7,039 | \$1,570 | \$4,662 |

Overseer Liel reports gencral compliance with the law, and states that fishing was not pursued so actively as usmal owing to parties finding more remunerative employment elsewhere.
FRONTENAU DIVISION.
Join A. Cameron, Oeerseer.
The yield and value of tish in this Division is stated as follows:- Kinds of Fish. ..... 188!.
White fish, brls ..... シ
Trout ..... 13
Herring " ...... ..... $1 \because 5$
Sciecos ..... 3
Coarse Fish " ..... 37
Total in barrels ..... 178
Value ..... \$1,139
RIDEAU DIVISION.
$\left.\begin{array}{l}\text { George Jeacle, } \\ \text { A. E. Milds, }\end{array}\right\}$ Overseers.
The yield and value of fish in this Division is reported as follows:- Kinds of Fish. ..... 1881,
While tish, brls ..... $44 \frac{1}{2}$
Trout ..... 34
Herring "، ..... 56
Maskinongé ..... 4
Bass ..... 45
Pike ..... 60
Pickerel ..... 25
Coarse Fish " ..... 292
Tutil in barrels. ..... 560 $\frac{1}{2}$
Value ..... \$3,710

With a few slight exceptions, the Fishery Lawa were well observed in thesedivisions. Very littlo net fishing is allowed in the Rideau waters, most of it being done with hoop nets in the low, swampy grounds, for the coarsest kinds of fish, such as mudpouts, catfish, eels, etc; the clear water stretches and lakes being reserved for angling and the breeding of fish.

## PRESCOTT AND CORNWALL DIVISION.

$\left.\begin{array}{l}\text { John Mooney, } \\ \text { John D. Mc Millan, } \\ \text { T. MoGarrity, }\end{array}\right\}$ Overseers.

Comparative Statement of the yield and value of the Fisheries in this Division.

| Kinds of Fish. | 1880. | 1881. |
| :---: | :---: | :---: |
| Eels ........ ........ ........ ........ ......... ...................................Lbs. |  | 2,650 |
| Maskinongó................. ................ .................................Brls. | 10 | 10 |
| Bass................ ............................................................. ، ${ }^{\text {a }}$ | 20 | 30 |
| Pike...................................................... ...................... " | 20 | 25 |
| Pickerel.......................................... ......... . ..................... " | 25 | 25 |
| Sturgeon ................ ......................... . ....... ................ ..... " |  | 240 |
| Corrse Fish................ ................................................... " | 345 | 308 |
| Fish used for local consumption.... ...................................... " | 60 | ....................... |
| Total in barrels. ............ | 480 | 651 |
| Value....................................................... | \$1,995 | \$2,893 |

No net fishing of auy kind is allowed within the limits of this division, only one seine license having been granted during the seaton, and this only during a period of two months.

## CARLETON AND RISSELL COUNTIES DIVIEION.

$$
\left.\begin{array}{l}
\text { William Ponciler, } \\
\text { Olivier Miron, }
\end{array}\right\} \text { Ouerseers. }
$$

Comprative Statement of the yield and value of the Fishories in this Division.


These figures are believed to be much under the real value; most of the fish caught in this division being usod for domestic consumption, of which no record is kept.

## MUSKOKA DIVISION.

## Wm. E. Fоот, Overseer.

Comparative Statement of the yıeld and value of the Fisheries in this Division.

| Kinds of Fish. | 1876. | 1877. | 1878. | 1879. | 1880. | 1881. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| White fish.......................... Brls. | 8 | 4 | 10 |  |  | 119 |
| do ........................... Lbs. |  |  |  | 3,200 | 2,600 |  |
| Trout........................ ........ Brls. | 6 | 15 | 15 | 3, 60 | 34 | 23 |
| Herring.............................. " | 18 | 17 | 21 | 72 | 74 | 83 |
| Bass............................. .... " | . | $3 \frac{1}{2}$ | 6 | 8 | 5 | 70 |
| Pickerel......... ..... ............... " | 2 | $3 \frac{1}{2}$ | 10 | 5 | 7 | 81 |
| Fish used for home consumption " |  |  | ............. | 20 | 10 | .............. |
| Total in barrels.............. | 34 | 43 | 62 | 181 | 143 | 376 |
| Value. | \$240 | $\$ 310$ | \$435 | \$1,193 | \$866 | \$2,811 |

Overseer Foot reports fish generally on the increase, and recommends the employment of a larger staff of guardians to protect the valuable speckled trout lakes in his district.

LAKE SIMCOE DIVISION.
$\left.\begin{array}{l}\text { A. MoKenzie, } \\ \text { Wm. Hastings, } \\ \text { W. McDermot, }\end{array}\right\}$ Overseers.
Comparative Siatement of the yield and value of the Fisheries in this Dlvision.


The above shows a large increase in the catch of tish, which would still be larger had Overseer McKenzie been able to procure full returns of the catch. The few violations attempted against the Fishery Laws were speedily detected and prnished, and fines to the amount of $\$ 51.00$ were imposed and levied.

$$
5 \quad b-17
$$

## RICE LAKE AND TROUT RIVER DIVISION.

Charles Gilchmist, Overseer.
Comparative Statement of the yield and value of the Fisheries in this Division.

| Kinds of Fish. | 1876. | 1877. | 1878. | 1879. | 1880. | 1881. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Maskinongé................ ... ..... Brls. | 500 | 500 | 400 | 500 | 750 | 717 |
| Bass..................................... | 300 | 400 | 690 | 800 | 300 | 286 |
| Pike..... ..... ........................ " |  |  |  |  | 350 | 344 |
| Coarse Fish......................... " | .......... |  |  |  | 100 | 95 |
| Fish used forlocal consumption " |  |  |  |  | 70 | .............. |
| Total in barrels ............ | 800 | 900 | 1,000 | 1,300 | 1,500 | 1,442 |
| Value.......................... | \$4,000 00 | \$4,500 00 | \$5,000 00 | \$6,740 00 | \$7,680 00 | \$9,341 00 |

Five lundred and ninety angling permits were issued during the past season, and the collections thereon amounted to $\$ 7.00$ No violations whatever of the law were dotected.

## PETERBOROUGH AND VICTORIA DIVISION:.

$\left.\begin{array}{l}\text { George Cochrane, } \\ \text { R. Grailam, } \\ \text { John Dauncey, }\end{array}\right\}$ Overseers.
Statement of the yield and value of the Fisheries in these Divisions for tho past five jeara.

| Kinds of Fish. | 1877. | 1878. | 1879. | 1880. | 1881. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Trout.. ............ ................... Brls. | 50 | 60 | 85 | 54 | 88 |
| Herring.............................. " | 5 | 5 | 30 | 38 | 45 |
| Maskinongé......... ............... " | 75 | 289 | 184 | 193 | 158 |
| Bass.................. ................ " | 80 | 188 | 212 | 186 | 256 |
| Pickerel............... ........ ...... " |  | 12 | 3 |  |  |
| Coarse Fish........................... " | 30 | 50 | 80 | 47 | 145 |
| Total in barrels..... ........ | 240 | 604 | 594 | 518 | 692 |
| Value... | \$1,420 00 | \$3,270 00 | \$3,285 00 | \$2,775 00 | \$4,280 00 |

Overseer Crochane recommends the appointment of additional guardians in order to ensure better onforcement of the Fishery Laws, and especially to detect and prevent spearing of fish.

## CHARLESTON AND GANANOQUE LAKES DIVISION. $\left.\begin{array}{l}\text { W. H. Johnston, } \\ \text { James Greer, } \\ \text { Wm. Hides, }\end{array}\right\}$ Overseers.

Comparative Statement of the gield and value of the Fisheries in this Division.

| Kinds of Fish. | 1876. | 1877. | 1878. | 1879. | 1880. | 1881. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| White fish........................ Brls. | 2 | 3 | 7 | 8 |  |  |
| Trout. .............................. " | 15 | 9 | 12 | 10 | 15 | 20 |
| Sciscos............................ " | ...... | . | 21 | .......... | ... | ...... . ...... |
| Bass ................................. | 63 | 46 | 47 | 20 | 20 | 25 |
| Pike...... .......................... " | 68 | 50 | 28 | 110 | 10 | 12 |
| Pickerel .......................... "، | 209 |  | 11 | ..... |  |  |
| Coarse Fish ....... ............... " | 2031 | 17 | 13 | 35 | 20 | 120 |
| Total in barrels.............. | 352 $\frac{1}{2}$ | 125 | 139 | 183 | 65 | 177 |
| Value . | \$1,646 50 | $\$ 670 \quad 50$ | \$777 | $\$ 970$ | \$380 | \$807 |

Overseer Johnston confiscated quite a number of nets on Charleston Lake, but was unable to divcover the owners.

## MISSISSIPPI RIVER AND LAKE DIVISION. <br> $\left.\begin{array}{l}\text { James McFadden, } \\ \text { Ephram Deacon, }\end{array}\right\}$ Overseers.

Comparative Statement of the gield and value of the Fisheries in this Division.

| Kinds of Fish. | 1876. | 1877. | 1878. | 1879. | 1880. | 1881. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bass ..... .......................... Brls | 12 | 18 | 25 | 27 | 30 | 35 |
| Pike................................ " | 150 | 270 | 360 | 276 | 262 | 257 |
| Pickerel ........................... " | 25 | 25 | 28 | 35 | 15 | 13 |
| Coarse Fish....................... | 30 | 70 | 128 | 181 | 140 | 138 |
| Fish used for local consumption $\qquad$ | .............. | ............. | ..... ........ |  | 20 |  |
| Total in barrels.. | 217 | 383 | 541 | 519 | 467 | 443 |
| Value .................... .... | \$1,055 00 | \$1,845 00 | \$2,577 00 | \$2,414 00 | \$2,175 00 | \$2,305 00 |

## COUNTY OF RENFREW DIVISION.

Overseers $\begin{cases}\text { Andrew Telfer, } & \text { Lower portion Bonnechère and Madawaska Rivers. } \\ \text { M. L. Rubell, } & \text { Upper portion Bonnechère River. } \\ \text { John Morrow, } & \text { Midde portion Madawiska River. } \\ \text { J. R. MoDonald, } & \text { Upper waters Madawaska River. } \\ \text { Thos. MoKibbon, Mink Lake and Lake Duré. } \\ \text { George Donglas, } & \text { Muskrat Lake aud Snake River. } \\ \text { Lrgh. Acheson, } & \text { Lower Allumettes and Coulonge Lakes. } \\ \text { John Grant, } & \text { Ottawa River from Upper Allumettes Lake to Des } \\ \text { Joachims. }\end{cases}$

Comparative Statement of the yield and value of the Fisheries in this Division.

| Einds of Fish. |  | 1876. | 1877. | 1878. | 1879. | 1880. | 1881. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| White fish..... ................... | Brls. | 30 | 50 | 68 | 55 | 46 | 33 |
| Trout....................... ........ |  | 90 | 87 | 83 | 71 | 60 | $45 \frac{1}{2}$ |
| Sciscos ............................ | " | ....... | 10 | 30 | 40 |  |  |
| Maskinongé....................... | " | 35 | 27 | 48 | 30 | 44 | 61 |
| Bass ................... .............. | " | 40 | 66 | 73 | 120 | 78 | 23 |
| Pike................................ | " | 75 | 30 | 111 | 29 | 154 | $108 \frac{1}{2}$ |
| Pickerel ........................... | " | 55 | 63 | 102 | 44 | 67 | 40 |
| Sturgeon.......................... | * | ....... | 103... |  |  | 18 | 15 |
| Coarse Fish....................... | " | 120 | 103 | 228 | 153 | 282 | 157 |
| Fish used for local consumption $\qquad$ | ${ }^{6}$ | .............. | . | .............. | 40 | 40 | 15 |
| Total in barrels $\qquad$ <br> Value $\qquad$ |  | 445 | 436 | 743 | 582 | 789 | 483 |
|  |  | \$2,705 | \$2,762 | \$4,242 | \$3,347 | \$4,153 | \$2,829 |

Very little fishing was done last season in this division, owing to the great demand for labor and remunerative prices elsewhere. The staff of officers is large and composed of efficient men, who are quite able to detect and punish violations of the law.

## FOURTEENTH ANNUAL REPORT

# DEPARTMENT OF MARINE aND FISHERI.S. 

## REPORT

# FISH-BREEDING 

IN THE

## DOMINION OF CANADA,

1881. 

Yunted by ©rder of hatliament.


OTTAWA.
PRINTED BY MACLEAN, ROGER \& Co., WELLINGTON STREET, 1882.

## REPORT OF SAMUEL WILMOT, Eso,

ON FISE-BREEDING OPERATIONS IN THE DOMINION OF CANADA DURING THE YEAR 1881, WITH REMARKS ON THE
DECLINE OF THE SALMON FISHERIES, \&c.

The Hon. A. W. McLelan,<br>Acting Minister of Marine and Fisheries, Ottawa.

SIR,-I beg to submit my Report of proceedings in connoction with artificial fishbreeding during the year 1881, also a summary of transactions at the several fishhatcheries now in operation, and the Reports of the officess in charge of the same, together with remarks on the salmon fisheries of Canad:a.

## NEW HATCHERIES.

## MAGOG

A new fish hatchery has been built in the village of Nagng at the foot of Lake Memphremagog, in the Province of Quebec. This site was selected as possessing many natural advantages, with an abundant supply of pure water, conducted almost directly from the lake into the breeding troughs of the nursery. The temperature of the water here never reaches freezing point on account of its narrow rapid passage from the large body of the lake, which here forms the source or commencement of the River Magog, which runs down to the city of Sherbrooke, and falls into the St. Francis River in its course to tho St. Lawrence.

The site of this hatchery, with its water and railway communications near at hand, is well suited for the easy distr:bution of young fish into the numorous lakes and streams which everywhere abound in the section of country known as the Eastern Townships.

The privilege of water, with grounds for the buildings were obtained from the Magog Manufacturing Company by utilizing the former location of an old mill.

The premisos being secured, tenders were advertised for, several applications were made, the lowest was taken, and the building was satisfactorily completed. Its dimensions are $24 \times 60$, with two stories; the lower flat being used as the hatching room, and the upper one for office and carotaker's residence. Alongside the building convenient ponds are arranged and abundantly supplied with water from the main river. These are used as reservoirs for the breeding fish, which being caught in the lake above can be readily floated down in scows into these pens, and there safely kept till required for manipulation.

The whole of the arrangements in connection with the Magog hatchery are exceptionally convenient for the artificial propagation of fish upon an extensive scale.
su, i, Cipe breton.

This salmon breeding estalisisment was fully completed during the past year of 1881. The site chosen for ibe vorks is situated within the limits of the Town of Sycloef, at the head of a tilal rieek or cove, where a brook, taking its rise in the high lands above, runs rar 'ly down to this covo and is here damned across, forming a mill pond, from whic the water is obtained for the nursery.

The privilege consists of a sufficient area of land for building purposes, and reservoir for salmon, and is held by deed. Several other points in the neighborhoods of North and South Sydney were oxamined by me. I was very materially aided by the voluntary kindness of Messrs. McDonald and McLeod, the resident members of the Commons for that section of the Island of Cape Breton. Whilst some other localities possessed certain conveniences, none combined so many advantages for carrying on fish-breeding operations generally, as the one selected at the Town of Sydney.

After securing the nezessary title to the property. public tenders were asked to erect the buildings; several were put in. Mr. Hugh M. Donald's was chosen and the contract was awaded to him. The establishment with all necessary requirements for artificial salmon breeding has been fully completed, and is now in full running order, with a fair complement of ova in the hatching room.

The dimensions of the building are the same as the one at Magog and fitted up in like manner. The lower flat for the laying down of fish egge, and the upper one for offioe and resident caretaker.

At the narrow head of the creek or cove a permanent crib work of timber and stone has been built across it, which forms a large reservoir for impounding the salmon ; into this pen tho tidal water flowe through a narrow gate-way, by which any desired height can be regularly maintained; into this basin the salmon which may be captured by the net fishermen outside in the arm of the sea can be easily floated in cribs or seows.

The reservoir with the other outside appliances for the safe keeping of parent fish are close by, and exactly underncath the view from the windows of the hatchery, thus giving every security in the oversight of the fish, and economising expenditure in not requiring additional belp in guarding them.

## RIstigouche

At the Indian House brook on the Ristigoucho River, the latest and most extensive salmon hatchery is now under erection, and well advanced towards completion. The dimensions of this building will exceed any other yet built, being. 100 feet long by 36 wide, and one and $a$-half stories in height; the lower flat will be arranged for thio reception of troughs and other necessary apparatus. The upper floor is intended for offices, store rooms and residence for the caretaker. It will bave a hatching capncity of five to eight millions of egge. This site has hitherto been used as an auxilliary for kceping parent fish and gathering ova for the hatchery at Doe Side, but will now become the main nursery for the general requirements of this large and highly important salmon river. The Indian House brook, upon which the hatchery and dams are now built, is amply supplied with pure limpid water, with sufficient elevation to form ponds and other requiroments for hatching purposes. The material for the completion of the work is now being procured under contract. Under the practical oversight of Mr. Orerseor Mowat, this establishment will be put in. proper working order for next season's operations.

## SUMMARY OF TRANSACTIONS AT THE SEVERAL FISH HATCHERIES, IN THE DOMINION DURING THE YEAR 1881.

## PROVINCE OF QUEBEC.

## Tadoussac Hatchery.

At this hatchery improvements of considerable magnitude have been madeduring the past seas,n by tbe Department of Public Works. Fears were entertained from a shortness of water supply for the hatching troughs during the severe winter months. To guard against any serious falling off new dams were kuilt to replace the old ones which had become rotten and loaky. The upper one of the throe new dams
was raised much bigher than the old one, and gives a much larger surface to the small lake above, and also an additional depth of some three fect. This increased area and depth to the lake will give a much larger supply of water for the hatchery.

The lake was also drawn off and cleaned out, thus getting rid of the very great number of small inferior fish that were in it. The lake and tho two amall ponds (formed just below) will now be used as nursery ponds for the young salmon fry. It was found that numbers of the fry that wore turned into one of the small pouls two years ago had grown to bo fine, bealthy smolts. Tho actual knowledge of the growth of these young salmon, in this small pond, was largely instrumental in causing the new dams to be made, thus giving a two-fold lenefit: increasing the water supply for breeding purposes, and also for siving actual accommodation for safely keeping large numbers of fiy till they become smolts, when they can be liberated and allowed to cscape readily to the sea.

Through the zealous appreciation of artificial fish culture by Sir Hoctor Langevin, the Minister of Public Works, who visited the Sarucnay and personally examincd into the state of the Government property there, and the requirements of the business, these improvements in connection with the Tadoussic Salmon IIatchery were accomplished. The work was done, under the immediate supervision of an officer of his Department, in a most substantial and satisfactory manner.

Three hondred and thirty-four thousand fry were tumed out of this nursery last spring into the following rivers in the Province of (lucbec, viz: St. Margaret, A'Mars, Jacques Cartier, St. Jean, St. Ann, Escoumain, Saguenay, Du Loup, Becancour, and Black Rivers. A large number of fry was also placed in the small brook which supplies the lake and hatcbery.

The unprecedented scarcity of salmon evcrywhere last season prevented the usual supply of eggs being obtained. Only 74 femalos were netted the past season, against double that number in 1879, consequently only 700,000 erges were laid down last fall. These, from last accounts, were in a very healthy condition :-

$$
\begin{array}{ll}
\text { Total number of fry distributed spring of } 1881 \ldots . . . . . . . . . . . . . . . & 334,000 \\
\text { do do ova laid down in fall of } 1881 \ldots . . . . . . . . . . . . . . . & 700,000 \\
\text { Grand total of fry turned out since opening of batehery......... } 4,836,000
\end{array}
$$

- Gaspé Hatchery.

This nursery has given fair returns since its commencement. The buildings and ponds are reported to be in a good state of repair. A proseure of basiness in connection with the other establishments which required personal inspection, prevented me from visiting the Gaspé works. Mr. Vibert, tho officer in charge, reports matters to be in a satisfactory state.

Half a million of salmon fry wero hatchod at Gaspé last spring and planted in the Dartmouth, St. John and York Rivers, in the County of G:tipé.

The same difficulty was experienced here as elsewhere in not getting the usual supply of salmon to stock the nursery with eggs. Only 106 salmon were netted, these gave 607,000 ova; their present appearance in tho hatching trays is reported to be very good.

$$
\begin{aligned}
& \text { Total number of fry diatributed in the season of } 1881 \ldots . \quad 500,000 \\
& \text { do do ova laid down in the fall of } 1881 \text {........ } 607,000 \\
& \text { Grand total of fry bred here since opening of establish- } \\
& +, 688,000
\end{aligned}
$$

Ristigouche Hatchery.
It will be unnecessary to report again all former statements made by myself and the officor in charge respecting the unsafe and dilapidated condition of this hatchery. It is, however, confidently expected that the new establishment will be in readiness for next year's operations. Particulars in relation to tl:e new work will be found in Officer Mowat's reports and in my own.

Seven hundred and forty thousand young fry were turned out of the RistigoucheHatchery in 1881, into the following rivers: Jacquet, Bonaventure, Upsalquitch, Matapedia, Main Ristigouche and Matapedia Lakc.

Mr. Mowat was more euccessful than was at first anticipated in getting a supply of breeding salmon for the nursery; it was feared, from the shortness of the catch at the Estuar' ${ }^{\text {d }}$ during the season, that the required number of ova could not be got in the fall. This fear was dispelled in procuring double the number of fish over the previous year; the breeding salmon were found to be very numerous in the river last fall. 201 salmon were taken, of these 144 were females and 57 males, they gave $1,500,000$ eggs, or an average of nearly 10,500 eggs to each female. At last account they were in good condition with the cmbryos well advanced.
$\begin{array}{crr}\text { Total number of fry turned out spring of } 1881 \ldots \ldots . . . & 700,000 \\ \text { do do ova laid down in the fall of } 1881 \ldots \ldots . . & \mathbf{1 , 5 0 0 , 0 0 0} \\ \text { Grand total of fry raised in this hatehery since opening. } & 6,285,000\end{array}$

## Magog Hatchery.

As previously siated this hatchery was completed last spring; everything connected with the establishment, buildings, ponds, and inside apparatus are in first class working order. Its convonient location at the foot of Lake Mempbremagog gives facilitics for procuring the parent salmon trout (lunge) from its waters. A lot of these fish were captured in the lake last autumn for the uses of this hatehery, but not in sufficient numbers to fully supply the nursery with eggs. To overcome this want it is proposed to transfer half a million and upwards of the salmon trout eggs from the Newetetie Latchery to Magog; this will be done in the winter when the embryos will be sufh. iently adranced tor shiproent.

Although the inagog inotchery was not fully completed in tho winter of 1880.81 , a small portion of the hatching room was titted up to reccive some 300,000 eggs which were seut from Newcastlo. There ova wore duly hatched out in the spring of 1881, and dertributed in the following waters in the Eastern Townships, namely, Merantic, Brompton, Magos, Masawippi and Momphemagog Lake, aud in East Branch and Key Ponds.

Somg 300 salmon trout (lunge) wero caught last autumn in Lake Memphromagog and from these 300,000 ests were obtained. Serenty-five per cent. of these eggs are showing life and promise good returns.

Number of fry turned out in the spring of $1881 \ldots \ldots . . . .200,000$
do eggs laid down in tho fall of $1881 \ldots \ldots . . \ldots . .300,000$
province of new brunstwicis.

## Miramichi Hatchery.

This hatchery was inspected in Angust last. The general conveniences of the hatchery aro of a satisfactory nature. The foundation and sills of the building are, howevor, showing signs of decay, and will require orerhauling next season. The previous instructions for cleaning out the large pond for the reception of salmon, had been carried out. Inr. Shaneveen was also ordered to have the bottom of the deep part of the pond thoroughly cleained, so that a net could be drawn in it; by this means the parent salmon could be more readily captured at the time of their maturity. This work was considered more necessary in viow of tho proposed method of procuring the parent salmon during the summer scason from the net fishermon having their stations near at hand in the rivor.

The number of fry bred in this nurscry in the spring of 1881 amounted to 770 , 000. They wore distributed in the following rivers, viz: North-West, South-West and Little South-West Miramichi, also in the Sevogle, Ronóus, Bartibogue, Burnt Church, Tabusintac, Salmon, Baruaby's and Stowart Rivers. A lot wore also put in the Digdeguash River in Charlotte County.

Two hundred and two (202) salmon were captured for supplying ova for the hatchery; 115 were females: They gave 700,000 eggs, averaging about 6,000 to each female. The reports describe these ova as doing remarkably well.

> Number of fry turned out from nursery in spring of 1880
> 805,000
> Number of fry turned out from nursery in spring of 1881
> 770,000
> Number of ova laid down in fall of 1881.
> 700,000
> Grand total of fry turned out of batchery.
> 3,855,000

## St. John River Hatchery.

This hatchery stands foremost for its many conveniences and perfect adaptability for artificial fish-breeding purposes. On a visit to it, everything in connection with the building and apparatus was found in good condition. Upon investigation I found it necessary to suspend the officer in charge from further duties. This action was upheld by your Department by dispensing with the services of that officer.

Efforts have thus far proved futile (and it will be useless to continue them) for procuring supplies of salmon ova in the upper parts or branches of the St. John River. If this fish hatchery is to be carried on, it will be absolutely necessary to obtain the ova for it from the estuary and tidal fishing stations, or else import the eggs from distant points. This latter plan appears very objectionable, in the face of the fact of the easy means which are open for procuring an adequate number of salmon from the trap nets which are set in the St. John hirbour. From information received from reliable sources, salmon in sufficient numbers to give two or three millions of eggs could be purchased annually from the tidal fishermen. My efforts to secure this end haring been thwarted, I look fortward to the ultimate success of the St. John River Hatchery with much apprehension. Having reported to your Departo ment my views on this subject on several former occasions, it will be unnecessary to repeat them here.

During the season of 1880 it was confidently advanced by some of the offinces on the St. Jobn River that a sufficient number of salmon to stock the hetchery with eggs could be procured in the upper parts of the St. John and in the Tobique River. Upon these representations, Overseer McClasky was duly provided with means and appliances of every kind, and instructed to spare no exertions for securing a supply of breeding fish. That officer, after devoting his time and personal attention to the work, signally failed in the undertaking-not an egg was obtained. No doubt the overseer applied himself perseveringly, but it would appear there were no salmon to be had; this would be a necessary consequence, from the use of the "spear and torch" by the settlers on the Tobique, is stated by the overseer. A few thousand Schoodic salmon eggs were laid down in the hatchery that season. They were obtained by the officer in charge from the State of Maine, through the kin:Iness of Commissioner Stillwell, of that State. These young Schoodic sialmon were planted in the waters of the Upper St. John.

At the sacrifice of much time, labor and expense another attempt was made to get parent fish in the Tobique during lasi fall, which resulted in capturing only a very small number, and only 76,000 ergs were collected, notwith tinding the efforts which were put forth by an officer of several years experience who had been specially engaged to perform this work.

Kather than allow the hatchery to remain, comparatively spealing, empty, with this small lot of eggs, 300,000 California balmon ova wero obtained from the United States Fishery Commissioner, Professor S. F. Paird. These were dispatched by railway from the Pacific Coast in a refrigerator car along with other consignments to Chicago. From this place they were taken in charge by one of my assistant officers and safely placed in the hatching tronghs at Rapide-des-Femmes. The loss throughout the whole trip was so trivial as to barely deserve mention. These California ova were hatched out in October and November, and so soon as the sac is
suffecientiy absorbed (perbaps in February or March) they will be planted in the St. John River, in the immediate neighborhood of the hatchery. The small quota of native ergs (now about 60,000 ) are in a fair condition, and will hatch out in April next, and be distributed in like manner as the California fiy in the St. John River. I have it also in contemplation to transfer, at the proper time, some two hundred thousand (200,000) egiss fiom the Ristiseuche hatchery to the St. John River nursery.
'The imporibility of proruring sulfient salmon for breeding purposes indicates a lamentable state of thiners in relation to the condition of the St. John River and its salmon supply; it is a nal commentary on the supervision and guardianship of that once fitmus salmon river and its tributaries.

| Number of |  | urnod out |  | 80 |  | 170,600 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| do | Schoodic | do | do | 1881 |  | 50,000 |
| do | salmon egg | laid down | do | 1881 |  | 76,000 |
| do | California | do | do | 1881 |  | 300,000 |
| Total try of | all kinds tu | ned out |  |  |  | 220,600 |

## PROVINCE OF NOVA SCOTIA.

## Bedford Hatchery.

This hatchery is reported to be in good repair, 730,000 salmon fry were distributed from this cstablishment in the spring of 1880 , as per return already published. liuring the spring of $1-81,680,000$ salmon fry were turned out of this hatchery into the waters of a large number of the counties in Nova Scotia, namely : Halifax, King's, Hants, Colchester, Cumberland, Pictou, Annapolis, Guysborough and Queen's.

No salmon were taken at the Musquodoboit River the past season for the Bedford hatchery, the fish having passed up the river before efforts were made to catch them: The officer in charge reports the number of salmon in the Philip River as more than double that of the previous year; they were generally of smaller size than formerly, with a great preponderence of males; this circumstance is accounted for by their being the first ran of adult fish from the artificially bred fry plantod in the river in 1876 and 1877.

The tot:l number of salmon captured in the Philip and West Rivers was 316, of there 1.74 were femaloe, giving $1,500,000$ egrss ; of these 250,000 were conveyed to the Sydrey batchery in Cape Breton. The remaining 1,200,000 ova were deposited safely in the Bedford hatchery; at latest accounts they were in a very healthy condition.

$$
\begin{aligned}
& \text { Number of fry let loose from Bedford, spring 1880.... .. } 730,000 \\
& \text { do do do do do 1881....... 680,000 } \\
& \text { do of ova laid down in the fall of } 1881 \text {............... } 1,200,000 \\
& \text { Grand total of fry bred since opening of hatchery......... 5,945,000 }
\end{aligned}
$$

> Sydney, C.B., ILut.hery.

The particulars in relation to the construction of this new hatchery, with its applianeer, have been alrearly described. The whole entablishment in in first class working order, havins a capacily for accommodating upwards of $5,000,000$ of eggs. Forty-eisht parent salmon were all that could be securod last autumn, these were takell 11 Forks and salmon River and in Leitcho's Crcek. Trials were made to obtan ialmon in other stroams, but proved unsuccessful. From the above mentioned fish, 200,000 eggs were faken; in addition to these $: 50,000$ more wereimported from Philip liver, making in all 450,000 egres that wore placel in the Sydney hatchery. These are reported to be in the very best condition, with the embryos plainly visible in them. The officer in charge expresses his confidence in being able to obtain all the parent salmon next year necessary to stock the batchery with egge.

Number of ova laid down at Sydney, fall 1881................_450,000

## Diuk River Hutchery

At the inspection of this hatchery it was found to be in creditable shape; some slight damage had been done to the dam with the spring freshets, but this had beon repaired. Instructions were given for a thorongh cloaning of the troughs and breeding trays, and the attention of the officer in charge was drawn to the necessity of keeping close watch of the dam at all times, épecially during freshets.

A Jarge number of "parrs" (young salmon) were noticed in the pond above and in the river below the hatchery.
'Ihree hundred and seventy-five thousand salmon fry $(375,000)$ were reared in this nursery last spring and successfully plantod in the most important rivers and streams in Prince Edward Island, namely: Morrell, Brudenell, Troutand Dunk Rivers.

The number of salmon that entered the roception house this season was greatly in adrance of the former years, 36 l were entrapped in this pen, 215 were females, and gave upwards of $1,250,000$ eggs. This large exhibit of impregnated salmon ova in the Dunk River hatchery is most gratifying. The officer in charge reports them to be in splendid condition, and also giving unmistakable evidence of a very large crop of fry.

| Nu | of fry raised in this hatchery in 1880 | 500,000 |
| :---: | :---: | :---: |
| do | do do do 188 | 375,000 |
| do | of egge laid down in the fall of 1881. | 1,250,000 |
| Total | mber of fry bred at Dunk River since | 875,000 |

## Province of Ontario.

## Sandwich hatchery.

This establishment was erected especially for the artificial breeding of white fish, they are autumn spawners like all of the salmon family. Their eggs are gathered in October and November, and do not batch out till the following April; from this time till the following October the steam engine and other machinery used for driving the works remain idle.

To realise as much as possible from this establishment, an experiment was instituted in the application of the white fish hatching apparatus to the propagation of the large lake pickerel or doré. These fish are highly esteemed, and largely sought for in the American and Sanadian markets.

The pickerel shed their eggs in April and May, so that by the time the goung white fish would be ready to be "thrned out" of the hatchery the eggs of the pickerel would bo about ready to "come in" and be placed in the whito fish incubators. By this means it was considered that two crops of valuable fish could be turned out of the Sandwich hatchery in one year.

## Young Pickerel.

The application of this experiment in hatching the pickerel eggs last spring was most satisfactory, upwards of $12,000,001$ of young fry were successfully hatched out and distributed in the Detroit, Thames and St. Clair Rivers, and in Mitchell's Bay and in Camphell's Bay, on the Ottawa river. Whatever may result from this planting of twelve million of young pickerel in the waters of Ontario, must clearly be a decided gain, for the eggs from which they were hatched were obtained from fish which were caught aud being conrejei to the markets for consumption; consequently the fry that were obtained in the mannor above describod would otherwise have been completely lost by being cast away as offal. It is proposed to conlinue the hatching of young pickerel at this establishment in succeeding years

In the spring of 1880 , some thirteen million and upwards ( $13,000,000$ ) of young white fish were bred at this nursery, but, in 1881, the numbers were comparatively
speaking very small, only four millions were computed as the crop of last spring. From some unaccountable cause (the want of thorough impregnation, no doubt,) the larger proportion of the ova that were collected turned bad. The whole of this brood of four million $(4,000,000)$ were turned into the Detroit river.

## Glass Incubators.

During last fall a very large lot of white fish eggs were gathered, some twentyfive millions $(25,000,000$ ) in alt. The officer in charge reports a very large percentage of these as vitalized, and anticipates a satisfactory crop of fry from them in April next for general distribution.

The improved glass incubator is now principally used in this hatchery. The patent white fish incubator, invented here some years ago, is with certain improvements pretty generally used in the hatching of white fish throughout America. The patent was originally taken out by myself tor "a combined Fish-egg Incubator and self-picker of eggs," made of metal, glass or eartbenware, with an upward or downward flow of water." Slight alterations have since been made in it. The latest and most perfect incubator now in operation is the one got up and ti-c.l in our Canadian hatcheries.

Increase of White Fish.
Flattering evidences of the benefits arising from the Sand wich hatchery in the evident increase of white fish are frequently given by fishermen :nd others. Similar corroborative statements are also given of the undoubted incre:se of white fish from the operation of these hatcheries in Michigan and other Siates of the Union. Appended to the report of the officer in charge of the Sandwich hatchery will be found a nuemorial signed by numerous fishermen expressing their bolief in the benefits which have resulted from the artificial breeding of the white fish.

Number of white fisb turned out in the spring of $1880 \ldots 13,500,000$
do do do do 1881... 4,000,000
do pickerel fry (doré) do do $1881 \ldots 12,000,000$
do white fish eggs laid down in fall of 1881 .. 25,000,000
Total number of fry of all kinds bred in this hatehery... 77,940,0 0

## Province of Ontarto.

## Newcastle Hatchery.

The buildings, pends and grounds at this place are in good repair and coudition. With the view to intuducing the German carp into tho country, the several ponds originally intended for ralmon and other fish, w c; courerted into carp ponds.
$\tilde{A}_{\sim}$ nembioned in former rejosts, it has been found, from physical changes in the country, revain water, which were formorly adapted for the rearing of almon and speckled trout, have now hecrio wholly umuici for these fish. It has therefore become anecority to substitute sonso other dereription of firhes for many of our rivere and strame in Ontario.

Long experience, coupled with many experiments, have shown the difficulty of breding and growing the hipher onders of tirh like the salmonoid family in water ext ceding a 1 cm ]erature of $60^{\circ}$; but when it reacher $755^{\circ}$ and upwards, as it is at times in $n$ id-rummer in mert of our creeks in Ontario, the production and growth of these fish becomes an imponsibility. With inereased temporature comes increased evaporation by the atmosphere and greater aborption by the soil, almost drying up the smaller fecders and reducing the volume of water in the streams to such an extent an to make them almost tepid: A ruperabundance of organic matter is produced, which kecps tho water coninually turbid, and consequently tainted in the hot summer months. Therefore it is that only the inferior order of fishes can now
subsist in our frontier waters, whoroas in former years, when the country was in its normal state, trout and salmon inhabited them almost universally. Hence the proposed substitution of the

## German Carp.

These fish have bcen introduced into the American waters within the past few years by Prof. Baird, Commissioner of Fisheries for the United States, whose success in hatching and growing them has been marvellous.

The Carp Cyprinus Carpio of the family Cyprinidce, is a toothless fish, and consequently not a fish of prey; it is well adapted to take the place of the trout and other fishes in many of the Canadian waters which have become too warm and turbid of late years for the salmon species.

The carp in Germany is called the " poor man's fish," from its groat plenty, easy means of culture, and rapid growth. In suitable waters it attains a growth in two summers of from three to four pounds, reaching sometimes a weight of ten, twenty, and thirty pounds. It lives largely upon vegetable food as well as upon worms and insects of all kinds, which it turns up from the mud with its head at the bottom of the ponds; it is very easily satisfied, and will eat the offal from thekitchen and the garden, such as cabbage leaves, lettuco, crumbs of bread, potatoen, turnips, oat and cornmeal, \&c. Thus the fish-grower, having a small pond of half an acre, or even less, near his house, will often be able to feed his fish on the refuse from the kitchen and the tablo.

In Europe many thousands of acres of cultivated waters are to bo found, where enormous quantities of carp are bred. Some of these ponds have an extent of one and two thousand acres; these bave beea maintained for hundrods of ycars, proving to be a great source of remuneration to their proprietors. The most extensire of these is in Austria. The Prince of Shwarzenberg possesser more than two hundred and fifty ponds of large size, the smallest covering about ten acres, the largest over two thousand acres in water extent.

As a table fish it is not of inferior quality by any means, and is largely consumed in the principal cities of Central Europe, as Vienna, Berlin and Paris. In the latter city, in spite of an abundant supply of salt-water fish and different kinds of freshwater fish, the carp is always proferred to these, and with the exception of trout and salmon, it frequently commands a price threo times as high as that of ail the rest.

The carp! has been bred very numerously during the past two or three years by the United States Fishery Commission at Washington. Several artificially constructed ponds have been formed on the grounds of the Smithsonian Institute. They are placed under the management of Dr. Rudolph Hessel. Here these fish are bred in immense numbers and the young are distributed throughout the whole of the States of the Union. Wherever planted so far the carp have grown with wonderful rapidity.

Through the kindness of Professor Baird, your Department was enabled to secure a number of these young carps. A messenger was dospatched to Wasbington in December last when aboat one thousand young fry were obtained and safely conveyed to the ponds at this hatcher 5 which had been arranged for them. No losses were sustained in their transport. The e carp will be retained in the Newcastle nursery ponds especially for breeding purposes. Should the venture succeed, which $[$ have no doubt it will, in the course of a couple of years hence hundreds of thousands of the carp family will be available for public distribution throughout the waters of Canada, thus affording an opportunity for many of the inhabitants of the Dominion to introduce into ponds and waters now depleted a highly esteemed description of " food fish" hitherto unknown in our country.

## Ontario Salmon.

The falling off of these fish is beyond all comprehension. The phenomenon is so perplexing that only theories and conjectures can be advanced to account for the wonderful decrease, in fact almost total absence of salmon in this stream last fall.

In my geveral remarks in another part of this Report I have drawn special altention to this extraordinary circumstance. But, after all, the "falling off" in this little stream is not comparatively speaking very much greater than in some of the great rivers of the Maritime Provinces. One officer from Quebec writes that "on the Labrador Coast where eighty tierces of salmon were cured, only eighty fish were caught last ycar." Now, when a circumstance like this occurs directly on the great sea coast, and in addition to this, whou we find a "falling off" in one seasou on many of the great salmon rivers of the Gulf of St. Lawrence, of 50,69 , and 75 per cent., this "drop down" in a little dricd up brook as it were on Lake Ontario is not so astonishing after : ill. This, however, doos not lessen the deplorable fact of the great loss of our salmon. I may here draw attention to my statement in the report of 1879. When speaking of Ontario salmon it is said that, "in 1878 the rur of fish in the creek was remarkably large, and in 1879 the numbors were unprecedentedly small, bearing no fair comparison whatever with the runs of fish for several years back." At that time I was anticipating a change for the better in 1830, but what were the facts? a perfect riddle presented itself in relation to the salmon, not only were they not as plentiful as in 1879 , but we could find no males. So perplexed and astonished was I at this circumatance that I at once wrote a letter to Professor Baird relating the fact; he was equally surprised and requested me to allow the letter to be published, which was done in the Forest and Stream, in November, 1880,-hoping thereby, that some scientist, theorist, fisherman, or savant would explain this salmon freak.

For brevity's sake I quote the paragraph which relates more particularly to this subject:-
"In connection with the reduced numbers of salmon"at this hatchery, strange to say, only three males have yet been found in the stream; all that have yet been captured or have entered the reception house are immensely large females. We have enough of these on hand at present to give us 250,000 eggs, but we have not, nor can we find in the whole river, a single male fish to impregnate these eggs with, should we strip them. What we shall do puzzles me vory "much; add to this the fact that the season is about over for fish to enter the creek. To-day I went down it with one of my men and caught some eighteen magnificent female fish on the beds in the open waters, in broad daylight, but could not find one male. This has been the case since the first entrance of the salmon this fall. There are any amount of beds; in fact, on many of the gravel beds the bottom of the creek is liter ally plowed up with the workings of theso salmon. Another peculianity is that not a single grilse has boen ecen, with the excuption of one California grilse taken last night. In the fall of 1878 salmon of both sexes and grilse were very numerousquite equal to the olden times, some thirty-fire or forty years ago. In 1879 they fell off vory largoly in numbere, and this season thoy are very much reduced from last yoar, with the peculiarity of all being large females and no grilso. I mention these circumatances for your information, and they will no doubt appear to you as being very extraordinary. I can hardly venture to ask you for a cause, or even the theory of a cause for this peculiarity with our fish."

It may be said, however, in connection with this peculiarity, that for some years back, from about 1875, thedecroase in the nambers of parrs and smolts were becoming yearly more and more noticeable. In a small pond, and in a small trap fitted up for the purpose, it was not unusual of a morning to see hundreds of young smolts all collected together, and numbers would bo caught in the trap. It was observed latterly that these smolts began to fall off in numbers very perceptibly, and for the past two or thrce years it has become quite an exceptional occurrence to see one at all. 'This fact, combined with the ultor impossibility of raising speckled trout in these waters at the present day, and the still more alarming fact of the certain death to young trout, salmon, and California salmon when taken from the spring water tanks and put into the creek water ponds, will not allow me to disguise from myself the conviction that the time is now gone by for ever, for the growth of the salmonoid family in this or any other of the frontier streams in Ontario.

## Distribution of Young Fish, 1881.

Great numbers of the fry of salmon, trout, white fish and lake pickerel (doré), were distributed from the hatchory during the last spring. They wore planted in many waters in Ontario, comprising Lakes Ontario, Erio, Huron, Simcoe, Gull aud Sturgeon; and also in Memphromagog and other waters in the Province of Quebec.

The representatives in the Commons of a number of constituencies bordering upon the waters where fishing operations are carried on in Ontario, were notified of the large numbers of fry that were intended for distribution from this nursery. Applications wero mado accordingly, throngh your Dopartment, for smpplies of young fish, and in most cases complied with, and in many instances the little fish were planted under the personal direction of the representatives themselves, and others also who were interested in the undertaking.

Nearly $2,000,000$ of salmon trout fry, and $1,000,000$ of young whitefish, as well as many thousands of the young pickerel and brook trout, were widely scattered in this way in many of the waters of the following rilings and cities:- East and West Durham, Ontario, Northumberland, Hastings, Peterbore' Victoria, Simcoe, Grey, Wentworth, Lincoln, Niagara, Hamilton, London, Toronto and Kingston.

Ova Laid Down, 1881.
A quantity of salmon trout eggs wore collected at tho Pigeon Island fishery situated at the foot of Lake Ontario, opposite the city of Kingston; only a limited number of ova can be relied upon from this fishery. The spawning ground is not very extensive and the "runs" of spawning fish cover only a very short thae, generally during the latter part of the month of October. About a million and a half of chgs were procured at this Island. A good deal of difficulty attonds the transportation of these ova from this Island to the main shore, the distance boing several miles. This with the rougbness of the weather at this late season of the year, makes the paesage to and from the Island, in open boats, somewhat hazardous.

The more important point for getting supplios of salmon trout exse is fronting the town of Meaford on the Georgian Bay; hero large quantities are usually to be had. A large area of spawning ground is fonnd some miles out from Moaford, where trout and white fish congregate in large numbers. This resort of the spawning fish is well known by the resident fishermen, and others who come long distances to make bavoc upon these gravid fish. The numbers that are caught some sersons are very great. They are, however, as a natural consequence of this untimely slaughter, showing signs of rapid decrease. No other result could well bo looked for, for the continual killing of fishes or indeed any other animal, when in advanced pregnancy, must soon decimate and ere long extinguish the species.

The question then arises, whether it woald not be of gencral public good for tho present and future interests of the fisbermen and the fisheries of the country, when it is known that, certain areas of water are frequented at certain well-defined short periods of time by the salmon trout and white fish for reproductive purposes onlywhy should these grounds not bo thoroughly protected and prevented from being fished upon or molosted, in any munner whatever, at that particular time?

## Pickerel of Ontario, or Doré of Quebec, or Wall-Eyed Pike of the United States.

Experiments wore made in the spring of 1881, in hatching the eggs of the lake pickerel, and large quantities of these eggs were collected by the officers in charge of the Sandwich hatchery. Upwards of a million of these werc laid down in this nursery; considering it was the first trial with these fish eggs, il very fair percentage was hatched out. A large number of these fry were forwarded to the Ottawa waters. The remainder were planted in Lake Ontario.

## California Salmon.

A lot of some 50,000 of these eggs were obtained throagh the courtesy of Professor Baird, during the fall of 1880 ; they arrived in fine condition, were hatched out in due time, and distributed last spring in various parts of the country.

## White Fish.

Nearly a million of these eggs were transferred from the Sandwich hatchery to this establishment. Some oight hundred thousand ( 800,000 ) fry were hatched out, and were principally distributed in the waters of Lake Ontario.

Whilst it is possible to collect moderately large quantities of the white fish eggs on the Detroit River, it would appear to be almost an impossibility to procure them elsewhere in Ontario. This is accounted for by the uncertainty of the woather which prevails in the months of November and December, which is the usual time for the white fish to deposit their eggs. The fisheries are more sheltered from the inclemency or' cold and wind on the Detroit River than it is possible for them to be in the open exposed places on the lakes where these fish resort to spawn. On the Detroit River pens or enclosures are made along its banks in which the fisbermen impound large numbers of white fish, keeping them there till later on in the season, waiting for any advantages that may arise for disposal in the markets. It will therefore be seen that this impounding of the fish gives opportunities for obtaining white-fish eggs on the Detroit River, which cannot by any possibility be had on the large bays and shores of lakes where these fish are netted late in the autumn.

This inability to procure white fish eggs at these last namod places was somewhat expensively demonstrated in the trial to procure them at Weller's Beach, on Lake Ontario, and at Meaford on the Georgian Bay, last fall. After dispatching an officur to each of these points, and waiting there some ten days or more, not a single egg sas gathered, nor did the fishermen catch any fish, being unable to set their net from the severity of the cold and extremely boisterous weather which prevailed during the whole timc. Thus it will be seen that during certain seasons, were it not for the Detroit River fisheries, it might so happen that, a supply of these eggs could not by any possibility be obtained for the fish hatcherics. This same difficulty applies to the gathering of the salmon trout egge, but not to such an extent, as these fish shed their spawn somewhat earlicr in the season than the white fish do. It might, therefore, so happen, from the causes above montioned, that a requisite supply of eggs from either of these kinds of fishes could not be gathered.


## distribution of pry.

The whole number of young fish distributed during the spring of 1881 was apportioned as follows:-

Statement of the distribution of young fish at the several Breeding Establishments in the Dominion of Canada, during the spring of 1881, from the eggs laid down fall of 1880 :

> NEWCASTLE HATCHERT, ONTARIO.
> Salmon Trout.

Names of waters and places where doposited:

|  | Number of Fry. |
| :---: | :---: |
| Lake Ontario, at Kingston... .... ....................... | 50,000 |
| do Cobourg ...................... .......... | 50,000 |
| do Port Hope. | 50,000 |
| do Newcastle | 900,000 |
| do Bowmanville | 200,000 |
| do Toronto. | 100,000 |
| do Hamilton | 50,000 |
| do Niagara | 50,000 |
| do Port Dalhousie. | 50,000 |
| do Belleville. | 50,000 |
| Lake Huron, at Meaford......... ...... ................. | 50,000 |
| do Simcoe, at Orillia ...... ............................. | 50,000 |
| do Couchiching ............ | 50,000 |
| do Clear.......... | 100,000 |
| do Momphremagog, at Magog Hatchery........... | 200,000 |
| Total salmon trout fry .......................... | 2,000,000 |
| Pickerel or Doré. |  |
| Lake Ontario, sundry places.................. ........... | 100,000 |
| Ottawa River, Campboll's Bay................. ...... | 100,000 |
| Total Pickerel fry | 200,000 |
| White fish. |  |
| Lake Ontario, sundry places................. .............. | 800,000 |
| Salmon. |  |
| Lake Ontario, Barber's Creek.. | 40,000 |
| do Wilmot's Creek. | 100,000 |
| Total salmon fry.................................. | 140,000 |
| Total fry from Newcastle Hatchery.......... | 3,000,000 |

## SANDWICH HATCHERY, ONTARIO.

Detroit River, white fish............ ......................... 4,000,000
do pickerel........................................ 10,300,000
Ste. Clair River, do ......................................... 200,000
Thames River, do ....................................... . 500,000
Mitchell's Bay, do ......................................... 1,000,000
Total fry from Sandwich Hatchery ............ 16,000,000

## TADOCSSAC HATCHERY, QUFBEC.

Salmon.

| Salmon. | Number of Fry |
| :---: | :---: |
| River Ste. Marguerite............................ .......... | 90,000 |
| do A'Mars ................ .......... . .............. ...... | 60,000 |
| do Jacques Cartier....................................... | 20,000 |
| do Black............ ..................................... | 12,000 |
| do Ste. Anne............................................... | 10,000 |
| do St. Jean................................................ | 40, 1000 |
| do Fiscoumains | 15,000 |
| do Petit Saguenay .......... ........................... | 28,000 |
| do Du Loup.. ............................ ................ | 4,000 |
| do Becancour................................. ........... | 10,000 |
| Brook and Lake at Hatchery. | 45,000 |
| Total Tadoussac Hatchery....................... | 334,000 |
| gaspe basin hatchery, quebec. |  |
| Salmon. |  |
| River Dartmouth | 300,000 |
| do St. John. | 100,000 |
| do York. | 100,000 |
| Pond at Hatchery............. ............................. | 10,000 |
| Total Gaspé Hatchery. | 500,000 |
| magog hatchery, quebec. |  |
| Salnon-Trout. |  |
| Lake Megantic...... ...................... .................. | 50000 |
| do Brompton | $25: 00$ |
| do Magog .......... ................................ ..... | 8,000 |
| do Masкinippi ............... ... . ....................... | -5,000 |
| do Mempbremarog ..................................... | 75, 100 |
| Kast Prand ${ }_{\text {K }}$ E....... | 15,000 |
| East Branch Pond | 2,100 |
| Total Magog Hatchery............................ | 200,000 |
| Ristigolche hatchery, new brunswick. |  |
| Salmon. |  |
| River Ristigouche. | 295,000 |
| do Jacquet.... | 40,000 |
| do Upsalquitch. | 125,000 |
| do Bonaventure..... | 40,000 |
| do Metapedia | 200,000 |
| Lake Metapedia............................................... | 40,000 |
| Total Ristigouche Hatchery.. | 740,000 |

st. Join hatchery, new brdestick.Salmon.
Number of Fry.
Lake Temiscouata ..... 43,000
do Baker ..... 5,000
Littlo River, Grand Falls ..... 2,000
Rapid des Femmes Brook ..... 600
Total St. John Hatchery ..... 50,600
MIRAMICII HATCHERY, NEW BRUNSWICR.
Salmon.
River Miramichi, North-West ..... 200,000
do do South-West ..... 200,000
do do Little South.West ..... 80,000
do Sevogle ..... 50,000
do Renous ..... 40,000
do Bartibogue ..... 40,000
do Burnt Church ..... 40,000
do Tabusintac ..... 40,000
do Salmon ..... 30,000
do Barnabys ..... 30,000
do Dideguash ..... 10,000
do Stewart's (brook) ..... 10,000
Total Miramichi Hatchery: ..... 770,000
LUNK RIVER IIATCMERY, PRLNCE EDWARD ISLAXD.
Salmon.
River Dunk ..... 195,00)
do Morell ..... 60,000
do Brudenel ..... 60,000
do Trout or Lot 10 ..... 60,000
Total Dank River Hatchery ..... 375,000
BEDFORD HATCHERY, NOVA SCOTLA.Salnon.
River Sackville, Halifax County ..... 40,000
do Musquodoboit do ..... 40,000
do Shubenacadie do ..... 20,000
do $\operatorname{Big}$ Salmon ..... 20,000
do Littlo Salmon do ..... 20,000
do Nine Mile ..... 20,000
do Meander, Hants County ..... 20,000
do Herbert do ..... 20,000
do Cornwallis, Kings County. ..... 20,000
do Gaspereaux, do ..... 20,000
do Phillip, Cumberland County ..... 80,000
do Wallace ..... do ..... 40,000

|  | Number of Fry. |
| :---: | :---: |
| River East, Pictou County | 40,000 |
| do West do | 40,000 |
| do Middle do ................................ | 40,000 |
| do Barneys do | 20,000 |
| do Annapolis, Annapolis County | 20,000 |
| do Guysborough, Guysborough County.............. | 10,000 |
| do Salmon do .............. | 10,000 |
| do Siverpool, Queen's County.. | 10,000 |
| do Port Medway do | 10,000 |
| do Salmon, Colchester County | 40,000 |
| do North do | 40,000 |
| do Stewiacke do | 40,000 |
| Total Bedford Matchery........................ | 680,000 |
| PECAPITULATION. |  |
| Gross number of soung fry of all kinde turned out of the several hatcheries in the Dominion in the spring of 188 L. | 22,649,000 |
| (iross number of fish eggs of all kinds laid down in the several hatcheries during the fall of 1881.. | 37,983,000 |
| Grand total of fry turned out from all the batcheries since their opening up to and including the spring of 1881 $\qquad$ | 119,45,300 |
| rirand total of eggs of all kinds laid down since opening of hatcheries up to the spring of $1881 . . . .$. | 159,510,000 |
| Grand tutal of fry Salmonide'............................. | 107,345,300 |
| do of fry Percide. | 12,000,000 |
| Grand total of fry of all kiuds ................. | 119,345,300 |

Liats laid down, Season of 1881.


Table showing the Numbers of Fry turned out during the Spring of 1881.

| Name of Hatchery. | Salmon. | Salmon Trout. | California Salmon. | Speckled Trout. | $\begin{gathered} \text { Pickerel } \\ \text { or } \\ \text { Doré. } \end{gathered}$ | White fish. | Totals. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Newcastle | 100,000 | 1,800,000 | 40,000 | 60,000 | 200,000 | 800,000 | 3,000,000 |
| Sandwich ................... |  |  |  |  | 12,000,000 | 4,000,000 | 16,000,000 |
| Tagog ........................ | 334,000 | 200,000 |  |  |  |  | 200,000 334,000 |
| Gaspé. | 500,000 | ............. | ................ | ............ |  |  | 500,000 |
| Ristigonche | 740,000 |  | ............ | ........ ..... | ..... | ...... | 740,000 |
| Miramichi ..... | 770,000 |  |  |  |  |  | 770,000 |
| St. John River... | 50,000 |  |  |  |  |  | 50,000 |
| Dunk River . | 375,000 |  |  |  |  |  | 375,000 |
| Bedford .......... | 680,000 |  |  |  |  |  | 680,000 |
| Sydney.......... | ........ |  |  | ............ | ............ |  | ............ |
|  | 3,549,000 | 2,000,000 | 40,000 | 60,000 | 12,200,000 | 4,800,000 | 22,619,000 |

5 b-21*

Table showing the places where, add the years in which, the several Fish Hatcheries each establishment, annually,

| Year. | Newcastle. |  | Ristigouche. |  | Miramichi. |  | Gaspé. |  | Tadousac. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Eggs. | Fry. | Eggs. | Fry. | Eggs. | Fry. | Eggs. | Fry. | Eggs. | Fry. |
| 1868 to 1872. | 1500000 | .... |  | ........ |  | ........... | ..... |  |  |  |
| 1873........... | 500000 | 1070000 | 130000 |  | 300000 |  | .... ....... |  |  |  |
| 1874........... | 800000 | 350000 | 880000 | 100000 | 1500000 | 60000 | 200000 |  | 60000 |  |
| 1875.. ......... | 1000000 | 650000 | 310000 | 600000 | 60000 | 150000 | 70000 | 110000 | 200000 | 60000 |
| 1876........... | 1750000 | 700000 | 800000 | 300000 | 650000 | 60000 | 1200000 | 50000 | 1340000 | 150000 |
| 1877........... | 3300000 | 1300000 | 1200000 | 600000 | 710000 | 320000 | 750000 | 1051000 | 1100000 | 1180000 |
| 1878. | 3841000 | 2605000 | 1585000 | 1015000 | 1250000 | 665000 | 1650000 | 650500 | 1375000 | 707000 |
| 1879........... | 2899000 | 2602700 | 1600000 | 1470000 | 1010000 | 1025000 | 850000 | 1597000 | 1500000 | 1250000 |
| 1880. | 5270000 | 1933000 | 750000 | 1500000 | 850000 | $8 ¢ 5009$ | 530000 | $739 C 00$ | 408000 | 1155000 |
| 1881........... | 5750000 | 3300000 | 1500000 | 740000 | 700000 | 770000 | 607000 | 500000 | 700000 | 334000 |
| Totals... | 26610000 | 14500700 | 7245000 | 6285000 | 6330000 | 3855000 | 5250000 | 4688000 | 5983000 | 4836000 |

Note.-The "Fry" column under each batchery denotes the number hatched from "Egg" These figures include saimon, salmon-trout and white fish fry.
have been erected; also the numbers of Eggs laid down, and Fry turned out from since they were built.

column of previous year, thus: the Fry on the line of 1874 are from Eggs on the line of 1873.

## REMARKS ON PERIODICAL FLUCTUATIONS OF THE SALMON FISHERY.

To explain away the phenomenal risings and fallings off in our fisheries would ontail an impossible task, for with the united wisdom of the most eminent scientists and naturalists not only of the present day but of former times, no satisfactory clue has been given or true basis established by which the habits of many of the fishes that frequent our waters are thoroughly known. More especially does this want of knowledege apply to the present great question at issue, of the extraordinary absence of the usual number of salmon from our rivers and estuaries during the past two years.

I shall now briefly address myself to some of the objections urged against fish culture, and answer allegations having reference also to artificial fish-breeding and its effect. It is stated, for example, that the salmon fishory of the Province of New Brunswick is threatened with speedy exhaustion; let us see why. There has been a alling off in the last two catches, but that does not necessarily imply speedy exhaustion, for the marked and mysterious falling off in the salmon fishery at certain periods, and its subsequent revival is by no means a novel occurrence; but in the memory of many who have watched the salmon fishery in the estaries and rivers throughout the whole of the Gulf of St. Lawrence they have seen, say tbis year, showing an abundant catch and the following sear a falling off of over 50 per cent. Even in British Columbia and at other points on the Pacitic coast, where salmon frequent the rivers in millions as compared with thousands on our Atlantic side, certain periodical changes in the "salmon runs" have also been noticed.

Pressure of business upon my hands has prevented me from giving this phenomcoon the attention I would wish, but I nevertheloss have given the matter some consideration, and herewith submit data to corroborate the opinions I entertain. I take a fow figures from the retarns of the net and fly fishing in the Province of Quebec as containod in the Departmental Report for 1880. I would have preferred extracting from the New Brunswick Reports if the tables had beon arranged with more fullness. that the Quebec tables, which were found more comprebensive (showing the returne in most cases many years back), will apply in principle alike to all the Maritimo Provinces.

These relurns covor the period in most instances from 1870 to 1850 , and it will be noticed as a remarkable fact that the "falling off" year has been, in the second instanco, tive years from the first, the jears reforred to being 1875 and 1830. In nearly the whole of tho fishing stations enumerated a direct "drop down" of almost one-half has taken place from the catch of the previous years of 1874 and 1879, and a similar "rise up" again in the catch of 1876 , which is the one following the "short year" of 1875. The following aro tho tables alluded to:-

> ANXUAL REPOLT OF 1390.
> province of quebeo.

Yielid of salmon net finheries.

## Saluenay Divisıon.

Year. ..... Number of Silmon.
1870 ..... 3,255
1871 ..... 3,469
1872 ..... 3,312
1873 ..... 2,481
1874 ..... 2,483
187. ..... 981
1876 ..... 2,830
1877 ..... 2,362
1878. ..... 2,746
$187!$ ..... 1,843
1690 ..... 65 S
Point Levis to Cape Chatte Division.
Year. Quentity of Sslmon in lbs. 1870 ..... 9,574
1871 ..... 4.432
1872 ..... 3,374
1873 ..... 4,726
1874 ..... 3,342
1875 ..... 4,171
1876 ..... 5,431;
1877 ..... 5,935
1878 ..... 8,705
1879 ..... 6,659
1881 ..... 4,738
Gaspe and Pabos Division.
Year. Quantity of Salmon in lbs. 1873 ..... 72,200
1875

$$
136,304
$$ ..... 86,51?

1876 ..... 91,754
1877 ..... 204,030
1878 ..... 115,128
1880 ..... 43,587
Magdalen River Division.

| Year. | Iagdalen River Division. | Quantity of Salmon in lbs. |
| :---: | :---: | :---: |
| 1876. |  | . 14,000 |
| 1877. |  | 11,400 |
| 1878. |  | 12,268 |
| 1879. |  | 9,600 |
| 1880 |  | .. 6,000 |

Cape Chatte Division
Year. Quantity of Salmon in lbs. ..... ,000
1871 ..... 4,000
1872 No return.
1873 ..... 5,200
1874 ..... 4,800
1875 ..... 2,400
1876 No return.
1877 ..... 1,407
1878 ..... 3,848
1879 ..... 2,535
1.980 ..... 1,217
Quebec and Montmorency Division.
广ear. Number of Salmon.
1870 ..... 91
1871
1871 ..... 91 ..... 91
1872 ..... 82
1873 ..... 150
1874 ..... 114
1875 ..... 60
1876 ..... 52
1877 ..... 135
1878 ..... 100
1879. ..... 150
1880 ..... 60

## Cascapedia and Maria Division.

Year. Quantity of Salmon in lbs.
1872 ..... 96,800
1873 ..... 116,955
1874 ..... 95,824
1875 ..... 24,386
1876 ..... 51,225
1877 ..... 253,804
1878 ..... 222,846
$18: 9$ ..... 154598
1880 ..... 61,702
Port Daniel Division.
Year. Quantity of Salmon in lbs.
1870 ..... 24,000
1871 ..... 21,600
1872 ..... 22,000
1873 ..... 29,600
1874. ..... 22,000
1875 ..... ,600
1976 ..... 33,600
1877 ..... 43,200
1878. ..... 59,400
1879 ..... 49,200
1980 ..... 24,000
Moisie Division.
Ya: Quantity of Salmon in lbs. ..... 220,800
1871 ..... 140,800
1872 ..... 171,000
1873 ..... 233,200
1874 ..... 162,600
1875 ..... 108,200
1876 ..... 114,735
1877 ..... 141,911
1878 ..... 327,200
1879 ..... 274,309
1880 ..... 106,588
Mingan Dirision.
Year. Quantity of Salmon in lbs.
1870 ..... 145,400
1871 ..... 85,200
1872 ..... 72,800
187. ..... 102,889
1874 ..... 59.07 ;
1875 ..... 43,110
1876 ..... 79,600
1878 ..... 110,200
1879 ..... 58,970
1881 ..... 32,492
Watsheeshoo Division.
Quantity of Salmon in lbs.Year.
1872.5,800
1873. ..... 10,400
1874 ..... 6,630
1575 ..... 5,000
1876 ..... 6,100
1877 ..... ! , 000
1878. ..... 4,400
1879 ..... 7,000
1880 ..... 4,000
Pacachoo Division.
Year. Quantity of Salmon in 18 z
$157:$ ..... 36,000
1874 ..... 191,000
1875 ..... 41,200
1876. ..... 97,000
1877 ..... 70,600
1878 ..... 100,800
1879 ..... 50,000
1890 ..... 37,200
Bonne E'spréance Division.
Year. Quantity of Salmon in its,
1873 ..... : 4,400
1874. ..... 27,200
1875 ..... 23,600
1876 ..... 62,400
1877 ..... 40,200
1878 ..... 53, 200
1879. ..... 41,400
1980 23,800
Anticosti Division.
Year Quantity of Salmon in llos.
1876 ..... 14,400
1877 ..... 15,000
1878 ..... 19,400
1879 ..... 8,400
1590 ..... 4,400
Fly Fisiling.
Point Levis to Cap Chatte Divisiin.
Year. Number of Salmon.
1874 ..... 535
1875 ..... 335
1876 ..... 700
1877 ..... 871
1878 ..... 1,830
1879 ..... 1,090
1880 ..... 479

St. Anne des Munts River.
Year. Number of Salmon.
1871 ..... 8
1872 ..... 12
1873 ..... 87
1874 ..... 140
1875 ..... 69
1876 ..... 116
1877 ..... $71 ;$
1878 ..... 94
1879 ..... 101
1890 ..... 52
Girand Cascapedia River.
iear. Number of Salmon.
1871 ..... 44
1872 ..... 136
1873 ..... 68
187 ..... 418
1575 ..... 269
1876 ..... 368
1877 ..... 313
1878 ..... 305
1879 ..... 647
1880 ..... 83Bonaventure River.
Year. Number of Salmon
1871 ..... 60
1879 ..... 30
1873 ..... 22
1874 ..... 15
1875 ..... 26
1876 ..... 4.
187 ..... 21
1878 ..... 40
1879 ..... 58
1850 ..... 22

The uniformity in the falling off in 1875, and again in 1880 , is so marked, that it is plainly more than coincidental. The following statemont from Mr. Mowat, the officer in charge of the Metapedia and Ristigouche Rivers, shows a similar falling off for the last namod year:-
"Reports show the catch of salmon in this division as boing two-fifths less than during the last six years. It may be yoars ngain before such anothor disastrous season occurs. There is no doubt, however, that this fishery will always be subject to fluctuations beyond our power to control, the causes of which we can only theorize. So far as 1879 is concerned, there never was such a promising appoarance of fish, both young and old. Why the catch in 1880 turnod out so badly has yet to be solved."

The following figures show the yield of this fishery during the season:-

$$
\begin{aligned}
& \text { Not fishing............................................................. } 90,000 \\
& \text { Lbs. } \\
& \text { Caught by settlers for domestic use.............................. } 4,000 \\
& \text { do anglers with the fly..................................... 6,000 } \\
& \text { do Lower Ristigouche Division N. B. side.......... 100,000 } \\
& \text { Total cateb in } 1880 \\
& 200,000
\end{aligned}
$$

Here follows a general statoment which I have gathered of the catch of salmon in the Provinces of Quebec, New Brunswick and Nova Scotia, from 1869 to 1880, both years inclusive, which shows the variableness in the product of this fishery demonstrating at the samo time the marked "falling off" in $\mathbf{1 8 7 5}$ and 1880. These quantities aro given in lbs.

|  | Year. | Quebec. | New Brunswick. | Nora Scotia |
| :---: | :---: | :---: | :---: | :---: |
| 1869 |  | 789,700 | 752,583 | 742,80! |
| 1870. |  | 1,168,000 | 1,499,187 | 1,340,950 |
| 1871. |  | 745,600 | 1,608,496 | 1,297,519 |
| 1872 |  | 810.000 | 1,599,977 | 1,335,32.5 |
| 1873. |  | 1,066,635 | 2,842,729 | 1,630,299 |
| 1874 |  | 1,074,491 | 3,214,182 | 1,758,818 |
| 1875 |  | 683,479 | 1,8:6,751 | 873,162 |
| 1876. |  | 769,798 | 1,005,427 | 810,14' |
| $187 \%$ |  | 882,460 | 1,593,297 | 677,694 |
| 1878. |  | 1,187,184 | 1,763,772 | 655,304 |
| 1879. |  | S85,051 | 1,636,342 | 535,100 |
| 1830. |  | 409, 240 | 856,155 | 383,159 |

I appoad another statement showing the great disparity in the quantity of sulmon taken in the principal salmon rivers on the north shore of the St. Lawrence letween the years 1879 and $158^{\prime}$ ).

|  |  | 1879. | 1880. |
| :---: | :---: | :---: | :---: |
| Magpie T | Rise | 8,600 | :3,800 |
| St. John | do | 35,170 | 22,834 |
| Mingan | do | と,400 | 4,800 |
| Natashquan | do | 42,347 | 35,200 |
| Romaino | do | 5,000 | 2,200 |
| Moisio | do | 272,909 | 96,038 |
| Trinity Bay | do | 11,200 | 7,200 |
| Anticosti Isla | land | 8,400 | 4,400 |

This gives an average decrease of 55 per cent. in 1880.
Also a statement of the falling off in the catch of salmon by fly-fishermen in 1880 in all the rivers in New Brunswick and Quebec:

$$
\text { Number of fisb c.ught...................................... } 3,095 \quad 1,117
$$

1899.1880.
or a "falling off" of about $4 \frac{1}{2}$ per ceat. in 1880.
Thus it will be seen that "speedy exhaustion" does not necessarily follow a falling off, else the salmon fishery would have come almost to an end in 1876, the Fear after the first falling off recorded in the foregoing. The cause or the variety of causes producing this phenomenal occasional falling off has not been, and cannot be, determined, but there is room for surmise nevertheless. Suppose a very rigorous winter in the Maritime Provinces, during which the rivers have frozen deeply and there are very heavy snow-falls. With the spring rains there are violent floods in the rivers and the ice in being carried out scours the rivers bottom, carrying even huge boulders before it. Undor these circumstances the ova deposited in the gravel would be destroyed. Thus the fourth or fifth year following this occurrence would lose that year's salmon yield, which would be sufficient to account for a falling off like one of those recorded. Or, how know we what happens in the mysterious depths of the sea to which the salmon go in winter? If plagues sometimes come and carry away numbers of creatures of the land, not sparing even man, why might they not in the depths of the eea visit fishes and decimate them too? It is highly probable that the salmon like so many other fishes is gregarious in the ocean depths, and that, in summer season, they migrate to their rivers only for the purpose of reproducing their species; and that, therefore, they would be liablo to diseaso of a contagious nature.

Indeed, it is well known that a salmon affected with the fungoid disease communicates the malady to any fish of its species with which it may come in contact; and this is why that, in rivers in Great Britain, any dead salmon found in the rivers are instantly buried. So that a sudden "falling off" in the salmon fishery and a gradual "increase up" again from the minimum might thus be accounted for. And it is by 10 means certain that the haunts of the salmon are not sometimes visited by predatory fishes, voracious and swift, to whom they fall a prey in large numbers. However, I need not enlarge on these points here further than to show that the "falling off" in any year of salmon might no more mean "speedy exhaustion" of the fishery, than the ravages of epizootic among horses, or of small pox among men, would mean the speedy exbaustion of either of these species.

I find, on turning to the New Brunswick Inspector's reports to the Department, that he confesses the phenomenon of the rise and fall in the salmon catches in New Brunswick. In his report of 1875 he says: "This decline is almost wholly attributable to the very small catch of salmon, which has been universal this year. Similar reports of a partial failure of the salmon fisheries reach us from Europe, and it is attributed to some natural causes not yet understood."

He also says in his Annual Report of 1880: From some causes unknown even to scientific enquirers there has been a rery serious falling off in the cateh of salmon during the year. In some localities but little over one half the usual catch bas been made, while in the wholo Province the decrease has been fully 30 per cent. as compared with former years. I regrot my inability to assign all the causes of so serious a fuilure of one of our most important fisheries. No doubt some unusual and exceptional caure has been in operation, but so far it has escaped the research of both fishermen and 'savants.'"

But some of the officers confess that in the past there has been a most wanton destruction of salmon in the New Brunswick rivers, especially in the St. John River, where it is declared that the torch light and spear are so constantly used, as to prevent eren the possibility of obtaining a few parent salmon from which the St. John River fish batchery might be partially stockod with eggs. This barbarous custom and deadly mode of killing the mother fish, now dull and sluggish on the Npawning grounds, is without doubt the most direct and certain means of bringing about speedy exhaustion of the salmon fisheries of the Province, and also speedy extinction without reference at all to the unknown causes that bave puzzled fishermen and savants.

It is urgod again that the oxbaustion of the fishery is due to the inefficiency of the "Fisheries Act and Regulations," but I find by turning to the Departmental reports that the Inspector for New Brunswick bears strong, clear testimony to the efficiency of the law and regulations for all fishing purposes. I quote from Appendix No. 12, of his Report of $186{ }^{6}$ :-
"The machinery provided by the Department of Marine and Fisheries for the enforcement of the wise regulations of the lisheries Act is now in good working order."

Also from Appendix M, Report of 1870 :-
"The returns for the year show a largo increase over those of 1869, and there can be no doubt that this improvement is due entirely to the protection afforded by the machinery provided under the Fisheries Act of 1868 and by the operations of the Marine Police during the past jcar."

From Appendix N, Report of 1872 :-
"The Fisheries Act as it becomes better understood is also bocoming betterappreciated, which makes the duties of fishery officers less onorous and more easily performed."

From Appendix K, Report of 1873 :-
"I am happy to state that the improvement in the fisheries, as shown by the incrcased annual yield, which has marked evory field since the passage and onforcement of the Fisheries Act in 1868, is fully borne out by the returns of the past season. This cheering result is undoubtedly due to the wise system of protection which the provisions of that Act supply, and there is no room to doult that the source of wealth
is fast recovering from the depression under which it suffered previous to Confederation. It would much simplify matters and remove a source of trouble if the Nova Scotia Act could bo repealed. Its retention answers no good purpose, but gives rise to much confusion and dispute. As the Fisheries Act covery all its provisions in precise and unambiguous terms it is now unnecessary and ought to be dispensed with."

And from Appendix No. 10, report of 1874 :-
"The reports and returns from the local officer's continue to show a satisfaciory state of the fisheries in Nova Scotia and New Brunswick. This steady increase is the best proof that can be oflered of the beneficial resulta of the protection afforded by the Fisheries Act."

## ARTIFICIAL FISH CLIAURH.

Views of Eminent Men in other Comtries contrasted with Sieptics in our own
Again we hear some others say: "We are told that more hatching houses will be all that is necessary to restore the fishery to its former productiveness. This matter has passed out of the region of theory into that of bistory and fact. The question is a simple one and resolves itself into this: if thirteen years' oporations at Newcastle and eight years at Ristigouche and Miramichi have produced no visible results, how many houses and how many years will be required to restore our salmon fisheries?" Now, that this question has been raised by the ignorance of some, the natural antagonism to every experiment in the direction of progress by others, and, I might add, the malice of an insiguificant few, I shall first quote a fow brief extracts from the writings of some of the most eminent seientists Europe or America has produced, on the science of artificial fish-breeding; then I shall point out what has been accomplished in the Old World and the New by artifical culture, and the interest shown in the science by enlightenod governments and private corporations.

The late Prof. Frank Buckland filled the important position of Inspector of satmon Fisheries of Great Britain up to the time of his lamented death. His graphic and highly instructive writings on the subject of "fish and fisherios" lave benefitted the whole world. Ho was so thoroughly imbued with the great national benefits to be derived from the science that in his last words to the public contained in a preface to the "Natural History of the British Isles," to bo publisked shortly afterwards, speaks of the work as " not merely a book on ichthyology, but as an introductory guide to the great and important science of fish culture."

Ho saye, speaking of England: "Tho general public have not, I am sure, an idea of the vast importance of this wience, let them, therefore, for a moment consider from whence must come the enormous daily supplies to be counted by hundreds of tons of fish for the great markets such as Billingsgate, Lirerpol, Birmingham. Manchester, Ldimburgh, Glasyow, \&e. There are nearly four millions of months in London alone to be fed daily, and thirly-three millions of hungry subjects of Her Majosty in England, Wales, Scotland and Ireland, demand also a daily supply of fresh tish. At present this daily supply may be fortbcoming, but how Iong this is to continue without falling off is a question which makes me shudder. It is, therofore, the most desirable that public attention should be directed quite as much to the cultiration of the waters as it has been bitherto to the cultivation of the lands-ayui. culture is quite as important as agriculture."

I also desire to quote the opiaion of Prof. Spencer F. Baird, than whom, perhaps, no more eminent scientist of the present day lives. As Commissioner of lisheries for the United States, in his annual report to the Government of that country, writes thus when referring to the decrease of fish in their waters:-
"What now are the romedies to be applied to recover from this lamentable condition of the American fisheries, a condition which we may remark has existed in all countries of Europe, but which in some of them has already been greatly lessened by the proper measures. These are two-fold : one consists in the enactment and enforcement of legislation protecticg what we have, and allowing natural agencies to play
their part in the rccovery. The other consists in the application of the art of the artifical propagation of the fish. Either, alone, in some circumstances will answer a very good purpose; the two combined constitute an alliance which places at our command the means of recovering our lost ground to a degree which but for the experience of the last ten years would hardly be credible."

In speaking of the means of increasing the tish supply Pror, Baird says:-
"The legislation required consists in the enactment of laws for the introduction of fish-ladders, by means of which the spawning fish can reach the head waters of the stream ; in a prohibition against discharging saw-dust, gas rofuse, chemicals, \&c., into the waters; in a limitation as to the pounds, numbers and size of mesh of nets, and especially in the establishment of close seasons during the woek during which the capture of fish by nets shall be forbidden, and an absolute prohibition of their capture after a certain date in the jear, these dates will necessarily vary with the kinds of tish to be protected; and even, however, with all these regulations, supposing them to be thoroughly enforced, there remains much to be done; our rivers, capable of, accommodating very many tons of fish, must be re-stocked, or there will be no result from our labor. This is not to be accomplished by the transfer of the parent fish from one point to another. It is through artificial propagation that the restoration of certain species of fish to their former places of abode, and the introduction of fish to waters where they were before unknown, is to be accomplished."

Prof. Baird furthermore writes in his Keport to Congress thus:-
" A patient whose constitution has been undermined by disease of long standing is unreasonable in expecting good results and radical cure after a short application of approved remedios, yet he and his friends may be disappointed if the recuperation from the excess or lesions of many years is not manifost in as many days. In reality the reverse is rather the rule, the time of recovery being more frequently much longer than that of the morbific influences. The expectations in regard to the resulte of tish culture are of somewhat the same character; although decades of years perhaps, even a century, may have witnessed the continuance of agencies for the diminution of fish in our waters, the public mind is unsatisfied, and perhaps inclined to severe criticisms, if the recovery of a supply is not appreciable within the first two or threo years of effort. We are, however; clearly ontitled to maintain, in riow of the experience of foreign countries and our own, that no reasouable anticipation in this respect will be disappointed, and that the proper measures of legislation and of artiticial propagation will exhibit a marked result long before the end of the present generation.
"In no instance can even the beginning of a success bo achioved in a shorter period than four or five yoars. It sometimes happens too that for one reason or another that the first deposit of young fish proves to be a failure. They may bo introduced in a sickly state, or else in such small numbers that in the presence of an unusual abundance of enemies they may all perish. What special agencies there may we in the ocean after thoy reach it, we are unable to say.
"Again, we may misunderstand the period required for the maturity of certain specios; while four years may lie considercd the general average ago of cod and herring, five are probable required for the eastorn salmon, and it is not impossible that the California salmon will show itself only after a lapse of six gears from its birth. I hope, however, to introduce onough illustrations of oven partial success to warrant the attention of Congress and of the States towards the operations of the United States Commission, and those of the respectivo States Commissions.

It is very pratifying to note the rapidly increasing interest in the whole business "f fish protection and fish propacration shown by the citizens of the United States, and culminating in the measures takon by national aud State legislations for fostering whateve: looks towards the increase of tho fish supply. At the time when the United States Commissioners waty authorized by Congress, and organizod, there were only oleron states in all having commissions, and of those a small number only were provided with funds and power to tako definito action in regard to the increase of a kilply; the list now (1880) amounty to thirty, all provided with intelligent and able Commissionces. Quite a number of these bave their own batching houses, in which
are hatched out not only the local species, but also such eggs as may be supplied by the United Statos Commission."

Mr. Rogers, the Inspector of Fisherios for the Province of Nova Scotia, is of the opinion that the general onslaught upon the salmon is the cause of the deterioration, and recommends the removal of obstructions in the rivers, and the increase of artificial hatching ostablishments.

He says in his Annual Report thus: "The decline in the quantity of salmon taken as shown by our retarns from year to year, is mainly the result of over-fishing during the past ten or twelve years, which has been stimulated by the rapid modes of transporting fresh fish to distant markets, and a consequent increase in price. The results are that where there was one salmon net set twelve or fifteen years ago, there are probably fifteen or twenty now. Almost overy man that can obtain twine and a place on the coast to set his net has one. This cannot be wondered at when it is known that during the salmon fishing season, on much of the western coast of the Province, an avorage size salmon will purchase a barrol of flour for the poor fisherman, and will sell for the cash as soon as landed. In proof of this, I may state here that a poor family living on the Medway River, in the month of March last, being in a state of want and almost suffering for food, sot their net in the river near by their houso and in the morning had four fine salmon, which were sold at once for $\$ 32$, sufficient funds to buy fire barrels of flour. Under such circumstances as these it is almost impossible to curtail the extent of the fishing, but we must address ourselves to work of removing, as far as possible, all obstruction to tho ascent of these fish to their spawning grounds. and aid nature as far as possiblo by increasing artificial hatching establishments, such as that at Bedford. There has, however, boen an uncommonly small crop of salmon this year in all parts of North America, tho cause for which must be of a general nature and not local. It will be noticed by reforring to our returns from year to year, that by far the largest docroase in salmon is in those salted in barrels, which are taken in the eastern counties, in Cape Breton and on the Labrador Coast, where the rivers are neilher obstructed by mill dams, or aftlicted with sawdust or poachers to any extent." Mr. Rogers also gives the decrease of salmon for 1880 as compared with 1879 to be $151,960 \mathrm{lbs}$. This falling oft shows strong evidence of some peculiar agroncy boing at work in the dostruction of this class of river-going fish, eithor in the sea or on their breeding grounds in the rivers.

Professor Buckland and Baird are each held to be tho highost authority on matters relating to fish, fisheries, and fish culture in the respective Continents of Europe and America. The opinions of hundreds of other sciontifie and practical men throughout the world holding similar views could bo readily given if time could be taken or necessity required. It is hardly fair, however, to the writers of such patriotic and adranced sentiments to insert them here as a set off against the paragraph of indictment against artificial breeding, which I havo 4 uoted. Butif the opponents of artificial fish-breeding are not convinced by the extracts I have quoted, I shall briefly examine the points of the theories put forth by the scientists mentioned. I shall seo what are the practical results of the depositing of artificially bred fry in exhausted waters, or waters that did not before contain salmon. First, I shall see what has been done on the Connecticut River, $C^{r}$. $S$.

Up to 1798 largo numbers of salmon were caught in the Connecticut river. During that year a high dam was crected on the river which effectually shut off the salmon from the spawning grounds, so that within a fow years after they became almost exterminated. More than half a century afterwards, in 1869, a lot of 2,000 artificially bed fry were put in the river. A second lot of 30,000 was put in during 1870. In 1873 another lot of 150,000 was added (the Commissioners obtained 10,000 eggs from the Newcastle Jatchery in Ontario in 1871). In 1874 a much larger number was planted in the same river, making the deposit during the last fouiyears amount to about two million ( $2,000,000$ ). Fish-ways were also formed over the dam in order to carry out the practical object of the Fishory Commissioners of the State to stock the Connecticut River with salmon.

In 1874 and 1875 the first successes were noticed in the seeing and catching of mome young salmon in the vicinity of the same place where the young fry were first planted. In 1876, three salmon were caught in the nets, and doubtless more were taken. A dozen and more were captured in 1877. But in 1878 the salmon came into the river in large numbers; and by the end of the season 500 and upwards were inown to have been caught in the nets. Some of these weighed 15, 20 and 23 prunds. These returns naturally gave the Connecticut State Fish Commissioners great satisfaction who, after "perseveranco and faith," and the wicked writings of sceptics :quinst them for nearly ten years, had accomplished their end. The successful culture of salmon, by artificial means in the Connecticut River, was thereby demonstrated lueyond question.

Great incredulity bad been manifested by most persons as to any practical results from artificial propagation, and, as year after year passed without bringing the expected run of salmon into the Connecticut, snoers and jokes, at the expense of the United States and State Commissions, multiplied. The occurrence, however, of one or two large salmon in the Connecticut, in 1876, a dozen or so in 1877, interfered with this scepticiem, which was changed into enthusiastic appreciation by tho appearance, in 1878, of large numbers of tine fat salmon.

No better proof of the efficacy of artificial tish-breeding, as applied to the re-stocking of a depleted river with salmon, could well be given. For here we find a large river wholly barren of thoso fish for upwards of half a century, again replenished with grilse and salmon, after only a few sears planting of artificially bred fry.

This success, and similar results in the Delaware and Susquehanna River, 10 which salmon wero not indigenous, was of such a gratifying nature, that Professor Baird at once informed me of it in the following note :-
"United States Commission, Washington, D.C.
"Sir,-Yours of the Brd Juno, receired * * * * * * The icrults of the experiments of introducing salmon into the waters of the United States, are just beginning to appear, over 50 J having been taken in the Connecticut, ant largo numbers were known to havo passed up the river.
"About 20 mature salmon have been captured in the Delawarc. One of these, weighing $23 \frac{1}{2}$ pounds, I have in my possession. I think there is little doubt that these are derived from eggs that Thaddeus Norris got from you somewhere about 1871.
"I have also a 19-pound ealmon from the Susquehanna; but, so far no 'quinnat' salmon have shown themselves. I hope to soe some of them next year.
"Sincerely 5ours,
"SPENCER F. BALRD,
"Commissioner.
"「o Simeel Wilmot, Esq., "Neweastle, Ontario."

But this is nut all. In maiden waters in Ireland, in which from tho boginning a ralmon had never been, a valuable fishery was established through artificial culture and placing the artificially bred fry in the waters.

The following statement by the Secretary of the "Acclimatization Society of Cireat Britain" is self-explanatory.
"Ihis is another instance, and a most interesting ono, of tho manner in which unproductive rivers can be made of great value. Tho Doobullah Lakes in Ireland in their natural state contained nothing but a few worthless brown trout, but were, by artificial means, shortly afterwards converted into a valuable salmon fishery. The experiment bere gave strong evidence against the growth of salmon being so rapid as has leen generally supposed. The Doohullah Lakes are somo 16 in number, cennected together by small channela and rivulets. The proprietor of thom was induced to stock them with salmon by artificial means. Ova were obtained and laid down in

1859; fry were hatched out in 1860 . These fry were kept in ponds, and turned out in 1862 and 1863; grilse came in 1863 and 1864, the salinon following in successive years. The speculation was a complote success. The first proprietor sold out the property, realizing a large profit on his outlay; the succeeding owner followed up the enterprice by the assistance of pisciculture, and a valuable salmon fishery was established in maiden waters where silmon did not before exist. But in addition to theso facts, the world is now against the opponents of fish culture."

Not only has nearly every civilized Government in the world established State nurseries, where fish are artificially bed to restock and keep up the supply in the waters, but prirate enterprise and capital have been, in numerous and rapidly multiplying iustances, extended in the same way. The instances are so many that I need only refer to the fact. In Englau!, Ireland, France, (Germany and the other European countries, in addition to the aloption of artificial culture by the State, joint stock companies, made up of large capitalists, have set out in the same enterprise.

The rame is being done in the United States on a very extensive scale, and arrangements are being made for the formation of a company of this kind to be operated on the Fraser River, in British Columbia. Here, as well as at other points on the Pacific Coast, where salmon are found in such vast numbers in the rivers, it miglat be snpposed that fish-breeding institutions would not be required, but finding the demand throughout the world rapidly increasing for preserred salmon, and the supplies of these tish somewhat decreasing from the extraordinary exertions put forth to catch ti:em in the rivers, fish-breeding nurseries are now being established there, to assist in maintaining the standard of their great a..urce of wealth.

I will give the organization articles of a company just formed to carry on artificial fish-breeding on the Clakamas River, on the Pacific Coast.

Article 1. The name assumed by this corporation, and by which it shall be known, is the "Oregon and Washington Fish Propagating Company."

Article 2. The duration of this Company shall be unlimited.
Article 3. The enterprice, business pursuit and occupation in which this corporation proposes to engage is to propagate, breed and multiply salmon and other species of fish in the waters of the Columbia River, and its tributaries, and to do a general fish cultural business; to parchase, own, hold, occupy and dispose of real estato and erect such necessary buildings and improvements thereon, and to purchase, erect, and maintain all necessary furniture, etc., for hatching salmon and other fish.

Article 4. The principal office and place of business of this corporation shall be at the City of Portland in the Connty of Multnomah and State of Oregon.

Artiele 5 . The amount of capital stock of this corporation shall be the sum of $\$ 30,000$, United States gold coin, and the amount of each share of such capital stock shall he $\$ 50$, United States gold coin.

The hatching house for the above Company was constructed under the direction of Livingston Stone, Esq., one of the most skilful pisciculturists of the day.

## Artificial Breeding necessary or the "Fisheries must fail."

I submit the following from a paper read before the Natural History Society of Illinois, by Prof. S. A. Forbes, as sbowing the enormous destruction of fishes for the uses of mankind, and referring to art ficial breeding as a means to prevent the gradual failure of fishes :-
" Hlore than twenty-one million $(21,000,000)$ pounds of white fish were talsen in the great lakes of the United States in 1879 (as nown ly the recont Cen w. report), valued at over three-quarters of a million dollars ( $\$ 750.000$ ), and representing acarls half the total sum derived from the lake fisheries of all kinds. Thene fisheries employ over five thousand men and a fized capital of one million three huldred alld firty-nix thousand dollars ( $(\$ 1,346,000)$. When we reflect that this enormous drain ujon the number of the species is necessarily, to a considerable extent, an ad litimii to the natural tax levied upon it by its enemies other than man, we se that there must be an artificial supply prorided or the fisherics will gradually fall.
$5 b-3^{*}$
"It is a general law that each permanent species naturally acquires a reproductire rate just sufficient to make good the inevitable losses to which it is subject in the extabliwhed order of life about it, and no more. If man increases these natural losses, he must compensate the species, either by protecting it from some of its enemies which would otherwise appropriate what he takes himself, or else by increasing the rate of multiplication so that the sures may be able to support the added drain. The second of these methods, that of artificial culture, is the simplest and cheapest and is therefore the one to be resorted to. No statistics are at hand to show the number of white fish deposited in the lakes by the Fish Commissioners of adjacent States, and the only indication that can be given of the magnitude of operations for the replenishment of the lakes is by the statement that the United States Fish Commission has this year deposited six million ( $6,000,000$ ) young white fish in Lake Michigan alone. Eut as only a small percentage of these fishes will probably reach maturity, and as over twelve million pounds of white fish, or about five million individuals are taken anoually in this lake, not counting the young sold as herring. This number is far short of the necessities of the case."

## Artificial Hatching applied to Codfisl and other marine fishes.

The great national importance of artifioial fish-breeding may be further illustrated in the satisfactory application of the science to the multiplication of the marine species, such as cod, halibut, mackerel, \&c. The bame apparatus and mode of treatment can be used in hatching these fish as with all others. Profesior Baird, United Statos Fishery Commissioner, in his annual report to Congress, says:-
"During the past season the United States Fish Commission has, however, made asiep far in advance of its previous efforts, and of the most novel and striking character. While the establishment and increase of the frush water fisherics has been of the utmost importance, ospecially those of the anadromous species, the Commission luas of late been considering the possibility of artiticially multiplying the marine pecies, confideot that by this measure a vastly greater sphere of usefulness will bo entered upon. The first experiments have been made with the cod, a fish which is the staple of American marine industry, and which involves the investment of a large sum of monoy and the labor of many thousands of men. They visit the coast of New England in the winter for the purpose of spawning, Capo Ann, Massachusetts, boing an esjecially farorito ground for the purpose.
"A tomporary entablisbment was fitted up in the winter in Gloucester harbour, Massachusetts, for the purpose of a selies of preliminary experiments, looking towards the artificial propagation of the cod, commoncing in November. During these trials many difficulties were oncountered and overcome. It was found that the principlos on which the work was to be done was diametrically opposite to that used in connection with the fresh water variotics, as the eggr of the cod floats on the top of the water instead of sinkivg to the bottom. This obstacie was finally surmounted, and many millions of the joung cod wero hatched out and planted in the ocean adjacent to Gloucester barbour. A number of these fisli wero sent to Washington.
"It is now believed to be possible not only to greatly increase the supply of the cod where it is at present found, bul, by carrying the young to new localities, to establish cod fisheries as far south as the coast of North Carolina, where the fisherman may find rogular occupation during tho wintor-now his poorest season-in capturing these fish in large quantitios and supplying the adjacent marke.x or even exporting them."

Another experiment in batching cod by artificial moans has been mado by Eugene G. Blackford, New York State Fish Commissioner, who suggested to Prof. Baird that it might be expedient on the grounds of economy for the United States Fish Commission to investigate the operation of stripping the codfish taken in the waters off New York harbour, as the method would enable the fish to bs utilized in the New York markets. Mr. Blackford contributes tho following: "This is the first time the experiment has been tried here, and if it proves successful there is no limit to
the propagation of the cod, thus saving a vast amount of expense and exposure which could not be avoided were this method carried out in a colder climate. The best results were obtained at Gloucester, Mass., in October, November and December. Those roleased there were known to live, as many young fry were seen playing round the wharves where young cod had never been seen before. Cod spawn at sea near the surface of the water; the cges flotit about in calm weather until brought in contact with the milt. Of course the higher the temperature of the water the more quickly the eggs, will hatch. From fifteen to fifty days is the time required. In the sea temperature of forty-five derreos, fifty diys is about the time."

The cod are gregarious in their habits, in schooling both sexes are always found together. They sometimes make long journeys from one bank to another ; they live at a depth rarying from a few foet to over a hutued fathoms. When the female becomes ripo she remains near the bottom, while the male often swims higher up. When the sea is smooth the eqs float neir the surface of the wator, then the chances of impregnation are more favorable. The theory is that the egrgs rising from the bottom float through the higher body of water where the milt is being omitted from the males and receive impregnation. The eggs are found to resemble little globules of jelly of the size of a small pin head, about five hundred would cover the surface of a square inch. The codish is wonderfully prolific. Professor Larle of the United States Fish Commission gives the following statement of eggs found in codfish: From one weighing soventy-five pounds $9,100,000$ egrs; from a fifty pound fish $8,999,094$ egrs ; from a llirty pound fish $3,715,687$; from a twenty-seven pound fish $4,095,000$; from one of twenty-three pounds $3,229,388$, and from a twenty-one pound fish 2,732,237.

The importance placed upon artificial fish-breeding is such that Professor Baird in closing his Report to the Senate of the United States says:-
"We liave at our command tho means of so improving and increasing the American fisheries as to obviato the necessity in the future of asking a participation in the inshore fisheries of the British Provinces, and thus enable us to dispense with fishery treaties or fishery relations of any kind with the British or other Governments."

No doubt they are all fools in Britain, France, Germany, the United States, in British Columbia, and all over the world, in taking these steps to restore the fisheries to their former productiveness and that the obstractionists are right.

Complaint is even made that "no visible results" have been experienced from the operations at the Hatcheries. Professor Baird long ago anticipated criticism like this. But he anticipated ignorant critics ouly, not malicious ones. He says: "The public mind is unsatisfied, and perhaps iuclined to severe criticisms if the recovery of a supply is not appreciable within the first few years of effort."

Now, in the case of the Connecticut River, it took about nine yoars before the fruits of che Commissioners' labor appeared, and only then in a limited way; and in the case of the Doobullah Lakes it took from three to four years before there was a return of even grilse. This being the case as to time (and it is also borne out by the positive convictions of the officer in charge of our own Bedford hatchery in Nova Scotia in his operations on River Philip, where five anda-half years olapsed before the return of tish was visible) it would bo therefore barely possible to have visible results yet of any magnitude, either in the Ristigouche or Miramichi, from the operations of the hatcheries on those rivers. Neither can there be any definite proof brought to bear of visible results one way or the other, as there is no definite data to start from (as in the case of the first rivers referred to) on account of large stocks of salmon having always been in the Miramichi and Ristigouche. But if a portion of the first stock of fry planted in the Ristigouche and Miramichi Rivers did arrive at the period of their first migration, then it is fairly to be assumed that this first crop of artificially-bred salmon was in part the cause of these two rivers, the Ristigouche and the Miramichi, showing better comparative returns, as they actually did, of the catch of salmon in them than any of the other rivers, either in New Brunswick or in any other part of the coast during the past year.

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The first lot of salmon fry was turned into the Ristigouche and Miramichi in the: season of 1874. The quantity was very trifling, only some 100,000 in the former river and some 60,000 in the latter. In fact the officer who was formerly in charge of the Miramichi hatchery writes: "That nothing was accomplished there till the Spring of 1877." Taking this statement, no "visible results" of any moment, or a run of adult fish of artificial breeding, can be reasonably looked for in the Miramichi till the season of 1882; and if it bo true that "coming events cast their shadows before," certainly the catch of salmon for 1882 ought to be large; for, from every source of information fly fishermen, net fishermen and fishery guardians and settlers on the river, \&c., it is acknowlodged that the run of grilse last summer and during the autumn was unprecedented in that river.

This same fair standard of reasoning concerning the Miramichi River applies equally to the Ristigouche, as both hatcheries commonced operations about the same time, each meeting with reverses at the outset; but since 1877 the operations have been very satisfactorily performed. Like accounts of a very large run of grilse are given by all persons visiting the Ristigouche last season, which fact also gives evidence of a favorable run of adult salmon for the river next season.

Having quoted the opinions of some eminent scicntists in favor of artificial breeding, pointed out several clear cases of marked successful results following the planting of artificially-bred fry in depleted and maiden waters, and shown that not only nearly all civilized Governments in the world foster the science of fish culture, but that private capitalists bave invested, and are now more than ever investing, their capital in the same direction, I sball quote the opinions of the Inspector of Fisberies for New Brunswick, published from jear to year in his reports, bearing strong testimony to the importance of artificial fish culture, and the marked increase attending its application. I quote this officer becanse in his district the salmon fishery is the all-important one.

He says in his Report of 1S68, page 20 :-
"The wonderful success that has attended all well conducted operations in artificial hatching, and the vast numbers of young fry produced by this process as compared with the increase in a state of nature, is worthy of the serious attention of the Departmont with the view to establish breeding houses under its control. In no way could an appropriation bo moro wisely expeuded than in these artificial hatching houses, which would enable the Department to restock the numerous rivers which have been exhausted, as well as to increase to an unlimited extent the propagation of this source of wealth in the rivers on which they are established. The South-West Miramichi, which has become greatly reduced, could by means of a: hatching house soon be restocked to its former state. To this subject I respectfully beg your farorable consideration."

I take from his Report in 1S69, page 77, the following: "The results produced in the hatching house at North Esk, and those in the piscicultural establishment at Wilmot's Creek, in Ontario, prove boyond a doubt tho perfoct success with which millions of fish oggs can be artifically hatched, and point to a speedy and cheap mode. of increasing our tisheries to an unlimited extent."

Here is what he says in his Report of 1871, page 133:
"Fish culture has been so successful and has produced such beneficial results in other places that I cannot but recommend every facility and encouragement to its introduction in our Province. The complete success of Mr. Wilmot's operations in Ontario, and of Mr. Holliday's in Quebec, leads me to hope that similar establishments may be conducted in each of the Lower Provinces. The great benefits they would secure in restocking our rivers would more than counterbalance the outlay in this construction and maintenance, even if they did not become, as I feel they would, entirely self-supporting."

And the same strong testimony to the efficacy of artificial breeding, the Inspector repeats in a verbation cony of the foregoing in his Report tor 1873, page 168, and for 1873 , page 144.

And this is what ho writes in 1876, page 357:
"The ouly remedy $I$ can suggest is the extension of artificial hatching. A hatching house at some suitable place on the St. John, and the artificial procoss of hatching shad and gaspereaux might fet restore the fishories of this river to their old state of prosperity. The facilities are great, tho outlay need not be large, while the benofits are incalculable. The success now attending the establishments now in operation is very encouraging, and the benefits that will result are too plain to be overlooked.

In 1877, page 214, in his Report, the Inspector repcats the foregoing substantially, with still greater emphasis, while in his Report of 1878, page 249, he says:
"If this tondency to excessive fishing is not checked, all the advantages now being derived from protection and artificial culture will soon be lost." And speaking of the returns, ho says: "They show that overywhere except where artificial cul ture has arrested the decrease, the salmon fishing is in the same danger." And this testimony the Inspector endorses in his Report of 1879, page 233, where Overseer Hickson says: "The Nepissiguit is so small, the pools so numerous and so ar!mirably adapted for angling, and the nets so thickly set in its approach, that without assistance from the breeding-house the stock cannot possibly be kept up, \&c. I can attribute the increase in the catch of salmon in the Resticuache only to the help it receives from the Dee Side Hatching House." And in t'le same Report, Overseer Hetherington says: "I am pleased to be able to state that salmon are again returning to Caanan and Salmon Rivers. They are doubtless the young fish placed in these streams from the Miramichi Hatching House, and I hope that further quotas will be given next spring."

Thus it will be seen that by the opinions of the leading scientists of the world, by the application of fish-brooding the universe over, by the fruits of this application and the testimony of an officer who ought to know, I have met the case urged against my branch of the Fisheries Dpartment. With you: permission I shall presently supplement these with the results, made in detail, of my own study and observations of the matter.

## ARTLFICIAL FISH-BREEDING.

## ONTARIO.

Having said this much of the fisheries away from home, I shall now briefly examine what has been the result of artificial fish-breeding in the primal hatchery under my own immediate supervision at Newcastle. In doing this I will first point out briefly the history of the salmon fishery at notable points in the history of this Province for a period of forty years or so back.

My father, a native of the Province of New Brunswick, settled upon the farm where I now live in 1816, he selected it particularly because a small stream or "creek" which ran through the property was at certain seasons of the jear literally swarming with salrnon, almost crowding themselves in certain "runs" on the banks of the stream. Tho place was then almost an unbroken wilderness, and the Indians caught the fish in vast numbers.

During my boyhood I have in the morning, before breakfast, speared from one to two dozen salmon. In one instance, I took ten salmon from a pool at one dip of a hand or scoop net. I have known of two thousand salmon and uprards having been speared with torch-light and canoes in one night at and near tho outlet into Lake Ontario. I once saw five hundred salmon speared in one night on a small portion of this creek across my farm during a fall freshet. This and all the other streams from Niagara to Kingston emptying into Lake Ontario, were, in those days alive with salmon in the autumn months.

Every contrivance possible was then devised to kill the salmon, and with what effect may be guessed in those small rivers. A man could leap across mine at many
points. This systematic destruction went on, till barely a salmon could be found in one of these streams. The over fishing, the murder on the spawning grounds, the trap-net fishing along the shores of the lako and the estuaries of the streams, and the excossive demand and greed fir the fish had done this work.

It was in 1866 and 18157 that I resolved to make the application of my theory on the subject. My theory was that the same causes which had made so many of the streams running into Lake Ontario barron, were working destruction through the greater portion of Canada; that artificial aid was ceeded to arrest destruction, and restock the depleted waters. The first experiment tried was by collecting a few hundred eggs from the bed of a creek where a few odd salmon were jet found to enter. These ova I had transferred to the cellar of my house where a small stream of water was made to pass through a trough in which gravel was placed, to represent as nearly as possible the bed of the natural stream. The experiment proved satisfactory, and I repeated it each year until 1869, when liberal aid was afforded the undertaking by the Dominion Government, and a report made by Messrs. Whitcher and Venning upon the subjert.

I needed not to look far beyond my own door for proof of the efficacy of artificial breeding, so clear was the importance of my work to these two officors of the Government. When I began in 1866 and 1867, as I have stated, there was scarcoly a fish to be got in the crecks or estuaries along the lake. But when the time arrived for the artificially bred fry to have reached their growth, the change was at once marked. The fishermen travelled to see the increase, and the whole surrounding country were eye witnesses to the fact, and in 1876-77, several hundreds of salmon were netted during June and July along the shore of the lake, immediately fronting the outlet of the stream upon which the Newcastle nursery was established. It was held by the fishermen engaged in the work that, comparing the means employed, and the few nets used in capturing these salmon, the number taken in these fears was almost equal to the catches when these fish were most plentiful in Lake Ontario.

Here was undonbted testimony; it confirmed my theory and gave me energy at once to devote mysilf to a vigorous application of the system wherever it seemed most needed, and where the Government ordered it to bo carricd on.

You will pardon mo for submitting, in corroboration of the above facts, an extract from a letter written to the Fishery Dopartment in 1879 , by J. J. Robson, Esq., $\curvearrowleft$ gentleman who has boen an intelligent observer of the application and results of artificial breeding od Lake Ontario.

He says: "I caught salmon and tront in large numbers in the stream on which the Government Fish Hatchory is established in my boyhood, forty years ago, and have resided within two milos of said stream ever since, and being an ardent disciple of Isaac Walton, have for many years deplored the gradual extermination of fish, which was taking place not only therein, but in all the surrounding streams. Well do I remember when our friend Wilmot commenced his oxperiment some ten jears since, at which time his total catch of salmon for propagating purposes during the spawning season of that year was, I think, five or six, the ova from which Mr. Wilmot hatched in his cellar, and turned ont into the creek in June following, since which time nu year has passed without my having often visited the stream during the spawning season, and have been delighted to see the marked increase of adult salmon which have Fear after year entered it, and I am satisfied I do not exaggerate when I say that in October last there were at one time, between the Government Fish House and the lake, a distance of less than two miles, three thousand salmon weighing from three to twenty pounds each. I would further state that from information I have recoived from persons living in other parts of Ontario, that there is hardly a stream betweon Brighton and Hamilton into which more or less salmon did not come during last autumn."

We bogan in 1866 with scarcely a salmon in Wilmot's creek. We applied artificial propagation as liberally as it was possible to do so in the hatching of eggs, in every succeeding year, and in planting the joung fry in many of the streams of the Province. Five and six years afterwards the increase commenced, and grew propor-
tionate to our operations in artificial batching. Here is an official record of the entry of salmon in Wilmot's creek, in 1874, seven years after the tirst fry had been put into it:
" It bas been observed that a steady annual inereased number of salinon have entered this stream for the past few years; the numbers which came up the creek during the past spawning season in October and November were wonderfully in advance of any former year, and this was the more remarkable on account of the extreme lowness of the water. In some portions of the stream where the shallows prevailed, it was found almost impossible for the larger sized salmon to ascend; nearly all of these were compelled to lay their egge in the open water some distance below the reception house, only the smaller sized salmon were enabled to reach this building and enter it. Of these smaller fish, upwards of 800 onterod the house, and for an illustration of their movements, a quotation from the register of entrances for six nights will be given. This showed that 605 salmon had, during that time, taken up their lodginge within the building, namely:-

$$
\begin{aligned}
& \text { October 22nd................................................................. } 45 \\
& \text { " 23rd................................................................... } 73 \\
& \text { " 24th ........................................................ ........ } 68 \\
& \text { " :5th .................... ............................................. } 66 \\
& \text { " 26th ........................................................................ } 141 \\
& \text { " 27th .................................................................... } 212
\end{aligned}
$$

This last tally of the 27 th would have been increased to 204 were it not for a small opening which 52 of the more knowing ones had discorered in the main barrier, and throligh which they pased up stream where they were found next day.

The finest and largest and by far the greatest number of spawning fish did not. reach the reception house at all; these laid their eggs in the bed of the creek in the natural way; here there were 605 salmon (over and abore those in the stream below) captured in a small reception house or per upon a creek where, when artificial culture was commenced, scarce a fish was seen. In 1875, tho result was moro marked, still larger numbers appearing, and in 1876, the run of fish was larger still. In Grafton Creek, Guardian Hinman states two hundred fish camo in at one ran in that season. The same result was noticeable in the Bowmanville stream, Mr. Coleman, the local guardian, reporting a very promisiug run of salmon. The increase continucd on in this scale up to 1878. Thus it will be seen that nothing remains of the assertion that no "visible results" bave appeared from the application of artificial breeding in the waters allotted to the Newcastle batching house.

But 1878 was a " black letter year." It was the pivot year, not alone of Maritime Province salmon but of Ontario salmon as well. Indeed, in Ontario, the phenomenon since then has been more perplexing than elsewhere. The year 1879 saw the "drop down" in Ontario waters at elsewhere, but 1880 saw sometbing more puzzling still, the male salmon had evidently forsaken us and wo bad the grilse. Almotevery salmon found was a female; and, whon we sat out to collect those fish in order to obtain their ova, it proved to be useless, because we culd obtain no milt with which to impregate them. The same remarkable fact was true of 1880 , it appearing as if all the male fish had gonc elsewhere, only the ferales returning at nature's dictation to sure spawning grounds. It is not leas remirkable that the female salmon caught, were invariably of a large size, leaving rosm for the aurmise that the younger femalos that bad perhaps not spawned before in their native waters, had followed the male fish in quest of new abodes; and that thowe which remained true, and returned to our shores, wore fish that had spawned there before. The only grilse I saw last year-males-were about twenty in number, and they looked as if they hadcome from some infernal region, being battered and dirty, black, acabby fellows, lank almost to a degree of transformation.

That this fact is due to some abnormal cause, to be found perhaps in some of those cited, there can be little doubt. But while regarding this fact mentioned as mysterious and striking, I cannot disguise from myself that the time is now gone by
forever for the growth of salmon and speckeld trout in the frontier streams of Ontario. But this fact could not have been evolved from intuition. I reached the conclusion throngh observation and experiment, through depositing fisy in certain ponds and waters, and ascertaining that they languished and died there, though forty years ago these samo streams and waters swarmed with the same fish and sustained life in the highest degree. The change is therefore in the waters; and that change is due to the clearing of the forest off the land, in the neighbourhood of these stresms and their feeders, and the consequent reduction of water volume by reason of the increased evaporation, and the defilement by the surcharge with vegetable matter, field-filth, rubbish and other foul matter.

In such water the salmon family die, and within the past five or six years, several streams have become entirely unfit for salmon. This tendency is strong, and the more the country is settled the more marked will the results in the unfitness of the waters be. I have, in proof of this assertion, frequently taken from the spring water tanks, young trout, salmon, and California salmon, and put them in my own ponds of creek water, and found that they invariable died, sometimes lingering for a few weeks, and in the hottest summer weather dying off rapidly. This fact might be the more deplored, but that the condition of the water which is incompatible with the life of tho salmon, is just what is required by another fish, the

## German Calp.

On learning that the carp forms an important factor in the fisberies of Germany, and is in such demand among the laboring classes, I conceivod the idea, on noticing this foul tendency in our rivers, to obtain some of these fish from Prof. Baird, United States Fisbery Commissioner, at Washington, and make experiments with them. In the winter of 1880 , I obtained a few from him, put them into a small pond which was surcharged with vegetable matter, and I found that they did remarkably well. I was therefore induced to apply to Prof. Baird again last fall for a further supply which my son brought over. I had the ponds prepared, where the carp have lain up to now in a dormant condition. That carp can be introduced profitably into numbers of onr Canadian rivers, I have no doubt. The fish is very prolific, and its growth is rapid, attaining to a weight of two and threo pounds in a couple of years. It is easy to conceive of such an increase in our population as would make a demand upon all the carp we could surply, in addition to our other fishes.

But beyond this probable fact of the future, the carp is essentially a "poor man's fisb." There are thousands of poor men who are not able to afford themselves the luxury of salmon or salmon trout, who would gladly accept a somewhat inferior fish at a less price. The reason the carp is adapted to the waters unfit for the salmon is bocause, unlike most otber fish, it is a vegetable feeder, not an animal feeder; and thrives upon the spores and vegetable mattor, which would prove destructive to a member of the salmon family.

For the carp obtained I am under (and it is ono of many) obligations to Prof. Baird. I hope, therefore, soon to sce those waters, deverted by salmon now, stocked with a fish that will be welcomed to the poor man's table.

But the great commercial fish of Ontario, the salmon trout, white fish, and dore, are those to which it is desirable that, in this Province, the greatest attention should bo given. These we breed in great numbers, having had in the hatcheries of Ontario the part season upwards of thirty five millions of white fish and pickerel or wall-eyed pike, and fire millions of salmon trout ova.

It has been the custom in some quarters to under-rate the importance of the fisherios of the inland lakes of Ontario, but what their importance really is may be gathered from this fact: the area of Ontario's inland soas, the fish producing eapacity of her waters, is fully equal to that of the United Stater. But in 1879, more than twenty-one millions ( $21,000,000$ ) of pounds of white fisb alone wore taken in the great lakes of the United States, valued at $\$ 750,000$. The wame year, which was a "big" salmon fishery year in the Maritime Provinces, the value of the total salmon catch of
these Provinces was $\$ 213,950$, or half a million dollars less than the value of the white fish catch for the same year in the western lakes of the United States. Our capacity in Ontario for white fish production being as great as that of the United States, it follows that if we exerted ourselves proportionately to the extent of the Americars fishermen, our white fish yield in Ontario would have been as large. For some persons, therefore, to talk of the unimportauce of Ontario's inland fisheries is to talk ignorance. But although we have been putting forth a good deal of energy in keeping up, artifically, the white fish and salmon trout supply, our exertions are perbaps not juore than a tithe of what they should be. For example: last year the American Fish Commissioners deposited six million young white fish in Lake Michigan, but the catch of white fish from the same lako during the same year, was not less than five million fish. Now, when it will be considered that a large percentage of the fry deposited in the lake never reach maturity, it will be seen how far short of maintaining the fish supply at high water mark the present aggregate capacity of our fish hatcheries is. For what is true of catch and supply in the United States is true of Canada.

Artificial fish-breeding, with all its advantages, is abortive where the difference between the supply and the catch is so great. Since artificial aid is demonstrably good-proven to be the only redemption of our fisheries-then the fishery industry should have the full benefit of artificial belp. There should be enough fry bred at the hatcheries to supply the demand of the waters.

## Theories given for the decrease in Salmon Fisheries.

Whenever a falling off is noticed in the salmon fishery of the country, no particular effort is made to thoroughly investigate the causes of the falling off, but many theories are advanced. I have not yet seen one capable of a general application. I am fully convinced, however, that the inordinate greed of fishermen; the want of thorough protection, and the killing of the breeding fish in the rivers; the pollution of the streams, and the genoral non-observance of the Fishery Laws has largely brought about this general decline in our salmon fisheries. In 1875 there was a sudden drop down of nearly 50 per cent. in the Maritime Provinces then there was almost as sudden a rising up again; then 1880 showed an abrupt, not a gradual fall, and the depression has continued in 1881. Various opinions have been put forward again by observers to account for the falling off in the last two years. For example, it is claimed by many that the vast fields of floating ice, which have been unusually large and wide-spread throughout the whole of the Gulf of St. Lawrence for the past two years, have produced the effect of changing the salmon from their usual course and driving them to some otber place than their accustomed haunts. This aspect of the matter does not appear to me sufficiently reasonable or even plausible, for the ice floes referred to do not and cannot block up the estuaries and mouths of the rivers frequented by salmon; neither can it be supposed that the wellknown migratory instincts of the salmon to resort to their native waters for reproductive purposes could be so easily changed.

Another cause of the scarcity of the salmon is put forth by many persons, and it is upheld by several of the most observing fishermen, that great destruction to the salmon family has been caused by the ravenous and predacious nature of some kinds of marine animals, such as sharks, seals, porpoises, etc., which at times frequent the mouths and estuarios of salmon-bearing rivers in great numbers. This theory is substantiated by the fact that many salmon when captured by the fishermen have numerous wounds upon their bodies, resembling gashes, cuts and scars, in some instances apparently quite freshly made, in others partly healed over, and in others again, the old sores only just visible. These wounds and scratches give rise rationally to the belief that some of the marine monsters above mentioned, from their greater liking for the more delicate flesh of the salmon, have produced this result either with their teeth or claws, and unquestionably devoured and killed vast numbers of others. This is also borne out by the fact of great numbers of salmon showing similar injuries in 1875,
which year was noted for its great decrease in the catch in salmon. It is of record that during that season unusually large numbers of the Greenland shark were found frequenting the coast. As an instunce of their numbers, no less than thirty sharks were taken al one haul off the mouth of the Saguenay River in that year. They were taken with a like number of porpoises in a very strong net made for catching the latter. The peculiarity of these scarred and wounded salmon being alike in 1875 and 1880 , coupled with a similar decrease in their catch in each of these yeara, and the opinion held by many observing fishermen that sharks and other savage marine animals bad killed and wounded great numbers of salmon, would lead to the belief that this may have been one of the agencies at work in causing a decrease of salmon. during the past seasons.

Before setting out to give the result of my own obiercations and study of the "falling off" phenomenon, I may state that it is leliered by all scientists and all acquainted with the salmon's habits that that fish will incariably, if it is permitted, return year after year to the river in which it spent its infuncy:. This belief is the result of observations in all parts of the world where the salmon resorts, and is ascertained in various ways, all observations tending to the corrobrration of the theory. Thus, for example, a St. John River salmon mas be distinguished from a Miramicbi salmon, while a Ristigouche fish will be mistaken for neither. These fishermen who heve watched the fish ascending the river have frequently veen amoug the rest "stray fish," whose motions are altogether different from the rest, they swimming about here and there as if bewildered and confused. They may hare been Ristigouche bred fish, have mistaken the mouth of the Miramichi for that of the Ristigouche, or vice versa. These fish once finding themselves in unknown water: turn about, swim out to the sea coast again and feol their way around till they reach their own river.

This fact is also true even of sea trout which, like the salmon, come into the brooks and rivers only for the purpose of reproduction On the assumption, therefore, that no salmon will ever resort to spawn in any river sare the one in which it spent. the first years of its existence, the idea that the decreas in tho salmon fiskery around our shores and in our rivers may, in a measure, be due to the fact of some of the fish secking other and unknown rivers, has not been put forth, saro in an instance or two, in a timid and uncertain way. While I would not proitively say that some of the salmon have gone away from our shores to other vicers, I will say that other fi-hes. have been known to do so. Take eren the animals of the land: as soon as civilization intrudes upon the wild herds, and even the biris, of the plains, these turn themselves. from their accustomed haunts and scek abodes where they will be free from interruption. And it is only about twenty years ago sinee $m$ ckerel swarmed around the Newfoundland coast, but they suddenly disappeared, not declining gradually, but going en masse. This summer, say, they swarmerl in crery nook around the inland, the next they were gone. Nor did they return. Fur tweniy yeare they stayed away. And when the fishermen spoke about them, they did so with a shudder, tor they believed that they were cursed, and that this was why they disappeared. Yet it had been firmly beliered the mackerel went there twyame, and would continue to go there. Now, it is just possible that even the salmon, attached though it is to the baunts of its early existence, and seeking places known to it in its wanderinss when only a littlo "parr" where it may deposit its egera, yet by torce of continual haviassing, by bcing perpotually disturbed and hunted, by briding interruptions (nets) hefore it at almost every turn, by the defilement of the rivers with naw dust and rubbush, it is just possible, I say, that the sa?mon may, liko the land animals and other fishes, seek for regions where they may fulfil the purpose of their visitations without interruption. Indeed, I have no hesitation in saying that a continued defilement of the rivers with saw-dust, in the too close setting of nets and almost complete obstruction of passage way, as too often occurs, and, above all, the praclice of hunting the tivh upon their spawning beds, would eventually, unless sometbine tepped in to supply what is thus murderously cut off, drive the salmon out of our rivers to seel for quiet elsewhere. And if these things carried on to extremes would drive the salmon out of
our waters, so do they, I believe, carried on now in a measure, likewise in a measure drive our salmon to seek other rivers.

I have elsewhere in my Report, shown that if plagues carry away animals of the land, that they may cometimes, too, visit and decimato the fishes of the sea, and that a contagion of a dangerous nature might bring the fisheries down for a certain period from which they would, however, rise again; likewise, what I believed woufd be the result of heavy spring rains, after a severe winter with heavy snow-falls, and how such occurrences might account for the sudden drop down of the salmon catch in one year, and its rebound up again the nest year.

But ajart from the causes operating, and which I have stated would, in my judgment, eventually drive the salmon out of our rivers, those othere, such as the spring freshete, dieease in the sea-depths, \&c., are of less importance-would only bring about abrupt fallings off from which the fishery would recover; and above all they are causes we can only talk about, and cannot control. But there is a worse, a more deadly causo in operation, which we have in our power to control; and of it I would now speak. That cause is the too frequent violation of the Fishery Laws, ever since tho Fishery Laws were put upon the books; the unlawful and murderous use of the torch-light and spear upon the very beds where the parent fish, big with hundreds of thousands of their species, lie awaiting the fullness of their time. At every point along their passage, up to the spawning beds, they are met with nets; and the few that escape the toils, are exposed to the merciless spear of the Indian and the whiteman at the end of its journey. It is to some of the causes cited, perbaps to many of then combined, that all honest, thoughtful minds will attribute the falling off in the salmon catches in 1875, and 1880 and 1881, not to the effects of artificial fish culture.

## Efficiency of Artificial Breeding in the Sacramento and Connecticut Rivers.

I beg to give an extract from a letter written by Profesor Baird to the Commissioner of Fisheries of Canada, on the subject of the recent scarcity of salmon in the Canadian waters.
"My own opinion in the matter of the recent scarcity of salmon in your waters is that there has been some new feature in the condition of the ocean temperature, or in the character or distribution of the food of the salmon, which bas caused a change in the run of the fish. The menhaden, as you are probably aware, have, withont any apparent reason, left the entire coast of Maine, and bave crowded themselves in unusual quantities further south.
"Wo have other instances of similar stampedes of the coast spccies lasting for a greater or less length of time. The fact that the Connecticut River in consequence of receiving a few hundred thousand salmon eggs was for a time plentifully stucked with adult fish, is sufficient evidence that our artificial work was efficient.
"In the Sacramento River wo are absolutely certain of our ground, having brought up the supply of salmon to more than its pristine coudition of abundance, by planting about two millions of young fish every year. The catch there has increased in five years from five inillion ( $5,000,000$ ) pounds to fifteen million ( $15,(00,000$ ) pounds; and, in 1881, there was more fish than could be utilized in all the canning establishments on the river. No , ne questions in the remotest degree the thorough efficiency tind success of the artificial work."

## Artificial Fish Culture-"Murder in the Cradle."

So far as I am able to ascertain the features of artificial fisb-breeding, bcing held responsible for the exhaustion of the salmon fishery, is this: To obtain ova it is necessary to obtain fishes, and in some cases it has been the custom with the officers to procure a few fishes on the spawning beds for that purpose. It is claimed by some in ignorance, and by a few in malice, that the Department was thus committing "murder in the cradle." The fact is the Department was doing nothing of the kind, simply taking the fish, and procuring from them the ova and the milt, and then let-
ting the fishes go again. But for every one fish the officers took on the three or four rivers in which the expedient was adopted, the poacher tool twenty, not like the officer liberating the fish again, but killing them, and destroying, with these parent salmon, hundreds of thousands of their species. Of what then, let me see, was the Department guilty ? - " murder in the cradle," as the more figurative of the critics put it. They took certain motner fishes on their spawning grounds, took the eggs from the iish, and succeeded in producing eighty-fiveior ninety fishes out of every hundred eggs; and this without sacrificing the life of either the fish supplying the ova or that supplying the milt. Now, had the officer not taken the fish in question, supposing they escaped the poacher's spear, they would have deposited their ova and milt and gone away again to the sea. But in the case of the "murder in the cradle," the salmon likewise went to soa. There was this difference, however, with respect to the ova: That whereas, out of those obtained by the officers and brought to the hatchery, eightyfive or vinety fry were obtained from a hundred eggs; out of every hundred deposited by the salmon in the river, not more than five, some say scarcely an average of four, fry were obtained out of the hundred eggs. What the fishery has lost by the pursuance (to the small extent to which it prevails) of such a system, I think it not over difficult to judge. But lest those who do not give this phase of the question careful consideration, should see something of a real grievance in the many plausible stories told of the official killing on the breeding grounds, we have decided to obtain the ova in another way, and only through such means as will not give even the shadow of an excuse for criticism to the critics of the system. Instead of obtaining by our own officers the parent salmon on the spawning grounds, we purpose buying the fish of the fishermen at the fishing stands, on the same footing as any other purchaser. Haviug obtained the ova and milt, however, unlike the ordinary purchasor, we will let tho fish go again, so that it will be seen we will leave nothing that can afford the slightest crumb of comfort to the assailants of artificial breeding.

So that if five years hence a serious falling off in salmon show itself, no one will be able to attribute it to salmon culture. Henceforth the officers will buy at the stands on the Ristigouchie, the Miramichi, the St. John, and other rivers, the number of parent salmon at each required to supply eggs for their own particular river. It would be as impossible for any one who has studied the question to believe that the adoption of artificial fish-breeding at the Newcastle, the Miramichi or Ristigouche Hatcheries is responable in any measure for the failing in the catches for the last two fears, as it would be for them, if they were honest, to withhold the acknowledgment that the effect of these hatcheries had been the very opposite.

And here is the particular proof 1 offer: Is it not a fact that the falling off of salmon for the past two years has been greater everywhere else in the Provinces, when compared with the oxtont of fishing carried on, than in the estuary or river fisheries of the Ristigouche and the Miramichi, where the number of fathoms of salmon nets set in each is nearly three-fold greater than in all of the rest of the Gulf salmon fisheries put together? To what is the fact to be fairly attributed, if not to the fact of the artificially bred fry which were turned into them in previous years, while those rivers which did not make so good a showing received no artificial aid?' You will soe that if the application of salmon culture is harmful, that harm can only be manifest where the application is made; and that, therofore, we would have a general showing like this. All river's in which artificial culture was adopted would show a falling off, while all those rivers where it was not adopted would show a comparative increase.

But, Sir, there are no fish hatcheries on any of the rivers of the North Shore of the River St. Lawrence, cxcept one at the mouth of the Saguenay; yet, in all these, the duarth of salmon, for the past two years, has been correspondingly greater, the differenco in comparison being quite marked, than in the Baie des Chaleurs, the Ristig, acho River and the Miramichi, where the hatcheries have been in operation. There were no hatcheries on the Labrador Coast, nor in Newfoundland, nor in Eastern or Western Nova Scotia, Cape Breton, Prince Edward Island, or River St. John, yet the falling off on these coasts and places have been more marked still, than where the " maligned science of fish culture has been applied." I hope, however, we
have beard the last of the baseless charges against fish culture and its effects on the fisheries.

> Artificial Propagation.-How Applied.

I may be permitted here to briefly state the methods of artificial breeding employed in the Gorernment hatching houses of the Dominion, and the advantages artificial broeding have over the natural process. In the month of July or August, the salmon are obtained, male and female fish, and putin a pond (near the hatchery if possible), where they are kept till they are ready to spawn, which is usually in the latter part of October and through November. The ova of the female are commingled with the milt of the male, and then taken into the hatchery whore they are deposited upon trays, through which there is an incessant, gentle, flow of water, supplied by a spring brook.

The period of incubation is regulated by the temperature of the water, and in the hatcheries is generally from 160 to 180 days, which brings the maturing period up to about April and May in each year. After the eggs are deposited in the trays, each day, or perlaps sometimes not till after the interval of several day, white colored eggs are discovered bere and there on the trays. Those are the bat egess, and they must be removed at once, else they will contaminato the sonnd eggs touching thom; all the infected eggs become fastened together by the spores put forth as the offspring of decay. This foul mass would communicato its foulness to its neighbours, and thus, unless the infected members were promptly removed, the process would go on till all the eggs, which could be reached, would be destrojed. But, of the number of eggs laid down in the tray, not more than an average of 15 per cent, or thereabouts, perishes. The 85 per cent. mature, the tiny little fish breaking ont of the shell, retaining the umbilical sac. Upon the yolk of the sac, the fry lives for about twenty or thirty days (depending upon the temperature of the water), receiving its food during that time by absorption. After this pariod it must shift for itself, seize upon the little particles of food which cbance brings in its way.

Before the umbilical sac has entirely disappeared the fry are taken in vessels up the rivers or streams, and set at large. Here it will be seen, for every hundred eggs we bring into the hatcnery in the autumn, we set at large eighty-five fry, in the rivers, in the spring. Whon set at large, the little creatures dart hero and there, and in the twinkling of an eje they disappear from your sight. They seek little crevices under the rocks where they hide till hunger tempts them to come forth in search of food. This is all we can know about them. They start at this point in lifo with precisely the samo advantages as the river-bed fry, which is hatched out in the gravel, absorbs its yolk-sac for thirty days after its birth, then being obliged to striko out for its own support. The fry or parr remains in the river during the following summer and winter, and till the autumn of the second year, and in many instances till the following season, during which it retains brown marks or transverse bands on its side. On the eve of descondling to the soa and strik'ng adventurously out into the unknown deep, it assumes a more brilliant dress and becomes asmolt. At this time it is aboutsix inches in length, of a greenish grey y above and silvery below. From this point we know nothing of them till the male returns a grilse and the female an adult, for the purpose of reproduction.

But I hare so far confined myself only to the history of the house-bred fish. I have shown that only about fifteen eggs out of the hundred aro lost. Not so in the process of naturo. The male and femalo salmon having gained tho upper and and shallow poois of the river, the femalo makes a furrow by working up the gravel with her body, then both shed their spawn into the furrow, and return to the deep ponls to recrait themselves bofore denconding to the sea. The ova lie during the winter covered in the gravel, and in the spring the little fish breaks forth. It is estimated by some that as high as eight per cent. mature, while some put the number at only fire per cent., and others again way it does noteceed three. So that while in the hatchery wo get eighty-five or more finh out of one hundred cigss, in the river there is probibly not more than an average of five developed out of the one hundred.

The reasons for the vast difference in favor of the hatching house are many and obvious. From the moment the ova are deposited in the furrow till the fry emerge they are beset by dangers and open to tho attacks of predatory enomies. Even in the very act of depositing the ova, unquestionably, a large percentage is borne away by the current and lost; then the action of the water may so cover the ova up with sand and gravel that they are hopelessly buried, and precluding the possibility of the fry's escape. On the other hand, if they are not well covered they are always exposed to hungry fishes passing and repassing in search of food; innumerable water insects also destroy great numbers of eggs. Then in the spring violent rains come, melting vast areas of snow, overflowing the rivers, and carrying trees, stones, ice, \&c., down, scouring away the gravel and destroying the ova. Looking at all these drawbacks, to say that five per cent. mature is, I think, making a liberal estimate.

Having said this much of artificial salmon culture, I may add that what is applicable to the salmon is also applicable to all other fishes with which it is intended to deal.

It a larger number than four or five per cent. of salmon ova were to reach maturity I should greatly wonder, for leaving out of question the hunting of man, a much larger percentage of development would overpopulate the waters and destroy the uice balance which nature has established in all her departments. The capacity of nearly every kind of fish for the reproduction of its species is altogether so much out of proportion to animals of the land, that but for the destruction of the ninetyfive per cent. of the embryo species our rivers and waters would be like one small tenement containing a half-dozen of families; like putting a couple of hundred head of cattlo or a thousand sheep to eke out an existence upon an acre plot of pasture land.

Bit, some one will ask, why is nature so prodigal-why should she so create the fish a- to have it capable of such vast reproduction when, if these ende were accomplished, the over-production would be destructive? I answer, nature in her wisdom know.s the dangers to which the embryo species are subjected while they lie waiting vivification, and generously provides enough to sustain the wasto and the species too.

The object of pisciculture is to supply the continued drain being made upon certain of our fisheries by the fishermen. If the Fishery Laws could bo carried out, as they are laid down, there would be less need, though certainly somo need, of supplementing the natural proeess of reproduction going on in the rivers by artificial means, for it will be observed that, if before man began to hunt the salmon, owing to the many enemies the fish has when full grown, when only a parr, when a smolt, and when a grilse, and above all-while the ovalay unguarded on the spawning bed-if, I say, before man hunted the salmon, all these agencies prevented over-production and merely maintained the balance, the prudent, lawful catching of salmon would even then destroy that balance and make some other aid to reproduction necossary to re-establish and maintain that balance. But when it is added to this prudent and lawful fishing, the reckless and lawloss fishing, the murder on the spawning ground, the defilemont of the rivers, the damming up of the passage-ways, the call of aid is imperative, for a vital question is at stake. I think I need not recapitulate that artificial fish-breeding is the very, and the only expedient, that the advanced thought and practical experience of the age have pointed out. But in availing ourselves of the privileges of fish culture, it would be the supremacy of folly to fancy that the bounds to our re population of the waters are limitless, that if we can breed salmon eggs bettor than by nature's own process, that we can sustain more fishes in our rivers than nature could. Here is the crucial question.

Each river has a cortain capacity for the support of fishes, as each acre has for the support of animals. To endeavour to force that capacity is to defeat the very ends sought. The question, therefore, with which we are concerned now is to learn what is the salmon sustaining capacity of the Miramichi, the Ristigouche, the St. John, the St. Croix, the Saguenay, or any other river? I think the balance which nature herself established is the true capacity, that is the capacity of the river, whatever it
was at the time the first spear was hurled at a salmon in its waters. But, supposo we could ancertain this, as wo cannot, it would bo unsafe to be guided in some cases by that coudition now. For everg change that takes place on the surface of the land connected with a given liver, produces a corresponding change in the aptitude of the river for the maintenance of certain fishes. For example, many a river and stream in Ontario to which the sulmon resorted for reproduction at the time of the first settloment of Canada, is barren of these fish now; and more than this, a young salmon or trout put into these waters in summer, in their present changed and turbid state, would perish in a few hours.

Strike away the forest from the face of a country and from a river's bank, and you giro opportunity for rapid evaporation by the sun's rays. Small feeders to the main river are almost entirely absorbed, the volumo in the latter is greatly diminished, and add to this, its waters become super-heated, are rendered unwholesome and poisonous by the refuse matter carried over fields into it, the surebarge of vegetable matter, spores, de., all being incompatible with the salmon's nature. Therefore to bring the number of salmon to what it wis when nature was supreme, it would be necessary for us to undo our civilization, to let our meadows run again to unpruned forests.

But I have pointed out enough to show wherein lies the work of the pisciculturist in the future. There is much to be done, and the beginning bas scarcely been made yet. As our population increases, so will the demand for salmon and other fishes increase; and proportionate in turn to this demand, will be the increase in price for the article; and lastly, in proportion to the increase in price, will be the exertions and numbers of the fishermen. This can be met in part by a rigorous, full application of fish-breeding on the one hand, and by the rigid enforcement of necessary laws on the other hand. Fish culturo when creditably sustained by the State can do much, but it cannot accomplish wondors. It cannot coax salmon up into the rivers, if the fisbermen choke up the channels with nets. It can, if it gets fair play, and if it be permitted to manifest its merits-if the Government ronder it the needful assistance - in time fill the suitable rivers with fish to their fish supporting capacity; and to do this it will be conferring a boon that would not be easy hero to estimate.

Appended hereto will be found the Reports of the several officers in charge of fish hatcheries, also roplies by several of the officers to an "extract" from a letter written by the Inspector of Fisheries for New Brunswick, relative to artificial fish.breeding and the failure of the salmon fisheries of that Province.

Respectfully submitted.

SAMUEL WILMOT, Superintendent of Fish Culture for Canada.

## REPORTS OF OFFICERS IN CHARGE OF FISH-BREEDING ESTABLISHMENTS IN THE DOMINION OF CANADA FOR THE YEAR 1881.

GASPÉ HATCHERY.

## The Honorable <br> The Minister of Marino and Fisheries, Ottawa.

Sir,-I have the honor to sond you my Report on the operations connected with the fish batchery at Gaspe for the past year.

The salmon fiy commenced hatching on the 16th May and were coming out fast on the 20th May.

Distribution of Fry.
I commenced removing them on the 13th Junc, and placed them as follows:-

| Dartmouth River | ..... | 300,000 |
| :---: | :---: | :---: |
| St. John do | ....... | 100,000 |
| York do |  | 90,000 |
| Pond at batchory... | ........ | 10,000 |
|  | Total............... ................. | 500,000 |

The fry wore placed as far up each river as possible without too much expense. The loss during the distribution was trifling. The rixteen gallon tin cans with the perfrated covers for ice now in use are certainly the most reliable way of transporting the young fry.

## Capture of Parent Salmon.

The net for taking parent salmon was set in the Dartmoulh River on the 1 t of June, and removed on the 20th July; owing to scarcity of fish, only thirty-two salmon were taken and placed in Pond No. 2 , on the Watering Brook, which is a very clear stream. Of these nine escaped during a heary rain storm in August. The weather continued wot during all that month so that it would have been impossible to keep the net out.

## Collection of Ova.

Being aware of tho importance of securing as many eggs as possiblo and acting under instructions received from Mr. S. Wilmot, I decided to seino fish at the Barichois Liver, Malbaie, and wecured there thirty-fonc salmon. I attended to those in the pond and at Malbaie, and sent my a-istant up the Dartmouth River to secure a further supply, and ho was sucecesful iu capturing t! almon. It will be easily noticed that had not these means leen aloped tonecure a supply of parent fish, tho number of ora from those in the pond would have been smill. I frust the salmon will como in large numbers, so that the quantity of filh required may be captured in the net at Dirtmonth River in future. The total number of erge placed in the troughs was 607,000 , and, as I lave :lready eent jour Depritment a detailed statement of this, it is not nocessary to repeat it here.

## Appearance of Ova.

The egrgs at the present date are looking well with the exception of three trays from the Barachois River ; considering the long distance of transportation by boat or land carriage, the ova from there look remarkably well. The loss has been small thus far, and I expect there will be a good percentage of young fish next spring. The troughs were all dried and varnished, and the window frames and sasher painted during the summer. When the building was erected two floors were laid which was a mistake ; consequently the dampness from the one floor injures the lower one, and it will soon be necessary to remore these floors and place a new one of two inch cedar. Although I consider it bost to secure the supply of parent fish as they ascend the rivers, I would suggest that considering the small number of parent fish that hare been captured during the past two years, no net should be set in the Dartmouth] River next jear. Fish could be seined at Barachois River and up the Dartmouth at this season.

> I have the honor to be, Sir, Your obedient servant, $$
\text { Philip Vibert, }
$$ Officer in Charge.

Gispe, Denember, $1 \times 81$.

## RIStigodeile, hatcueny.

The Fionorable
The Minister of Marine and Fisheries, Ottawa.
Sir, - As previously reported, the young fry were successfully distributed in the following rivers, namely:-

> Jacquet River............................ ................................ 40,000

Upsalguitch ........ ....................... ............................ 125,000
Main: Ristigoucho..................................................... 295,000
Matapedia Rirer ............. ......................................... 200,000
Matapedia Lakc...... .................... ........................... . 40,000
Grand Bonaventure River........................................... 40,000
Total............................................ 740,000
The lot taken to the last-named river, owing to their lying without motion on the steamer for 16 hours, and notwithstanding ice having been put in the cans and great care shown by the attendant, they were not in as good condition as the others that were placed above tidal influence, and those in Jacquet River carried 13 miles. It being determined to purchase the parent fish for this season frow the licensed nettors at tide head, a pond for their reception was prepared there betwoen two of the islands; owing to lateness of commencing the work and the lack of suitable spiling, the heavy August froshet breaking the lumber booms along it, sonding down logs and rubbish on it, broke it down and caused a loss of 28 fish. Proparations are now made for double rows of 10 -inch spiling, which will in future prevent a recurrence of such a disaster. Consequently, I had to resort to the river for my supply of parent fish; and between the 23nd of September and 10th October I took, at the Four Mile Pool, Halc's Brook, Little Cross Point, Trotting Ground, Patapedia and Indian House (in noarly equal proportions) 119 female and 36 male fish. They wore placed in the pond at Indian House and stripped there, the ova was packed in moss and transported to the hatchery. The first lot of ora was taken on the 15th October and the last on the 22nd October. Three of those fomales gave us no ova, not having ripered in time, and were tnrned into the river again on the 22nd October. Two male fish jumped out of the flume and were lost; those
were the only ones that were seeu dead; no other loss occurred. From those fish 360 of our double trays were filled with ova, giving fully $1,100,000$ impregnated eggs. At Deeside, between Chain Rocks and the Upsalquitch River ( 8 miles) 53 fish were taken, of which 30 were females and 23 males. None wero inst or died, and all gave ova, which filled 130 trays, adding to our former quantity $400,000 \mathrm{egge}$, and making, in all, $1,500,000$ ova for the batchery, giving an average of 10,500 eggs to a fish; many of the fish were smaller than usual, apparently their first year of spawning, and weighing from 12 to 15 pounds, but few large fish were captured, although many were seen spawning on the beds.

Before liberating the parent fish in 1880 I cut the adipose fin in such a manneras to easily distinguish them. Two of these fish were taken and gave ova this year; one was taken at Patapedia and the otber at Indian House, one was also taken at Indian House Pool with fly, and two more of these marked salmon were caught in the tidal nets; there is no doubt but more of the marked salmon were captured but not observed. I would suggest in future that small metal tags be provided to mark :ll parent fish that have been used fqr artificial breeding. Tho date of the fiwhes liberation might be easily stamped on the tag.

The ora in the batchery is in tine condition, so far not $\frac{1}{4}$ per cent. of loss has been sustained. As the hatchery is not large and the space very limited, I would -nggest the giving to any hatchery, that may not be well supplied, a quantity from here, as this house will be over-crowded in the spring.

The number of young emolts and grilse in the ricer this season wat unprecedented. Neither mysolf nor my men ever saw so many in any previous year. On some of the natural spawning beds the grilse were lying in luandreds, where, in former years, three or four at the most could be seen. A very fineshow of old parent fish were also to be observed just about as numerous as in our best years, particularly in the upper portions of the river; and as the fall was very favorablo, a very large natural production must rosult, as but little disturbance from lumbermen or from ice has taken phace.

I hase the honor to be, Sir, Your obedient serrant,<br>Johin Mowat, Otjicer in Charge.

Deeside, Hercmber, 18.1.

## MIRAMICHI HATCHERY.

The Honorable
The Minister of Marine and Fisheries, Ottawa.
Sir,-The number of eges laid down in the Miramichi Hatchery in the fall of 1880, was 850,000 . Thosc continued to do well, and were successfully hatched ont and distributed in the following rivers:-

North-West Miramichi River ................. .................. 200,000
South-West do do $\ldots \ldots . . . . . .$. ................ 200,000
200,000
Little South-W est Miramichi River......................................... 8 . ${ }^{\prime}, 000$
Sevogle River........ .................................................. 50, 000
Renolls do ....... ..................................................... 40,000
Bartibogue River ................... ........................ ............. ... 40,000
Burnt Church River .................................................................. 40,000

Salmon, do $\ldots \ldots . . . . . . . .$. ...... .............................. 30,000

Stewart's Brook................................................................... 10,000
Digdeguash Brook................................................................... 10, 10,000
'Total.................................................. 770,000

During the summer season all necessary repairs wore completed, and in the fall of 1881, 222 parent salmon were procured, and from those fish I succeeded in getting 700,000 healthy eggs. Those were laid down in the breeding troughs and are progressing farorably at the present date.

I hare the honor to be, Sir, Your obedient servant,

Isafac Sheasgreen, Officer in Charge.

Sogti Esk, Miramicif, December, 1881.

## ST. JOHN RIVER ILATCHERY.

The Honorable
The Minister of Marine and Fisheries, Ottawa.
Sir,-I beg to submit to you an account of the operations at tho Rapid des Femmes fish-breeding establishment on the St. John River in New Brunswick, under my charge. Having received instructions from Samuel Wilmot, Esq., Superintendent of Fish Culture, to procure a stock of parent fish either from the St. John River or its tributaries, I proceeded on the 20th of September last, with four men up the Tobique River where it was said the greatest chances existed for getting salmon; but I regret to say that I had almost a total failure owing to the great scarcity of these fish in these waters; the high freshets which prevailed during the eally part of the season enabled what few fish there were to get far up to the head-waters, it was therefore almost inpossible to secure any. The total catch being eleven females and thirteen males, from these I succeeded in gathering akout one hundred thousand eggs; these were taken down the river and placed in the breeding troughs of the hatcbery, where they progressed very rapidly, and the young fish are now being fully developed in the most of them.

I am quite of the opinion that it is almost impossible at the present time to procure a supply of parent fish for the use of the hatchery from the St. John River or any of its tributaries; and I would therefore respectfully suggest that the parent salmon be taken into the St. John harbor fisheries, and there safely kept till the spawning season.

Of the 300,000 California salmon eggs received from the Neweastle hatchery in Ontario on the 9 th of October last, I am pleased to report the hatching of them as most successful; the young fry from these eggs commenced to batch out in November, and the loss has been very trifling.

I bave deposited 150,000 of these ycung fish in the St. John River in the most healthy condition, the remaining number I shall distribute in like manner throughout the river as quickly as possible.

I also brought over from the Ristigoucbe hatchery 200,000 salmon eggs which were takon from the large salmon of the Ristigouche River; these eggs were conveged by rail to this place on the 11th March in splendid condition, all of these are progressing most satiefactorily.

I beg to call your Honour's attention to the constant poaching carried on in the upper St. John, and unless the law is speedily enforced and better protection maintained, it will be impossible for the fish to increase, and consequently this river must remain barren in respect to salmon.

The condition of the hatchery with all its ajpliances is in all respects most satisfactory and working very favourably.

> I have the honor to be, Sir, Your obedient servant, $$
\text { Alexander Mowat, }
$$ $$
\begin{array}{l}\text { Officer in Charge. }\end{array}
$$

## DUNK RIVER HATCHERY, PRINCE EDWARD ISLAND.

## The Honorable

> The Minitter of Marine and Fisherics, Ottawa.

Sir,-I bey to transmit for your information my Report of the Dunk River Inatchery for the past year.

In the autumn of 1880 we laid down about 500,000 eggs, and hatched out 375,000 young fry, which were distributed in the rivers, as follow:-

| Morrell River. | 60,000 |
| :---: | :---: |
| Brudenell River. | 60,000 |
| Trout or Lot 10 River. | 60,000 |
| Dunk River. | 195,000 |
| Total. | 375,000 |

At the present time of writing we have laid down $1,200,000$ eggs in very good condition, and we had in the reception house last fall onough females to add to the above supply 200,000 more egge, but there were no males to impregnate the eggs, thoy having been scarce. We spawned 215 females and only 96 males, and had 50 females lef't on our hands, making in all 361 fish in the reception house last fall. This was quite a large increase on the previous year. The greater number of the salmon entering the river last fall were foung fish from four to five years old. The average number of eggs obtained from each female was 6,000. One reason why the male fish were scarce, was that the water was very clear, and in consequence they stayed under the bridge below the hatchery. We tried to net them but could not do so on account of the many eticks and roots in the river. The young fry appear to be very plentiful in the river this season, the saw dust and other rubbish has been kept protty woll out of the stream during the summer, and no poaching has been curried on.

I would advire baving the sticks cleared out of the river from the hatehery to the bridge; the expense would be trilling. It parent fish increase as fast as they hare been doing this season we will requiro a salmon ladder in tho dam beforo long.

I would sugrest that a Warden be appointed for Wilmot River, as there has been some poaching going on there last fall.

Everything is in good order and working splendidly. I have endeavored to give fou all the information required.

> I have the honor to be, Sir, Your obedient servant, Henry Clark, Ofjcer in Charge.

Duni liver, 3lni Iecembor, 1 sin .

## BEDFORD BASIN IIATOHERY.

## The Honorable <br> The Minister of Marine and Fisherios, Ottawa.

Sir,-I havo the honor to report that the distribution of the salmon fry hatched in this establistment this past season was performed as per accompanying list, and was attended with perfect success.

Total distribution, $680,000 \mathrm{fr} 5$.
The work of collecting a supply of ova for this season's hatching at the Bedtord batchery was completed about the 1 st inst.

Owing to my being engaged at the Sydney hatchery during the spawning season, I was unable to give the work my personal sapervision, but having made all the arıangements for catching the parent fish, \&cc., I left the matter in my assistants' hands, and I am pleased to inform you that they succeeded in collecting about
$1,500,000$ ova; of this number $1,200,000$ were laid down in the troughs of this hatchery, the balance, 300,000 , being sent to the Sydney batchery as per Mr. Samuel Wilmot's instructions.

During the summer I had the reception tanks repaired and all prepared for work, when the salmon should enter the river. I had intended fishing on the Musquodoboit River, and visited that place on the 25th of September for the purpose of setting a crow of men to work, but found that the greater proportion had alroady passed up the ladder and had gone so far up the river that they were begond my reach. In lict, salmon entered that stream all through the summer, and I was informed by nome residents that salmon had not been so plentiful there for ten years. This fact is due to the heary rainfall we experienced and the consequent high stage of water in the river, especially during July and August, enabling these fish to enter their river, and shows quite plainly that the reports were in erior which stated that my operations for the past four years on that stream had driven all the salmon out of it. The fact is, this season has been the first for ten years when salmon could go up the river in the summer months, the high water permitting them to do so then, instead of boing compelled to remain out in the harbour untillate in the fall when the heavy rains set in. Not having seen that river myeelf, or knowing its condition, until the 25 th September, was the sole cause of no fish being taken there this season for the use of the hatchery.

Finding that no salmon could bo taken in the Musquodoboit River I determined to commence operations on the East River, in Pictou County, and purcbased the necessary net and engaged a fisherman; and as salmon were apparently very plentiful in the tidol waters, I expected to secure a large number and fully make up the leficiency on the Musquodoboit. Having made these alrangements I left for Sydney, when, unfortunately, the fisherman met with a sorious accident which confined him to the house and prevented his setting his nets. He not having informed me of this, some days of valuable time were lost, and before another fisherman could be engaged the fish had passed up and beyond my roach. The East Rivor is ono of the best streams in the Province, and large numbers of magnificent salmon enter it every season; and although I have made two or threo attompts at fishing them, I bave failed to secure any considerable number. This is dne to having no appliances there of a permanent nature, and to the fact that I bave nerer fisbed it except whon short of fish elsewhere, and consequently have always been too late in enmmencing work. Failing to secure any spawning salmon in the two rivers mentioned abore, 1 was obliged to fall back on my old and favorite streams-River Philip and Wost River. Fortunately thoy both far oxceoded my oxpoctations and enablod me to socure a good supply of ova

On the West River the catch was eighty-four, being considerably greater than that of last year, notwithatanding a large proportion of the run was lost owing to high freshets preventing the nets boing set for several days while the fish were running thickly:

The River Philip catch was excellent, being 232 as against 91 last season, and an average of 110 for the last six years; in fact the river was said to swarm with salmon, very many not coming up to the bank, but spawning on the beds lowor down: In addition to those caught, large numbers of small salmon or grilse were seen, but as largo meshed nets are used there, very few of these were taken. I stated in my last annual report to your Department, that some ovidences of an increase of salmon were observed on this stream last soason, and gare this as an evidence of the good results of fish breeding, but the increase being but light I was unwilling to attach too much importance to it; but the extraordinary catch this soason removes all doubt on this point, and at once proves conclusively that the increase of salmon by artificial propagation is not only possiblo, but in a very marked degree has been achieved on this river. The most incredulous must now admit this when it is known that for six years this river has been robbed (a favorite expression with skeptics) of almost all the ova that would have been deposited there naturally but for our operations. This being the caso, where has the increase come from? Certainly it must be from the
young fish which were put in that river five or six years ago. Again, every man living on that river knows that the average weight of the salmon taken there for the last ten years was about 20 pounds-those were matured full grown fish. This year over 100 of the fish caught were under 15 pounds, running from 6 to 15 pounds, or young fish of four and five years' growth.

No doubt the increase of salmon in other rivers has been quite as great as in River Philip, but having no time or opportunity of testing the matter, I cannot speak positively regarding them.

The total number of salmon captured from the two rivers was 316 , of these $16^{\circ}$ were males and 154 females; you will obscrve that the former oxceeds the latter by eight, and this accounts for the small quantity of osa secured from the whole number: of fish caught. On Wost River, $5 \leq$ females were taken, from which 520,000 ora werc obtained, being an average of 10,000 ova per fisb, while on River Philip but 102 were females, yiolding 900,000 ova, an average of less than 9,000 ova per fish, as against a usual average of 12,000 per fish in former years on this stroam. This is due to the large number of young and small sized fish as mentioned abovo. Up to the present time the loss of ova has been very light, and as the embryo is now lecoming visible and the eggs present a good and healthy appearance, I hope to hatch a large percentage noxt spring.

I regret that a larger number of ova could not be obtainod, but this was due to causos orer which I had no control, and to ray absence in Cape Broton during tha fishing scason.

I have the honor to be, Sir, Your obedient scrvant,
A. B. Wilmot.

Officer in Charge .

Beliford Basin, Decembo:, 1881.

MAGOG HATCHERI.

## The Honorable

The Minister of Marine and Fisheries, Ottawa.
Sir, -I beg to submit the following Report of the Magog Fish Hatehery for the past year:-
'lhe above named hatchery commenced operations in the winter of 1880 and 1881, receiving from the Newcastle establishment about 275,000 salmon trout eggs. As nearly as I am able to estimate, thore were hatched out and distributed about 200,000 small fry, and planted in the following named shects of water, situated in tho Eastern Townships, viz.:-

| Megantic Lake, | County of Comp | 50,000) |
| :---: | :---: | :---: |
| Brompton do | do Richmond | 25,000 |
| Ley Pend | do Sherbrooke | 15,000 |
| Littlo Magog Lake | e do Stanstead. | 8,000 |
| East Branch Pond | do Sherbrooke | 2,000 |
| Memphromagog Lako, County of Stanst |  | 75,000 |
| Massawippi | do do do | 25,000 |
| Total ............................ .................... 200,000 |  |  |

The building, as you will see by referring to copies or plans and specifications in your hands, is $26 \times 60$ feet and two storys in height. The lower flat is constructed and arranged in accordance with said plans and specifications with water supply, troughs, tanks and other nocessary appliances, is all in perfect working order. The
ponds alongside the hatchery have been divided into separate compartments or pens by adjustible racks freely admitting the passage of the water but not the fish. At the lower end of the pond is a dam with a gate and rack in front of it to prevent the fish in the pond from escaping when the gate is raised and the water being drawn off. By this arrangement the water can be drawn down in the pond at will, making it easier to catch the fish when desired. With the pond, the dam and the gates, the fish in their various stages of ripeness may be kept separate, the males from the females, and those which have been manipulated for their egge, from those which have not. This arrangement works very satisfactorily. The hatching room is warmed by a base burner coal stove, by which the temperature may be kept at any desired state. The water, however, is so warm naturally, and the weather having been so unusually mild but little fire has been necessary. The above described pond and pens are constructed for recciving the salmon trout which it is proposed to catch in Lake Memphremagos (the waters of which communicate with the hatchery) and keeping them therein until after being eparned, when they will be turned back into the lake again. Reports from all the resident fisbermen were to tho effect that a sufficient number of parent fish existed in said lake to stock the hatchery with eggs, and the lakes and pouds in the Eastern Townships with small fry. The practical difficulty lay in catching them without injury.

With the above objoct in riew, and in accordance with jour instructions, I caused a seino to be made about 200 feet in length and from fivo to fifteen feet in width, I also had a balloon shaped bag made fifteen fect in length and eight feet in diameter at the largest point. There was an aperture in the centre of the seine of about eighteen inches in diameter, in which was inserted a wooden hoop, to this hoop the bag was attached in such a manner as to be easily remored. The land ropes were 300 feet long. With the above described apparatus I caught some 300 parent fish, the greater part being females, which were transported from the spawning beds, where caught, to the hatebery in boats constructed for the purpose. From the above number we secured about 300,000 eggs. The efforts in that direction did not result in sccuring a sufficient number to stock the hatchery with ova, but the experiment has demonstrated the possibility and the practicability of obtaining from Lake Memphremagog a sufficient number of parent fish to stock the Magog Hatchery with eggs and the several sheets of water in the Eastern Townships with salmon trout. To do this properly and profitably some expense will have to be incurred in preparing spawning shoals and bars, so that seines may be drawn with safety. There are rocks, roots and various kinds of obstructions which should be removed from the above named places frequented by salmon trout near Magog and Georgeville.

A small pen might be mado near Georgevillo in which to yard tbe tish after being caught until apawned, or a larger and easier managed boat will bave to bo made, to transport the fish which are caught near Georgeville to the hatchery at Magor.

I conclude that :bout 25 per cent. of tho eggs havo died sinco being deposited in tho hatchery; quite a lirre portion of which, I imagine, were not properly impreg. nated with the male sed on account of thero not being a sufficient number of males caught. For the past three weeks the mortality of the egge has not been nearly so great, and the small unhatched fry are developirg quite rapidly.

I beg further to say that three years since you sent us a quantity of small fry from your establishment at Newcastle. We deposited them in the lake at "Sand Beach," contrary to the advice and counsel of our old fishormen. [ had our seine drawn at that place, and, contrary to our expectations and the oxperience of said fishermen, we succeeded in capturing noally all of the before mentioned 300 fish at that place. On spawning them they appecared to bo nearly all of them three year old fish. Query! wore they the ones put there threo yoars ago? At all evonts, nearly overy one agrees that salmon trout were never so plentiful in our lake as they were last fall. I attributo the increase to the abore named deposit and Government protection.

We now have a building and all the appliances which seem necossary to carry on the business intended in the most approved manner. We are situated close to a large lake, which abounds in the kind of fish which you desire to propagate. We have demonstrated the fact that they can be caught without injury, and their egge secured in sufficient numbers to supply the demand for this section of the Province of Qucbec. All that now remains to be done is to continue the enterprise as you bave commenced, and your reasonable anticipations will bo realized and your object to increase the supply of fish food will be successfully accomplished.

I have the honor to be, Sir,
Your obedicnt servant,

A. H. Moore, Officer in Churye.

Magof, Que., December 1881.

## SYDNEY HATCHERY, C. B.

## The Honorable

The Minister of Marine and Fisheries. Ottawa.
Sir,-I beg to submit herewith a report of this season'soperations at the Sydney fish hatchery. The number of parent fish secured was very much smaller than that anticipated, owing to the scarcity of salmon in some of the rivers and nearly the entire absence of them in others. Rivers teeming with salmon years ago, owing to the uninterrupted and wicked practice of poaching at the very season that they entered the rivers to spawn, had few, if any, salmon in them this year.

The following is the number of salmon obtained and the names of the rivers in which they wero caught:-

No. of Salmon.

$$
\begin{aligned}
& \text { Forks River..... ................................................................ } 32 \\
& \text { Leitches River ....... ................................................................ } 9 \\
& \text { Salmon River...................................................................... } 7 \\
& \text { Total ........................................................... } 48
\end{aligned}
$$

All the other rivers were tried, but yielded none. The spawn oblained fiom these salmon amounted to 200,000 , togetber with a supply of 250,000 eggs received from the Bedford Hatehery in Nova Scotia, making in all 450,000 ova laid down in this nursery, which at the present time seem to be in a thriving and good condition. The abovo 450,000 eggs were counted after the unimpregnated dead ones had been removed. The greater number of lifelcss eggs wero taken from the lot received from Bedford Hatchery, comparatively fow were removed from those of our own fish. The experience gained this season in catching parent salmon will benefit us in the futurc. By having sufficient time at our disposal, I feel confident that thero would be no trouble in obtaining the required number of parent fish for this establishment.

Before closing this report, I beg to acknowledge my higb appreciation of the clear manner in which Mr. S. Wilmot intimated to mo the duties of my office. Be assured that it will be my principal and chief end to do all in my power to faithfully and satisfactorily fulfil the duties of the position in which I am thus placed. I am relieved by the assurance that in every difficulty connected therewith I may look to him for direction. Together with this, I must express my appreciation of Mr. A. B. Wilmot's kindness in the pains he has taken to instruct me in the duties I have to perform.

> I have the honor to be, Sir, Your obedient servant, $$
\text { Cuas. A. Farquilarson, }
$$ Officer in Charge.

Sydnef, C. B., December 31st, 1881.

# SANDWICA HATCHERY, ONTARIU. 

## The Honorable

The Minister of Marine and Fisberies, Ottawa.
Sir,-I beg berewith to submit to you my annual report of the Sandwich white fish hatchery.

Last year I stated that I had some $17,000,000$ of white fish ova in our hatching cans and on trays. Through some cause unknown most of them died, and on April 5th we only turned out $4,000,000$ of fry in the Detroit river. As I gave a detailed account of these eggs formerly it is useless for me to append it here.

We succeeded in hatcbing some $12,000,000$ of pickerel eggs after the white fi*h scason, which were distributed in the following places:-

$$
\begin{aligned}
& \text { St. Clair River...... ..... .. ................. ................... 200,000 } \\
& \text { Thames do .................................................. 500. 500. } 000 \\
& \text { Mitchel's Bay.................. .............................. ..... 1,000,000 } \\
& \text { Detroit River....................................................... 10,300,000 } \\
& \text { Total.......................................... 12,000,000 }
\end{aligned}
$$

This fall I was successful in procuring somo $25,000,000$ of white fish ova, which were collected at the following stations:-

$$
\begin{aligned}
& \text { James Mackee's, Bois Blanc Island. .......................... 20,000,000 } \\
& \text { C. W. Gauthier's station........................................ 3,500,000 } \\
& \text { Joseph Meloche's do ........................................ 1,500,000 } \\
& \text { Total................................. ....... 25,000,000 }
\end{aligned}
$$

There were not quite so many white fish caught on the Canadian side this fall as last season. The reason for the falling-nff was the constant westerly winds which prevailed, and had the effoct of driving the fish over on the American shore. Taking both sides of the river into consideration there were more fish caught this season than the provious year. It is admitted by all the fishermen that there were more white fish in tho Detroit River this fall than there has been for the past ion years.

It must be as gratifying to your Department as it is to myself to notice the increase of white fish, roported from the different fishery officers bordering on Lake Erie, which shows that our work here is not only for the benefit of the Detroit river, but also beneficial to all the fishing stations bordering on Lake Erie. Our white fish fry should be planted in different localities, a large number ought to be distribated off Pelée Island.

There were a large number of pickerel caught this last fall, which shows that they mature much faster than the white fish.

The glass jars which Mr. S. Wilmot had patented a fow years ago were put into practical use here this fall. The improvement of these glass jars, over the tin cans formerly used, is manifold. The motion and working of the egge is plainly seen, in the tin cans this could not be observed. If any dirt or sediment collects in tho glass jars it is easily detected, besides the flow of water is kept much more regular.

> I have the honor to be, Sir, Your obedient servant,

James Nevin,
Officer in Charye.
Sandwicil, February, 188.

## Sandwich, Ont., February, 1882.

We, the undersigned fishermon, lessees of fishing stations, and other individuals interested in the fisheries along the Detroit River, feel a deep interest in the maintenance of the supplies of white fish in this section of the country, and desire to express our belief in the benefits which are derivable and which have already been realized from the large numbers of young white fish which have been bred and turned out from the Government fish hatchery at Sandwich on the Detroit River. The very evident increase of young fish from the above source induces us to urge upon the Department of Marine and Fisheries the carrying on of the work with greater zeal in the future than they have in the past. For the last three years we hare had a gradual increase of white fish, and hare no hesitation in saying that there were more fish in the Detroit River duving the past season than there has been for the last ten years.

> (Signed),
C. W. Galtuler,
H. F. Meloche, Robert Adamson, Tames MoKee.
J. B. Gatthier,

Daniel Melocine, Tosepit Allen, J. D. Meloche, L. J. Reeves, James Smitif, Lodis Jeannotte, Daniel Anctil, Josepil Joly, Elie Giguerees, G. Bengit, Michael Joly, Francois Rocheleau,

REPLIES OF OFFICERS TO AN EXTRACT FliOM A LETTER WRITTEN BY MR. VENNING, THE INSPECTOR OF FISHERIES FOR NEW BRUNSWICK, RELATIVE TO ARTIFICIAL FISH-BREEDING, AND THE FAILURE OF THE SALMON FISHERIES OF THAI PROVINCE.

Dee Side, Cth February, 183.
The Ilonorable
The Minister of Marne and Fisheries, Ottawa.
S:r,-Referring to an extract from a letter addressed to the Honorable the acting Minister of Marine and Fisberice by the Inspector of Fisherios for New Brunswick, relating to salmon fisheries, I beg respectfully to say in relation thereto, as follows, viz.:-

The Jispector says be fears His Honor "will be made believe the last two years decrease will be attributed to some unknown abnormal cause, and that future scasons will be better:" From a fort 5 -five years' experience here, and from the testimony of the oldent netters, periodically good and bad years have been their universal experience; with this difference, that many poorer years' fisbing than tho last two havo been before experienced, while the fishing seasons of 1876.'77, 1878.'79 were the best known for forty years on the Ristigouche. Previous to 1874 there were but two packing ostablishmonts for salmon, and with a much less number of coast nets; there are no less than eight of these establishments now, with an increase of nearly 500 por cent. in the nets. In the County of Gloucester, where the fish caught are fully two thirds Ristigouche salmon, the increase of both packers and netters is still more marked. No doubt the price of fish having risen from 100 per cent. to 150 per cent. has cnabled netters to continue the last two years; they would otherwise have been obliged to discontinuo fishing. The netters, however, declare that the fish will come again more plontiful than ever, and intend to continue, although former applications for new stations have resulted badly; in fact, all localities in any way favorable for a fishery are now occupiod.

T'be Inspector, declares that "fish breeding has produced no visible results, and doubty if any of the young brood plantod ever reach maturity," and this, after stating that it was at his urgent entreaty that a formor Ministor was induced to make pisiciculture a Departmontal work. When he did so, ho must have been satisfied of its utility, consequently the management of the Ristigouche and Miramichi houses are at fault, in placing tho young fry either in wrong places, or planting them in a sickly state. Nothing else can be inferred from his statements, or he may have become" a convert to the viows of parties" who have tried to make it appear that "unless the parent fish are on hand to protect the young brood they are gobbled up by other fish."

Nothing could be more lively than the young fry from this hatchery from four to six wecks old. The groater portion are never "subjected to land carriage," being transported in cribs with a continuous current of river flowing over and amongst them, and when liberated, they hide so quickly the eye can hardly follow their motion; this is done commonly at the season when the trout have not ascended the liver, but are feeding amongst the great smelt schools at the tide head. These young salmon are thus saved from the trout, eols and suckers, which prey upon them principally in the egg state. The egge aro saved from the danger of rotting in the spawning beds by not coming in contact with the quantities of dead unfertilized eggs found there, and from being ground and destroyed in the fall and spring by the action of the ice turning and ploughing the gravol bars up side down. But the most important saving is that 95 per cent. of the egge got artificially produce in tho
hatching troughs living fish, while the largest percontage of living eggs I ever found in a salmon ridd, was one in three; this was in the month of March, well up the river, and from my experience I would judge from their close connection with the dead egge, few of them would be alive in May. If, at the spawning season a rise of water occurs, which is generally the case, salmon run out on the beaches and shallows and deposit their eggs, as they will not do so in deep water at any time; before Christmas time the frost will have lowered the river below summer level leaving the nests baro. Fifty years ago, the banks of our streams were living forests, they are now burned off by the lumbermen; the rains and melting soow running from these high banks and hills cause freshets and ice jams which were not then experienced. Fifty years ago, there were no coast nets and not over half-a-dozen nets in the upper estuary. A few netters and oold traders would give goods only for salmon at the rate of $\$ 6$ to $\$ 8$ per barrel. The Indians only took them for their own use; the setulers did the same. Salmon were plentiful then because there were no inducements offered to catch them. At that time not one stationary net was set in the Bay of Chaleurs, below Dalhousie. Now, there are three hundred between that point and Shippegan. In ten years, between 1845 and 1855 the demand and value of salted salmon increased very much, and as there were no regulations, or next to none, nets were set cverywhere, and completely barricaded the mouth of the river, and the catch fell off so much that many of the netters discontinued fishing. So scarce were the tish in the river from over fishing, that it was commonly supposed by the few who triod fly fishing, that our salmon would not rise to the fly. Mr. Hocge, who canned salmon for the first time on the Ristigouche tbat year, only obtained $37,000 \mathrm{lbs}$. from all the estuary nets. Since that time, the three Athol תouse stations alone have produced over that quantity for threo years in succession, and over 1,000 salmon have been taken for three years successively with the fly up the Ristigouche River.

Had the splendid north shore streams and rivers turned out their usual quantity of fish, and those rivers on which no hatcheries exist been equaliy fruitfulalthough none of them are so severely netted as the Ristigouche and Miramichithe Inspector might have been justified in pointing out and blaming fish culture as one of the causes of the scarcity, but the very opposite is the case. The great body of the salmon shipments have been from these two rivers in question. The Ristigouche alone now shows more salmon taken with the rod and line than any five of the other rivers put together, and as it is well understood that not more than one fisb in twenty will ever riee to the fly, a large number of fish must have been left in the river for breeding purposes. I am positive in saying that the stock of breeding fish this fall (notwithstanding the great numbers of netters and anglers) was quite equal to former years on the upper portions of the river. They were as plentitiul as was desirable for the benetit of their future progeny, for should the tish be too numerous on the spawning grounds the males are constantly fighting, thereby preventing the proper impregnation of the ova when being deposited, and also displacing the gravel on the beds which were formerly laid iu, completely addling many of the eggis and exporing others to be destroyed and eaten up.

The great and general failure of our salmon trop on the northern rivers emptying into the Atlantice (all of which exhibit a greater decrease than the Ristigouche and Miramichi during the last two years) shows the prevalence of some great general destructive agency on their winter feeding grounds, the exact cause of which is not yet known. Many salmon entered our rivers last year, badly scarred and bitten, others were scratched and torn, particularly the second run; but they were all in fine condition in flesh. In 1880 there were fower fish, and they seemed to bare been starved as well as torn and scarred, so much so, that the netters would not own them as Ristigouche fish. Notwithstanding all this, there was still a better catch on the Ristigouche and Miramichi than on many of the others. This can only be accounted for in one way, viz., thero were more of them on the breeding grounds, and consequently a greater percentage escaped destruction. It is a question, thereforo, whether the hatcherios on these rivers were not the means of this greater proportion of ealmon in the Ristigouche and Miramichi. I hope the coming year will show this
to bo the case. That a gentleman of Mr. Venning's intelligence would so stultify all his former views and earnest representations made for years past, seems impossible, and in the face too of the acknowledged benefits resulting from pisciculture in America, England, Germany, Russia and all other civilized nations. If the officers in chargo of the Latcheries are not capable, which from the tenor of his letter is the ronclusion he wants to imply, others should be found to supply their places, and it would be the more manly course to pursue. As to his recommending a shorter season and longer weokly close time, I am unable to agree with him for this division for the following reasons: Many of the netters can only fish from three to four weeks, nono over eight weeks, one-fifth of the season is now taken by the weekly close time; but the principal reason, as before stated, is that notwithstanding all the netting in the estuary and the numbors of anglers up river, and the general short catch of salmon, a very good stock of parent fish was found in all the streams last fall.

> I hare the honor to be, Sir,
> Your obedient servant, JOINN MOW.IT,
> Overseer of River Ristigouche.

Soutil Esk, Miramichi River. 6th February, 1882.
The Honorable
The Minister of Marine and Fisheries, Ottawa.
Sir, - In reply to the extract of Inspector Venning's letter, I must say that I cannot agree with him in his opinion of artificial fish-breeding. My opinion is that the artificial brecding is of great importance in regard to helping to koep up our strek of salmon. I have had somo experionco in that business, and I know that it is a help to increase the stock. Let the fish deposit their eggs in the natural way, and there is not a hundredth part of them that reaches maturity. Some falls the fish deposit their oggs when the water is high in the streams, then during the winter the water falls quite low and the eggs are left dry, and of course they all perish, and if not lost that way, thero are great many of thom carriod away by the lumber in the epring of the year, and when there can be 80 or 90 per cent. hatched and deposited in the rivers by artificial means, I cannot soe why it is not a benefit to our rivers.

There is no doubt but the salmon fishing has been less for tho last two gears than usual, but thoso things will occur, no matter what is done to increase the stock. It is impossible to bavo the rivers crowded with fish every year.

In speaking about the fishing season, I think it is very well regulated, if the regulations were properly enforced. If the officers on our rivers were looked aftel and made to do their duty in a sharper manner than now, it might be a benefit to our fisheries. It is not in the close season that all the poaching is done, but from the time there is a salmon seen in the rapids, until they loave in the fall. There are kinds of traps used to kill large and small salmon, and the officers do not seem to stop it. They may go on the river one night and the next three they are off, and the "poachers" know just the night to go to work. In my opinion this is what is dcing the greatost injury of all to our valuable salmon fisberies.

I should like to know what is the cause of our valuable bass fishery, on the north. west branch of the Miramichi, decroasing so rapidly for the last two or three years? Wo know it is not the artificial breeding, nor the want of closo season, but it is tho lack of the officers to do their duty. This very winter there are thousands of small bass eanght and shipped to the Cnited Statos market, and it appears there is no one to
put a stop to it. There are many more ways now to destroy the fish than there were ten or fifteen years ago.

> I have the honour to be, Sir,
> Your obedient servant, ISAAC SHEASGREEN, Offer in charge of the Miramichi Hatchery.

(idslé, 7th Felmuary, 1882.

The IIonorable
The Minister of Marine and Fisherics. Ottawa.
Sir, - That the salmon fisheries on the Atlantic coast have been a failure, for the past two years, cannot be denied. We must, however, consider what the fisherics yielded the years previous. In 1878, the catch by nets was at Gaspe 40 per cent. above an average, and in 1877, was an average year. With so many fish-breeding establishments in operation it is not surprising that a very great increase is oxpected in our salmon fisheries. The Inspector of Fisheries for New Brunswick says: "if an r" of the broods placed in the rivers over reach maturity wo should have reasonably expected a large increase of fish." Now, suppose all those young salmon never reached maturity, what has become of all the eggs deposited in the catural way on the spawning beds in our rivers? The same cause which has prevented the return of the one, must surely have acted on the other. How comes it tha the salmon are so scarce on the Labrador coast where no fish hatcheries exist? and at Sandwich Bay, where eighty tierces have been cured, only eighty salmon were caught last jear. All the Gaspé rivers have been well stocked with young fish for several years past, and what has become of them is a mystery. I believe large schools of these fish have been either devoured or frightened awao by sharks and other voracious fish. Codtish bare been driven away from the south shores of the St. Lawrence by porpoises, and why not salmon also? There is no doubl there are too many nets in some parts, and it is difficult to remove them. The suggestion made by tho inspector, "to make a shorter fishing season," is good, and it might be fixed for two years.

I confidently expect that the salmon will return in large numbers, but perhaps not this year.

I have the honor to be, Sir,
Your obedient servant, PHILIP VIBERT, Officer in Charge.

Bedrord, Febiuary 10th, 1 \&82.

## The Honorable

The Minister of Marine and Fisheries.
Ottawa.
Sir,-I beg to acknowledge the receipt of your letter of the 31st January, and enclosed extract from Inspector Vonning's letter to your Department in reference to the decline of the salmon fishery and the failure of artificial fish-breeding to produce any beneficial results, concerning which you wish my remarks.

In reply I beg to state that Mr. Venning's statement of the decline of the salmon fishery during the past two years, is one of fact, and I believe is fully borne out by the statistics furnished by the fishery officers throughout the Maritime Provinces,
yet I do not consider he is justified in producing this fact as an evidence of the speedy exhaustion of our salmon fisheries. These alternate periods of scarcity and abundance of these fish on our coast are not the development of any new feature in their habits; old residents and fishermen inform me that such periods bave occurred from the early settlement of the country, and with these peoplo a scarcity of salmon for a season or two is considered of no importance as they confidontly look for an abundance to follow. Just why theso seasons of scarcity and abundance occur, I an unable to inform you, but am under the impression that salmon, like cod, mackerel, herring and other deep soa fish, are governod in their migrations from coast to coast by the abundance of fool to be obtaned on any particular coast, their food leeing principally smallor fish and their produce. When any coast is visited by large numbers of salmon as sometimos occurs, the destruction of these smaller food fish becomes abnormal and beyond their powers of recuperation, hence a scarcity of food occurs, and if this unusual destruction continues for tivo or more soasons, this particular coast becomes denudod and continues so until by the natural process of reproduction another supply accumulates; in the meantime, the salmon or othor fish are compellod to scek food elsewhero, causing a scarcity on one coast and an abundance on another. In applying this idea to salmon, I am aware I conflict with the accepted theory that every salmon has its particular river in which to breed, that being tho river in which it was bred, consequently can nover visit any but the one coast, but I am being gradually convinced that this theory, :ts well as many others regarding salmon, is incorrect, or at least not entirely with practice. To illustrate my idea, take a salmon hatched and bred, say in the Miramichi River;' when the age for reproduction arrives this fish will return to that river to dejosit its ova if it has beon feeding on that coast during the summer of feeding scason ; but supposo that owing to a scarcity of food on that coast that this fish is compelled to go to some other coast, say Labrador, or Newfourlland, in earch of food, then I contend this fish will enter somo river there for breeding purposes and return to its native river only when food can be obtained in its vicinity.

As to Mr. Venning's statements in rogard to the results of fish-broeding at several of the hatcheries, and their failure to produce any good effects upon the coast fisheries, it must be admitted that artificial fish culture has not as yet met the promises made concerning it at its first introduction, but to now conclnde that the Neheme was a failure and of no bonefit to the isheries, would be, in my opinion, prejudging it. The efforts put forth by your Dopartment, although no doubt as groat its possible considering the many demands upon the rovellue of our country, hare been foeble when censidered in the light of the many and great difficulties to be overcome. When the schome was first adopted by jour Department, I have no doubt the originator, having found it was possible to batch young salmon and preserve them until six weeks of age, considered the problem of restocking our rivers with salmon already solved. The many and unfavorable changes which have taken place in most of our rivers and lakes, consequent upon the changes in the plysical condition of the country, were not doomed such great obstacles to the speedy completion of the work as sulbequent information has taught us to consider them. In my opinion, the sreatent difficulty we have to contend with is the fact that very few of our riversare now in a state of nature, and the change from their primeval condition has boen such that many aro not now suitable breeding grounds for the parent fish, and do not furninh the quantity or quality of food necessary for the derelopment of the young fiy produced by oither the natural or artiticial process. That salmon fry can be hatched and safoly plicerl in the rivers, the most incredulous must admit, but the 'flestion may very fairly be asked, "of what avail is this if they are nerer seen again?" At first it would appoar that this was a difficulty which could not bo overcoine, but I am of the opinion that a long step can be taken in the right diroction by concentrating the etforts put forth at each hatchery upon ono or two suitable rivers. Heretofore the desiro has been to make tho distribution as gonoral and widespread in its nature as possible, hoping to benefit all soctions alike; in doing this many thousands of young fry have been placed in rivers totally unfit for thom, owing to the
scarcity of water in some of these streams during the drought of summer, and from the removal of the timber from their banks, aud the drying up of the many cool eprings that formerly existed, and the oxposire of the waters to the sun's rass throughout thoir entiro length, they become suporhoated to such an extent that neither young nor old salmon can live in them.

This last statement I know to bo correct from experimonts instituted to test the question; a young salmon, or salmon fry cannot live in water above 75 degrees, in temperature, and at that temperature only, while a rapid current is running, death ensuiner almost immediately the carront is stopped. Apply the information derived from this experiment to many of our rivers, we fiud that during the heat of summer the water gralnally dries up and recedes into shallow posls, through which no perceptible current pasves, into these pools the goung fry collect, the waters are probibly exposed day after day to the diroct rays of a broiling sun, become superlieated and doath ensues to all young salmon found in it. Where a river runs for a great portion of its length through a wilk unbroken conantry, its banks being covered with timber, and whore tho drainage of the adjacent country is gradual, its waters never be come overheated or dried up to such an oxtent; in such rivers, and only those, should roung nalmon be placed. Another great cause of the death of the yonng fiy is this gradual drying up of the steams, leaving the fry dry upon the gravel or sand. In the bod of a river are "ound innumerable little besins or minute pools formed by the collection of sand between adjarent smal! rocks and larse pebbles, in this little basin the goung fry ront, watching for food, and as the water in the river diminishes, thes batiun beesme uncoverod and eventually dry out by leakage or evaporation, leavine any young fish that moy have been in them $t$ ) become parchod up by the sun. Thiw is no strecth of imagioation, but has been actually observed by myseif and othere in the Sarlkvile River near this hatchery, and the sume can be seon on any rumm where the waters becume dried up to such an oxtent. The suggestion prompleal by the ahove statement of facts which have come under my observation, and whish I bey liberty to ofter, is that the number of rivere in which the fry be piaced in future, be limited to those offering the most fawourable opportonities for their growth and development. This courve might give rise to aiseatisfaction on the part of tishermen reviding noar the estuaries of rivers considered unruitable, but if $\div 0$. I am satistied it is the only true and wise course to pursue, and in the end will calase fish-broeding to be recognized as a most important element in our coast fistheries of the future.

Hoping you will pavion tho ahove digression from the text before me, and my indulging in details to such extemt; but Iam anxions to show some of the many obstacles to be mut with in our atcumpt to replenish our fisheries. These small matters are entirely overlooked by those who condemo fish breeding, and who think it is time some return should be received for the moncy expended.

As I have no knowledge of the Listigouche River, I will not attempt to show causes for the decrease there, further than to suy, that in a river as large as the Ristigoucho, with its immense tributaries and extensive ostuary, the increase of salmou cannot be so readily observel as in smaller rivers, and it is very doubtful whether correct returns are given by the finhermen, who on that river appear to be greatly opposed to the work. As for the Newcastle Hatchery in Ontario, I have to say that while I was connected with that entablishment a rery marked increase in the salmon entering "Wilmot's Creck in the fall of the year was observed, and it has been a matter of surprise to mo that the lake lishing has not corrospondingly increased. I am inclived to think that an increase ta really taken place, but that the salmon do not now approach the shores as early in the season as formerly, owing to the country surrounding Lake Ontario having become stripped of nearly all its tinber and the gradual drying up of the streams entering it. The waters of these streams must now attain a higher degree of temperature than formerly. This would have the effect of keeping the salmon out in deep water during the hont of summer, which is the tishing season, and they would not approach the rhoren until late in the fall when impelled to do so by the desire to deposit their ova.

5 $6-5^{*}$

In reference to the Miramichi hatchery, I claim it would be unfair to condemn it yet, as sufficient time has not elapsed to proviuo an increase for the fishery. That establishment was opened in 1873, yet nothing was accomplished until the spring of 1877, when 400,000 fry were turned out in a number of rivers in the vicinity. These were four years old last spring, and would weigl: five or six pounds, not more, I am certain, as the fully matured fish in that river average but ten pounds. Now the fishermen there ase nets of 6 or $6 \frac{1}{2}$ inch mesh, intended to catch fish weighing ten pounds or over, and any fisherman knows that the cha:- of taking a five pound fish in these nets are not greater than 1 in 20 ; therefor, I contend that if a large proportion of 400,000 fry, turned out in the spring of 1877 , had lived and returned to that river last season, the catch by the fishermen would not have shown the extent of the increase, as the result of the labour of 1877 , nor cail next year's catch be expected to show any very marked increase.

Having thus far attempted to show what I consider just cause why the expected increase of salmon has not taken place in the other Provinces, I beg to ofer some statements in connection with my operations in Nova Scotia, dnd I am happy to say I can state indisputable facts showing a considerable increase of salmon at the very first moment when such increase could bave been expected.

To fully eabble you to understand the case, I must firnt inform you that River Philip, in Cumberland County, is the chief point for the collection of ova; to obtain ova I must secure the spawning fish while ascending the river; for this purpose nets are set in a large pool at the foot of a dam This dam i:s an impassible barrier to salmon, and is situated about $1 \frac{1}{2}$ milevabove the head of the tide. Now every salmon that enters that river, if it escapes poachers nets below, will tist run up this pcol and lie there until its ova are matured, when it will drop down to the rapids bolow and deposit ite ova, as the nets are set as sion as the first run enters this river, and continue set until the close of the season. Vory few ealmon escape them, and such has been the case every season since 1875 , consequently the natiral reproluction in that river has been alinost entirely atopped by these operations, and any inciese of salmon that may have taken place in River Philip must have been caused by means other than that of naturat reprodoction. The first batching at this ostablisiment took place in the spring of 1876, when 140,000 fry were placed in River Philip; these would be five years "Id last spring, and should have returned to the rever last fall to deposit ova. The catch of spawning tish for the preceding six years averaged 100 per year, while the number caught last soason 232, or an increase of 132 over the average; of this number over 100 were young fish of from 8 to 12 pounds in woight; or fish of five years old, showing that the increase was almost entirely in young fish, and for the reasons given above could bave come from no other cause than from the planting of young fry in that river in 1876. In addition to those captured, large quantities of smaller salmon, probably three or four year old fish, were seen in the river.

The above statements can be substantiated by numbers living in the vicinity, and a large increaso is looked for next seanon by all concerned. I have no doubt as great an increase has taken place in other rivers which I have restocked, but not having as favourable opportunitiey for testing the matter, as offered itself in River Philip, I am unable to speak positively regardi:g them.

In conclusion, I beg to state that in Nova Scritia fish-breeding in the course of two or three years will begin to show itself upon the fisheries; but before we can accomplish all that may be desired in that respect, more hatcheries will be necessary, and the work carried out on a much larger scale than the present.

I have the honor to be, Gir,
Your obedient servant,
A. B. WILMOT,

Officer in charge, Bedford Hatchery.

## REPORT

OF THE

# METEOROLOGICAL SERVICE 

## DOMINION OF CANADA.

BY
CHARLES CARPMAEL, M. A., F. R. A. S.
SUPERINTENDENT.

FOR THE YEAR ENDING DECEMBEK 31, 1880.

> OTTAWA:

MaoLEAN, ROGER \& CO., WELLINGTON STREET.
1882.

## CONTENTS.

Page.
Report of the Superintendent of the Meteorological Office ..... $\nabla$
List of Books received by presentation during the year 1880 ..... xiii
List of Stations in connection with Meteorological Office. ..... xvi
List of Probability Stations. ..... xxi
Remarks on Tables actompanying the Report ..... xxxiii
Table I.-Means for each month, and for the year, of the Reduced Barometer, and of the Temperature of the Air; and also the Resultant Direction and Velocity of the Wind, from observations made at the same absolute time as follows: Greenwich Civil 'Cime, 0.8 p.m. 8.8 p. m., and 4.8 a. m. (of next day). ..... 2
Table II.-Mean Temperatures of the soveral months, and the year, at Stations in the Dominion of Canada, during the year 1880 ..... 12
Table III.-Highest Temperature in each month, at Stations in the Dominion of Canada, during the year 1850 ..... 16
Table IV.-Lowest Temperature in each month, at Stations in the Dominion of Canada, luring the yoar 1880 ..... 20
Table V.-Mean Temperature in each quarter, and for the year, with the Highest and Lowe.t Temperatures in the year 1880, and the date of their occurence ..... 24
Tables VI to XVII.-Daily Mean Temperature at certain stations in the Dominion of Canada, during the year 1880 ..... 28
Tables XV[II to LKXIII.-Highe st and Lowest Temperatures from self-regis- tering instruments, at eertain stations in the Dominion of Canada, for each day of the year 1880 ..... 65
Table LXXIV.-Percentage of cloud in each month, and for the year 1880, at certain Stations in the Dominion of Canada. ..... 178
Table LXXV.—Average amount of sky clouled in the several Provinces of the Dominion of Canada in each month, and for the year 1880 ..... 181
PAGE.
Table LXXVI.-Rainfall in inches in each month, and in the year 1880, at the several stations in the Dominion of Canada, the stations in Ontario being divided into districts ..... 182
Table LXXVII.—Quarterly Rainfall at the several Stations, with the fall of Snow, in each month, and the total precipitation of Rain and melted Snow, expressed in inches, during the year 1880 ..... 187
Table LXXVIII.-Number of days on which Rain fell in each month, and in the year 1880, at 1he Stations in Table LXXVF ..... 192
Table LXXIX.-Quarterly number of days of Rain, with the number of days of snow, daring the year 1880 ..... 197
Table LXXX.-Average depth of Rain in inches in the several Provinces of the Dominion of Canada, in each month, and in the year 1880 ..... 202
Table LXXXII.-Quarterly average depth of rain in the several Provinces of the Dominion of Canada, and the average depth of snow in each month, and in the year 1880 ..... 203
Table LXXXI.-Difference betwceis the Rainfall in inches tluring the year 1881 in the several Provinces in the Dominion of Canada, and the avcrage Rainfall derived from ten or more years. ..... 204
Table LXXXIII-Average number of days of Rain in the several Provinces of the Dominion of Canada, in each month, and in the year 1880 ..... 205
Table LXXXIV.-Quarterly average number of days of Rain in the several Provinces in the Dominion of Canada, and the number of days of Snow in each month, and in the year 1880. ..... 206
Table LXXXVI.-Max. and Min. Temperature at Edmonton, N.W.T., 1880. ..... 207
Abstract of observations at the Mission Stations of Nain and Okak, Labrador, in the year 188, ..... 208
The following heights for the great lakes have been used: Ontario, 242 feet;Eric, 564 feet; Huron, 580 feet; Superior, 600 feet.

# TENTH ANNUAL REPORT <br> of the <br> <br> METEOROLOGICAL SERVICE <br> <br> METEOROLOGICAL SERVICE <br> Of THE <br> <br> DOMINION OF CANADA <br> <br> DOMINION OF CANADA <br> FOR THE CALENDAR YEAR ENDING 31sT DECEMBER, 1830. 

(('HARLE.3 CARPMAEL, M.A., F.R.A.S., SUPERINTENDENT.)
To the Honorable the Minister of Marine and Fisheries.
Str,-I have the honor to submit herewith my Annual Report for the year ending 31st December, 1880.

It gives me much satisfaction to be able to report a continued increase in the number of volunteer olservers.

The new stations are as follows:
Class 1.-A Complete Set of Instruments.
Conestogo, Ont......... ...........................Dr. Passmore.
Rapid City, N. W. T.......... .................Rev. Dr. Davis. Bird Rocks .........................................Charles Chiasson.

## Class 2--Rain and Temperature.

Manitowaining, Ont............................. W. J. Tucker.
Silver Jslet, Ont
Dr. L. C. Camphell.
Lindsay, Ont......................... ...........Thos. Beale.
Egremont, Ont... ........ ...................... F. W. Stephenson.
Cockburn Island, Ont.......................... N. Robinson.
Wabigoon, Keewatin ......... ................. C. E. Perry.
Fort Dunvegan, Peace River, N. W. T.... Jas. McDougall.
Minnedosa, N. W. T............................. Rev. J. Welwood.
Antigonish, N. S............................ .... J. D. Copeland.
New Glasgow, N. S.............................. A. M. Fraser.
Class 3.-Rain.
Northcote, Ont............................. . .... F. Kosmack.
Lucan, Ont......................................... J. F. Maguire.
McKellar, Ont ................................... D. Patterson.
Listowel, Ont................... ................ A. Kay.
Sardfield's Mills, Manitoulin Island.......... G. McDonald.
Michael's Bay........ ...... ................. ... J. R. Thompson.
Credit, Ont....................................... Dr. B. W. B. Dixie.
Aylwin, Que.................... ................. D. McNaughton.
Dover, N. B...................................... M. J. Steves.

The observations at Welland which had been discontinued since August, 1879, owing to the departure of H. A. Willett, Esq., were resumed in September by W. B. Raymond, Esq.

The observations at Strathroy, which had been suspended since February, 1880, owing to the inability of the observer, Edmond S. Nugent, F. R.C. S. E. to continue them, were resumed on December 1st, 1880, by Mr. T. S. Challoner:

Point du Chène, N. B., has been raised from 3rd to 2nd Class Station, Mr. H. H. Schaefer undertaking to take temperature observations in addition to those of rain.

At Mount Allison College, Sackville, N. S., where, owing to difficulty in making arrangements for taking observations during vacation, they have been discontinued, they have been resumed by Prof. Weldon, and it is hoped that arrangements may be completed to insure the observations being taken without interruption.

At King's College, Windsor, N. S., the observations were suspended for several monthe during the past year, owing to Prof. Oram, who had charge of the observations there, having left the country. I am glad to say these observations have now been resumed under the supervision of Prof. W. R. Butler.

Prof. Bourne having left Winnipeg, Man., the Rer. C. P. Dundas has succeeded him in the supervision of the observations at the Chief Station at St. John's College, Winnipeg.

On the 1st February last, Lieut. Eardley Wilmot, R. N., commenced taking observations at Yarmouth, N. S., at 10.50 p.m., 'Coronto time, in addition to the two other telegraph hours at which he had previously observed.

No observations have been received from Belleville, Ont., during the past year, and they have also been discontinted at Port Perry, owing to the observer having left the country.

During the winter of 1879-80 telegraph reports of observations were received, with some degree of regularity, from Edmonton, Humboldt and Battleford, in the N. W. Territory, and proved of great service in predicting the approach of severe cold. From the opening of spring, however, until znd December, owing to the interruption of telegraphic communication, we received few reports from these Stations. Had they been received during the last quarter of the year, they would have been of immonse benefit to mo in predicting the approath of some of the severe Fall storms on the Lakes.

## Storm Warningis.

I am happy to bo able to report that the storm-warnings bave again proved in a high degree accurate.

In the year 1877, the percentage of warnings verified was $69 \cdot 0$; in 1878, 78.3 ; in 1879, 83.0, and in $188082 \cdot 8$; and the number of warnings which, owing to the delay in telegraphic transmission, arrived too late to be of service, were in 1878, 36; in 1879,18 ; and in 1880, 18.

Table No. 1 gives the number of warnings insued in eath quarter to cach district and the number and percentage verified.

Table No. 1.


The number of warnings issucd during the year was 883 , being an increase of 177 orer the number issued in 187!, and notwithstanding this increase the percentage of verification is about the same as last year, viz: $: 82.8$. The increase in the number of warnings was owing to a larger number having been issued to the lake stations, 292 only having been issued in 1879 , whilst in 1880 there were 494 . Part of this inerease is due to the fact that warnings are now issued to a larger number of stations on the lakes than formerly.

Of the 736 warnings verified, 41 were issued too late to arrive before the storm commenced, but 22 of these arrived in time to be of service.

The want of sufficient reports from distant stations, and interruptions in tslegraphic communication, are generally the cause of lateness in the issuing of these warnings.

Reports were rectived from 23 stations during the year of the occurrence of storms when no warning was issued, of which 10 appear to have related to purely local storms, and 12 to storms that were more general, five of which were reports of one storm which occurred on Lakes Erie and Ontario during the first week in Norember.

In order that the benefit to be derived from the storm warnings issued by this office might be secured, mart. have been erected at various stations; the cost of erection of the masts, and of the gear, being borne either by private individuals or by the corporations at the several places, viz: On Lake Ontario, at Mill Point, by Messrs. Rathbun and Son; and at Port Credit by various individuals interested in shipping ; on Lake Huron at Sarmia, Bayfield and Owen Sound, by the several corporations at those places.

The mast and gear at Kincardine having been greatly in need of repair the corporation of the town placed the same in a most efficient condition at their own expenso.

A cautionary storm signal station has been established at Point LePreaux, N. B. Arrangements are being made for re-erecting the storm signal mast at Port Hastings, the old mast having been destroyed in the gale of October 29th, 1879.

If any evidence were noeded of tho usefulness of the storm warnings, the fact above mentioned, that corporations, public bodies, and large shippers find it to their interest to go to considcrable expense in order to be able to avail themselves of storm warnings,
and that another corporation, which has had long experience in their usefulness, has expended money in necessary repairs, would be strong proof that the general accuracy of the warnings is fully appreciated.

A list of stations to which storm warnings are insued is appended.
Probabilities.
The total number of weather predictions contained in our daily probabilities was 5,106, which was 1,017 more than in the previous year ; nutwithstanding this increase, the high percentage of verification was fully maintained. A table is given showing the number of predictions and percentage of fulfilment for each district, in each month, and in the whole year.

## TABLE II.



The number of places roceiving these probabilities has been more than quadrupled during the past yoar.

Several railway companies have made arrangements for posting the probabilitios at all the.r stations, and some at their principal stations only. The companies at present doing this are the Grand Trunk, Great Western, Canada Central, Toronto, Grey and Bruce, Port Dover and Lake Huron, Credit Valley, and Quebec, Ottawa, Montreal and Occidental. In addition to this I succeeded in making arrangements, with the Montreal and Dominion Telegraph Companies, under which the probabilities ware to be furnished daily to 300 stations fairly distributed throngh the different parts of the Dominion reached by those companies, and by tho Western Union. In addition to these, so groat is the demand for the probabilitios that the tolegraph companies find it to their interest to furnish them to many stations not provided for in this agreement, and applications are constantly being receivod, from all quarters, asking to be furnished with them.
lt is occasionally found possible to predict the weather, not only as is usually done for twonty-four hours in advance, but for two or three days. On one occasion a prediction that fine weather would last over three days was issued soparately and postod up generally throughout the country, and was fully verified. This has since boen done in connection with the ordinary probabilities, when it was considered there was a fair prospect of success. Some extended predictions of this kind were issued at the hay season, and as the weather had been unusually showery they proved of great benefit to the farming community. Such predictions might bo more frequently made if we received teletraphic reports from a more extended area.

When heary snow storms accompanied or followed by high winds to eatuse drifting are expected, I have sent a notificution to that effoct to the general managers of railway companies whose lines pass through the districts likely to be affected.

In addition to the information thus regularly made public, we frequently mako special predictions in answer to individual inquiries.

Enquiries are frequently made as to the prospect of a favorable wind for sailing from a specified point to some otber; but it is not only from those interested in shipping that enquiries are recoived, but from various other commercial interests who find a knowledge of the approaching changes of the weather of great service to them, and it is becoming generally realized that all classes of the community are receiring bonefit lrom the work of the office.

## Central Office.

Early in the yoar just closed, Profossor G. T. Kingston, who had been Superintendent of the Metcorological Service the Dominion of Canada from its first establishment, ard to whose exertions the existence of the sorvice is chiefly due, was obliged, through failing health, to renign his position. The loss of his sorvices will be regretted by all who have been connected witn him in this work. As the failuro of his health was due in a great moasure to the labor and anxiety of his office, it is to be trusted that now be is relieved from his duties, he may in some metivire recover his health, and yet do good work towards the advancement of Meteorolory. On the 1st of February, I was appointed to succeod Profossor Kingston, as Superintendent of the Service. The post of Deputy Superintendent which $[$ thereby vacated was not however filled until the 1st August, whon Lieutenant A. R. Gordon, R. N., was appointed. These however are not the only changes in the staff of the Metoorological Office which have taken place during the yoar, for Lieutenant S. A. Roberts, R. N., who had been for soven years Inspector of Stations, resigned his position seeipg no prospect of receiving an adequate remuneration for his services, and Mr. H. V. Payne was promoted to the position thus vacated, and the staff was brought to the same numerical strongth as heretofore by the appointment of Mr. (i. F. Hector, to a clerkship.

The growth of the system referred to by Profossor Kingston in his last report as being such as to make it difficult for the staff to get through the ordinary routine work of the office, has continued in an increasod proportion; but no increase has
been made in the staff to meet the greater demand of the work, and consequently every one in the office has more work to do than he can well accomplish.

The recommendation made by Professor Kingston, that the staff should be encouraged by giving permanency to their appointments by placing them on the Civil Service list, I most heartily endorse. It must not be forgotten that the work performed by this office is largely of a nature for which it is impossible to obtain persons already trained, and consequently the loss of any of the members of the staff entails a waste of a very large amount of time in making those who are brought in to fill the vacancy acquainted with the work, and more particularly if those whose duties it is to make out the daily probabilities and storm-warnings were to leave, the training of new persons until they had acquired a similar degree of precision would be the work of years, and there might also be time wasted in finding a person who would be capable of acquiring the requisite knowledge.

It is difficult for persons unacquainted with the peculiar nature of the work convected with a meteorological office, to realize the disastrous results which would follow the loss of only two or three trained members were the stalf of the office is as small as in our case.

United States Signal Office.
The chief signal officer at Washington has continued courteously to interchange reports with this office. I regret to have to record the death during the past year of Brig. Gen. A. J. Myer, late chief signal officer U.S. A., but for whose co-operation with my predecessor, the Meteorological Service of Canada could never have attained to its present state of efficiency.

General Remaris.
Although considering the small amount of funds at the disposal of the Meteorological Service, it has performed a vast amount of work and reached a high degree of cfficiency; yet, in many respects, improvements are needed, and much yet remains to be done, and while some of these improvements might be effected without much expense, the service could never be brought into a state which, considering the large amount of shipping and agricultural intorests to be benefitted by it, it should reach without a considerable increase in the fund appropriated to it.

First, with regard to our daily probabilities, which are mado out at $10 \mathrm{a} . \mathrm{m}$. This corresponds in time to something after $11 \mathrm{a} . \mathrm{m}$. , in the Maritime Provinces, and when we dake into account the time taken in telegraphic transmission, it is fully midday before they are made public in the east, which greatly impairs their usefulness. In order to get over this difficulty, the probabilities should be issued at midnight, which would enable us to furnish them to the Associated Press in time for publication in the morning newspapers, and in any other way that might be desired. To enable us to do this we should have to receive at Toronto a large additional amount of information by telegraph at midnight; a portion of the staff also, in addition to the attendance in office hours, would have to work from 11 p.m., to 1 a.m., at night continually, instead of as now, occasionally. This would entail increased expenditure.

With regard to the storm warnings, it has been mentioned that localities interested in shipping are now erecting the masts at their own expense. While there is no reason why the cost should not be borne in such cases by those to be immediately benefitted by the warnings, there are many points where vessels pass, and at which the display of storm signals would be of great benefit, but where there are no large corporations who are interested in shipping to pay the cost of erection.

At such points the cost should be borne by the Government, as the benefit is one to be derived by shipowners generally, rather than by those trading with any particular port.

The funds at my disposal, however, scarcely admit of anything being done in this direction.

The accuracy of the storm-warnings might be improved in a very inexpensive
way, if accurate information were received at this office of the weather each day at various points along the coast, as this would give us data for finding out in what cases storms had occurred which were not predicted, and also when the weather following the storm-warning was not such as to justify it. This, by leading to investigation as to the cause which led to the failure, would very soon improve the general accuracy of the warnings. Such information might conveniently be forwarded from various lighthouses along the sea coast. Part might be advantageously telegraphed now that the lighthouscs aro many of them connected with telegiaph lines under Dr. Fortin's scheme, and a large number of points might report by mail.

The warnings and also daily probabilities in the Gulf of St. Lawrence, would be very much improved were reports received at Toronto regularly by telegraph from the South-west point of Anticosti, and from the Bird Rocks; the latter point has already a full supply of instruments and could commence telegraphing observations at anytime, and the completion of the equipment of the Station at Anticosti, might be accomplished as soon as navigation opens in the spring.

In view of the probable immediate development of the North-West Territories and British Columbia, it is to be regretted that so little reliable information is posseased of the climate of these regions. We have indced a few scattered observations taken almost entirely by volunteer obsorvers, some of whom have been contending with the considerable hardsbips of a pioneer life while yet devoting a portion of thcir time to the advancement of the knowledge of the climate of these regions.

It would be very desirable that at a few selected points an adequate remuneration should be given to observers to enable them to take systematic observations from which we might obtain a firily accurate notion of the general climatology of the country.

## International Polar Commission.

I havo been requostod by the International Polar Commission to endeavor to obtain the co-operation of Canada in a scheme for encircling the North Pole with posts of observation for one year, commencing in the fall of 1882. These observations have for their object the acquiring of more definite knowledgo as to the movement of atmospheric disturbance from the Polar Regions, so as to be better able to trace the effects of changes in the weather occurring in lower latitudes when they are referable to atmospheric conditions in regions at present unexplored. At the same time observations will be taken of the magnetic elements to increase our knowledge of magnetic science, and if possible to tind a link botween meteorological and magnelical phenomena.

It is noedless to say that Canada, having so large a territory in northern latitudos, will derive a greater divect benefit from any advance of knowledge in this direction, than almost any other country, and as the expense of such an undertaking need not, if properly conducted, be large, I vould strongly urge you, if possible, to obtain the favorable consideration of the Canadian Government for the cooperation of Canada in this project.

I have to expruss my thanks to the volunteer observers for their valuable assistance and cooperation.

Considering that little if any immediate benefit is obtained by thom as a result of their observations, the country is to be congratulated on having so many who sufficiently recognize the importance of the science to devote their services to it gratuitously. They might still further add to the efficiency of the service, by inducing others to tale observations of the rainfall in various localities.

All of which is respectfully submitter.

## List of Publications presented to the Library during the year 1880.

## NAME OF PUBLICATION.

Contributions to the Meteorology of the Paclic, Samoan or Navigation Islands.
Report of the Proceedings of the Second Meteorological Congress at Kome, 1879

Report of the Meteorological Council of the Royal Society for year ending 31st March, 1879
Hourly Readings of the Self-recording Instruments, Eng- $\}$ land, Jan., Feb., and March, 1879.
Observations at Stations of tne 2nd Order, England
Contributions to our knowledge of the Arctic Regions
Daily Weather Reports, England, to Dec. 31st., ley0.
Weekly do. do. to Dec. 31st, 1830
Report of the Kew Committe for 1879
On the relation between the Height of the Barometer, the; Duration of Sunshine and the amount of Cloud as observed at the Kew Observatory
On the relation exising between the duration of Sunshine, the amount of Solar Radiation and the Temperature indicated by the Black Buib Thermometer in vacuo
Why the Barometer does not always indicate the real weight of the Atmosphere aloft
Barrow-in-Furness: the Winter of 1578-70; Chart
Preliminary Report to the Committee on Solar Physics, on the Evidence in favor of the existence of certain short periods common to Solar and Terrestrial Phenomena
Preliminary Report on a Method of detecting the unknown inequalities of a sertes of Observations
Weekly Resilts of Meleorological Observations taken at silloth Rectory, Cumberland, 1879
Greenwich Magnetical and Meteorological Observations, 1877
On the preparations to be made for observing the transit of Venus, Dec. 61h, 1882
Results of Magnetical and Meteorological Observations at Stonshurst Cbservatory, 1s7y
Quarterly Journal of the Meteorologiral Society, England, to Octover, 1581, No. 36
Dally Bulletin of Weather Reports of the Sigeal Service, U. S. A., A pril to May, 1877 .

United States Monthly Weather Review to December, isso
Two Charts, showing Variation of Temperature in some parts of the United States
Contributions to Meteorology. 12th and 13th Papers
United States Coast and Geodetic Survey, Pacific Coast Survey, Coast and Islands of Alaska, Appendix I, Meteorology and Bibliograpny, 1879
Methods and Kesults on a Chart of the Magnetic DeclinaLion In the United States, Appendix No. 21, Report of 1876, United States Coast Survey
Notices of recent A merlcan Earthquales
Transactions of the connecticut Academy
Annual Report of the Trustees of the Astor Library for $1879 \ldots$
Quarterly Comparisons and Annual Tables for 1879; New York Meteorological Observatory
New York Observations, Monthly Abstracts to Dec., 1880
Annual Report upon the Surveys of the Northern and North-Western Lakes and the Mississippi River, 1879
Iowa Weather Review to December, 1850
Smithsonian Report, 1876
Bulletin of the Philosophical Soclety of Washington. Vols. 1, 2 and 3
Science Observer to No. 6, Vol. III ....
Report of the Superintendent of Education of the Province of Quebec, 1877.78
Geological Survey of Canada. Report of Progress $1877-78$ with Maps
Transactions of the Literary and Historical Society of Que-bec-sesslons of 1870-80.
Rainfall in South australla during the year 1878
Minutes and Proceedings of the Meteorological Con........ held at Sydney, Nov. 1879 .
Meteorological Observations made at Adelaide Observatory during 1878
Brief Sketch of the Meteorology of the Bombay Presidency in 1878
Report of the Administration of the Meteorological Department in Western India for the year 1879-80.
Report of the Administration of the Meteorologlcal Department of the Government of India, 1878-79
Indian Meteorological Memoirs, Vol. 1, Part III. Variaiions of Rainfall in Northern India, Meteorological and Hysometrical Observations in Western Thlbet...........

BY $\mathbf{W}$
R. H. Scott, Esq., M. A., London.

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## List of Poblications presented to the Library-Continued.

## NAME OF PUBLICATION.

Indian Meteorological Memolrs, Vol. I, Part IV. The WInds of Kurrachee
Indian Daily Weather Reports to Dec. 3lst, 1880
Reglster of Original Observations reduced and corrected, Jan., Feb., and March, 1830
Raln and River Ubservations in New South wales, $1879^{\circ} . .$.
Results of Meteorological Ubservations made in New south Wales, 1875.
Papers and Proceedings and Report of the Royal Soclety of Tasmania for 1879 .
Memoirs of the Sclence Department, University of Tokio, Japan, Vol. III, Part 1
Report on the Meteorology of Tokio, 1879
Japan Observations-Ya Kayama, July, 1879, to A prll, $1 \times 80$ 웅 H1rosima, Janurry, 1879 ; Tokay, 1siy; Tokio. January, 1879 to June, 1si; and Nagasaka, January, 1879 to February, 18kio
Tokio Daily Keports. January 1st to July 19th, 1850
Chart of Magnetic listurbance at Zl-Ka-Wei, CbIna, llth to 14th and 18th to limil August, 1 isi
Belgfum Daily Observations to April, 1579
Annals of the Royal Observatory Brussels
Pola Monthly Record to Necember, $18 \delta$....
Year Book of nbservations, Pola..
Ceylon Observations, Monthly Numbers to October, 1 ssi
Mouthly Notices of Meteorological Suciety of Mauritius, Nos. 9,10 and 11
Frussels vaily Observations to A pril, 1879
Annals of Brussels Observatory, pp. 17 to 28,1879 Do. do pp 75 to 80 187
Meteorologisk Aarbog, $1577-75$, Udgivet af det Danske Meteorologiske Institut
X, XI Jahresterlcht der Grossb Badischen Meteorologischen central station, Karlsruhe fur clas Jahr, 1 is
Verslagaan Zijne Excellentie den Mloister Van Kolonien over eene Mngnetische Opneming Van Den Indische Archipel in de Jaren, $1874-57$, Gedaan
Rapport des Iiscussions et des késolutions de la Conférence Polaire Internationalo tenu il Hambourg, Octobre, 1879.
Annuaire de l'Observatoire de Mount Sollis
Observations Mctéorologique faites a Metz, 1877
Zeitschrift der Osterrechistchen Gessellschaft fur Metcorologie, XV Band Janner Ileft, 1850.
Uberdie Necantschen Ursachen der Urstsveranderung Wirbel
Uber das Klima der Insel, St. Helena
Unterschungen uber die Regenverhaltnisse Von OsterreichUngarn...................................
Die Jahritche I'ortode der Niederschlage.................................
Veranderlichkert dur Monats-Und Jahres Mengen Gletchzeltige Vertheilung der Letzteren In der periode, 1849 - 78 , Nachtsag; Funftayige Mittel des Hegenfalles und der Kegenwahrscheinlichkeln .....
Jahrbucher der f. K. Central-Anstalt fur Meteorologie und Erdinagnetismus, Jahrgany. 1877-78
 gie.
Xehnjahring Resultate der an den Wurttom. Meteorologischen SLationen in der Zelt, 1860 . His. 1875, Angestellten Beobachtungen
Resultate der Metenrologlschen Beobachtungen in Leipzig in Jahre, 1878-79
Monatliche Berlchte uber dio Resultate ans den Konlglich Sachsischen In Jahre, 1578
Resultate ans den Meteorologischen Eeobachtungen Anco.................................. tellt an Funfundz-Wanzig Konlglich Nachsischen Stationen in der Jahren, 18 i4 und 1875
Bericht uber das Meteorologischen Bureau fur Wetterprognosen im Konigretch Sachscn, 1879
Vlerundsechszigster Jahresberlght der Naturforscionden Gersellschaft in Einderi, 1sisk...
XVIII Jahresbericht die Hochste und Niedrigste temperatur Welche an Jeden tage von, $18: 36$ bis 1877, anf deni Meteorolngischen Observatorium in Emden'Bcobashtet ist.
Jahresubersicht der Meteorologtschen Beobachtungen am Hydrographischen amte der K. K. Krieesmarine zu Pola, 1579
Dio Organisation des Meteorologischen Dicnstes in den Hauptstaaten Europas ...
Astronomischen Maynetlsche und Meteorologisehe Beobach. tungen an der K. K. Sternwarte zu Prag in Jahre, $187 \mathrm{~h}_{\mathrm{h}}$.
Magnetische Opneming van den Indischen Archipel in de
Jaren 1874-77, Gedaan.......... ...............................

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Director Royal Observatory, Brussels.
K no do
K. K. Keigsmarine, Pola

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## List of publications presented to the Library-Concluded.

| NAME OF PUBLICATION. | by Whom presentet. |
| :---: | :---: |
| Regenwaarnemingen in Nederlandsch Indio Eerste Jaar- $\}$ gang, 1879 | Dr. P. A. Bergsma. |
| Monatilche Ubersicht der Witterung fur Jeden Monat des | Dr. Neumayer, Berlin. |
|  | do do |
| I Exemplar der Preussischen Statistik Heit 51 | Dr. Engel, Berlin. |
| Monatliche Ubersicht der Witterung to April, 1879 and to $\}$ August, 1880 | Dr. Neumayer, Berlin. |
| Beobachtungs Ergebnisse der im Konlgreich Preussen im Herzogthum Brannschwig und in den Reichslanden <br>  | Dr. A. Muttrlch, Eberswalde. |
| Oatalogue des Ouvrages d'Astronomie et de Meteorologie qua \} se trouvent en Belglque | Dr. J. C. Houzeau. |
| Etude sur les Tempêtes de l'Atlantique Septentrional et $\}$ $\left.\begin{array}{l}\text { projet d'un Servoce Telégraphique International relalif } \\ \text { a cet Ocean }\end{array}\right\}$ | N. Hofmeyer, Copenhagen. |
| Repetorlum fur Meteorologle ed VI., hft 2, Central Observa- $\}$ torium in St. Petersburgh | Dr. H. Wild, St. Petersburg. |
| Annalen des Physicalischen Central Observatoriums, R118sia, 1878, Thell I and II .............. | do do |
| Atlas des Mouvements genéraux de l'Atmosphere. Année 1874, Juin, Decembre. | M. E. Mascart, Parls. |
| Annales du Bureau Central Météorologique de France, annee 1878 | do do |
| Atlas Meteorologique de l'Observatolre de Paris, annee 1865 a 1876 .. | do do |
| Rapports sur les Observations Meteorologique faites en France unas les Ecoles Normales Prinaires 1875-76 | M. Th. Moureaux, Paris. |
| Indicateur du Temps dans les stations Meteorologique aux Etas-Unis | do do |
| Bulletll Mensuel de l'Observatoire Metéorologique de l'Université d'Upsal, Vol. XI., annee, 1879 | Dr. H. H. Hilderbrand, Esq., Upsal. |
| Bulletın Mensuel del'Observatoire, Maznetique Méteorologique de Zi -Ka-Wei. Tome V , anuée 1879 | M. Marc Dechevrens, S.J. |
| Le Typhon du 31 Juillet 1879 . | do do |
| Observaciones Weteorologicas Magneticas Feites no Observatorio Meteorologico e Maguetico da Universidade de Colmbra, 1879 | Dr. Facintho a de Souza, Colmbra. |
| A nnario de Observatorto de Madrld, 1874-75 Observationes Meteorologique de Madrid, 1874-75 <br> Do do des Provincias, 1874 75 ..... <br>  | Dr. Antonio Aguilar, Madrid. |
| Os Lusiados Por Tuls de Gamoes <br> Batavia Meteorologlcal Observations, 1876-78........................... | F. Latino Coelbo, Lisbon. Jr. P. A. Bergsma, Batavi. |


(3) Chief Stations in a partial sense only.

REPORTING TELEGRAPH STATIONS.

| Station. | Observer. | Station. | Observer. |
| :---: | :---: | :---: | :---: |
| Yarmouth, Noyn Sentia..... | F. E. Wilmot, R. N. | Tornnto, Ontario............ | Observatory. |
| (1) Rydney, © B. Nova scotla. | C. C. Hill. | Port Dover do ............. <br> Port Stanley do | H. Morgan. |
| Chatham, New lrnnswlek .... | A. A. Blair. | Sangeen do ............ | K. stewart. |
| Father Point, Quebec ......... | J. McWillams. | Parry Sound do ........ .... | Rev. R. Mosley. |
| Quebec, Quebec. ... ....... | Capt Ashe, R. N. | P. A. I, anding | W. P. Conke. |
| (1) Montreal, Quebec.......... | C. H. MeLeod, ¢. E. | (2) Forl Garry Manitoba... | J. Stewart. |
|  | W. H. Mrintyre. |  | A. V. Macdenargh. |
| Kingston, ontario........... | W. Wood, M. A. | Edmonton.. ${ }^{\text {B }}$ | J. S. Wrod. |

(1) Also Chlef Station. (2) Also First Class Ordinary Station.

RESERVE TELEGRAPH STATIONS.

| Station. | Observer. |  |  |
| :---: | :---: | :---: | :---: |
| St. Andrewt, N. B.............. | Dr. Gove. | Station. | Observer. |

CAUTIONARY ETORM-SIGNAL STATIONS.


[^2]ORDINARY STATIONS.

| Station. | Observor. | Station. | Observer. |
| :---: | :---: | :---: | :---: |
| Nova Scotia. Class 1. |  | New Brunswick. (Continued.) Class III. |  |
| Truro, Colchester $\qquad$ King's College, Windsor.... | James Little, M.A. Prof. J. E. Uram, M.A. Prof. W.R.Butler,M.A | Dorchester <br> Lover | E. V. Taft, M. A. M, J. Steves. |
| Class II. |  | Quebec. |  |
| Digby | W. H. Taylor. | Class 1. |  |
| Cranberry Isiand Lighthouse | R. Elmsiy. <br> J. Hanlon. <br> T. Mundell |  |  |
| Sand Point Lighthouse ....... | J. Muadell. M. Campbell. C. | Huntingdon <br> Cranbourne | Dr. Shirriff. |
| Class III. |  | Class II. |  |
| Beaver Bank................... | James Grove. |  | C. Chiasson. E. Pope. |
| Cow Bay | C. Archibald. |  | M. Colton. |
| Rainah, Labrador.............. | s. Welz. | Chicoutimi.................... | P. Godier. <br> Rev. Abbe Huart. Officers of St. Francls |
| Newfoundrand. |  | Richmnnd <br> Danville <br> Brome. | College. <br> F. J. Devey. <br> G. J. Hall. |
| Class 1. |  | Class III. |  |
| St. Johns Chanuel | John Delaney. |  |  |
| Fogo ............................... | Names Fitzgerald. | Carleton (Couvent). <br> Barnston. <br> Aylwin | Ladies in residence. M. J. Chamberlin. D. McNaughton. |
|  |  | Onta |  |
| Placentia .. .................. | G. M. Carson. |  |  |
| Pringe Edward Island. |  |  |  |
| Clasa 1. |  | Little Current, Algoma...... Norwood, Peterborough . ., | G. R. Abrey, O. E. Rev. T. F. Fotheringham, M. A. |
| (b) (f) Charlottetown........ | H. J. Cundall, C. E. | (f) Kincardine, Bruce. <br> Windsor, Essex | Dr. Martyn. <br> A. Sinclair, M. A. |
|  |  | Simcoe, Norfolk ... ... | Aev. G. Grant, B, A. |
| Class 11. |  | Hamilton, Wentworth ...... Stratforth, Perth... | G. Dickson, B. A. A. |
|  |  | Goderlch, Huron ........... | C.J. Macgregor, M.A. |
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| Class 1. |  | London . ........................ | W. J. Mackintosh. |
| (f) Bathurst ................... | Hon. J. Ferguson. | Moose Fort Conestogo. | J. R. Nason. <br> W.J. Passmore, M.D. |
| Class II. |  | Class II. |  |
| (f) Dalhousie, Restigouche... | H. A. Johnson. |  |  |
| (f) Lepreaux do . ........ | Games Clark. | Brampton, Peel .............. | J. Reynolds. |
| (f) Pointe du Chene . . . . . . . . . . . | H. H. Scheefer. | Gravenhurst, Muskoka...... Beatrice do | T. M. Robinson. J. Hollingworth. |

ORDINARY STATIONS-Continued.

(d) Reporting Telegraph Stations.
(f) Cautionary Storm Signal Stations.

Stations from which Special Weekly Reports of Observations made at $6.50 \mathrm{a} . \mathrm{m}$., Toronto Time, are received.


[^3]Ingtruaients and Books with the necessary forms, have been supplied to soveral Stations in Ontario, N. W. Territory and B. Columbia, but no returns from them have yet been receivod.

| Station. | Observer. | Station. | Observer. |
| :---: | :---: | :---: | :---: |
| ATIIABASOA. |  |  |  |
| Three Stations.................. | Officer in charge. | Class II. |  |
| Class II. |  | Temiscamingue, Niplssing... Anticosti | Rev. J. W. Plan. Mr. Tetu. |
|  |  | Lake St. John : <br> St. Jerome |  |
| Fort MePherson, Peele's Rlv'r <br> Rainpart House |  | St. Jerome <br> st. Louls.............................. | Rev. J. B. Vallee. Rev, A. Girard. |
| Rainpart House.. ............. Fort Resolution. | J. M. Dougal, C. T. | S. L-uns....................... |  |
| Great Slave Lake .............. <br> Furt Chippewyan | F. Samison. |  |  |
| Furt Chippewyan................ Saskatchewal. | A, AcFiarlane, $\mathrm{C} . \mathrm{T}$. Offer ln charge. | British Columbia. |  |
| Edmonton..................... | J. Bunn. |  |  |
| Etanley, Englisin River....... Devon, Cumberland.......... | Rev. J. McKay. Rev. H. Budd. | Inverness, Sheena River.... McLeod Lake. | W. M. Nelll. <br> J. McKenzie. |

## Probabilitiy Stations.

From the 1st of May arrangoments were made with the telegraph companies to post the probabilities at the following stations in addition to those posted at the various railwas stations:-

Agents of the Montreal Telegraph Company.

| Acton. | Cobourg. | Marklam. | Port Dover, |
| :---: | :---: | :---: | :---: |
| Allandalo. | Collingwood. | Mattawa. | Port Stanley. |
| Alliston. | Dresden. | Merriton. | Port Hope. |
| Arnprior. | Durham. | Madoc. | Renfrew. |
| Aurora. | Jesox Centre. | Uttawa. | Richmond Hill. |
| Almonte. | Exeler. | Orangeville. | Sarnia. |
| Angus. | Gravenhurst. | Owen Sound: | Southampton. |
| Aylmer. | Haliburton. | Orhawa. | St. Citharines. |
| Ayl. | Iramilton. | Oakville. | S'. Thomas. |
| Bath. | Hanover. | Paisley. | Shelburne. |
| Baytield. | ILarrinton. | Penetanguishone. | $S$ suth Bay. |
| Beachburg. | Harmond. | Peterboro. | Stayner. |
| Belleville. | Holland Landing. | Petrolia. | Stouffrille. |
| Beaverton. | Iluntsrille. | Picton. | Thorahill. |
| Bracebridge. | Iroquois. | Point Edward. | Tilsonburg. |
| Bobeaygeon. | Jarvie. | Port Credit. | Walkerton. |
| Brockvillo. | Kingston. | Port Dalhousie. | Watford. |
| Barrie. | Lakefield. | Port Elgin. | Wellington, |
| Bowmanville. | London. | Presqu'Isle. | Whitby. |
| Cambray. | Lambton. | Port Burwell. | Wingham. |
| Cayuga. | Lindsay. | Paris. | Woodbridge. |
| Conestoga. | Jistowel. | Port Colborne. | Windsor. |


| Acton. | Danby. | Kamouraska. | Point St. Peter. |
| :--- | :--- | :--- | :--- |
| Arthabaska. | Danville. | Lennoxville. | Queboc. |
| Barnston. | East Farnham. | L'Islet. | Richmond. |
| Bic. | Farnham. | Melbourne. | Rimouski. |
| Brome Corner. | Fatber Point. | Montreal. | Stanfold. |
| Buckingham. | Fox River. | Murray Bay. | Stanstead. |
| Cacouna. | Gaspé. | New Ricbmond. | St. Joseph. |
| Caughnawaga. | Grand Greve. | Paspebiac. | Ste. Anne B. de L'Is lc |
| Coaticooke. | Grand River. | Perce. | Windsor. |
| Compton. | Huntingdon. | Point Levis. |  |


| Bathurst. | Dalhousie. <br> Buctouche. |
| :--- | :--- |
| Campbellton. <br> Cairville. |  |
| Caraquette. | Hillsboro'. |
| Chatbam. | Newcastle. |

Pockmouche.
Richibucto.
Shippegan.
Sackville.
St. Andrews.
St. John.
St. Stephen.
Shediac.

NOVA SCOTIA.
Annapolis.
Arichat.
Barrington.
Bridgetown.
Bridgewater.
Cow Bay.
3

## Probability Stations.-Continued.

Agents of the Dominion Line.

ONTARIO.

| Arthur. | Cornwall. | Mill Point. | Port Dover. |
| :---: | :---: | :---: | :---: |
| Barrio. | 1)undas. | Milton. | Pembroko. |
| Beeton. | Dunnville. | Mitchell. | Port Hope. |
| Belleville. | Eloia. | Morrisburg. | Port Stanley. |
| Berlin. | Fenelon Falls. | Mupunt Forest. | Port Periy. |
| Barry. | Tergus. | Napanee. | Prescott. |
| Bobcaygeon. | Forest. | Newcantle. | St. Catbarines. |
| Bowmanville. | Galt. | New llamburg. | St. Mary's. |
| Bradford. | Gananoque. | Newmanket. | St. Thomas. |
| Brampton. | Georgetown. | Niagara. | Sarnia. |
| Brantford. | Glencoe. | Oakville. | Scaforth. |
| Brighton. | Goderich. | Orangeville. | Sin:coc. |
| Brockville. | Grimster. | Orillia. | Smith's Falls. |
| Brooklin. | Guelph. | Orhama. | Southampton. |
| Brussels. | Hamilton. | Ottawa. | Stratford. |
| Burlington Beach. | Ingersoll. | Owen Sound. | Strathroy. |
| Caledonia. | Kemprille. | Paris. | Thomold. |
| Campbellford. | Kincardine. | Perth. | Trenton. |
| Chatham. | Kingston. | Peter 'boro'. | Uxbrilge. |
| Clifton. | Lindsay. | Picton. | Welland. |
| Clinton. | London. | Petrolia. | Whitby. |
| Cobourg. | Lucan. | Port Burwell. | Windoor. |
| Colborne. | Marlidale. | Port Collmome. | Watorioo. |
| Collingwood. | Meaford. | Port Dalhousie. | Woodstock. |
| Collin's Bay. | Mildmay. |  |  |


| Bedford. | Hull. |
| :--- | :--- |
| Berthier, E. II. | Joliette. |
| Grenville. | Lacbine. |
| Hochelaga. | Montreal. |



New Brunsiwier.

| Andover. | Frederirton. | Moncton. | St. Jobn. |
| :--- | :--- | :--- | :--- |
| Dorcbester. | Grand Falls. | Memramcook. | Sussex. |
| Edmunston. | Hampton. | River John. | Woodstock. |

## Nova Scotia.

Amherst.
Antigonisho.
Canso.
Canterbury.
Dartmouth.
Guysboro.
Malifax.
Inac.s Harbour.
Joddore.
Molrose
Muaquodoboit.
New Glangow.

Picton. Tatamagoucho.
I'newanh.
Sheet Haıbour.
Sher brooke. Shubenaradie.
Tangier.

Truro.
Whitehead.
Wallace.
Waverley.
Westvillo.

In addition to this these Telegraph Companies pasted the probalilities frce of charge at a fow other stations.

## REMARKS ON THE TABLES.

The times of observation given on Table I are those employed at all the telegraph stations in North America. Most of the stations report by telegraph to Toronto three timos daily; but there are some which report only by mail, of which some take observations at three hours, some omit the night hour, and some observe only in the morning.

For the morning observations in connection with tho international Synchronous Series at Cornwall, Stratford, Goderich, Hamilton, and Puterborough, this office is indebted to tho Principals of the High sehools at those places, who, by permission granted by the Department of Eduration of Ontario, hare kindly taken thoso observations in addition to those required by that Department.

## Barometric Corrections.

The readings of the barometer, as given in the present tables, are reduced to sea level by means of the formula of Laplate omitting the term which depends on the latitude, and the variable portion of that due to the diminution of gravity with increased height above the sea. At 'Coronto the standard barometer' has a tube with an internal diame or ot 506 of an inch. The correction for cipillarity has, by frequent mearu"ements of the meniscus, been determined as $0: 7$ of an inch. This correction has been applied in the tables. In making comparisons hetween roadings of the barometer taken in Canala and those in the United states, it should be remembered that, as already stated in the Fontion Anmal Report of this office, the standard barometer employed for the Dominion reads higher by 014 inches than that of the Signal office at Wiahington.

## Remarks on the Combinations employed for obtaining Mean Temperature.

Unless otherwise stated, the mean temperatures given are the arithmetic means of the temperatures observed 7 a.m., 2 p.m., and 9 p.m., giving double weight to the last mentioned hour.


I Nine Ontarlo High Schools, viz.: Goderich, Stratford, Barrie, Windsor, slimcoe, Hamilion, Peterborough, Pembroke and Cornwall, 7 a.m., 1 and $4 \mathrm{p} . \mathrm{m}$. London, Ont., 9 a m., 2 and $7 \mathrm{n} . \mathrm{m}$.
Fort Albany, $\mathrm{H} . \mathrm{B} ., \mathrm{x}$ a m., 2 and $9 \mathrm{p} . \mathrm{m}$.
Chanllel, Newfoundland, at 8 a $\mathrm{m} ., 2$ and 9 pm .
Prince Arthur's Landins, $7 \mathrm{a} . \mathrm{m}, 2 \mathrm{p} . \mathrm{m}$. and 10 p.m. Clinlottetown, P.E.l., at's a nh., 4 and is p.m. Poplar Herghts, Man., 7 a.m.., l'and 9 p.m.

At the following stations the daily means are obtained from the Maxima and Minima; Chatham, N.B.; Rockliffe, Kingston, Brockville, Kincardine, Port Stanley, Port Dover, Stayner, Sautreen, Parry Sound, Owen Sound and Minnitowaning, Ontario; Quebec Obsurvatory, Quebec; St. Jhu's, Fingu aud Placentia, Newfoundland; Ladnor's Lunding, Lilloet, B.C., Marten's Falls, H.B.

At Point Clark, Strathroy, Ont. ; Brome, Q.; Digby, N.S. ; Point Lepreaux, N.B., the outries of the extremes of temperature are taken from the highest and lowest readings of the thermumeter at observation hours.

## DOMINION OF CANADA.

## Meteorological Jables

FOR THE YEAR 1880.

TABLE I.-Means for each month, and for the year, of the reduced Barometer, and of from observations made at the same absolute time, as follous; Green-

| BTATIONS. | January. |  |  | February. |  |  | March. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sydney........... | 30.078 | 30.037 | 30.058 | 29.968 | $29 \cdot 935$ | 29969 | 29.902 | 29.873 | 29897 |
| Halifax. | 30.124 | 30.048 | 30.130 | 30.007 | 29'374 | 20.988 | 29.952 | 29-892 | 29925 |
| St. John .......... | 30.134 | 30009 | 30.120 | 30.028 | 29.979 | 29.978 | 29.988 | 29.922 | 29.950 |
| St. Andrews...... | 30.118 | 30.092 | $30 \cdot 126$ | 30.006 | $29 \cdot 918$ | 29.969 | $29 \cdot 984$ | 29825 | 29.969 |
| Fredericton...... | ...... | ...... | 30.153 | -.... | ..... | 29.999 | ...... | ...... | 30.012 |
| Charlottetown... | 30.094 | 30.081 | 30.076 | 29.964 | 29.845 | $2 \mathrm{y} \cdot 947$ | 29947 | 29.924 | 29.938 |
| Chatham. | 30.132 | 30.075 | 30.113 | 29.484 | 29-935 | 29.962 | 30.011 | 29.951 | 29.994 |
| Father Point..... | ...... | ...... |  |  | $\ldots$ | ..... | ..... | ...... |  |
| Quebec. | 30.152 | 30-131 | 30.137 | 30.027 | 29962 | 30017 | $30 \cdot 101$ | 30.016 | 30.057 |
| Montreal. | $30 \cdot 138$ | 30.096 | 30.091 | 30.000 | 29-458 | 30.001 | $30 \cdot 78$ | 30.009 | 30.045 |
| Rockllffe | 30.110 | 30.050 | 30.066 | $29 \cdot 974$ | $29 \cdot 963$ | 30.018 | 30.145 | 30.042 | 30.099 |
| Kingston......... | 30.135 | 30.077 | 30.082 | 30.011 | 30002 | 30.031 | $30 \cdot 084$ | 30.032 | 30.058 |
| Toronto...... | 30.111 | 30.078 | 30.088 | 30.022 | 30.024 | 30.040 | $30 \cdot 107$ | 30067 | 30.096 |
| Port Dover....... | 30.103 | 30064 | 30.079 | 30.029 | $30 \cdot 038$ | $30 \cdot 033$ | $30 \cdot 092$ | 30.055 | $30 \cdot 086$ |
| Port Stanley..... | 30-100 | 30.058 | 30.077 | 30.033 | $30 \cdot 035$ | 30.034 | 30.092 | 30.065 | 30.092 |
| Woodstock... ... | ...... | ...... | 30.059 | ..... | ...... | 29.984 | .... | . | 30.075 |
| Saugeen. .... | 30.044 | 30.010 | 30.030 | 29.971 | 29979 | $29 \cdot 980$ | 30.091 | 30.062 | 30.081 |
| Parry Sound..... | 30.068 | $30 \cdot 030$ | 30.050 | 299977 | 29.991 | 30.014 | $30 \cdot 111$ | 30.056 | 30-106 |
| Fort Garry. .... | 29.981 | $29 \cdot 948$ | 30.005 | 30.085 | $30 \cdot 045$ | 30.063 | $30 \cdot 126$ | 30.133 | 30.126 |

## RESULTANT DIRECTION.

| Sydney ........... | $\mathrm{N} 80 \mathrm{~W}$ | $\mathbf{S} 69 \mathbf{W}$ | $\text { s } 72 \mathrm{~W}$ | $\mathbf{S} 66 \mathrm{~W}$ | $\text { S } 89 \mathrm{~W}$ |  | $\mathrm{N} 21^{\circ} \mathrm{W}$ | N6 W | $\text { N } 12 \mathrm{E}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Halifax | N 51 | N 58 W | N 79 W | S86 W | N 70 W | N 82 W | N 12 W | N 20 W | N 3 W |
| Charlotteto | N 48 | N 22 W | N 81 W | N 86 W | N 67 W | S73 W | N | N $8 \mathbf{E}$ | N 3 W |
| Chatham | 60 | N 74 | N 83 W | S 81 W | N 85 W | N 83 W | N 36 W | N 27 W | N 22 W |
| F | N 55 | N 77 | N 6.1 W | 874 W | N 48 | S 51 W | N 30 W | N 18 W | N 55 W |
| Montreal.......... | S 42 | S 50 | S 18 | S 49 | S 53 | S 81 W | N 4 E | N 63 W | N 6 W |
| Rockliffe. | S 63 E | S 28 | S 59 | N 18 | N 41 | N 43 | N 22 E | N 18 W | N 28 W |
| Kingston. | S 32 W | S 47 W | S 16 | S 82 | S 87 | N | N 8 | N 75 W | N 43 W |
| T | S 66 | 874 | N 82 | W | N 82 | N 68 W | N 6 W | N 31 W | N 38 W |
| Port Dover... | S 57 | S | S 66 | S $64 . \mathrm{W}$ | S 65 | S 69 | N 41 | W | N 51 W |
| Po | S 54 | S | S 41 | S 79 W | S 83 | S 39 W | N 51 | S $63{ }^{3} \mathbf{W}$ | N 78 W |
| Saugeen. | S 5 E | S 25 | S 39 | S 67 | 8 68 | S 16 | S 70 W | N 74 W | N 87 E |
| Parry Sound | S44E | S | S 83 | S 20 W | S 60 | 33 E | N 57 E | N 25 W | N 23 E |
| Fort Garry...... | S 47 W | S 46 W | S 19 W | N $22 . \mathrm{W}$ | N11 W | N 37 E | 836 W | S 42 W | S 46 W |

the Temperature of the Air ; also the Resultant Direction ana Velocity of the Wind, wich civil time, $0^{\mathrm{h}} 8^{\mathrm{m}}$ p.m.; $8^{\mathrm{h}} 8^{\mathrm{m} \mathrm{\prime} \mathrm{\prime}} p$.m. and $4^{\mathrm{h}} 8^{\mathrm{m}}$ a.m. (of next day).

| STATIONS. | January. |  |  | February. |  |  | March. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sydney............ | $28 \cdot 4$ | 219 | 23.0 | 17.7 | 24.4 | 17.3 | 17.3 | 23.0 | 13.0 |
| Halifax. ......... | 24.8 | $30 \cdot 8$ | $25 \cdot 4$ | 22.2 | 28.7 | 24.7 | 21.2 | 29.8 | 21.7 |
| St. John . . . . . . . . . | 22.9 | 27.6 | 23.6 | 18.2 | $25 \cdot 7$ | 21.9 | 18.7 | 27.7 | 21.8 |
| St. Andrews. ..... | $23 \cdot 1$ | 29.1 | 257 | 19.7 | 27.6 | 23.3 | 20.8 | $29 \cdot 1$ | $24 \cdot 4$ |
| Fredericton....... |  | .... | $15 \cdot 8$ | .... | .... | $15 \cdot 4$ | .... | -••• | 163 |
| Charlottetown... | 18.7 | 23.6 | 20.3 | 16.9 | 21.9 | 18.1 | 15.8 | 21.5 | $15 \cdot 6$ |
| Chatham........ | $11 \cdot 4$ | 23:6 | 14.9 | $8 \cdot 5$ | $23 \cdot 1$ | 13.7 | 12.3 | 24.8 | 16.9 |
| Father Point..... | $12 \cdot 4$ | 16.8 | 15.4 | 11.6 | 16.6 | 14.2 | 10.2 | 194 | 14.9 |
| Quebec...... ..... | 14.6 | 19.5 | 16.9 | 10.8 | 180 | 13.8 | 11.7 | 21.8 | 16.2 |
| Montreal......... | 197 | 265 | 23.0 | 16.2 | $24 \cdot 1$ | 19.3 | $18 \%$ | $29 \cdot 1$ | 217 |
| Rockliffe.......... | $13 \cdot 6$ | 23.5 | 17.7 | 93 | 215 | $12 \cdot 9$ | $5 \cdot 1$ | 28.5 | $13 \cdot 6$ |
| Kingston.......... | 28.1 | $32 \cdot 4$ | 29.2 | $20 \cdot 3$ | 27.5 | 23.3 | $22 \cdot 4$ | $32 \cdot 6$ | 26.1 |
| Toronto .......... | $30 \cdot 9$ | $3 \cdot 8$ | 321 | 24.3 | $30 \cdot 8$ | $26 \cdot 6$ | 25.4 | $33 \cdot 2$ | $27 \cdot 6$ |
| Port Dover........ | $32 \cdot 9$ | 36.8 | $33 \cdot 5$ | 26.1 | 321 | 27.6 | 276 | 351 | 29.5 |
| Port Stanley...... | 32.0 | 36.7 | 336 | 26.4 | 323 | 28.5 | 27.5 | 35.0 | 295 |
| Woodstock....... | .... | $\ldots$ | 31.3 | $\ldots$ | .... | 26.0 | .... | $\cdots$ | 27.5 |
| Saugeen........... | 29.8 | 34.5 | $30 \cdot 4$ | $24 \cdot 4$ | 29.6 | 26.2 | 23.8 | $30 \cdot 8$ | 25.4 |
| Parry Sound...... | 239 | 30.6 | 25.9 | 167 | $24 \cdot 5$ | 18.4 | 14.9 | $29 \cdot 3$ | 19.4 |
| Fort Garry........ | -4.3 | $6 \cdot 8$ | $-1.5$ | $-9 \cdot 2$ | 3.5 | -27 | -14 | 14.8 | $6 \cdot 5$ |

Resultant velocity.

| Sydney .......... | 3.0 | 37 | $3 \cdot 2$ | 3.2 | 4.9 | 1.6 | 28 | 4.2 | 40 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hallfax...... .... | 3.7 | $4 \cdot 1$ | 2.5 | $2 \cdot 5$ | $3 \cdot 3$ | 1.6 | $4 \cdot 9$ | 6.2 | 6.5 |
| Charlottelown... | 1.6 | $1 \cdot 6$ | 4.8 | 3.6 | 8.3 | 1.8 | $4 \cdot 6$ | 60 | 5.2 |
| Chatham........ | $2 \cdot 4$ | 32 | $3 \cdot 3$ | 0.7 | $3 \cdot 0$ | 1.5 | $3 \cdot 5$ | $4 \cdot 1$ | 24 |
| Father Point..... | $5 \cdot 1$ | $5 \cdot 6$ | $9 \cdot 1$ | 37 | 40 | $7 \cdot 3$ | $5 \cdot 2$ | $2 \cdot 0$ | 4.0 |
| Montreal......... | $0 \cdot 4$ | $2 \cdot 4$ | $3 \cdot 2$ | $6 \cdot 1$ | 9.5 | 8.6 | 49 | 3.3 | $2 \cdot 9$ |
| Rockliffe.......... | 0.7 | $0 \cdot 3$ | 0.3 | 1.0 | 3.5 | 1.8 | 14 | 1.9 | 16 |
| Klngston......... | 3.1 | 47 | 37 | 1.8 | $6 \cdot 1$ | $4 \cdot 5$ | 1.8 | $2 \cdot 2$ | $2 \cdot 5$ |
| Toronto.......... | 1.5 | 23 | 1.8 | 43 | 77 | $2 \cdot 8$ | 3.9 | $5 \cdot 2$ | 8.9 |
| Port Dover........ | 2.7 | $4 \cdot 3$ | $3 \cdot 1$ | 59 | 62 | $4 \cdot 8$ | 23 | $2 \cdot 6$ | $2 \cdot 5$ |
| Port Stanley.... | 1.0 | 3.6 | 39 | $8 \cdot 1$ | $8 \cdot 4$ | $3 \cdot 8$ | 29 | $3 \cdot 4$ | $4 \cdot 4$ |
| Saugeen...... .... | 43 | 75 | $5 \cdot 1$ | $7 \cdot 0$ | $8 \cdot 1$ | 35 | 1.6 | $5 \cdot 5$ | $3 \cdot 3$ |
| Parry Sound...... | $2 \cdot 9$ | 47 | $2 \cdot 8$ | $2 \cdot 7$ | 6.5 | $1 \cdot 3$ | 3.0 | 59 | 3.8 |
| Fort Garry........ | $3 \cdot 4$ | $4 \cdot 1$ | 2.0 | 2.5 | 1.6 | $1 \cdot 1$ | 0.9 | $2 \cdot 4$ | 1.6 |

TABLE I.-Means for each month, and for the year, of the reduced Barometer, and of from Observations made at the same absolute time, as follows: Green-

| STATIONS. | April. |  |  | Maj. |  |  | June. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sydney..... ...... | 29.13 | 29.904 | 29.923 | $30 \cdot 010$ | 29.976 | 29.909 | 29900 | 29.884 | 29.902 |
| Hallfax. | 29.977 | 291504 | 29.961 | 30.035 | $24 \cdot 981$ | 30.033 | 29.937 | 29.004 | 29.936 |
| St. John | 29:951 | 2963 | 29:907 | 30.011 | 29.957 | 29.993 | 29.942 | 29-804 | 29.423 |
| St. Andrews | 29:929 | $2 \times 156$ | $29 \cdot 906$ | $29 \cdot 892$ | 29.939 | 29.901 | $29 \cdot 930$ | 29.869 | $29 \cdot 923$ |
| Fredericton. ..... | …... | ...... | $29 \cdot 911$ | ...... | ...... | 29.976 | ...... | -.... | 29.935 |
| Charlottetown... | 29.925 | $29 \cdot 863$ | 29.898 | 29-993 | 29.940 | 29.976 | 29.909 | 29-891 | 29.903 |
| Clatham | 29.916 | $29 \cdot 820$ | 29.871 | 290993 | 29.930 | 29-59\% | $29 \cdot 938$ | 29.885 | $29 \cdot 919$ |
| Father Polnt...... | ….. | ...... | ...... | 310013 | 29.0.97 | 29.475 | 29.910 | 29.875 | 29.898 |
| Quebec........... | 29709 | 29.857 | 20-898 | 30.006 | 29.934 | 29.46 | 29.961 | 29.894 | 29.922 |
| Montreal......... | 29.905 | $20 \cdot 845$ | 29.871 | $30 \cdot 974$ | - 4142 | 2090;3 | 29.073 | $20 \cdot 880$ | 29.898 |
| Rockliffe. | 29.918 | 29.852 | 29.818 | 29.987 | 20.892 | 29.934 | 29.940 | 29.878 | 29.906 |
| Klngston. | 29.930 | 29.8.4 | 29-297 | 29.986 | 29.182 | 29-951 | 29:947 | 29.900 | $29 \cdot 917$ |
| Toronto..... | 20.057 | 29.899 | 29.918 | $30 \cdot 036$ | 29.978 | 29.989 | 29.985 | $29 \cdot 942$ | 29.957 |
| Port Dover | 29.457 | 29.910 | 26952 | $30 \cdot 033$ | 24.404 | 20.990 | 29.982 | 29.938 | $29 \cdot 957$ |
| Port Stanleg..... | $29 \cdot 957$ | 2915 | 20.454 | 30.032 | 29.088 |  | $29 \cdot 483$ | 29.944 | 29.965 |
| Woodstock. | ...... | ...... | 29.931 | ...... | ...... | $29 \cdot 970$ |  | ..... | $29 \cdot 929$ |
| Saugeen... ....... | 24915 | $2 \times 1886$ | 29.94 | $\underline{29.973}$ | 29.048 | 29.973 | 29.44 | 29.920 | 29.938 |
| Parry Sound .... | 29.917 | (4) $\times 74$ | 29.904 | 29.048 | 29.933 | 29.961 | 29.947 | 29908 | 29.934 |
| Fort Garry........ | 30.011 | 29.968 | 29.962 | 29.790 | 29.80 | $29 \cdot 780$ | 29858 | 29.818 | 29.834 |

## RESUITANT DIRECTION.

| Bydney | $\text { s } 73 \mathrm{~W}$ | $\mathrm{S} 45 \mathrm{~W}$ | $\mathrm{S} 30 \mathrm{~W}$ | $\mathrm{S} 63 \mathrm{~W}$ | $\text { S } 58 \text { W }$ | $\mathbf{s} 50 \mathrm{~W}$ | $\mathrm{N} 26 \mathrm{~W}$ | $\text { N } 16 \mathrm{~W}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Malifax | N 47 | S 16 | S 80 W | N 20 W | S $58 . \mathrm{W}$ | N 39 W | N 18 W | N 63 W | N 50 W |
| ttelo | S 53 | S 6 | S 48 | N 90 W | S83 E | S 10 W | N 18 E | N 19 E | N 4 E |
| tham | N 80 | S 75 | S 56 | N : | N 19 W | N 52 | N 21 W | N 31 E | N 34 E |
| Father | N 86 | N 88 | N 68 | 1 | N 69 | S 69 | N 34 W | N 64 W | N 2 |
| Montreal | S 58 | S | S 73 | N | S 55 W | 46 | S 56 | S 48 W | 84 |
| Rockliffe | N 12 | N 4 | N | N 32 | 70 W | 67 | N 40 W | N 77 W | N 0 |
| K1 | S 51 | S | W | S 68 | S 38 W | S 56 W | S4 W | 831 W | S 41 W |
| Toronto | N 5 | S | N 70 | N 32 | S 35 W | N 8 W | N 34 W | S 13 W | N 29 W |
| Port | S 71 | S | S50 W | S 17 | S 40 | S 30 W | N 87 W | S 18 W | B61 |
| Port stanley | S 78 | S 71 | S 87 | S 59 | 852 | S 28 W | N 77 W | S 65 W | S81 W |
| Saugeon... | S 64 | S 20 W | S 67 | S 16 | S 51 | S 18, E | S 18 W | S 81 W | 15 |
| Parry Sound | S 56 | S 70 | S 30 | 650 E | Sc9 W | S 43 E | 818 | S 57 W | S $1 \mathbf{E}$ |
| Fort Garry | N 1 E | N $8 \mathbf{W}$ | N 16 W | N 57 E | S81E | S 40 E | N 20 W | \$57 W | N 67 E |

the Temperature of the Air ; also the Resultant Direction and Velocity of the Wind, wich civil time, $0^{\mathrm{h}} 8^{\mathrm{m}}$ p.m $; 8^{\mathrm{h}} \delta^{\mathrm{nm}}$ p.m and $4^{\mathrm{h}} \delta^{\mathrm{m}}$ a.m. (of next day).

| STATIONS. | April. |  |  | May. |  |  | June. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sydney ............ |  | $38 \cdot 1$ | 2984 | $4{ }^{6} 2$ | $4 \hat{8} \cdot 4$ | 39.1 | $3 \hat{4} \cdot 8$ | 57.9 | 4in9 |
| Halifax........... | $35 \%$ | 435 | 33.5 | $47 \cdot 1$ | $54 \cdot 1$ | 44.2 | 56.2 | 672 | 527 |
| St. John. . . ...... | 33\% | 40.9 | 34.3 | 46.7 | 51.1 | $4{ }^{6} 6$ | 56.6 | 63.1 | 52.9 |
| St. Andrews...... | $34 \cdot 6$ | 43.7 | 36.7 | 4:3 | 56.2 | $47 \cdot 1$ | $56 \cdot 3$ | $66 \cdot 2$ | 65.0 |
| Fredericton....... | .... | .... | 33.4 | .... | $\ldots$ | $46 \cdot 9$ | .... | .... | 56.1 |
| Charlottetown.... | $32 \cdot 2$ | 38.3 | 313 | 45.2 | 53.0 | 423 | 54.2 | 61.4 | 51.9 |
| Chatham.... ..... | 31.0 | 439 | 31.9 | 45.2 | 57.0 | $43 \cdot 4$ | 56.6 | 68.0 | 54.2 |
| Father Polnt...... | 29.1 | 360 | 30.9 | 41.7 | $46 \cdot 4$ | 415 | $54 \cdot 3$ | 59.7 | 53.1 |
| Quebec............. | $28 \cdot 1$ | 35:3 | $32 \cdot 4$ | 46.3 | 57*3 | $48 \cdot 1$ | $58 \cdot 6$ | $70 \cdot 1$ | 59.5 |
| Montreal.... .... | $36 \cdot 1$ | $45 \%$ | 38.2 | 53\% | $66 \cdot 1$ | 566 | 63.0 | 71.9 | 47 |
| Rockllffe......... | $30 \cdot 3$ | 442 | 338 | 487 | $67 \cdot 3$ | 52.1 | 56.9 | 71.0 | 56.3 |
| Kingston ......... | $37 \cdot 1$ | 451 | 38.8 | $54 \times 2$ | $61 \cdot 8$ | 55 | 62-1 | 719 | 81.6 |
| Toronto ............ | 38.3 | 463 | 38.7 | 53.6 | 65"2 | 54.9 | 62.9 | 71.9 | 61.9 |
| Port Dover........ | $89: 9$ | 4.11 | 410 | $55 \cdot 1$ | 671 | 5 | 6.5 | 73.2 | 64.2 |
| Port stanley .... | 391 | 178 | 40:5 | $54 \cdot 3$ | C4.6 | 55.3 | 62.7 | 729 | 63.0 |
| Woodstock...... | .... | $\cdots$ | $39 \cdot 6$ | -... | $\cdots$ | 50.6 | $\cdots$ | $\ldots$ | 61.0 |
| Saugeen.......... | 38.2 | 44.6 | 39.2 | $5 \cdot 9$ | 62.0 | 53.4 | 59.9 | 68.0 | 58.0 |
| Parry Sound...... | 34.3 | 42.9 | 35.7 | 521 | 623 | $51 \cdot 3$ | $00 \cdot 3$ | 70.1 | 57.7 |
| Fort Garry ....... | 23.8 | $3 \times 2$ | 28.8 | 48.1 | 60.4 | 52.6 | 56.9 | 69.9 | 60.2 |
|  |  |  |  |  |  |  |  |  |  |

RESULTANT VELOCITY.

| Sydney ............ | 23 | 2.6 | $2 \cdot 4$ | $2 \cdot 1$ | 1.0 | 1.7 | 1.2 | 1.6 | 0.8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hallfax .......... | $1 \cdot 1$ | 33 | 1.5 | 0.2 | 1.6 | 0.8 | 1.9 | 1.8 | 1.6 |
| Charlottetown... | 1.9 | 23 | 1.6 | 0.7 | $1 \cdot 1$ | 12 | $2 \cdot 5$ | 3.0 | $0 \cdot 8$ |
| Chatham, ........ | $3 \cdot 3$ | 6.5 | 28 | $2 \cdot 6$ | $3 \cdot 1$ | 10 | 2.9 | 30 | 0.8 |
| Father Point.... | 5-7 | 8.9 | 10.6 | 1.5 | $2 \cdot 7$ | 0.8 | 0.8 | 3.4 | 0.2 |
| Montreal......... | 6.2 | 62 | 6.8 | 3.0 | $5 \cdot 2$ | 4.7 | $3 \cdot 3$ | 5.0 | 6.9 |
| Rockliffe......... | 1.7 | 4.0 | $1 \cdot 1$ | 17 | 3.3 | $1 \cdot 1$ | 0.7 | 13 | 0.6 |
| Kingaton......... | 22 | 2.7 | $2 \cdot 8$ | 1.2 | 4.0 | $2 \cdot 2$ | 1\% | 4.5 | 1.9 |
| Toronto.......... | 27 | $4 \cdot 0$ | $4 \cdot 3$ | 1.9 | $4 \cdot 9$ | $\bigcirc 7$ | 211 | $4 \cdot 4$ | 3.2 |
| Port Dover .......\| | 37 | $5 \cdot 3$ | 5.0 | 1.5 | $5 \cdot 0$ | $2 \cdot 1$ | 1:3 | 41 | $1 \cdot 7$ |
| Port Stanley...... | 20 | 8.8 | $4 \cdot 4$ | 0.9 | 5.8 | 07 | 12 | 3.9 | 2.9 |
| Saugeen...... .... | 1.8 | 2.6 | 5.0 | 5.9 | 9.3 | 28 | $5 \cdot 4$ | 75 | $4 \cdot 3$ |
| Parry Sound...... | 1\% | $4 \cdot 8$ | $1 \cdot 4$ | $3 \cdot 4$ | 6.9 | 1.0 | 1.7 | 57 | 1.5 |
| Fort Garry ....... | $2 \cdot 9$ | 33 | 3.5 | $1 \cdot 1$ | 1.0 | 14 | 0.5 | $1 \cdot 2$ | 0.6 |

TABLE I.-Means for each month, and for the year, of the reduced Barometer, and of from Observations made at the same absolute time, as follows: Green-

| STATIONS. | July. |  |  | Angust. |  |  | September. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sydney . .......... | 29.922 | 29.400 | 29.923 | 29.987 | $29 \cdot 969$ | 30.000 | 30.000 | 29.067 | 29.996 |
| Hallfax........... | 29.958 | $29 \cdot 929$ | 29.953 | 30.030 | $30 \cdot 000$ | 30.037 | 30.017 | $29 \cdot 985$ | $30 \cdot 017$ |
| St. John.......... | 29.938 | 29.900 . | 29-916 | 30.020 | 29.981 | 29.997 | 30.009 | $29 \cdot 973$ | 29.982 |
| St. Andrews...... | 29.921 | 29.882 | 29.908 | 30.013 | 29-962 | 29.996 | 29-985 | 29.949 | 29.969 |
| Fredericton........ | .... | . | 29.918 | -•• | .. | 29.999 | $\ldots$ | . ${ }^{\text {a }}$ | 29.994 |
| Charlottetown.... | 29.898 | 29.873 | 29.889 | 29.973 | 29.955 | 29.973 | 29.981 | $29 \cdot 951$ | 29.972 |
| Chatham........ | 29.893 | 29.843 | 29.871 | 24.979 | $29 \cdot 932$ | 29-965 | 29.084 | 29.935 | 29.300 |
| Father Point..... | 29.875 | 29.831 | 29.855 | 29.980 | 29-933 | 2y-059 | 29.957 | $29 \cdot 911$ | 29-921 |
| Quebec........ ... | 20.829 | 29.879 | 23.904 | 30.027 | $29 \cdot 971$ | 29-091 | 29.995 | $29 \cdot 941$ | 29.909 |
| Montreal.......... | 29.919 | 29-866 | 29:588 | 30.022 | $29 \cdot 088$ | 30.017 | 29.880 | 29.918 | 29.058 |
| Rockllffe ........ | 29-938 | 29.879 | 29.908 | $30 \cdot 146$ | 29.980 | 30-010 | 29.092 | 29.932 | 29.962 |
| Kingston......... | 29-921 | 20.899 | 29.902 | 30.017 | $29 \cdot 971$ | 29.983 | 29.983 | $29 \cdot 941$ | 29.965 |
| Toronto............ | 29.975 | 28.441 | 29.956 | 30-053 | $30 \cdot 015$ | 30.030 | $30 \cdot 042$ | 29.996 | 30-019 |
| Port Dover....... | 29.969 | 29.911 | 29.957 | 30045 | 30.003 | 30-022 | $30 \cdot 045$ | 29.978 | 30-026 |
| Port Stanley ... | 29.974 | 29.952 | 29.961 | 30.042 | $30 \cdot 009$ | $30 \cdot 024$ | $30 \cdot 142$ | $30 \cdot 009$ | 30.029 |
| Woodstock...... | $\ldots$ | .... | $29 \cdot 907$ | .... | .... | 30.009 |  |  | $30 \cdot 009$ |
| Saugeen .... ..... | 29.950 | 29.033 | 29.911 | 30.034 | 29.907 | 3) 020 | 29.998 | 29.979 | 29.982 |
| Parry Sound..... | 29.935 | 29.913 | 29.829 | 30.049 | 29.997 | $30 \cdot 017$ | 30.000 | 29.960 | 29.977 |
| Fort Garry ....... | 29.920 | 29.877 | 29-891 | 29.955 | 29931 | 29.939 | 29.876 | $29 \cdot 862$ | 29.882 |

## RESULTANT DIRECTION.

| Sydney.. | $\mathrm{N} 47 \mathrm{~W}$ | $\mathbf{S 6 1 \mathbf { W }}$ | $\mathrm{S} 25 \mathrm{~W}$ | $\mathrm{S} 58^{\circ}$ |  |  |  | , |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Halife | S 76 | S 43 W | S 62 W | S 70 | S 48 W | S 61 W | N | W |  |
| C | 849 | 8 37 W | S 30 W | 858 | 73 W | S 32 | 39 W | 841 W | S 14 W |
| Cba | N 74 | N 87 | S 65 W | N 80 | S 81 | S 74 W | N 63 W | N 65 W | 79 W |
| Fat | N 73 | N 67 | N 46 W | N 85 | N 60 | N 74 | N 86 | N 67 W | W |
| Mon | S 63 | 867 | \$50 | s | 78 | 86 | S 71 | 859 W | 65 W |
| Rock | S 87 | N 73 | N 80 | N 33 | 78 | N 34 E | N 37 W | N 71 W | N 50 W |
| K | 880 | S 30 | S 48 | N 20 | E 26 W | S 69 | S 6 | S 48 W | S 63 W |
| Toront | N 75 | S 6 W | N 64 W | N 2 | 13 | N | N 61 W | S54 W | N 65 W |
| Por | S88 | S 19 W | S 39 W | N 10 W | 13 | N 34 W | S 85 W | S 55 W | S 80 W |
| Port | N 81 | S 88 W | S 81 | N 31 | 73 | N 44 E | N 87 | S 66 W | N84 W |
| Saugeen | S 51 | W | S 29 W | 53 | N 62 W | S 1 W | S72 W | S 78 W | 77 |
| Parry Sound. | S 36 | S 79 W | N 63 | N | N 78 | N 83 E | S 2 E | 874 W | 40 W |
| Fort Garry | 824 W | 862 W | S 76 W | S 69 E | S 63 W | 839 f | N 75 W | N 78 W | N 88 W |

the Temperature of the Air; also, the Resultant Direction and Velocity of the Wind, wich civil time, $1^{\mathrm{h}} 8^{\mathrm{m}} p . m$.; $8^{\mathrm{n}} 8^{\mathrm{m}} p$.m. and $4^{\mathrm{h}} 8^{\mathrm{m}}$ a $m$. (of next day).

| STATIONS. | July. |  |  | August. |  |  | September. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sydney ............ | 65.4 | 70.5 | 60.5 | $64 \cdot 1$ | 68.7 | $57 \cdot 1$ | 59.2 | 63.5 | $54 \cdot 9$ |
| Halifax | $6: 1$ | 715 | 607 | 60.2 | $71 \cdot 8$ | 58.0 | 56.9 | $66 \cdot 6$ | 56.3 |
| St. John | 59.9 | 66"2 | $57 \cdot 3$ | $59 \cdot 1$ | $64 \cdot 3$ | $56 \cdot 1$ | 54.8 | $80 \cdot 2$ | $54 \cdot 1$ |
| St. Andrews....... | 60-1 | 69.8 | $59 \cdot 4$ | $59 \cdot 4$ | $68 \cdot 3$ | 58.6 | 550 | 63.5 | 56.1 |
| Fredericton.. ..... | $\ldots$ | $\ldots$ | $61 \cdot 1$ | $\ldots$ | $\cdots$ | 58.5 | $\cdots$ | $\ldots$ | 54.6 |
| Charlottetown | 63.4 | 72. | 63.0 | 63.13 | 69.8 | 60.8 | 58.5 | $64 \cdot 1$ | 57.3 |
| Chatham ........ | 62:8 | $75 \%$ | 61.7 | 58.7 | 72.0 | 58.2 | 53.2 | $65 \cdot 3$ | 53.8 |
| Father Point...... | 58.6 | $63 \cdot 2$ | $5 \times 3$ | 51.9 | 59.1 | 56.8 | 50.3 | 54.0 | 49.0 |
| Quebec. .......... | 62.0) | 73.1 | 63.5 | 58.2 | が, | $59 \cdot 4$ | $52 \cdot 8$ | 617 | $54 \cdot 4$ |
| Montreal ......... | $66 \cdot 1$ | 75\% | 46 | 61.7 | 73.4 | $64 \cdot 4$ | 56.7 | 67.8 | $58 \cdot 5$ |
| Rockliffe........... | 59.9 | 78 | 58.8 | 56.6 | 720 | $57 \cdot 1$ | 51.5 | $64 \cdot 6$ | 529 |
| Kingston. | 66.0 | $75 \cdot 6$ | 65.6 | 6:3 | $75 \cdot 2$ | 61.2 | 57.9 | 68.5 | 587 |
| Toronto ......... | 643 | 74.3 | 641 | 63.0 | 73.2 | 64.2 | 55.8 | 67-1 | 57.2 |
| Port Dover ...... | $65 \cdot 3$ | $75 \cdot 9$ | $66^{\circ} 6$ | 63.2 | 76.1 | $66 \cdot 1$ | 56.5 | 67.6 | 581 |
| Port Stanley ...... | 63.8 | 75.1 | 64.8 | 61.6 | 74.8 | $63 \cdot 4$ | 55.8 | 67.8 | 56.3 |
| Woodstock .. |  | .... | 6: 4 | $\ldots$ | $\ldots$ | 81.9 | .... | $\ldots$ | 550 |
| Saugeen.. ......... | 63.2 | -1 ${ }^{3}$ | 608 | 61.5 | $71 \cdot 9$ | 60.6 | 65.0 | 63.6 | 55.6 |
| Parry Sound ..... | 63.0 | 72.7 | 616 | 59.7 | 71.7 | 60.6 | $52 \cdot 6$ | 62.8 | 54.6 |
| Fort Garry........ | $57 \cdot 4$ | 74.5 | 62.1 | 543 | $70 \cdot 8$ | $60 \cdot 1$ | $43 \cdot 9$ | 57.8 | $49 \cdot 0$ |

RESULTANT VELOCITY.

| Sydney ........... | $4 \cdot 6$ | 5•9 | $3 \cdot 4$ | 4.5 | 4.8 | 3.0 | $2 \cdot 9$ | 2.0 | 1.2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hallfax. .......... | 1.6 | $3 \cdot 5$ | $2 \cdot 2$ | $1 \cdot 9$ | $4 \cdot 6$ | 28 | 0.6 | 2.2 | 0.5 |
| Charlottetown ... | 4.4 | $3 \cdot 4$ | $3 \cdot 3$ | 3.8 | $2 \cdot 6$ | 3.2 | $2 \cdot 4$ | 1.6 | $2 \cdot 8$ |
| Chatham .. ....... | $2 \cdot 1$ | 2.0 | $1 \cdot 2$ | $2 \cdot 6$ | $2 \cdot 2$ | $1 \cdot 5$ | 1.9 | 2.8 | 1.0 |
| Father Polnt...... | 4.0 | 4.6 | 1.8 | $4 \cdot 6$ | 5-3 | $3 \cdot 1$ | 42 | $5 \cdot 1$ | 5.0 |
| Montreal.......... | $4 \cdot 2$ | 4.0 | $5 \cdot 9$ | $2 \cdot 6$ | $4 \cdot 7$ | 3.9 | $3 \cdot 6$ | $5 \cdot 1$ | 4.1 |
| Rockliffe. ........ | 0.2 | $2 \cdot 4$ | $0 \cdot 4$ | 1-1 | 2.2 | $0 \cdot 1$ | $0 \cdot 6$ | $3 \cdot 1$ | 0.7 |
| Kingaton ......... | $2 \cdot 3$ | 4.6 | $2 \cdot 6$ | 0.7 | $3 \cdot 3$ | 1.9 | $2 \cdot 1$ | $5 \cdot 2$ | $2 \cdot 4$ |
| Toronto....... .... | 1.9 | $5 \cdot 9$ | 3.0 | $2 \cdot 5$ | $4 \cdot 9$ | 23 | 27 | $5 \%$ | $3 \cdot 4$ |
| Port Dover...... | $1 \cdot 6$ | 6.1 | 1.5 | $2 \cdot 1$ | 1.9 | 1.6 | $3 \cdot 5$ | $4 \cdot 5$ | 3.6 |
| Port Stanley .... | 25 | 4.2 | $1 \cdot 6$ | $1 \cdot 1$ | $2 \cdot 1$ | $1 \cdot 1$ | 3.6 | $6 \cdot 3$ | $4 \cdot 2$ |
| Saugeen.......... | 35 | 6.8 | 3.6 | 2.0 | 37 | 1.9 | $3 \cdot 5$ | 8.0 | 4.8 |
| Parry Sound..... | 1.9 | $9 \cdot 6$ | 13 | 2.8 | $2 \cdot$ | 3.0 | 0.9 | 7.3 | $1-9$ |
| Fort Garry...... | 1.0 | $2 \cdot 0$ | 0.4 | 0.6 | $0 \cdot 4$ | 0.8 | 13 | $2 \cdot 9$ | $2 \cdot 7$ |

TABLE I.-Means for each month, and for the year, of the reduced Barometer and of from Observations made at the same absolute time, as follows : Green-


## RESULTANT DIRECTION.

| Byd | S 37 W | S 60 W | S 13 W | S 83 W | S 89 W | S 80 W | S 89 W | N 56 W | N 12 W |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Halliax | S 79 W | S 48 W | 868 W | N 80 W | S 72 W | N 89 W | N 44 W | N 18 W | N 28 W |
| Charlotteto | S 29 W | S $23 . \mathrm{W}$ | S 34 W | S 74 W | S 67 W | S 73 W | N 35 W | N 31 W | N 21 W |
| Chatham | S 51 W | S | 8 | S 73 W | S 73 W | S 85 W | N 28 W | N 40 W | N 12 W |
| F | N 86 | N | S 8 | N 73 W | N 84 W | N 62 W | N 49 W | N 69 W | N 57 W |
| N | S 5 | S 70 | 8 | S 55 W | S 66 W | S 67 W | S 67 W | S 71 W | S 73 W |
| R | N | N 88 | S | S 9 E | S 71 W | S 21 E | S 76 W | N 53 W | N 60 W |
| Kingaton... ........ | S | S | S | S 65 W | S 56 W | S 06 W | S 73 W | S 89 W | N 88 W |
| Toronto | N | S 75 | N | S 64 W | S 84 W | S 39 W | S 84 W | N 85 W | S 75 W |
| P | N | S 70 | N | S 72 W | S 46 | \& 57 W | S 77 W | S | S 7 |
| P | S 8 | S 79 |  | S 82 W | S 77 W | S 70 W | S 88 W | S 84 W | A |
| Sau | S | S | S | S 57 W | S | S 57 W | S 88 W | $\text { S } 8$ | $\text { S } 72 \mathrm{~W}$ |
| P |  | S 53 W | S | S | S | S 24 W | N 28 E | N 8 | N 78 W |
| Fort Garry . | N | N | N 6 E | N 50 W | N 52 W | N 48 W | S 77 W | N 66 W | N 80 W |

the Temperature of the Air; also the Resultant Direction and Velocity of the Wind, wich civil time, $0^{\mathrm{h}} 8^{\mathrm{m}} p . m 8^{\mathrm{h}} 8^{\mathrm{m}} p . m$. and $4^{\mathrm{h}} 8^{\mathrm{m}}$ a.m. (of next day).

| STATIONS. | October. |  |  | November. |  |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sydney ..... ..... | 48.0 | $52 \cdot 8$ | $45 \cdot 1$ | $33 \cdot 4$ | $36 \cdot 2$ | $32 \cdot 2$ | 280 | 28.5 | $27 \cdot 9$ |
| Halifax ........... | $45 \cdot 3$ | $54 \cdot 6$ | $45 \cdot 8$ | 32.0 | $37 \cdot 5$ | 31.8 | 247 | 28.3 | 25.5 |
| St. John ... ..... | 45.0 | $50 \cdot 1$ | 45.1 | $29 \cdot 1$ | $34 \cdot 4$ | $30 \cdot 3$ | 20.0 | 25.0 | $21 \cdot 1$ |
| St. Andrews..... | $44 \cdot 7$ | $52 \cdot 4$ | 46.0 | 30.5 | $38 \cdot 1$ | 31.4 | 21.0 | $28 \cdot 1$ | $22 \cdot 4$ |
| Fredericton., .... | .... | .... | $42 \cdot 6$ | $\ldots$ | .... | 23.6 | $\ldots$ | .... | 18.0 |
| Charlottetown. | $47 \cdot 4$ | 52.5 | 47-1 | $30 \cdot 2$ | 34.3 | 310 | 20.7 | 24.7 | 29 |
| Chatham ........ | 41.0 | 53 | $41 \cdot 3$ | 23.7 | $32 \cdot 9$ | 247 | 14.7 | 23.3 | 159 |
| Father Polnt..... | 41.0 | 43*1 | $30 \cdot 7$ | $25 \cdot 8$ | 28.9 | 26.3 | 16.3 | 18.5 | 18.5 |
| Quebec. .......... | 40.7 | 46.8 | $42 \cdot 1$ | 23.5 | 28.2 | 241 | $12 \cdot 4$ | 16.8 | 14.3 |
| Montreal. | 42.8 | $51 \cdot 1$ | 44.5 | 26.2 | $32 \cdot 0$ | 27.8 | $14 \cdot 5$ | 18.9 | 158 |
| Rockliffe | 371 | 48.6 | 39.3 | 23.4 | 20.2 | 240 | $10 \cdot 3$ | 174 | 11.4 |
| Kingston . . . . . . | 443 | 51.5 | 450 | $23 \cdot 9$ | $3+3$ | 29.7 | 17.3 | 22.0 | 17.3 |
| Toronto...... .... | 409 | . 50.8 | $43 \cdot 1$ | $28 \cdot 4$ | $33 \cdot 4$ | 28.9 | $20 \cdot 1$ | 23.9 | 20.0 |
| Port Dover | 43.9 | 53:8 | $45 \cdot 4$ | 28.8 | 39 | $29 \cdot 1$ | 20.3 | 21.1 | 20.9 |
| Port Stanley...... | 43.3 | 53.2 | 447 | 27.7 | $34 \cdot 4$ | 28.6 | 207 | 24.7 | 21.2 |
| Woodstock. ...... | $\ldots$ | .... | 4-2 | . | .... | $25 \cdot 9$ |  | .... | 18.5 |
| Saugeen.......... | $42 \cdot 1$ | 51.0 | $43 \cdot 4$ | 28.5 | 321 | $25 \cdot 3$ | $21 \cdot 3$ | 204 | 21.6 |
| Parry Sound ..... | $40 \cdot 1$ | 48.3 | 41-2 | 25 -2 | $3 \%$ | 26.4 | 14.1 | 19.7 | 15.3 |
| Fort Garry....... | 32.7 | 45.0 | 36.6 | 73 | $17 \cdot 1$ | 10.6 | $-7.8$ | 3.0 | -27 |

RESULTANT VELOCITY.

| Sydney. .... .... | 2-2 | $2 \cdot 6$ | $2 \cdot 0$ | 6.6 | $7 \cdot 4$ | $6 \cdot 1$ | 30 | 3.9 | 1.8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Halifax .......... | $1 \cdot 4$ | $2 \cdot 3$ | $2 \cdot 4$ | 4.8 | 4.0 | 2.8 | 4.4 | $4 \cdot 6$ | 9.9 |
| Charlottetown.... | $8 \cdot 2$ | 1.8 | $3 \cdot 6$ | 55 | 4.4 | 6.2 | 3.6 | 4.5 | $3 \cdot 4$ |
| Chatham......... | 23 | $3 \cdot 4$ | $2 \cdot 1$ | 3.7 | $5 \cdot 1$ | 37 | $2 \cdot 9$ | $2 \cdot 5$ | 200 |
| Father Point .... | 7.2 | 6.2 | 67 | 13.8 | 159 | 16.1 | $5 \cdot 0$ | $5 \cdot 8$ | $6 \cdot 4$ |
| Montresl. .... .... | 59 | 3.6 | 7"2 | 7.2 | 8.4 | 73 | 74 | 6.2 | $8 \cdot 3$ |
| Rockllffe......... | $1 \cdot 1$ | $1 \cdot 1$ | $1 \cdot 1$ | 0.5 | $1: 5$ | $1 \cdot 3$ | 0.7 | $0 \cdot 9$ | 17 |
| Kingston ........ | 2-9 | 4.6 | 3.2 | $3 \cdot 1$ | 3.9 | 3.3 | $2 \cdot 1$ | $2 \cdot 2$ | 3.5 |
| Toronto.... ...... | 8.0 | 45 | $2 \cdot 9$ | $4 \cdot 6$ | 5.9 | 32 | 3.8 | 7.7 | $5 \cdot 4$ |
| Port Dover ....... | $3 \cdot 1$ | 4.8 | $2 \cdot 0$ | 49 | 59 | 5.6 | 3.8 | 6.5 | 47 |
| Port Stanley.... | 47 | $7 \cdot 4$ | 57 | 79 | 8.2 | $5 \cdot 1$ | 7.5 | 10.6 | $8 \cdot 9$ |
| Saugeen ......... | $2 \cdot 6$ | 6.9 | $5 \cdot 9$ | 8.3 | 10.9 | 10.0 | $5 \cdot 3$ | 7.6 | 9.2 |
| Parry sound...... | 2.6 | 47 | 29 | $2 \cdot 5$ | 57 | 4.9 | $2 \cdot 0$ | $2 \cdot 0$ | $2 \cdot 4$ |
| Fort Garry........ | 23 | $2 \cdot 4$ | 2.5 | 3.0 | 23 | 1.0 | $2 \cdot 3$ | $3 \cdot 3$ | 19 |

TABLE I.-Means for the year of the reduced Barometer and of the Temperature of the at the same absolute time as follows: Greenwich civil time


Air, and also the Resultant Direction and Velocity of the Wind, from Observations made $0^{\mathrm{h}} 8^{\mathrm{m}}$ p.m. ; $8^{\mathrm{h}} 8^{\mathrm{nm}}$ p.m. and $4^{\mathrm{h}} 8^{\mathrm{m}}$ a.m. (of the next day).

| STATIONS. | RESULTANT DIRECTION. |  |  |  | RESULTANT VELOCITY. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | Year. | 1 | 2 | 3 | Year. |
| Sydney.......... | $s{ }^{\circ} \mathrm{W}$ | $\mathrm{s} 86^{\circ} \mathrm{W}$ | S $70{ }^{\circ} \mathrm{W}$ | $\stackrel{\circ}{\mathrm{sin} \mathrm{~W}}$ | $2 \cdot 8$ | 3.0 | 1.5 | 24 |
| Halifax.......... | N $58 . \mathrm{W}$ | N 85 W | N 65 W | N 70 W | 2.0 | $2 \cdot 4$ | 1.8 | 2.0 |
| Charlottetown. | S 89 W | N 66 W | S 75 W | N 89 W | 1.9 | 1.4 | 1.9 | 17 |
| Chatham........ | N 65 W | N $7 \pm$ W | N 83 W | N 73 W | $2 \cdot 2$ | 2.6 | 1.5 | $2 \cdot 1$ |
| Father Polnt. . | N 71 W | N 68 W | N 74 W | N 71 W | 47 | 4.7 | $5 \cdot 5$ | $5 \cdot 0$ |
| Montreal....... | S 67 W | S 64 W | S $\operatorname{in} 2 \mathrm{~W}^{\text {W }}$ | S 64 W | 3.8 | $5 \cdot 1$ | $5 \cdot 3$ | 4.8 |
| Rockliffe...... | N 33 W | N 62 W | N-36 | N 55 W | 0.6 | 1.9 | 0.7 | 111 |
| Kingstou........ | S $\mathrm{fr}_{8} \mathrm{~W}$ | S 51 W | 870 W | S 60 W | 1.7 | 3.7 | 2.5 | $2 \cdot 6$ |
| Toronto........ | N 64 W | S 66 W | N 62 W | N 85 W | $2 \cdot 3$ | $3 \cdot 8$ | $2 \cdot 7$ | $2 \cdot 7$ |
| Port Dover...... | - 81 W | S 38 W | S 72 W | S 65 W | $2 \cdot 6$ | 4.4 | 28 | $3 \cdot 2$ |
| Port Stanleg.... | S 5 \% W | S 71 W | S 79 W | S 78 W | $3 \cdot 5$ | 5•9 | 3.5 | $4 \cdot 3$ |
| Saugeen......... | N 41 W | S 67 W | S 47 W | S55 W | 3.6 | 6.5 | $3 \cdot 9$ | 4.6 |
| Parry Sound.... | S 32 E | S 70 W | S 3 W | S 46 W | 1.4 | 4.6 | 0.7 | 1.7 |
| Fort Garry...... | N 62 W | N 88 W | N 68 W | N 78 W | 0.8 | 1.7 | 0.4 | 1.0 |

TABLE II．－Mean Temperature of the several Months and the Year at Stations in the Dominion of Canada，during the Year 1880.

|  |  |  | 品 | 容 | $\underset{\ddot{\theta}}{\underset{\sim}{\oplus}}$ |  | 宫 | $\begin{aligned} & \text { 蕽 } \\ & \text { 憵 } \end{aligned}$ |  | $\begin{aligned} & \dot{\circ} \\ & \stackrel{\circ}{\circ} \\ & \stackrel{8}{8} \\ & \hline 8 \end{aligned}$ |  | 宮 最 8 日 | ＊ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ontario． | － | － | － | － | － | － | － | － | － | － | － | － | － |
| Prince Arthur＇s Landing．．． | 147 | 6.5 | 14.8 | 33：3 | 47.6 | 56.4 | 62.2 | $61 \cdot 2$ | 52，3 | $40 \cdot 4$ | 16.4 | 6.2 | 34.33 |
| Parry Sound ．．．．．．．．．．．．．．．． | 257 | $18 \cdot 3$ | 20.2 | 36.9 | $55 \cdot 2$ | 622 | $65 \cdot 1$ | 63.2 | 56.9 | 42.7 | 26.8 | 15.2 | 40.77 |
| Pembroke．．．．．．．．．．．．．．．．．． | 18.0 | 170 | 18.9 | 37.9 | 58.5 | 64－3 | 67.2 | $64^{1} 1$ | 57.0 | $42 \cdot 6$ | 26.9 | 11.2 | 40：30 |
| Little Current．．．．．．．．．．．．．．． | 24.8 | $19 \cdot 6$ | 20．9 | 36.0 | 53－9 | 62.6 | 67.5 | 65\％8 | 58.4 | 456 | 28\％ | 16.5 | 41.69 |
| Fitzroy Harbor．．．．．．．．．．．．． | 20.5 | 16.8 | 21.6 | 39.0 | 59.1 | $65 \% 2$ | 67－1 | 650 | 59.1 | 43.8 | 26.3 | 12.8 | $40 \cdot 86$ |
| Rock liffe．．．．．．．．．．．．．．．．．． | $19 \cdot 2$ | 13.6 | 14.0 | 35－2 | $56 \cdot 1$ | 56.7 | 647 | $62 \cdot 4$ | $56 \cdot 6$ | 417 | 25.0 | 12.0 | 38．35 |
| Ottawa ．．．．．．．．．．．．．．．．．．．．． | $21-2$ | 18.8 | $22 \cdot ;$ | 39.3 | $59 \cdot 4$ | 66.0 | 70.8 | $69 \cdot 1$ | 59.9 | $43 \cdot \theta$ | 27.2 | $14 \cdot 3$ | 42．69 |
| Cornwall．．．．．．．．．．．．．．．．．．． | 23.5 | 193 | 225 | 40.6 | 60．1 | 66.2 | 69.0 | 66.3 | $60 \cdot 4$ | 45.2 | 28.8 | 15.8 | 43－13 |
| Gravenhurst． | $27 \cdot 1$ | 20.6 | $24 \cdot 1$ | 37.8 | 57.6 | 628 | 65.1 | 63.3 | 55.8 | $42 \cdot 6$ | 26.8 | $15 \cdot 8$ | 41.62 |
| Beatrice．．．．．．．．．．．．．．． | $20 \cdot 4$ | $18 \cdot 6$ | 21.0 | $36 \cdot 3$ | 568 | 615 | 63.6 | 61.5 | 54.6 | $40 \cdot 2$ | 24.3 | 13.7 | 39.79 |
| Barrie． | 28.6 | 24.8 | 25.5 | 40.7 | 58.5 | 63.6 | 67.0 | 68.8 | 57.8 | 41.9 | 29.9 | $17 \cdot 1$ | $43 \cdot 77$ |
| Peterborough ．．．．．．．．．．．．． | 297 | 24.0 | 27.8 | 43－2 | 62.0 | 67.8 | $70 \cdot 2$ | 68.2 | 59－2 | 44.4 | 29.5 | 16.4 | 45．15 |
| Kingston．．．．．．．．．．．．．．．．．．． | 29.9 | 237 | 27.0 | 40：3 | $58 \cdot 1$ | $65 \cdot 3$ | 69.1 | 68.2 | 61．9 | 45－9 | 30－9 | 17.9 | 44.85 |
| Point Clark | 32.6 | 27.0 | 28.2 | 41.2 | $55 \cdot 7$ | 63.2 | 67.0 | $66^{\circ} 4$ | 597 | 47－9 | 32.0 | 23.2 | 45：34 |
| Kincardine．． | 33.3 | $29 \cdot 4$ | 29.8 | 42.8 | $59 \cdot 4$ | 65－9 | 68.0 | 68.9 | $60 \cdot 6$ | 48.5 | $32 \cdot 4$ | 22.9 | 46.65 |
| Goderich．．．．．．．．．．．．．．．．．．．．． | 33.6 | 28.6 | 28.8 | 427 | 628 | 667 | 68.2 | $67 \cdot 6$ | $60 \cdot 3$ | 475 | 30.5 | 22.0 | 46.61 |
| Manltowaning．．．．．．．．．．．．．． | ．．．． | ．．．． |  | ．．．． | $\ldots$ | $\ldots$ | $63 \cdot 2$ | 61.5 | $55 \cdot 1$ | 417 | 24－8 | 18.8 |  |
| Raugeen．．．．．．．．．．．．．．．．．．．．． | 31.2 | 26.3 | 26.4 | 34－9 | 55.6 | $60 \cdot 4$ | 64－9 | $64 \cdot 1$ | 58－2 | $45 \cdot 8$ | 29.6 | 21.0 | $3 \cdot 60$ |
| Brampton．．．．．．．．．．．．．．．．．．． | 31.4 | $27 \cdot 5$ | 27.5 | 42.0 | 617 | 66.9 | 69.8 | 69－2 | 60.4 | 484 | 29.9 | 19.8 | 46.21 |
| Toronto．．．．．．．．．．．．．．．．．．．．． | $32 \cdot 7$ | $27 \cdot 4$ | 28.0 | 413 | 58.0 | $65 \cdot 4$ | $67 \cdot 6$ | 68.9 | 60.2 | 45.0 | $30 \cdot 3$ | 21.4 | $45 \cdot 43$ |
| Stratford．．．．．．．．．．．．．．．．．．．． | 81.0 | 25－9 | $27 \cdot 6$ | 41.3 | 60－9 | 65.0 | 66.4 | 65.2 | 57.8 | 44.3 | 26－2 | $18 \cdot 4$ | $4 \cdot 15$ |
| Granton．．．．．．．．．．．．．．．．．．．． | 88.4 | 27.7 | 29.0 | 42－1 | $61 \cdot 1$ | $65 \cdot 3$ | $66 \cdot 9$ | $65 \cdot 6$ | 58.1 | 44.8 | $27 \cdot 1$ | 18.2 | 45.02 |
| Ingersoll．．．．．．．．．．．．．．．．．．．．． | 32.9 | 28.1 | 29.5 | $\cdots$ |  |  |  |  |  |  |  |  |  |
| Woodstock．．．．．．．．．．．．．．．．．． | 32．0 | $27 \cdot 2$ | 29.0 | 422 |  | B6．2 |  | $\ldots$ | $\cdots$ | $\ldots$ | $\cdots$ | ．．．． | ． |
|  |  |  | 0 | 42 | 61.5 | $66^{2}$ | 67．5 | 65.6 | 58.6 | 44.8 | 27.0 | 18－9 | 4504 |
| Hamiliton ．．．．．．．．．．．．．．．．．．． | 33．1 | $28 \cdot 7$ | $31 \cdot 9$ | 44.4 | 63.5 | 68.0 | 71.5 | $80 \cdot 9$ | $62 \cdot 4$ | $47 \cdot 4$ | 307 | 22.8 | 47.88 |
| London． | 34.3 | 30.0 | 31.3 | 45.6 | 66．0 | 71.2 |  |  |  |  |  |  |  |
| Conestogo．．．．．．．．．．．．．．．．．．．． | ．．．． | ．$\cdot$. | $\cdots$ | ．．．． | $\ldots$ | 68.2 | 69.7 | 67.2 | 58.6 | $43 \cdot 4$ | 26 | 16.8 | －${ }^{\text {c．}}$ |
| Lindsay ．．．．．．．．．．．．．．．．．．．．． | ．．．． | $22 \cdot 6$ | 25.5 | $30 \cdot 2$ | 59.8 | 63.8 | 66.6 | 64.8 | $57 \cdot 1$ | $42 \cdot 3$ | 28.1 | 15.9 | ＊＊＊ |
| Norwood | 29.8 | 22.5 | 267 | 407 | 60.9 | 657 | 67.5 | 64．4 | 58.6 |  |  |  | －．．． |
| Egremont．．．．．．．．．．．．．．．．．．．．． | ＊＊＊ | ＇${ }^{\prime}$ | 25.8 | 39－9 | 68.8 | 63.3 | 65.0 | $62 \cdot 8$ | 58.2 | 42.7 | 28.5 | 18.7 | 48.7 |

## TABLE II（Continued）．—Mean Temperature，\＆\＆c．

|  |  |  |  | 茑 |  | $\underset{\underset{\text { ® }}{\dot{\text { H. }}}}{ }$ | 官 |  |  | 葛 | 号 |  | － |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ontario．－（Continued．） | － | － | － | $\bigcirc$ | $\checkmark$ | 9 | － | － | 0 | － | 0 | － | － |
| Port Dover | 34.0 | 27.9 | $30 \cdot 8$ | $42 \cdot 3$ | $55 \cdot 3$ | 669 | 68.9 | 67.8 | 60.8 | 46.8 | 29.7 | $20 \cdot 9$ | $46 \cdot 00$ |
| Simcoe．．．．．．．．．．．．．．．．．．．．．．．．． | 34.0 | 29.7 | 31.0 | 45－2 | 63：\％ | $67 \cdot 7$ | 697 | 682 | 56.1 | 47.3 | $30 \cdot 2$ | $20 \cdot 4$ | 47•17 |
| Welland．．．．．．．．．．．．．．．．．．．．．．．． | $\cdots$ | ．．．． | ．．．． | ．．．． | ． | ． | ．．．． | $\cdots$ | 61.7 | 47.7 | $31 \cdot 3$ | 22.5 | $\cdots$ |
| Windsor．．．．．．．．．．．．．．．．．．．．． | 36.2 | 33.4 | $34 \cdot 3$ | 47．5） | 655 | 69.8 | 723 | 70\％ | $62 \cdot 1$ | 49.5 | $30 \cdot 6$ | $21 \cdot 3$ | 49＊43 |
| Port Stanley．．．．．．．．．．．．．．．．．． | 30.4 | $30 \cdot 6$ | 32.9 | $43 \cdot 4$ | 68．9 | 66.3 | 1589 | 67.4 | 59.0 | 47：5 | $32 \cdot 3$ | $25 \cdot 0$ | 46.89 |
| Owen Sound ．．．．．．．．．．．．．．． | 29.5 | 24.6 | 25.4 | 39.9 | 57.4 | 615 | $\mathrm{Hi}_{5} \cdot 2$ | 65.7 | 60.1 | 45.0 | 28.3 | 20.0 | $45 \cdot 97$ |
| Silver Islet．．．．．．．．．．．．．．．．．．．． | $\ldots$ | $\cdots$ | $\cdots$ | $\cdots$ | ．．．． | ．．．． | 6if ${ }^{2}$ | $\cdots$ | $\cdots$ |  | －＊． | ．．．． | －••• |
| Strathroy．．．．．．．．．．．．．．．．．．．．． | 3.4 | $30 \cdot 0$ | $\cdots$ | $\cdots$ |  | ＊．．＇ | ．$\cdot$ ． | $\ldots$ |  | $\cdots$ | ．$\cdot$ ． | 21.0 | $\cdots$ |
| Montreal | 22.4 | 19.9 | $22 \cdot 1$ | 39.6 | 58.6 | 6195 | $69 \cdot 3$ | 66．9 | $60 \cdot 3$ | 457 | $\underline{4} \cdot 1$ | 157 | 45.02 |
| Huntingdon | 23.4 | 18.9 | 21.0 | $38 \cdot 7$ | 58.3 | $64 \cdot 1$ | 66.9 | $63 \cdot 6$ | 58.8 | $43 \cdot 1$ | 26.3 | 13.8 | 41.41 |
| Quebec Observatory．．．．．．．． | 17．4 | 148 | 16.7 | $32 \cdot 6$ | $50 \cdot 8$ | $63 \cdot 8$ | 68.0 | $61 \cdot 9$ | 56.7 | $43 \%$ | 25.2 | $14 \cdot 1$ | 38．78 |
| Quebec Citadel．．．．．．．．．．．．．．． | 176 | 15：3 | 17.8 | 34.5 | 51.0 | $64 \cdot 6$ | 68.6 | $63 \cdot 3$ | $57 \cdot 1$ | $43 \cdot 2$ | 25.8 | $15 \cdot 1$ | 39－49 |
| Cranbourne．．．．．．．．．．．．．．．．． | 18•1 | 15.8 | 16.5 | $23 \cdot 4$ |  | $59 \cdot 8$ | 63.5 | $59 \cdot 4$ | 54.7 | $40 \cdot 8$ | 20.7 | 12.8 | 37•40 |
| Chicoutiml．．．．．．．．．．．．．．．．．．．．． | $9 \cdot 7$ | $12 \cdot 7$ | 11.6 | 21.4 | 17\％ | $61 \cdot 4$ | $\cdots$ | ．．．． | 52.6 | $39 \cdot 4$ | 24.0 | $8 \cdot 9$ | －••• |
| Father Polnt．．．．．．．．．．．．．．． | 139 | $12 \cdot 6$ | 13.6 | $30 \cdot 3$ | $43 \cdot 1$ | 54.7 | 57.5 | 56.6 | $49 \cdot 8$ | $41 \cdot 2$ | 26.9 | 16.2 | 34.72 |
| Richmond ．．．．．．．．．．．．．．．．． | 238 | $20 \cdot 9$ | 205 | $44 \cdot 9$ | 53.7 | 03.0 | 67－2 | $\cdots$ | $\cdots \cdots$ | $\cdots$ | $\cdots$ | $\cdots$ |  |
| Danvitle．．．．．．．．．．．．．．．．．．．． |  | $\cdots$ | $\cdots$ | －••＇ | $\cdots$ | $64 \cdot 9$ | $67 \cdot 4$ | $60 \cdot 5$ | 57.5 | $44 \cdot 3$ | $27 \cdot 4$ | 167 | －$\cdot$ ． |
| Anticosti，S．W．Polnt ．．．． | 14.2 | $12 \cdot 1$ | 137 | $29 \cdot 1$ | 357 | $52 \cdot 4$ | $60 \cdot 2$ | $56 \cdot 4$ | $52 \cdot 4$ | 45.4 | $32 \cdot 2$ | 22.5 | 36.77 |
| Brome．．．．．．．．．．．．．．．．．．．．．．．．． | 21.6 | $17 \cdot 6$ | $20 \% 3$ |  | 55.8 | 64.5 | 66.6 | 62.2 | 38.2 | $44 \cdot 3$ | 26.7 | 13.2 | $40 \cdot 47$ |
| Digby．．．．．．．．．．．．．．．．．．．．．．．．．． | 28.6 | 26.9 | $25 \cdot 7$ | $39 \cdot 6$ | 50.7 | $58 \cdot 1$ | $62 \cdot 2$ | 61.7 | 58.7 | $48 \cdot 6$ | 34.9 | $27 \cdot 2$ | 48.57 |
| WIndsor．．．．．．．．．．．．．．．．．．．．．．． | 24.0 | 23.7 | 23.9 | 36.8 | 51.0 | $\cdots \cdot$ | －••• | －••• | －•．． | ． $49 \cdot 0$ | $33 \cdot 8$ | $\cdots{ }^{\circ} \cdot$ | －$\cdot$ ． |
| Halifax．．．．．．．．．．．．．．．．．．．．．．．．． | $27 \cdot 3$ | $25 \cdot 3$ | 24．2 | $37 \cdot 2$ | 47.9 | 57.8 | $64 \cdot 8$ | 63.0 | 59.8 | 48.7 | $34 \cdot 1$ | 26.3 | $43 \cdot 04$ |
| Sydney．．．．．．．．．．．．．．．．．．．．．．．． | 232 | 20.2 | $17 \cdot 6$ | 33.6 | 44.0 | $53 \cdot 1$ | 65.0 | 62.6 | $58 \cdot 8$ | $48 \cdot 4$ | $34 \cdot 4$ | $28 \cdot 3$ | $40 \cdot 77$ |
| Truro．．．．．．．．．．．．．．．．．．．．．．．． | 233 | $21 \cdot 3$ | $19 \cdot 3$ | 357 | $49 \cdot 3$ | 56.9 | 65.6 | 63.2 | $58 \cdot 4$ | $46 \cdot 6$ | 31.0 | 233 | $41 \cdot 16$ |
| Baddeck ．．．．．．．．．．．．．．．．．．．． | 22.9 | $20 \cdot 3$ | 20.5 | $34 \cdot 6$ | 44.9 | $55 \cdot 9$ | 67•3 | 67.5 | $60 \cdot 6$ | $49 \cdot 3$ | 33．0 | 27－4 | 42．02 |
| Yarmouth．．．．．．．．．．．．．．．．．．．．．． | 30.8 | $28 \cdot 9$ | 27.2 | $38 \cdot 6$ | $49 \cdot 3$ | $56 \cdot 9$ | 61.0 | $60 \cdot 7$ | 57.9 | $49 \cdot 0$ | 37.8 | 28.6 | 43.92 |
| Glace Bay ．．．．．．．．．．．．．．．．．．．．． | 22.9 | $19 \cdot 4$ | 16.5 | $32 \cdot 3$ | 42.0 | 50.0 | 66．1 | 62.6 | 59•1 | 47.8 | 33.8 | 27.0 | 38.96 |

TABLE II．（Continued）．－Mean Temperature．

|  |  | $\begin{aligned} & \text { B } \\ & \text { 感 } \\ & \text { B } \\ & \text { M } \end{aligned}$ |  | 官 | $\stackrel{\dot{\text { ® }}}{\substack{\text { foy }}}$ |  | 官 | $\begin{aligned} & \text { 蕽 } \\ & \text { 点 } \end{aligned}$ |  | 8. 0 8 8 8 8 |  |  | ¢ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New Brunswick． | 0 | 0 | 0 | － | $\bigcirc$ | － | － | － | $\bigcirc$ | 0 | － | － |  |
| St．John．．．．．．．．．．．．．．．．．．．．．．．． | 24.8 | 21.8 | 22.8 | 36.0 | $47 \cdot 2$ | $57 * 0$ | 60.7 | 59.3 | 56\％3 | 46.8 | $31 \cdot 4$ | 22.2 | $40 \cdot 53$ |
| Frederiaton ．．．．．．．．．．．．．．．．． | 16．9 | 17.0 | $29 \cdot 4$ | 36．5 | $52 \cdot 4$ | 62.1 | 66.9 | 63.3 | $58 \cdot 2$ | $45 \cdot 1$ | 26.3 | $17 \cdot 6$ | $40 \cdot 14$ |
| Bathurst．．．．．．．．．．．．．．．．．．．．．．．． | $16 \cdot 2$ | $15 \cdot 2$ | 17.6 | 36.0 | 47．8 | 60.8 | $69 \cdot 8$ | 65．5 | 58.8 | $46 \cdot 1$ | $27 \cdot 7$ | $19 \cdot 3$ | 40.07 |
| Dalhousle．．．．．．．．．．．．．．．．． | 13.4 | $11 \cdot 3$ | 14.8 | $30 \cdot 5$ | 417 | 58.6 | 65．1 | $60 \cdot 6$ | 517 | 42－4 | 20.7 | 17.2 | 35－83 |
| Chatham．．．．．．．．．．．．．．．．．．．． | $16 \cdot 3$ | 144 | －15．9 | $35 \cdot 4$ | $49 \cdot 1$ | $59 \cdot 8$ | 67.0 | 633 | 577 | $45 \cdot 5$ | $27 \cdot 8$ | 17.4 | $30 \cdot 13$ |
| St．Andrews ．．．．．．．．．．．．．．．．． | 23.6 | 23.5 | 24.8 | $38 \cdot 3$ | 513 | 60．0 | 64.6 | 635 | 59.8 | 48.2 | 33•1 | 23－2 | $42.84^{\prime}$ |
| Point Le Preaux．．．．．．．．．．．． | $27 \cdot 2$ | $24^{\prime 2}$ | 24.6 | $36 \cdot 1$ | $44 \cdot 8$ | 52.6 | $56 \cdot 1$ | 57.2 | $56 \cdot 1$ | 47.7 | 33.9 | 23－8 | $40 \cdot 36$ |
| P．E．Tsland． |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Charlottetown．．．．．．．．．．．．．． | 20.9 | $10 \cdot 0$ | 177 | $33 \cdot 9$ | 46．9 | $55 \cdot 9$ | 66.8 | 64＇4 | 60.0 | $49 \cdot 0$ | 31.8 | 23.5 | 40.82 |
| Kilmahumaig．．．．．．．．．．．．．．． | 19.8 | 18.0 | $17 \cdot 1$ | $34 \cdot 8$ | 46.2 | 57－1 | $66 \cdot 5$ | 63.5 | 59.5 | 47.0 | 30•1 | $22 \cdot 4$ | 40．19 |
| Newfoundland． |  |  |  |  |  |  |  |  |  |  |  |  |  |
| St．Johns．．．．．．．．．．．．．．．．．．．．．． | $23 \cdot 1$ | $10 \cdot 6$ | 10.5 | $32-2$ | $38 \cdot 8$ | $50 \%$ | 62．3 | $62 \cdot 1$ | 51．4 | 467 | $38 \cdot 4$ | $30 \cdot 3$ | $39 \cdot 45$ |
| Channel．．．．．．．．．．．．．．．．．．．．．．．． | 21.7 | $15 \cdot 7$ | 16.7 | 29.6 | $37 \cdot 0$ | 470 | $55 \cdot 6$ | 58.9 | 52.2 | $44 \cdot 8$ | 30.8 | 25.2 | 38.08 |
| Fogo ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | $18 \cdot 8$ | 13.7 | $17 \cdot 1$ | $36 \cdot 1$ | $42 \cdot 2$ | 53.7 | $68 \cdot 3$ | 68.3 | 56.2 | $48 \cdot 8$ | 34.6 | 28.2 | $40 \cdot 17$ |
| Placentia．．．．．．．．．．．．．．．．．．．．．． | $24 \cdot 8$ | 22.2 | 22.0 | $33 \cdot 5$ | $40 \cdot 5$ | $\cdots$ | －••• | ＊．． | －$\cdot$ ． | ．．． | －•＊＊ | $\ldots$ | ＊ |
| Fort Garry．．．．．．．．．．．．．．．．．．．．． | $0 \cdot 5$ | $2 \cdot 2$ | $7 \cdot 4$ | 307 | 54.7 | 62.8 | $65 \cdot 6$ | 62．2 | $51 \cdot 1$ | 38.2 | 12.0 | $2 \cdot 5$ | 3172 |
| Windipeg．．．．．．．．．．．．．．．．．．．．．． | 0.2 | 17 | 60 | $81 \cdot 1$ | 54.4 | 63.0 | 66．0 | 82－1 | 50.9 | 38.2 | $13 \cdot 1$ | $0 \%$ | 31.85 |
| Rockwood．．．．．．．．．．．．．．．．．．．．．． | 0.6 | 8.9 | $5 \cdot 6$ | 307 | 54.1 | 819 | 60.2 | 63．2 | 50.7 | 85．7 | $14 \cdot 2$ | 19 | 31.83 |
| Poplar Heightg．．．．．．．．．．．．．．．． | ＊．．． | 2.4 | $4 \cdot 8$ | 27.5 | 54.8 | 62.6 | 657 | 61＊8 | 507 | 874 | $13 \cdot 1$ | － $2 \cdot 1$ | ＊＊＊ |

TABLE II (Continued).-Mean Temperature, \&c.


## TABLE III. Highest Temperature in each Month at Stations in the Dominion of Canada during the year 1880.



## TABLE III（Continued）．－Highest Temperature，dec．

|  |  |  | $\begin{aligned} & \text { 若 } \\ & \text { 䫆 } \end{aligned}$ | 荷 |  | 昌 | 号 | 苼 |  | $\dot{\circ}$ $\stackrel{8}{\circ}$ 8 8 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ontarto．－（Continued．） | $\bigcirc$ | $\bigcirc$ | － | － | $\bigcirc$ | 0 | 0 | 9 | $\bigcirc$ | 0 | － | － |
| London．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 54.5 | 54.0 | $49 \cdot 8$ | 71.0 | 84．8 | 90．0 | ．．．． | $\cdots$ | $\cdots$ | ．．．． | ．．． | ．．． |
| Port Dover．．．．．．．．．．．．．．．．．．．．．．．．．．． | 49.8 | $52 \cdot 1$ | $48^{\circ} 1$ | $68 \cdot 1$ | $80-8$ | 850 | 88.2 | 87.0 | 88.0 | $69 \cdot 1$ | 55.8 | 49.8 |
| Slmcoe．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 58.8 | 56.8 | 61.8 | $73 \cdot 6$ | 87.8 | 89.0 | 87.1 | $86 \cdot 6$ | 86.2 | $75 \cdot 1$ | 59.8 | 51.8 |
| Welland． | ． | $\ldots$ | ．$\cdot$. | $\ldots$ |  | ． | ．．．． | $\cdots$ | 857 | 75.9 | $64 \cdot 4$ | $43 \cdot 1$ |
| Windser．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 59.7 | 63.4 | 58.1 | 786 | $88 \cdot 9$ | 93.0 | 947 | 92.2 | 92．2 | 79.2 | 61.1 | $40 \cdot 0$ |
| Port Stanley．． | 48.8 | 505 | 63.0 | 65.0 | $80 \cdot 0$ | 93－5 | 85.0 | 92.0 | 84.5 | 74．0 | 57.0 | 51.8 |
| Owen Sound ．．．．．．．． | 53.0 | 51.0 | 56.0 | 74.0 | 88.0 | 89.0 | 89.0 | 92.0 | 84.0 | 75.0 | 59.0 | 47.0 |
| Lindsay．．．．．．．．．．．．．．．．．． | ．．．＇ | 50.6 | 53.6 | $69 \cdot 1$ | 87.6 | $90 \cdot 6$ | 91.7 | 917 | 86.9 | 79.0 | 58.6 | 42.0 |
| Montreal | 43.8 | 51.2 | 49.6 | $63 \cdot 4$ | 85.2 | $86 \cdot 1$ | 86.2 | 86－2 | 85.0 | 77.1 | $59 \cdot 0$ | $40 \cdot 6$ |
| Hnntingdon．．．．．．．．．．．．．．．．．．．．．．．． | $47 \cdot 4$ | 52.0 | 51／3 | 67.5 | 88.5 | 89.5 | 895 | 87．5 | 87.5 | 74.5 | 59.5 | $40 \cdot 3$ |
| Quebec Obser vatory ．．．．．．．．．．．．．．． | 40.0 | 41.0 | 38.0 | 54.0 | 850 | $85 \cdot 0$ | 88.0 | 87.0 | 80.0 | 680 | 56.0 | $34 \cdot 5$ |
| Quebec Citadel ．．．．．．．．．．．．．．．．．．．．． | 39.0 | 44.0 | 39.0 | $57 \cdot 0$ | 85.0 | 85.0 | 840 | 83.0 | 78.0 | 69.0 | $55^{\circ} 0$ | 34．2 |
| Cranbourne． | 38－0 | 518 | 419 | 56.8 | 86.8 | 89.8 | $83 \cdot 3$ | 83.8 | $83 \cdot 8$ | 69.8 | 56.8 | $32 \cdot 0$ |
| Chicoutimi ．．．． | 32.0 | $40 \cdot 5$ | 43.5 | $50 \cdot 1$ | 73.2 | 8299 | ．．． | $\cdots$ | 787 | 63.3 | 57.7 | $34 \cdot 8$ |
| Father PoInt． | 37.5 | $43 \cdot 1$ | 35.0 | 57.8 | 67.2 | $83 \cdot 1$ | 747 | $82 \cdot 7$ | 70．2 | 62．3 | 567 | 350 |
| Anticosti，S．W．Point． | 34.0 | 36－0 | 31.0 | 45.0 | 55.0 | 66.0 | 71.0 | 73.0 | 65.6 | 59.2 | 50.0 | $35 \cdot 2$ |
| Danville | $\cdots$ | ．．．． | ．．．． | $\ldots$ | ．．．＇ | 91.0 | 88.0 | 88.8 | 89.3 | 74.8 | 58.8 | 37．5 |
| Richmond ． | 44.0 | 50．0 | 49.0 | 60.0 | 88.0 | 91.0 | $90^{\circ} 0$ | $\cdots$ | $\cdots$ | $\ldots$ | $\cdots$ | $\cdots$ |
| Nova Scotia． |  |  |  |  |  |  |  |  |  |  |  |  |
| Digby．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 45.0 | 47.0 | 42.0 | 59.0 | 73.0 | 81.0 | 79.0 | 79.0 | $77 \cdot 0$ | $66^{\circ} 0$ | $66^{\circ} 0$ | 43.0 |
| Windsor．．．．．．．．．．．．．．．．．．．．． | 47.0 | 47.0 | 465 | 61.0 | 829 | ．．． | －• | $\cdots$ | $\ldots$ | 73.0 | 63.0 | $46 \cdot 1$ |
| Hallfax．．．．．．．．．．．．．．．． | 47.0 | 48.8 | $45 \cdot 4$ | 61.8 | 88.0 | 86.3 | $83 \cdot 4$ | 90.0 | 85.0 | 70.0 | $60 \cdot 4$ | 45.0 |
| Sydney ．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | $4 \cdot 1$ | 45.5 | 37.3 | 56．4 | 74．0 | 85.0 | 83.1 | $86 \cdot 3$ | 83.7 | 67.2 | 59.9 | 50.2 |
| Truro ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 47.7 | $49 \cdot 2$ | 45.0 | 646 | 83．8 | 866 | 88.1 | $90 \cdot 5$ | 81.4 | 73.2 | 63.7 | 45.2 |
| Baddeck | 44.0 | 43.0 | $45^{\circ} 0$ | 58.0 | 82.7 | 907 | 927 | 87.7 | 81.0 | 64.9 | 55.0 | 40.8 |
| Yarmouth ．．．．．．．．．．．．．．．．．．．．．．．．． | 50.0 | 48.0 | 44.0 | 58.0 | $70 \cdot 1$ | $77 \cdot 1$ | 76.0 | $77 \cdot 6$ | 74.2 | 67.6 | 64－5 | 44.9 |
| Glace Bay．．．．．．．．．．．．．．．．．．．．．．．．．．．． | $42 \cdot 5$ | 42.0 | 41.0 | 56.0 | 77.0 | 84.0 | 87.0 | 900 | 86.0 | 67\％ | 58.0 | 50.0 |

## TABLE III. (Continued).-Highest Temperature, dec.



TABLE III (Continued).-Highest Temperature, \&c.


## TABLE II.-Lowest Temperature in each Month; at Stations in the Dominion of Canada, during the Year, 1880.



TABLE IV (Continued).-Lowest Temperature, (ec.


TABLE IV (Continued).-Lowest Temperature, dc.


TABLE IV（Continued）．－Lowest Temperature，\＆$c$ ．

|  | $\dot{\text { ® }}$ 呆 舄 | $\begin{aligned} & \text { 若 } \\ & \text { 岂 } \\ & \text { © } \end{aligned}$ | $\begin{aligned} & \text { 苨 } \\ & \text { 思 } \end{aligned}$ | 害 | $\dot{\text { 亩 }}$ | $\begin{gathered} \dot{\circ} \\ \stackrel{g}{\circ} \end{gathered}$ | 咅 | $\begin{aligned} & \text { 蔃 } \\ & \text { 品 } \end{aligned}$ | $\begin{aligned} & \text { 号 } \\ & \text { 最 } \\ & \text { 荅 } \end{aligned}$ |  |  | 安 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| British Columbia． | － | － | $\bigcirc$ | $\bigcirc$ | － | 0 | 0 | － | － | － | － | － |
| New Weatminster．．．．．．．．．．．．．．．．．． | 8.5 | 17.5 | 21.0 | 28.0 | 38.0 | 450 | 46.0 | 46.0 | 395 | 320 | 22.0 | 120 |
| Ladner＇s Landing．．．．．．．．．．．．．．．．．． | 120 | 170 | 23.0 | 27.0 | 37.0 | 41.0 | 46.0 | 440 | 34.0 | 29.0 | 20.0 | 11.0 |
| Lilloet．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 22.0 | 50 | 10.0 | 100 | 40.0 | 11.0 | 460 | 400 | 30.0 | 300 | 10.0 | 20 |
| shoose Factory ．．．．．．．．．．．．．．．．．．．．．． | $\overline{-30} 4$ | 34.6 | 39.5 | －10．1 | 128 | 333 | $40 \cdot 3$ | 36.7 | 29.8 | 15.1 | 186 | 20.8 |
| Albang，H．B．．．．．．．．．．．．．．．．．．．．．．．． | 33.0 | ．${ }^{\text {．}}$ | 41.0 | 190 | 120 | 290 | ．．．． | $\cdots$ | $\cdots$ | $\ldots$ | 21.0 | 260 |
| Marten＇s Falls．．．．．．．．．．．．．．．．． | 45.0 | 47.0 | 410 | －180 | 10 | $25 *$ | 350 | 81.0 | 25.0 | 4.0 | 28.0 | 32.0 |
| Gimli，Keewatin．．．．．．．．．．．．．．．．．．．． | 37.7 | 53.0 | 48.5 | 0.0 | 29.0 | 36.0 | 32.0 | 40.3 | 27.3 | 18.2 | ．．．． | 10.0 |
| Wablgoon，do |  |  |  | ．． | ．．．． | $\ldots$ | ．．． | $35 \cdot 1$ | 23.5 | 0.1 | 40.0 | 46.0 |
| Fort Dunvegan | 83.4 | $50 \cdot 4$ | $52 \cdot 0$ | $27 \cdot 4$ | 210 | 30.4 | 34.4 | 33.4 | 23.3 | 20.3 | 21.8 | 47.4 |

TABLE V.-Mean Temperature in each quarter, with the Highest and Lower Temperature in the year 1880, and dates of their occurrence.


TABLE V (Continued).-Mean Temperature in each Quarter, \&c.


TABLE $V$（Continued）．－Mean Temperature in each Quarter，\＆c．

|  |  | $\begin{aligned} & \text { 号 } \\ & \text { 品 } \end{aligned}$ | $\begin{aligned} & \text { 肓 } \\ & \text { 畧 } \\ & \text { 品 } \end{aligned}$ | $\begin{aligned} & \text { 見 } \\ & \text { 鬼 } \end{aligned}$ | $\underset{\oplus}{\dot{\omega}}$ | HIGHEST TEMPERATURE． |  | LOWEST TEMPERATURE． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Date of Occur－ RENCE． | 葸 | Datim of OCCUR－ RENCE． |
| Nova Scotia． |  |  |  |  |  |  |  |  |  |
|  | － | － | $\bigcirc$ | 0 | － | － |  | － |  |
| Digby．．．．．．．．．．．．．．．．．．．．． | $27 \cdot 1$ | $40 \cdot 5$ | ${ }^{60-9}$ | 38.9 | 43.57 | 81.0 | 30 June | 20 | 2 Feb． |
| Windsor．．．．．．．．．．．．．．．．．． | 23.9 | －．． | ．．．． | $\cdots$ | ．．．． | ．．．． | ．．．．．．．． | 9.0 | 10 Dec ． |
| Halifax ．．．．．．．．．．．．．．．．． | 25.6 | 47.6 | 62.5 | 36.4 | 43.08 | 90.0 | 1 Aug． | 3.4 | 10 Feb． |
| Sydney ．．．．．．．．．．．．．．．．． | $20 \cdot 3$ | $43 \cdot 6$ | $62 \cdot 1$ | 37.0 | 4077 | 86.3 | 2 Aug． | 242 | 12 Mar ． |
| Truro．．．．．．．．．．．．．．．．．．． | 21.3 | 47.3 | 62．4 | 33.6 | $41 \cdot 16$ | 90.5 | 2 Aug． | 168 | 10 Dec． |
| Baddeck．．．．．．．．．．．．．．． | 21.2 | $45 \cdot 1$ | 651 | 36.6 | 42.02 | 927 | 12 July | － 11.6 | 1 Jan． 11 Mar． |
| Yarmouth．．．．．．．．．．．．．． | 29.0 | 48.3 | 590 | 38.5 | 43.82 | 76 6 | 29 Aug． | 3．3 | 2 Feb． |
| Glace Bay．．．．．．．．．．．．．． | 19.6 | $41 \cdot 4$ | 62.6 | 362 | $38 \cdot 96$ | 90.0 | 2 Aug． | 10－8 | 12 Mar． |
| Neve Brunswick． |  |  |  |  |  |  |  |  |  |
| St．John．．．．．．．．．．．．．．．．． | $23 \cdot 1$ | 46.7 | 588 | 3：5 | 40：53 | 82.0 | 1 Aug． | － 10.0 | 2 Feb． |
| Fredertcton ．．．．．．．．．．．． | 17.8 | 50.3 | 628 | 207 | 40－14 | 92.6 | 2 Aug． | 21.5 | 6 Jen． |
| Bathurst．．．．．．．．．．．．．．．．． | 16.3 | 48.2 | 647 | 31.0 | 40.07 | 90.5 | 2 Aug． | －200 | 1 Jan． |
| Chatham ．．．．．．．．．．．．．． | 13.2 | 43.6 | 60.1 | 268 | 35－93 | 90－5 | 2 Aug． | $-20.2$ | 13 Mar． |
| Dalhouste ．．．．．．．．．．．．．．．． | 15.5 | $48 \cdot 1$ | 627 | $30 \cdot 2$ | $39 \cdot 13$ | 91.1 | 2 Aug． | 20－9 | 12 Mar． |
| Bt．Andrews ．．．．．．．．．．．． | 24.0 | 49.9 | $62 \cdot 6$ | 34.8 | 42，84 | $87 \cdot 1$ | 1 Aug． | 14．8 | 2 Feb． |
| Polnt Le Preaux．．．．．．． | $25 \cdot 3$ | $44 \cdot 5$ | 56.5 | 35.2 | 40：36 | 72.0 | 20 Aug． | － 10.0 | 2 Feb． |
| P．E．Island． |  |  |  |  |  |  |  |  |  |
| Charlottetown．．．．．．．．．． | $19 \cdot 2$ | 456 | 63.7 | 94．8 | 4） 82 | 868 | 2 Ang． | $11 \cdot 3$ | 12 Mar ． |
| Kilmahumatg ．．．．．．．．． | 18.3 | 46.0 | $63 \cdot 2$ | $33 \cdot 3$ | $40 \cdot 19$ | 86.7 | 3 Aug． | $-21.2$ | 12 Mar ． |
| Fort Garry ．．．． | 1.9 | 49．4 | 59.6 | 15.9 | 31－72 | 80.3 | 23 July | －44．4 | 28 Dec ． |
| Winnipeg．．．．．．．．．．．．．．．． | 1.5 | $49 \cdot 5$ | 59.7 | 16.8 | 3185 | 877 | 28 July | ${ }^{42 \cdot 1}$ | 27 Dec． |
| Rockw00d．．．．．．．．．．．．．． | 0.8 | 48.9 | 60.0 | 17.6 | 31.83 | 88.0 | 29 July |  |  |
| Poplar Heights ．．．．．．．．． | $\cdots$ | $48 \cdot 3$ | $69 \cdot 3$ | 16.0 | ．．．． | 86－9 | 23 July | $-443$ | 27 Deo． |

TABLE V (Continued).-Mean Temperature in each Quarter, \&c.


TABLE VI．－January，1880．Daily Mean Temperature．\＃

| $\dot{\Delta}$ |  |  |  |  | $\begin{aligned} & \text { 遼 } \\ & \stackrel{a}{a} \\ & 0 \\ & 0 \end{aligned}$ |  | 官 |  |  |  |  |  |  | $\begin{aligned} & \text { 吕 } \\ & \overrightarrow{\text { a }} \\ & \dot{B} \end{aligned}$ | $\begin{aligned} & \text { 豆 } \\ & \text { 品 } \\ & \text { H } \end{aligned}$ | 家 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | － | － | － | $\bigcirc$ | － | － | － | － | － | － | － | 0 | － | $\bigcirc$ | － | － |
| 1 | 11.8 | ．．．． | $\ldots$ | 22.0 | 177 | 14.8 | 14.5 | 173 | 10－5 | 32.0 | $32 \cdot 1$ | 31.2 | 34，3 | $30 \cdot 3$ | $30 \cdot 8$ | 28.0 |
| 2 | $20 \cdot 4$ | 35.0 | ．．．． | 11.3 | 54 | 8.8 | 10.0 | 8.0 | 4．5 | 68 | $20-2$ | $33 \cdot 3$ | 32.0 | 87.3 | 32－8 | 32.0 |
| 3 | 30．8 | 35.5 | $\ldots$ | 8.0 | 19.2 | 17.3 | 21.8 | $5 \cdot 9$ | 2.0 | 32.5 | 287 | $35 \cdot 1$ | $33 \cdot 3$ | 402 | 36.0 | 327 |
| 4 | $27 \cdot 1$ | ．．． | $\ldots$ | 1.5 | ．．．． | $1 \cdot 3$ | $2 \cdot 1$ | 9.6 | 120 | 19.0 | $32 \cdot 3$ | 37.4 | $32 \cdot 3$ | $\ldots$ | 39.5 | 38.0 |
| 5 | 33.0 | 28.5 | $\ldots$ | 20.3 | 20.4 | 16.4 | $14 \cdot 3$ | 55 | 5.5 | 27.7 | $25 \cdot 8$ | 35.5 | $30 \cdot 3$ | $33 \cdot 9$ | $33 \cdot 8$ | 31.4 |
|  | 434 | 28：5 | ．．．． | 13.0 | 13.2 | 11.9 | 14.9 | 12.8 | 11.0 | 18.0 | $30 \cdot 1$ | $39 \cdot 3$ | $35 \cdot 5$ | $44 \cdot 3$ | $40 \cdot 5$ |  |
| 7 | 36.5 | 19.3 | $\ldots$ | $8 \cdot 8$ | 78 | 8.8 | 72 | 0.7 | 6.0 | 27.8 | $32 \cdot 6$ | $34 \cdot 2$ | 35.0 | $30 \cdot 9$ | 320 | $3 \% 9$ |
| 8 | 64.4 | 15.0 | ．．．． | 12.0 | $10 \cdot 1$ | 52 | 15 | 17.0 | 8.0 | 341 | $3+2$ | 41.1 | 40.5 | 39.0 | 38.5 | $35 \cdot 9$ |
| 9 | 48.5 | 21\％ | $\ldots$ | 14．8 | $12 \%$ | 12.1 | 13.4 | 212 | 12.5 | 167 | 337 | 43－9 | 40.0 | 40.0 | 42.3 | $41 \cdot 6$ |
| 10 | 37.5 | $15 \cdot 5$ |  | $8 \cdot 5$ | $4 \cdot 6$ | 13 | $5 \cdot 6$ | 6.1 | 13.0 | 21.8 | $16 \cdot 2$ | $32 \cdot 7$ | 31.5 | 32.6 | 35－3 | 2x．7 |
| 11 | 50.9 | $\ldots$ | $\ldots$ | 20.3 | $\ldots$ | 18.4 | 16.4 | 9.5 | $5 \cdot 5$ | 1.3 | $3 \cdot 4$ | 45.0 | 39.3 | $\ldots$ | 410 | $39 \cdot 4$ |
| 12 | $40 \cdot 9$ | 29.5 | ．．．． | 22.0 | 198 | 29.0 | 18.6 | $16 \cdot 3$ | 18.5 | 10.0 | $15 \cdot 2$ | $23 \cdot 9$ | $24 \cdot 5$ | 29.6 | 28.8 | 23.2 |
| 13 | 16.2 | 34．5 | ．．．． | 90 | $2 \cdot 4$ | $8 \cdot 1$ | 7.0 | 159 | 16.5 | 1.2 | $12 \cdot 2$ | 24.5 | 26.3 | 29.4 | 23.8 | $19 \cdot 4$ |
| 14 | 11.8 | 37.3 | $\ldots$ | $7 \%$ | $81)$ | 9.8 | 43 | $11 \%$ | $10 \cdot 5$ | $4 \cdot 3$ | 27.0 | $32 \cdot 4$ | 31.0 | 33.9 | 31.3 | 29.2 |
| 15 | 12.9 | 38.8 | $\ldots$ | 10.0 | 12.8 | 12.0 | $13 \cdot 3$ | $2 \cdot 6$ | 30 | 16.8 | 20.0 | $28 \cdot 2$ | 30.5 | 30.5 | 29.0 | $25 \cdot 3$ |
| 16 | 21.4 | 41.0 | $\ldots$ | 13.3 | 14－2 | 1255 | $1 \because \cdot 1$ | 8.8 | 2.0 | 17．2 | $3 \cdot 3$ | 36.8 | 37.5 | 42：8 | 37.3 | $35 \cdot 0$ |
| 17 | 190 | 38.5 |  | 160 | 18.8 | 19.0 | 174 | $10 \%$ | 6.5 | 23.4 | $33 \cdot 9$ | $40 \%$ | 37.0 | 44.7 | 40.0 | $3 \cdot 4$ |
| 18 | $33 \cdot 3$ | ．．．． |  | 05 | ．．． | 1.5 | 40 | 14.6 | 10.0 | 32．3 | $45 \cdot 1$ | $34 \cdot 9$ | 330 | $\ldots$ | 36．3 | 33．5 |
| 19 | 18.2 | 83.0 | $\cdots$ | 11.0 | 119 | 79 | 13.8 | $10 \cdot 5$ | 9.0 | 10 | $22_{6} 6$ | 377 | 36.0 | 41.6 | 395 | 37－4 |
| 20 | 12.2 | $33 \cdot 5$ | ．．．． | 2.5 | $4 \cdot 4$ | $5 \cdot 0$ | 999 | 12－4 | 150 | 38 | $10 \cdot 4$ | 29.4 | 27.5 | 33.0 | 293 | 26.1 |
| 21 | 0.0 | 303 | ．．．． | 43 | $6 \%$ | $7 \cdot 4$ | $8 \cdot 3$ | 73 | 10.5 | 25.2 | 97 | 27.7 | 25.5 | 340 | 29.3 | $24 \cdot 3$ |
| 22 | 22.7 | 35•3 | $\ldots$ | 0.0 | 32 | 0.8 | 1.0 | 8.2 | 20 | 21.6 | 19•1 | $35 \cdot 4$ | 35.5 | 37.4 | $35 \cdot 3$ | $34 \cdot 4$ |
| 23 | 15.6 | 35.0 | ．．． | $10 \%$ | 42 | $7 \cdot 1$ | 11.6 | 45 | 140 | 12.7 | 12.3 | $20 \cdot 4$ | 273 | 30．4 | 26.8 | $24 \cdot 4$ |
| 24 | 1.0 | 39.0 | ． | 7.8 | $3 \cdot 6$ | 99 | $9 \cdot 3$ | $2 \cdot 1$ | 2.0 | 157 | 18．8 | 29.5 | $31 \cdot 3$ | $34 \cdot 8$ | 278 | 25.0 |
| 25 | 19.3 | ．．． | $\cdots$ | 23.8 | ．．．． | $25 \cdot 3$ | 15.2 | 15.5 | 16.5 | 18.4 | 247 | 30．3 | $33 \cdot 8$ |  | 33.5 | $30 \cdot 9$ |
| 28 | 20.3 | $30 \cdot 8$ |  | 0.3 | 1.0 | 13 | $5 \cdot 0$ | 29.4 | 17.0 | $26 \cdot 9$ | 39.4 | $40 \cdot 2$ | $39 \cdot 3$ | 426 | 883 | 35.7 |
| 27 | 41.2 | 250 | ．．．． | 17.0 | 103 | 15.9 | 12\％ | 8.6 | 60 | $3 \cdot 4$ | 34－5 | 39.4 | $39 \cdot 3$ | 42.6 | 39.0 | 30.6 |
| 28 | 1.49 | 21.0 | $\ldots$ | 18.8 | $17 \cdot 3$ | $18: 3$ | 17.3 | 14.0 | 15.0 | $8 \cdot 5$ | 13.8 | $20 \cdot 2$ | 28.5 | $33 \cdot 1$ | 28.8 | 25.5 |
| 29 | $4 \cdot 8$ | $24 \cdot 5$ | $\cdots$ | 63 | $4.0$ | $3 \cdot 3$ | 0.9 | 14.0 | 22.5 | 0.3 | 4.0 | 19．5 | 18．0 | 24.9 | 20.0 | 1\％＂ |
| 30 | 72 | 31.3 | $\ldots$ | 8.0 | $8 \cdot 1$ | $10 \cdot 3$ | $0 \cdot 5$ | 7.5 | 40 | 13.8 | 32．5 | 39.5 | 38.5 | 42.0 | $35 \cdot 8$ | $35 \cdot 1$ |
| 81 | $20 \cdot 1$ | $34 \cdot 0$ | ．．．． | 15.8 | $15 \cdot 9$ | $17 \cdot 6$ | 15.5 | $18 \cdot 2$ | $10 \cdot 0$ | 57 | 167 | 23－9 | 28.3 | 27.4 | 245 | 22.0 |
|  | 20.5 | $30 \cdot 6$ | －••• | $0 \cdot 0$ | $0 \cdot 2$ | 0.5 | 0.9 | $3 \cdot 3$ | 0.2 | 14.7 | 24.8 | $33 \cdot 6$ | 32．6 | $36 \cdot 2$ | 33＇4 | 81.0 |

TA BLE VI.-January, 1880. Daily Mean Temperature.


TABLE VI．－Tanuary，1880．Daily Mean Temperature．

| $\dot{\ddot{E}}$ |  |  |  |  |  |  |  |  | 首 |  |  |  |  | 药 |  | － |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | － | － | $\bigcirc$ | － | － | － | － | － | $\bigcirc$ | － | － | － | $\bigcirc$ | $\bigcirc$ | $\stackrel{\square}{-}$ | － |
| 1 | 13.0 | 10\％ | $5 \cdot 3$ | $5 \cdot 5$ | 12.2 | 2.0 | ．．．． | 15.9 | 15.1 | 16．5 | 0.6 | 13.3 | $9 \cdot 0$ | 78 | $19 \cdot 3$ | $14 \cdot 3$ |
| 2 | 308 | $29 \cdot 0$ | 24.8 | $25 \%$ | 32\％ | 27.5 | $21 \%$ | ：${ }^{2} 1$ | 25：3 | 86.0 | 31.3 | $\because 1 \%$ | 24.1 | 28.0 | $20 \cdot 6$ | 20\％ |
| 3 | C＇4 | $15 \%$ | 197 | 5.0 | 16.1 | 11： | $8 \cdot 6$ | 19.9 | 14.2 | 17.5 | 52 | 12\％ | $10 \cdot 6$ | 85 | 13.0 | 7.0 |
| 4 |  | 30 | － | 29.0 | 30.9 | ．．．． | ．$\cdot$ ． | 28.9 | 16.8 | 83.5 | 27.4 | $\cdots$ | $\underline{6.6}$ | $03: 3$ | 18\％ | 217 |
| 5 | $19 \cdot 9$ | $18 \%$ | 11.4 | 50 | 218 | 165 | $10 \cdot 6$ | $\underline{-4} 4$ | 2 | 20.0 | 189 | 903 | $17 \cdot 1$ | $1+3$ | 201 | $1+0$ |
| 6 | 225 | 285 | 1.50 | 20：3 | 20.3 | 4.1 | $\cdots$ | 21.3 | 15．0 | $\because 5.5$ | 195 | 13：3 | 17.0 | $1 \geqq 2$ | $10 \cdot 6$ | 39.0 |
| － | $24 \cdot 6$ | 310 | $17 \cdot 4$ | 17.0 | 314 | 1199 | $\cdots$ | 33.5 | 28.5 | 32.0 | 226 | 29.7 | 246 | $\cdots$ | 26.0 |  |
| 8 | 24 | 245 | 1198 | 26.0 | 28.3 | 73 | 19.9 | 27.0 | 17\％ | $28: 3$ | 17.9 | 24.0 | 18.0 | 20.8 | 17.6 | 21.7 |
| 9 | 30－2 | 29.5 | 25.8 | $26^{\circ} 5$ | 28.1 | $15 \%$ | $12 \cdot 2$ | 29.6 | 11\％ | 32：3 | 24.4 | 17.0 | 18.4 | 16.3 | 12.0 | 28.7 |
| 10 | 25.7 | 23.0 | 22.0 | 16.8 | 330 | $28 \cdot 2$ | 28.4 | $37-2$ | 35.2 | 29.5 | 37.7 | 36 \％ | $33 \cdot 1$ | $33 \cdot 4$ | 27.3 | $50 \%$ |
| 11 | ．．．． | 9\％ | $10 \cdot 3$ | 16.0 | 16.8 | $\cdots$ | $\ldots$ | 23.0 | 23.3 | $22 \cdot 3$ | 16.3 | ．．．． | 13.8 | 10.7 | 243 | 180 |
| 12 |  | 40 | $25 \%$ | 25：3 | 34：3 | 2\％ | 193 | 31.1 | 26.0 | 37.8 | $2 \mathrm{~S} \cdot 2$ | 29.3 | 26.5 | 256 | 25.0 | 20：3 |
| 13 | 100 | $: 0$ | 人！ | 8：3 | 182 | $15 \cdot 1$ | 96 | 29.7 | 27.6 | $22 \cdot 3$ | 19－2 | 28.4 | 173 | $17 \cdot 1$ | 30．0 | 24： |
| 14 | 15：3 | 15\％ | $4 \cdot 8$ | $3: 3$ | 63 | 10.6 | 54 | x：3 | 11.6 | 13.5 | ．．．． | $8: 3$ | $5 \%$ | 3.4 | 310．0 | $1 \cdot 20$ |
| 1.5 | $24 \cdot 4$ | 17\％ | 10.4 | $15 \%$ | $24 \cdot 6$ | 17 | $4 \cdot 6$ | $19 \cdot 7$ | 1：\％ | 28.3 | $16 \cdot 9$ | 14.0 | $14 \%$ | 16.6 | ： $20: 3$ | 18：－ |
| 1 i | 2－： | 3 | $17 \%$ | $21:$ | 23.0 | 59 | $15 \cdot 2$ | $28 \cdot 8$ | 23.5 | 30.0 | 25.6 | 240 | 17 $\because$ | $15 \cdot 4$ | $2{ }^{2} 3$ | 19\％； |
| 17 | ： 16.4 | ：3110 | 2610 | 汹： | $2 \times 1 \%$ | $2 \%$ | 20.6 | 34.0 | 285 | 83.0 | ：3＇5 | $2 \times 7$ | $27 \%$ | 21.7 | 186 | －10\％ |
| 1 k |  | ：10 | ： 11.5 | ：1\％ | 351 | $\ldots$ | ．．．． | 32 | ：1：7 | 37：3 | 33.5 | $\cdots$ | ：11．1 | 29.4 | $19 \%$ | $29:$ |
| $1!$ |  | 2 | 2 | 3 | ：19\％ | 25 | 277 | $32 \cdot 2$ | ： $1: 3$ | $31 \%$ | 30.6 | 34 | $27 \cdot 1$ | 2.7 | 29 i； | ：0．3 |
| 0 | 13.5 | 16.15 | 110 | ！${ }^{\circ}$ | 23 | 17：9 | 12\％ | 2.1 | 245 | 29.5 | 15.1 | 193 | 15.4 | 15.3 | 27.6 | 22：3 |
| $\because$ | $11 \%$ | $\because$ | ！$\because$ | （i） 1 | 13.7 | 107 | 12.15 | 27.9 | 970 | $21 \cdot 8$ | 217 | 25.0 | 21.2 | 14.9 | $20 \%$ | 170） |
| $\cdots$ | $1 \because 1$ | 11\％ | $1: 3$ | 1.71 | 11.4 | 58 | 12.6 | 17．1 | 17＂2 | $19 \cdot 3$ | $4 \cdot 2$ | 140 | S＂2 | 9 | $\because 6$ | $19 \%$ |
| 23 | 30.7 | －・ロ | $\because 1$ | 214 | ： 3 ＇s | －1－2 | $17 \cdot 6$ | ：30 | 23.6 | \％ 3 ， 8 |  | 273 | 30\％ | $30 \%$ | $24 \%$ | 267 |
| 21 | $18 \%$ | $11 \%$ | 2 n | 15\％ | 30！ | － | 34.7 | H．4 | 336 | 32．8 | 32.4 | 36.0 | $80 \cdot 1$ | ：314 | 35.6 | 33.0 |
| － | $\cdots$ | $\because 1.1$ | $12 \cdot 9$ | 11\％ | $21: 7$ | $\cdots$ |  | $25 \cdot 1$ | 21.5 | 20 | 20\％ | $\cdots$ | 17.0 | 16.8 | $27 \cdot 6$ | 16：3 |
| 21 | （ 41.19 | 2 | 20 | シャッ | 27.4 | 14.2 | 1．7－2 | 26.1 | 17.9 | 30：3 | $20 \cdot t$ | 21.7 | $20 \cdot 9$ | $19 \cdot 9$ | 2 L 3 | 19：3 |
| 27 |  | 2010 | ： | 33 | ：3\％ | 26.1 | 26 | ：13．3 | 25.5 | ： 13 | $29 \cdot 1$ | $26 \times 3$ | 28.4 | 31.9 | 22.6 | 263 |
| $\xrightarrow{3}$ | $31 \%$ | 20．11 | 210 | $\because \square$ | 334.7 | ： 5 | ：3； | $12 \times$ | ：8\％ | 43.0 | 38.0 | 38．7 | $37 \cdot 1$ | 31.9 | ：120 | ：1\％ |
| $\underline{9} 1$ | $2 \cdot 7$ | 311 | － | N： | 11＂ | 72 | 1 － | 17.6 | 16.0 | $14 \cdot 5$ | 11.4 | N 7 | 78 | 5 | 16.0 | $3 \%$ |
| 311 | 190 | $21 \%$ | 164 | $2 \cdot 1$ | $110 \cdot 1$ | 49 | 14 | 17．4 | 12： | 22： | $15 \cdot 6$ | 83 | 18.6 | $12 \cdot 1$ | 9.6 | \％$\%$ |
| 31 | St14 | 20 | 25 | 23： | $37 \cdot 3$ | 31.0 | 32010 | 3\％ | 25.1 | 38.8 | 34.7 | 38.7 | 325 | $32 \cdot 4$ | 22.6 | $30 \%$ |
|  | $\because 4$ | $\because 1$ | $17^{\circ} \mathrm{i}$ | 18•1 | 248 | 16.4 | 16： 2 | 273 | 23 | 28.6 | 23：3 | 22.9 | $20 \cdot 9$ | $19 \cdot 8$ | $23 \cdot 1$ | 217 |

TABLE VII．－February，1880．Daily Mean Temperature．

|  |  |  |  |  | E | 官 |  |  |  |  |  |  |  | 官 | 3 0 0 0 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\checkmark$ | $\checkmark$ | $\bigcirc$ | $\checkmark$ | － | $*$ | ＊ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 0 | $\bigcirc$ | － | － | $\bigcirc$ | － |
| $23 \cdot 4$ | ．． | $11 \%$ | $10 \% 3$ | －$\cdots$ | $10 \cdot 7$ | 58 | －20．9 | 11.5 | 63 | $4 \div 2$ | 127 | 14.3 |  | $0 \cdot 9$ | 78 |
| 166 | 315 | $1 \cdot 4$ | $1 \cdot 0$ | $2 \cdot 7$ | 4 | 3\％ | 8.8 | 18.5 | ＋4． | $17 \cdot 7$ | $15 \cdot 4$ | 15.8 | 210는 | $10 \cdot 8$ | 124 |
| 11.5 | $35 \cdot 8$ | 4．2 | 33 | － | $\cdot 1$ | －x | ．．．． | 29 | 4.7 | 14＊ | 17\％ | 2103 | － $2 \cdot$ | 16.0 | $14 \cdot 1$ |
| 80 | 31.0 | 1 | 5\％ | 73 | 97 | 110 | 16.1 | 5 | 5\％ |  | 917 | 22.0 | － 7 | 180 | $17 \cdot 5$ |
| $21 \times$ | $34 \%$ | $\bigcirc 2$ | 17： | －10： | 191 | $24 \because$ | 11：3 | ： | $1 \because 9$ | $13: 3$ | 29 | $\because 10$ | 295 | 2－1 | 188 |
| \％ | $32 \%$ | ：； | 10.8 | 14：？ | 11.9 | 4 | 18.9 | 150 | 10.7 | 6.0 | 17.9 | 18.5 | 23.6 | 168 | 14.2 |
| 18 | 34 | 23 | 15 | 1.6 | 0．1 |  | 130 | $1 \because 0$ | 5.8 | 90 | 19.5 | 21.5 | $\underline{90} 2$ | 14.0 | 13.9 |
| $1: \because$ |  | 17：； |  | ．．．． | －176 |  | 19.6 | 18.0 | 05 | 19.4 | 95 | $26 \cdot 8$ | $\ldots$ | 28.5 | 25.1 |
| $1 \cdot 1$ | \％ |  |  | 1\％ | －1 | $2 \cdot 3$ | 16.7 | 180 | 1：3 | 0.2 | 109 | 12.0 | 1s：2 | $10 \cdot 6$ | ¢ $\because$ |
| 1＊ | 3： | 7 | － 5 | $9 \cdot 1$ | $10 \cdot 1$ | $10 \cdot 0$ | 69 | 5 | 15 | 1.0 | 25.6 | 26.0 | 3：1 | 24：3 | 18.6 |
| 6\％ | 34.0 | $15 \cdot 4$ | $1 . \%$ | $16 \cdot 1$ | 13.6 | 10．5 | －-2 | 0.5 | 28.0 | ：39 | $34 \%$ | 35\％ | ¢0： | \％ | $20!$ |
| $\because 17$ | ． | $10 \cdot 1$ | 11： | ！ 1 | 47 | 90 | $13 \cdot 1$ | 10 | 7.8 | $\because 8$ | \％ 4 | ：3： | 3\％ | $110 \times$ | 410 |
| $19 \cdot 1$ | 333 |  | k | 18 | $0 \cdot 1$ | 45 | 7 | $9^{\circ}$ | 40 | 0.6 | $30 \cdot 1$ | $28 \cdot 3$ | 32：3 | 31\％ | 3\％ |
| $0 \cdot 3$ | ： 48 | $8 \cdot 4$ | $\because$ | $\because 6$ | $3!$ | 47 | $\because 7$ | 90 | $0 \%$ | 189 | $\bigcirc 8$ | 295 | ：12 | $26 \cdot 4$ | 25.1 |
| 154 | $\cdots$ | 16.8 | 14s | ．．．． | 13.6 | 37 | 8.9 | 1.0 | $17 \cdot 1$ | 0 | $30 \cdot 4$ | 32 |  | \％ | \％ |
| $\underline{-20}$ | 250 | 14.8 | 15.0 | 15．2 | 15.1 | 1.45 | 6.2 | 135 | 22.7 | 96 | 可 6 | 3 | 1：37 | 36\％ | 340 |
| $\underline{-5}$ | 28：5 | $6 \%$ | 03 | $5 \cdot 5$ | $10 \cdot 1$ | $1{ }^{19} 4$ | －6x | 20 | $20 \cdot 1$ | ． $43 \%$ | $48 \cdot 1$ | 41.0 | 517 | 18：3 | 45 |
| 10.5 | 31.5 | 17： | 18.8 | $19 \cdot 1$ | 18.0 | 19.5 | 0.7 | 55 | 57 | 166 | 30.5 | 26.5 | 35.8 | 3＊ | $31 \cdot 3$ |
| 13：2 | 28.0 | 15.6 | \％ | 8.7 | 7.0 | $12 \cdot 0$ | 17 | 70 | $3 \cdot 1$ | 87 | 17.2 | 145 | 17.4 | 16\％ | $14 \cdot 1$ |
| 153 | 31.0 | 48 | 9.0 | 73 | 58 | $7 \cdot 2$ | $10 \cdot 8$ | 3.0 | 30.2 | 22 | 23.7 | $24 \%$ | 26.3 | 2298 | 18.7 |
| 20.7 | 32.0 | $9 \cdot 9$ | $\cdots$ | $7 \cdot 1$ | 7 | 66 | 6.8 | 8.0 | 12.0 | 21.9 | 23 7 | 29.0 | $31 \cdot 3$ | 26.8 | 25.4 |
| $13 \cdot 3$ | ．．．． | 10.6 | 5\％ |  | $5 \%$ | 5.0 | 8.8 | 50 | 17\％ | 28.6 | $30 \cdot 4$ | 31.5 | $\ldots$ | $32 \%$ | 28.5 |
| 37 |  | $20 \cdot 3$ | 17.8 | $\underline{29} 4$ | 24.2 | 195 | 29.8 | 28．5 | 6.6 | 164 | 20 | 24.5 | 33.7 | $2 \underline{2}$ | 21.3 |
| 15.1 | ： 58 | $7 \% 3$ | $1 \cdot 3$ | 87 | 6.0 | $1 \cdots$ | 19.6 | 17.0 | 44.7 | 34.5 | 363 | 28.0 | 43.2 | $34 \cdot 8$ | 31\％ 5 |
| $5 \cdot 4$ | 40.0 | $0 \cdot 6$ | 2.5 | $2 \cdot 2$ | 0.7 | 26 | 0.5 | 12.0 | $8 \cdot 6$ | $38 \cdot 3$ | 45.0 | $40 \cdot 3$ | 48.6 | 445 | 42.8 |
| 235 | 30.0 | 0．4 | 03 | 12 | 0.0 | 0.7 | 48 | 15.5 | 73 | $28 \cdot 9$ | 38.4 | 38.0 | 45.1 | 40.5 | 38.5 |
| 14.6 | $25 \%$ | 16.3 | 15.5 | 159 | 153 | 14.5 | 0.7 | 12.9 | 5.0 | 23.5 | $4{ }^{4} \cdot 7$ | 35.0 | ＋3．0 | 42.8 | 41.5 |
| 74 | 29.0 | 20.5 | 15.5 | 20.0 | 1888 | $18 \cdot 3$ | 68 | $18 \cdot 5$ | 1.0 | 17.6 | 51.1 | 47．8 | 35.7 | $10 \cdot 5$ | 46.1 |
| 12 | ． | 12.2 | 12.8 | $\cdots$ | $9 \cdot 9$ | 14.8 | 6.9 | 12.5 | 42 | 9.7 | 26.5 | 27.0 | $\cdots$ | $26 \cdot 8$ | 26：1 |
| 3.6 | 322 | $2 \cdot 4$ | － 3.9 | 1.7 | $2 \cdot 2$ | $2 \cdot 3$ | 3.2 | 8.6 | 6.5 | 19.6 | 28.6 | 27.0 | $33 \cdot 4$ | 27.7 | 25＇8 |

TABLE VII．－February，1880．Daily Mean Temperature．

| $\dot{\Delta}$ | $\frac{\dot{シ}}{\stackrel{\dot{z}}{\bar{z}}}$ |  |  | ＝ | $\begin{aligned} & \dot{B} \\ & \stackrel{y}{\Xi} \\ & \underset{B}{\Xi} \end{aligned}$ |  | 营 |  | تِ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | － | － | － | $\bigcirc$ | － | 0 | $\bigcirc$ | － | $\bigcirc$ | － | $\bigcirc$ | $\bigcirc$ | 0 | $\bigcirc$ | － | － |
| 1 | ．．． | 11\％ | ．．．． | $4 \cdot 5$ | 11\％ | 12.5 | －ir | 130 | $\ldots$ | ．．． | 0.2 | 8.0 | $\pm \bullet 0$ | 0\％ |  | 3：3 |
| 2 | $14 \cdot 1$ | $13 \cdot 1$ | $\ldots$ | $11 \%$ | 17－2 | 13.5 | （6．） | $2 \%$ | 115 | 6：2 | 7.5 | 15 | － 1 \％ | －38 | 5.5 | $4 \pm$ |
| 3 | $17 \cdot 1$ | 15－2 | ．．． | 11\％ | $1 ; 2$ | 14； | $10 \cdot 1$ | S3 | $10 \%$ | 93 | ¢．7 | 8．5 | 39 | $4 \cdot 0$ | 6.5 | f $\%$ |
| 4 | $20 \%$ | $18 \%$ | ．．． | 20： | 23－2 | 190 | 14.4 | 4 | $19 \cdot 4$ | 16.1 | 15.5 | 14.9 | $11 \%$ | 123 | 1.31 | $10 \cdot \pm$ |
| 5 | $23 \cdot 3$ |  | －．． | 21.8 | $2 \cdot 1$ | 2 | 17.9 | 14\％ | $20 .-$ | 21.8 | 194 | $\because 4:$ | 20.2 | 210 | $18 \cdot 1$ | 159 |
| 6 | 14.4 | 15.2 | ．．． | 1.58 | 17.9 | 17\％ | 110 | $5 \cdot 6$ | $12 \cdot 4$ | 1：－7 | $110 \times$ | 15，0 | 150 | $1: 3$ | 83 | ．．．． |
| 7 | $10 \cdot 1$ | $17 \cdot 1$ | ．．． | 16\％ | 15\％ | 19.9 | 130 | $5 \cdot 0$ | 15.5 | $1 \% 4$ | 1.50 | $15 \cdot 4$ | 11.0 | 110 | 8.1 | $5 \cdot 5$ |
| 8 | ．．．． | $\because 1 \cdot 2$ | ．．． | ～W | 83 | $\cdots$ | $\because 7$ | 30 |  |  | 260 | 20.5 | $22 \cdot 8$ | 25； | ．．．． | 244 |
| 9 | 12.4 | 10\％ | ．．．． | 6 \％ | 12.8 | 74 | $\because$ | 8.0 | $10:$ | 1 f | $\therefore \%$ | $\therefore 0$ | － $3 \cdot 1$ | ： | － | $\cdots$ |
| 1i） | 27 | 210 | $\cdots$ | 21：3 | 9 | $21 \%$ | 12．2 | $8 \cdot 1$ | 16.2 | $15:$ | 150 | 110：9 | 3.7 | $1:$ | 1 $\because$ | $\cdots$ |
| 11 | 290 | S 1 | $\cdots$ | 5 S | 297 | － | $\because 4$ | 20.1 | 291 | 251 | $\cdots$ | 215 | $1(6)$ | 15： | 111 | 11.8 |
| 12 | 411 | $\underline{4}$ | ．．．．＇ | 153 | $46 \cdot 8$ | ＋ 29 | 37 | B：S | 110： | （3） | － | 41.1 | \％ | 11.0 | 10.6 | $86 \%$ |
| 13 | \％； | 32.1 | $\ldots$ | 30.10 | 湤： | 32－1 | 210 | 219 | 35 | 31.1 | $\because$ | 20 | 31.5 | 3i\％ | 21： | 2x |
| 11 | 239 | －7 |  | $\because 1 \%$ | $2 \%$ | 27 | 19.0 | 11.5 | 210 | $\because 10$ | － | 20：3 | $19 \cdot 1$ | $15 \%$ | に－ | 160 |
| 1．） | ．．．． | $\underline{8.1}$ |  | 27.5 | \％12 | 310 | 4 | $\because 13$ | $\cdots$ |  | 27 | $\bigcirc-1$ | 15：3 | $1 ;$ | $\cdots$ | $11 \%$ |
| 16 | 33 s | $31!$ | $\ldots$ | 35 | －3． | 31.1 | 30 | $20 \%$ | 2：1 1 | $30 \cdot 2$ | 31.1 | 23 | $\therefore 1.2$ | 3：3 | 2.1 | 26 |
| 17 | 40.8 | 14．1 | $\ldots$ | $11 \%$ | 18. | 401 | 415 | $4 \mathrm{H} \cdot \mathrm{H}$ | 10.0 | 38.8 | 42.1 | 34.9 | 31.6 | 2 So | 854 | 0119 |
| 15 | 35 | ：\％$\%$ | $\ldots$ | 8 | 419 | 37.6 | 3 | 29.9 | ：1\％ | $35 \cdot 7$ | $\cdots 1$ | 9.7 | $42 \cdot 3$ | 319： | ：$\square^{3}$ | 23 |
| 10 | 16.1 | $15 \cdot 1$ | －$\cdot$. | $16 \%$ | 19.8 | 15\％ | 1 | 64 | 1．1： | $13 \cdot 4$ | 1.4 | 1－．3 | $10 \%$ | 0.5 | $7 \%$ | 10， 1 |
| 30 | $\because 1 \%$ | $20 \%$ | $\ldots$ | 150 | 915 | 199 | 129 | 11.9 | $17 \%$ |  | $16 \cdot 4$ | $1 \because \cdots$ | $12 \cdot 2$ | 123 | $10 \cdot 6$ | 13.0 |
| $\because 1$ | $30 \%$ | $\cdots$ | $\ldots$ | 2 | $31 \%$ | 310 | $\because 6$ | \％ | 275 | 2ツ | 210 | $2 \mathrm{~s} \cdot 3$ | 27.3 | 2－3 | $\because 2$ | $\because 2$ |
| 21 | $\cdots$ | $30 \cdot 4$ | $\ldots$ | 293 |  | 309 | 27 | 8 | $\cdots$ |  | 207 | 27.9 | 29 | －3 |  | $2 \%$ |
| 2 | $20 \cdot 3$ | $24 \%$ |  | 25.4 | 28.1 | 26.10 | 18.1 | 16： | $20 \cdot 4$ | $23 \cdot 4$ | $10 \cdot 0$ | 230 | 23.9 | 20： | 15.5 | $27 \cdot 1$ |
| 21 | ：$: 1$ | 31 |  | 28： | 32 | 280 | $23 \%$ | 2 | 27.6 | 3 | 23.1 | 14.9 | $3 \cdot 6$ | $3 \%$ | 6.5 | $5: 5$ |
| － | 454 | $\mathrm{HO}^{0}$ |  | 1； | 46.7 | $10 . \%$ |  | 38.9 | 40 | 3：37 | $40 \cdot 0$ | 莧： | $21 *$ | 30.0 | $0 \cdot 1$ | 2 L |
| 2； | 12.4 | 1100 | ．． | 423 | 430 | $30 \cdot 1$ | ：201 | 31.1 | 38.0 | $\cdots$ | $31 \%$ | 20\％ | 42.5 | 30：3 | 38.1 | 375 |
| 27 | $43 \cdot 1$ | 42.6 |  | 375 | 43 t | $30 \%$ | ：1\％ | 336 | $35 \%$ | $\therefore 1$ | 360 | 37－1 | 31.9 | 31.0 | ［949 | $31 \cdot 1$ |
| 勺 | 403 | 4 s | $\ldots$ | 120 | 11.1 | $40 \cdot 4$ | 111.8 | 38.8 | 41.9 | $30 \cdot 1$ | 41.5 | $10 \cdot 3$ | 32\％ 5 | 32.5 | 30.6 | $3{ }^{3}$ |
| 29 | －• | 318 | $\ldots$ | $23 \cdot 8$ | $32 \cdot 0$ | 33.5 | 22.1 | 16.0 |  | $\ldots$ | 25.9 | 36.2 | 36.2 | $32 \cdot 8$ | $\cdots$ | 031 |
| 30 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 20.7 | $\because 72$ | ．.. | $27 \cdot 5$ | 29.7 | $2 \cdot 14$ | $20 \cdot 6$ | 18.6 | 21.8 | 21.10 | 20 6 | 23.7 | $10 \cdot 3$ | 18.0 | 17.0 | 15.8 |

TABLE VII.-February, 1880. Daily Mean Temperature.


TABLE VIII.-March, 1880. Daily Mean Temperature.


TABLE VIII.--March, 1880. Daily Mean Temperature.


TABLE VIII.-March, 1880. Daily Mean Temperature.


TABLE IX.—April, 1880. Daily Mean Temperature.


TABLE IX．－April，1880．Daily Mean Teinperature．

| $\dot{\dot{s}}$ | $\begin{aligned} & \dot{0} \\ & \stackrel{0}{E} \\ & \dot{6} \end{aligned}$ |  |  |  |  | $\begin{aligned} & \dot{0} \\ & \text { d } \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |  |  | $\stackrel{\dot{シ}}{\underset{\sim}{E}}$ |  |  |  |  | $\begin{aligned} & \text { 品 } \\ & \text { 品 } \\ & \text { 品 } \\ & \text { 品 } \\ & \text { 品 } \end{aligned}$ |  | 汞 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | － | $\bigcirc$ | － | － | － | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | － | － | － | 0 | $\bigcirc$ | $\bigcirc$ | － | － |
| 1 | 41.6 | $41 \cdot 1$ | ； $3 \cdot 5$ | $38 \cdot 0$ | 44.0 | 38.0 | $32 \cdot 0$ | $33 \cdot 2$ | 37.3 | 36.0 | 34.0 | $2 \cdot 1$ | $35 \cdot 6$ | 33.0 | 34.0 | $35 \cdot 7$ |
| 2 | $41 \cdot 1$ | 37.5 | $39 \cdot 7$ | $39 \cdot 3$ | 36.3 | 38.6 | $41 \cdot 1$ | 38.8 | 39.9 | $40 \div$ | 385 | $41 \%$ | $40 \cdot 4$ | 38.0 | 41－4 | 38．4 |
| 3 | $50 \cdot 1$ | $50 \cdot 9$ | $50 \cdot 5$ | 49－8 | 53.0 | $46 \cdot 6$ | $49 \cdot 1$ | 47．5 | $50 \cdot 6$ | 54.0 | $50 \cdot 4$ | 45 | 48.4 | $50 \cdot 0$ | $4 \div 3$ | $40 \%$ |
| 4 | ．．．． | 507 | 467 | 51.0 | 53.4 | 48.6 | 43.2 | 42.9 | ．${ }^{\text {．}}$ | $\ldots$ | 40.2 | $4{ }^{4} 4$ | 56.7 | $54 \%$ | $\ldots$ | 51.0 |
| 5 | $43 \cdot 9$ | 38.7 | 347 | 38.0 | $43 \cdot 4$ | $40 \cdot 6$ | 32 | 31.0 | 35.0 | 38.6 | $35 \cdot 1$ | $4 \times 2$ | 40.6 | ， 37.5 | $33 \cdot 4$ | $36 \cdot 1$ |
| 6 | 33.6 | 32－1 | $28 \cdot 2$ | $32 \cdot 5$ | 34：1 | 31.4 | 28.0 | 25.6 | 29.5 | 31.5 | 99 | 3099 | 31.1 | $30 \cdot 8$ | 26.6 | $27 \%$ |
| 7 | 29.8 | $27 \cdot 1$ | $23 \cdot 3$ | 28.0 | $30 \cdot 4$ | 27.0 | 20， | 197 | 29 | 24 | 20 | 26 | 23.3 | 21.3 | 18.5 | 30， |
| 8 | 31.3 | 30.5 | 28.7 | 32.0 | $34 \cdot 4$ | 31.7 | $25 \cdot 9$ | 26.0 | 29.9 |  | 38.0 | $\therefore 9.1$ | $31 \cdot 4$ | $29 \cdot 3$ | $\because 9 \cdot 3$ | 36－8 |
| 9 | $42 \cdot 9$ | $40 \cdot 6$ | 39.8 | 38－3 | 45.6 | 40.7 | $39 \cdot 2$ | 39.0 | 12 | $41: 9$ | 40.2 | ： 5 | 39.5 | $38 \cdot 3$ | 42：1 | 38.0 |
| 10 | 448 | 40.7 | $30 \cdot 3$ | 36\％ | $42 \times 2$ | 41.4 | $29 \cdot 9$ | $29 \cdot 3$ | $34 \cdot 1$ | $39 \cdot 5$ | 3：35 | $40 \cdot 1$ | 42.0 | $40-8$ | 315 | 36.1 |
| 11 | ．．．． | 24.7 | 17.5 | 26：3 | 286 | 246 | $23 \cdot 4$ | 17.6 | $\ldots$ | ．．．． | 295 5 | $25 \cdot 1$ | 24 | 29.8 | $\ldots$ | $24 \cdot 4$ |
| 12 | $32 \cdot 3$ | 29.7 | 28.7 | 33.0 | $33 \cdot 9$ | $31 \cdot 4$ | 28.0 | 26.5 | ．．．． | $30 \cdot 5$ | 28.8 | $30 \cdot 5$ | 25\％ | 245 | 31.9 | 29.0 |
| 13 | $51 \cdot 4$ | 50.1 | 47.8 | 49－5 | 53.0 | $42 \cdot 1$ | $40 \cdot 6$ | $39 \cdot 1$ | $4 \cdot 9$ | 48.0 | 438 | 431 | 41.5 | 37.8 | 12.0 | 41＊ |
| 14 | 62.6 | $60 \cdot 7$ | 59：5 | 42：3 | $43 \cdot 4$ | $40!$ | $40 \cdot 1$ | $37 \cdot 9$ | $40 \%$ | $34 \cdot 7$ | 330 | 34.8 | $30 \cdot 8$ | 29.5 | 288 | $30 \cdot 1$ |
| 15 | 574 | $5 \cdot 2$ | $44 \cdot 2$ | 48.3 | 58.8 | $50 \cdot 8$ | 39.8 | $39 \cdot 4$ | 46.0 | 51.2 | 4 s | 47.7 | 46.9 | 48.0 | 41.9 | 45.5 |
| 16 | 38.1 | 34.8 | 38.4 | $38 \cdot 3$ | 37.6 | 36\％ | $3!$ | $3: 9$ | 3.3 |  | $3 \cdot 1 \times$ | 37.5 | 36.7 | 34.5 | ：3：2 | \％ 5 |
| 17 | $44 \cdot 1$ | 35.2 | 33.2 | 38.3 | 40.0 | 38.5 | 32.6 | $31 \% 2$ | $33 \cdot 1$ | $36 \cdot 7$ | $37 \cdot 3$ | 37.8 | 39：5 | $37 \cdot 5$ | 345 | $37 \cdot 1$ |
| 18 | ．．．． | 36.9 | 40.2 | 39.3 | 38.3 | $37 \cdot 3$ | $40 \cdot 3$ | 39.9 | ．．． | ． | $37 \cdot 5$ | 42.5 | 38：5 | 35.8 | $\cdots$ | 38.9 |
| 19 | 56.8 | 52.8 | 52.7 | $51 \cdot 3$ | 52\％ | 51.9 | 493 | 47.9 | 54.0 | 58.0 | 52.5 | $52 \cdot 0$ | 53.1 | 51.5 | $51 \cdot 1$ | 54.0 |
| 90 | $45 \cdot 4$ | 44－9 | $45 \cdot 5$ | $47 \%$ | 49.2 | 45.6 | $45 \cdot 2$ | 12. | 46.9 | 46.4 | $45 \cdot 3$ | $42 \cdot 4$ | 47.0 | 443 | $43 \cdot 6$ | $46 \%$ |
| 21 | 56.4 | 55 | 55.5 | 57.8 | $60 \cdot 4$ | 52.5 | 524 | $49 \cdot 8$ | 5：2 | 59.3 | 51.8 | $49 \cdot 3$ | $53 . y$ | $50 \%$ | $50 \cdot 0$ | 54.9 |
| 22 | 56.9 | 53.7 | 43.5 | 48.3 | 56.8 | 51.7 | 42.0 | $40 \cdot 1$ | 48.1 | 48.0 | $43 \cdot 5$ | 41.7 | 46－9 | $44 \cdot 3$ | $\pm 2 \cdot 6$ | 41 ＇ |
| 23 | 376 | 34.6 | 42.8 | $33 \cdot 8$ | 37.9 | 36.6 | 378 | ：3； | 36.8 | $33 \cdot 6$ | $36 \cdot 9$ | $38 \cdot 2$ | 35－2 | 325 | $33 \cdot 1$ | 35.3 |
| 21 | ．．． | $38 \cdot 9$ | 41.2 | 41.3 | 40.5 | 41.3 | $44 \cdot 1$ | 38.3 | 4］＂ | 44.0 | $39 \cdot 6$ | 42.6 | $38 \cdot 6$ | 365 | $39 \cdot 3$ | $1 \times$ |
| 25 | $\cdots$ | 40.8 | 43.0 | 40.5 | 41.7 | 41.8 | 40.9 | 42.6 |  | ．．．． | 43.1 | $43 \cdot 6$ | 48.3 | 14.0 | $\cdots$ | $46 \cdot 1$ |
| 26 | $52 \cdot 3$ | $49 \cdot 6$ | $42 \cdot 5$ | 50.0 | 51.6 | $48 \cdot 1$ | $43 \cdot 1$ | $40 \cdot 0$ | 48.1 | 51－5 | 47. | 47.5 | $48 \cdot 9$ | $49 \cdot 3$ | 47.0 | 49．5 |
| 27 | $42 \cdot 9$ | 43.0 | $40 \cdot 2$ | 44.0 | 45.8 | $44 \cdot 3$ | 36.4 | $36 \cdot 1$ | 37.0 | 41.9 | $36 \cdot$ | 41.7 | $40 \cdot 8$ | $39 \cdot 3$ | 37.5 | 39.8 |
| 23 | 50．4 | 49.8 | $47 \cdot 0$ | $53 \cdot 5$ | $54 \cdot 8$ | 502 | 129 | 41.8 | 48.8 | $5: 1$ | 46.2 | $1: 6$ | $44 * 2$ | 41.8 | $42 \cdot 3$ | 46.5 |
| 29 | $51 \cdot 1$ | 50\％ | 47－2 | $40 \cdot 5$ | 53.1 | $48 \cdot 1$ | 47.8 | 47.0 | 47.8 | 50.5 | 50.7 | $48 \cdot 0$ | $50 \cdot 5$ | 470 | 50.6 | 48．7 |
| $30^{-}$ | $34 \cdot 3$ | 33.3 | 40.2 | $32 \cdot 8$ | 35.6 | $35 \cdot 5$ | 31.4 | $39 \cdot 1$ | 307 | 33：9 | $31 \sim 2$ | 36.5 | 38－5 | 36.5 | 31.6 | 387 |
|  | $45 \%$ | 42.2 | 39.9 | 42.0 | $44^{\prime} 4$ | 41.3 | 37.8 | $36 \cdot 3$ | 40.7 | 43.2 | 39.2 | $40 \cdot 3$ | 40．6 | 38.7 | $83 \cdot 5$ | $3: 10$ |

TABLE IX.-April, 1880. Daily Mean Temperature.


TABLE X.—May, 1880. Daily Mean Temperature.

| $\dot{\Delta}$ |  |  |  |  |  | ジ | $\underset{\tilde{O}}{\dot{E}}$ | 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br>  |  | -sпpupuri s،inuliv d |  |  |  |  |  | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | - | a | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1 | $44 \cdot 0$ | 54.0 | $62 \cdot 1$ | 63.5 | 61.9 | $64 \cdot 7$ | 57.3 | $30 \%$ | 38.0 | 40:3 | 41\% | $42 \cdot 0$ | 43.8 | : ar $^{8}$ | 423 | $39 \cdot 5$ |
| 2 | 46.0 | .... | 66.4 | 69.5 | $\cdots$ | 65.1 | 52.5 | 30.5 | 34.0 | 387 | $45 \%$ | 59.2 | 54.5 | $\cdots$ | 59.5 | 57.3 |
| 3 | 46.5 | 48.0 | 52.7 | 58.0 | 53.0 | 52.5 | 46.0 | 24.0 | 37.5 | 48.9 | 56.8 | 63.9 | 56.3 | 69.2 | 66.5 | $64 \cdot 8$ |
| 4 | 47.7 | 47.8 | $55 \cdot 1$ | 53.0 | 55.1 | 55.8 | 46.0 | 22.4 | $27 \%$ | 41.6 | 48.5 | 67.2 | 62.5 | $68 \cdot 6$ | 64.5 | $63 \cdot 1$ |
| 5 | 47.1 | 45.0 | .... | 62.5 | 63.0 | 63.3 | 468 | 27.6 | 26.0 | 46.2 | 52.0 | 65.8 | 58.0 | 70\% | 69.0 | 65\%2 |
| 6 | 520 | 458 | .... | 50.5 | 51.2 | 50.6 | 40.8 | 26.6 | 21.0 | $35 \cdot 1$ | 45.9 | 479 | 44.8 | $55 \cdot 4$ | 52.8 | 52: |
| 7 | 46.2 | 45.5 | 54.8 | 53.5 | 54.6 | 55.2 | 47.8 | $34 \cdot 9$ | $32 \cdot 5$ | 38.1 | 43.5 | $60^{\circ} 1$ | 60.8 | 718 | 543 | 56.1 |
| 8 | 47.5 | 46.0 | 50.2 | 55.5 | 59.3 | 58.7 | 77.5 | 46.4 | 47.0 | $40 \cdot 1$ | 50\% | 63.2 | 53.0 | 76.6 | 68.8 | 6.0 |
| 9 | 39.5 | .... | 48.1 | 53.8 | . $\cdot$. | 50.0 | 46.0 | 44.4 | 43.0 | 43.8 | $60 \cdot 4$ | 69.4 | 60.8 | $\ldots$ | 67.8 | 68.5 |
| 10 | 378 | 44.5 | 50.6 | 50.5 | $50 \cdot 9$ | 51.8 | 41.5 | 45.1 | 37.5 | 49.2 | 50.6 | 60.4 | 56.5 | 63.6 | 61.3 | 62.9 |
| 11 | 39.2 | 45.0 | $50 \cdot 8$ | 57.8 | 56.8 | 57.8 | 13.1 | 392 | 41.5 | 58.7 | 50.5 | 54.0 | $50 \cdot 3$ | 61.4 | $56 \%$ | -is 7 |
| 12 | $40 \cdot 5$ | 44.0 | $59 \%$ | 59.3 | 58.3 | 590 | 44.5 | $33 \cdot 4$ | 41.5 | 51.2 | 50\% | 51.2 | 48.8 | 84.2 | $54 \%$ | 58.0 |
| 13 | $45 \cdot 2$ | 51.5 | 61.6 | 58.3 | 59.9 | 58.5 | 12.4 | $33 \cdot 1$ | 39.0 | $44 \cdot 2$ | $47 \cdot 1$ | $45 \%$ | 120 | $50 \cdot 4$ | 46:3 | 16.1 |
| 14 | 52.8 | 50.0 | 69.2 | 69.8 | 667 | 67.3 | 520 | 47.4 | 48.0 | 451 | 46.6 | 47.8 | 43.0 | 51.6 | 48.0 | $47 \%$ |
| 1.5 | 52.5 | $49 \cdot 5$ | $56 \cdot 1$ | 61.0 | 66.2 | 62.0 | 19\% | 47.1 | 56.5 | 47.4 | 55.4 | 51.0 | $45 \%$ | 55.2 | 57.3 | 5ill |
| 16 | 51.5 | .... | 61.0 | $55 \cdot 3$ | $\ldots$ | \%0:- | 4.8 | 10.0 | 500 | 57.7 | $64 \cdot 1$ | 6.2 | 57.5 | $\ldots$ | 600 | 63.5 |
| 17 | 57.7 | 53.0 | 50.6 | $49 \cdot 5$ | . $\cdot$. | $51 \%$ | $41 \cdot 3$ | 32\% | 39.5 | 45.8 | $58 \cdot 3$ | 70.0 | 59.5 | 220 | 66.3 | 67.0 |
| 18 | 56.0 | 54.0 | $45 \cdot 1$ | 4.3: | $46 \cdot 7$ | 46.6 | 13.6 | 41.8 | 43.5 | 45.8 | 53.6 | 729 | 613 | 78.1 | 71.8 | 70\%5 |
| 19 | 58.0 | 58.0 | $40 \cdot 1$ | $40 \cdot 8$ | 39.8 | 40:8 | 37.9 | $50 \cdot 3$ | 41.5 | 58.0 | 59.6 | 64.7 | 58.0 | 72.0 | 66.0 | 71.9 |
| 30 | 58.0 | 52.0 | $47: 1$ | 45.5 | 43.0 | 4.3 |  | 23.8 | 29.0 | $40 \cdot 6$ | 55.4 | 60.8 | 56.3 | $64 \cdot 6$ | 12-8 | 60"3 |
| 21 | 540 | 510 | $\cdots$ | 54.8 | 55.0 | 56.0 | 16.8 | 38.0 | 42.5 | $42 \cdot 3$ | 55.0 | $61 \cdot 1$ | 53.8 | 58.1 | 788 | .788 |
| 22 | 475 | 16:3 | 517 | 49.8 | 50.8 | 52.5 | $40 \cdot 4$ | 47.1 | $46^{\circ} 0$ | 47.5 | 51.9 | 54.6 | 550 | -9,1 | 563 | 55\% |
| 23 | $49 \cdot 8$ | $\cdots$ | 56.8 | $62 \cdot 8$ | .... | 58.6 | 52.5 | $46 \cdot 1$ | 52.5 | 50.6 | 61.7 | 65.0 | 50:3 | .... | 66.0 | 64.5 |
| 24 | $48 \cdot 4$ | $\cdots$ | 56.9 | 58.5 | 57.9 | $5 \times 7$ | 54.0 | 57.0 | 51.0 | 59.8 | $59 \cdot 3$ | 72.4 | 650 | 733 | 70\% | 70.1 |
| 25 | 51* | $\cdots$ | 57.4 | 51.5 | $57 \cdot 3$ | 58.5 | 55.6 | 55 | 53.0 | 58.0 | $65 \cdot 6$ | 76.1 | 695 | 77.8 | 73*3 | 73.6 |
| 26 | 57.7 | 57.3 | 16.7 | 12.8 | $40 \cdot 1$ | 4:3 | 43.7 | 38.7 | 45.5 | 53.2 | $68 \cdot 3$ | 72.2 | 60.0 | 750 | 73 | 734 |
| 27 | 56.8 | 58.5 | 4 $\times 3$ | $47 \cdot 5$ | 47.2 | 47.9 | 44.0 | 38.7 | 38.0 | $45 \cdot 6$ | 55.8 | 64.5 | 58.5 | 729 | 69.8 | $71 \times$ |
| 28 | $45 \cdot 9$ | 52.8 | 720 | 51.0 | 550 | 54.8 | 40.6 | $37 \%$ | 40.0 | $46 \cdot 3$ | $51 \cdot 1$ | 54.0 | 50.0 | 62.5 | 53.8 | 55:3 |
| 29 | $45 \cdot 5$ | $\cdots$ | $58 \cdot 1$ | 56.3 | 58.8 | 60.7 | 56.0 | 55.8 | 46.0 | $51 \cdot 1$ | 50.8 | 61\% | 59.8 | $62 \cdot 6$ | 52.5 | 57.9 |
| 30 | 52:3 | $\ldots$ | 19.0 | 45.0 | .... | 45.9 | 41.1 | 53.8 | 57.0 | $57 \% 4$ | 53.8 | 59.6 | $57 \cdot 5$ | .... | 63.8 | 63-5 |
| 31 | 58.0 | $\ldots$ | '. | 17.8 | 4.48 | 43.9 | 39 | 48.4 | 47.0 | 47.0 | 515 | 58.5 | 54.5 | 66.7 | 60.3 | 60.7 |
|  | 49.2 | $50 \cdot 1$ | 54.8 | 5.1 | 54.4 | 547 | 46.9 | $40 \% 2$ | 41.5 | 47.6 | $53 \cdot 9$ | $62 \cdot 8$ | 557 | 65.5 | $61 \cdot 1$ | $60 \cdot 9$ |

TABLE X.—May, 1880. Daily Mean Temperature.


TABLE XI．－May，1880．Daily Mean Temperature．

| $\underset{i}{\dot{A}}$ |  |  |  |  |  |  |  | $\begin{aligned} & \dot{x} \\ & \underset{y}{\underset{y}{x}} \\ & \text { 萝 } \end{aligned}$ | $\stackrel{\dot{\sigma}}{\bar{y}}$ | $\begin{aligned} & \dot{0} \\ & \frac{0}{0} \\ & \hline 0 \end{aligned}$ |  |  |  | 品 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\bigcirc$ | － | － | － | 0 | － | － | － | － | － | － | － | $\checkmark$ | － | $\bigcirc$ | － |
| 1 | 36.3 | 26.0 | 20.9 | $2 \cdot 4$ | $36: 3$ | $33 \cdot 4$ | 32.7 | $38 \cdot 0$ | 13.4 | ： 6.8 | $36 \cdot 1$ | 42．0 | 36.9 | 35－4 | $36 \cdot 3$ | 493 |
| 2 | $\ldots$ | 37.0 | 42.4 | 390 | 39.9 | ．．．． |  | 39.2 | 40.0 | 41\％ | 37.7 | ．．．． | 37.0 | $33 \%$ | 37\％ | 340 |
| 3 | － 5 | 51\％ | 40.0 | 4.3 | H：3） | $42 \cdot 1$ | 48.0 | 40.0 | 42.9 | 51.0 | 43：3 | $35 \cdot 7$ | 41.8 | $49 \cdot 2$ | 41.0 | 38.0 |
| 4 | 51.1 | 30.0 | 45\％ | 46.8 | 17 K | $48 \cdot 8$ | $43 \cdot 3$ | 49.0 | 40.6 | 483 | $\cdots$ | 42\％ | 44.4 | 38.1 | 3988 | $31 \cdot 3$ |
| 5 | 62.2 | 31.0 | 4 | 54.5 |  | 52．3 | 423 3 | 39.9 | ：8．6 | 51.0 | $50 \cdot 1$ | 437 | 47－1 | 407 | 3－3 | 37.7 |
| 6 | 512 | 4\％0 | $315 \cdot 13$ | 123 | $49 \cdot 2$ | 51.1 | 2：3 | 4.8 | $4 \div 7$ | \％ 3 | 1 | 43.0 | 41.6 | 42.6 | 42.7 | 30 |
| 7 | 191 | 44.5 | 45.0 | H3 | 44：5 | ［：9 | 11.0 | $11 \%$ | 31.1 | $4 \% 8$ | $37 \%$ | $33 \cdot 3$ | 34.2 | $36 \cdot 1$ | ：4．0 | $29 \%$ |
| 8 | 5－1 | 58.5 | $40 \cdot 6$ | 4.8 | $4 \cdot 1$ | 4.11 | $41 \%$ | 11.6 | $35 \cdot 4$ | 418 | ．．．． | ：373 | 39.0 | 38.6 | $31 \%$ | $31 \cdot 3$ |
| 9 | $\cdots$ | 725 | 41.2 | 58.5 | $46 \%$ | $\ldots$ |  | $12 \times$ | $41 \cdot 3$ | 498 | 47.5 | $\cdots$ | ＋${ }^{\prime \prime}$ | 44．1 | 39.0 | $36 \%$ |
| 10 | $\mathrm{CH}_{6} 1$ | － | 495 | 5 si | 497 | in 0 | 4100 | $\because 1$ | $43 \cdot 1$ | 530 | $\cdots$ | 44.7 | 50.7 | 5－1 | ［8：2 | 10：3 |
| 11 | 6－1 | $6: 0$ | 57\％ | $22^{0}$ | $\square \cdots$ | 58 | 517 | 51.6 | 4.5 | ． 2.0 | 以＂ | $54 \cdot 3$ | 4：10 | 53.6 | ：3\％ | 33.7 |
| 12 | 49.3 | 4n－0 | 1！ 5 | H1 | 48．1 | 40.0 | 413 | 16.7 | 46.6 | TH010 | 51.6 | 46.7 | $49 \cdot 1$ | 42\％ 5 | 38－3 | 30.0 |
| 13 | $45 \%$ | 41\％ | 411.8 | 36\％ | $38 \cdot 8$ | 317 | $33^{3}$ | 41.6 | 30.0 | $39 \cdot 3$ | 37.9 | 41.3 | 34.7 | 33.9 | \％ 3 | $4 \mathrm{4} \cdot \mathrm{S}$ |
| 14 | 17.8 | 41.0 | $1 \because 1$ | 3800） | 1108 | 125 | 4.0 | 3：15 | 313 | 318 | $\ldots$ | 37.3 | 361 | 35.1 | ：3 | $37 \cdot 3$ |
| 15 | 51.9 | 41．5 | 47.3 | 570 | H．5 | $4 \times 1$ | 50：3 | 403 | 37.5 | 418 | ：3： | 42.0 | 38.6 | 40.0 | 33.3 | $34 \%$ |
| 16 | $\ldots$ | 2105 | 31．1 | 503 | 191 | $\cdots$ | $\ldots$ | 11.7 | 42．9 | $4{ }^{4}$ | 1：？ | ．．．． | 43.9 | $45 \cdot 6$ | 碞： | $36 \cdot 7$ |
| 17 | $61 \% 2$ | ． | 31\％ | 173 | $4 \cdot 1$ | 319 | 14\％3 | 41.7 | 39.4 | 40：5 | $\ldots$ | 40.7 | 47.3 | 434 | 37.7 | $33 \cdot 7$ |
| 18 | \％6： | 49.5 | 18.19 | 18：5 | 48.0 | 51.6 | 457 | $19 \cdot 1$ | 350 | 20．0 | $\cdots$ | 150 | 188．0 | 37\％2 | 43.0 | $34 \%$ |
| 19 | （ $3 ; 11$ | 550 | 58.0 | 55.9 | 418 | 19\％； | 543 | 410 | 4106 | 49.8 | ．．．． | $4 \because 0$ | 46.1 | 51.3 | $\cdots$ | 32.0 |
| 20 | 694 | 67－5 | 66：5 | 63.0 | 46.2 | 61\％ | 61.0 | $511 \cdot 1$ | 46.5 | 56.8 | ．．．． | 42.0 | 539 | 58.0 | 42．0 | 3 |
| 21 | $5 \square$ | mis） | 14：3 | 5，3\％ | $416 \%$ | 61.7 | 4.7 | 53.7 | 56.8 | 56.8 | $\cdots$ | 81.7 | 5）\％ | 50.0 | 520 | 36.0 |
| 22 | 58.3 | 6160 | 46.5 | $5 \cdot 1$ | 169 | 4.0 | 430 | 59.6 | 49 | $57 \%$ | 5－8 | 53.7 | 48.1 | $39 \cdot 1$ | 36.0 | $3 \square 7$ |
| －3 | ．．． | $66^{\circ} 0$ | （12＂ | 60.9 | （x：） |  |  | 60 \％ | 593 | －5 5 | （ib） | $\ldots$ | 978 | 61.4 | $45 \cdot 3$ | $35 \cdot 7$ |
| 24 | $69 \cdot 9$ | （18．5 | 58.4 | 61：3 | $12 \div$ | 6.0 | 4 4 3 | 58 | 56.1 | $51 \%$ | 5 3 | $57 \%$ | 5\％ | 33.6 | ： | 40\％3 |
| 25 | $74 \cdot 4$ | 71\％ | 60.0 | 095 | ， 3 | 59.1 | 190 | $49 \cdot 1$ | ＋10．7 | $66 \%$ | 20．4 | 41.7 | 47.7 | 46.0 | 36：3 | ： 7 |
| 26 | \％ 8 | 71：5 | B1． 8 | 713 | 51.7 | 65： | 54：3 | 400 | 41.9 | 5．40） | 50.0 | 410 | $50 \cdot 9$ | $48 \cdot 4$ | 38.7 | 38．0 |
| 27 | 76.0 | 5 | $71 \%$ | 710 | 5\％\％ | 710 | Ts 7 | 48.8 | 48.0 | 61.5 | 617 | 47.7 | 60.9 | 601 | 48.7 | 397 |
| 28 | $6.00^{\circ}$ |  | 63.9 | 9，${ }^{\text {s }}$ | －5．4 | 66.1 | 52.7 | 86.8 | 7．6 | 69） 11 | $65 \cdot 4$ | 5：0 | 62.9 | 64．8 | 47.0 | 40－3 |
| 2 | 5i $\%$ | 5－0 | $50 \cdot 1$ | 49\％； | ． $1 \%$ | 51\％ | ［5if 0 | 5 | ．1．8 | 523 | $52 \%$ | 53.0 | 51.3 | 51.1 | $50 \%$ | $38 \cdot 7$ |
| 30 | $\cdots$ | 560 | 23\％ | 2193 | $51 \cdot 1$ | $\cdots$ | $\cdots$ | ．191 | 46.8 | 5 5 5 | 54.7 | $\cdots$ | 51.9 | $52 \cdot 2$ | 42.7 | 367 |
| 31 | 61.7 | 51.0 | 54： | 55\％ | \％$\quad 3$ | 540 | 50.0 | 50.0 | 170 | 56.0 | $\ldots$ | $48 \cdot 7$ | 53.3 | 53.8 | 47.5 | 38.7 |
|  | 54.6 | 5，$\%$ | 51.0 | 52.1 | 47\％ | 54 | 47.8 | 45 | 44.0 | $50 \cdot 7$ | $49 \cdot 3$ | $44 \cdot 9$ | $46 \cdot 9$ | 46：2 | $39 \cdot 8$ | 37 －10 |

TABLE XI.-June, 1880. Daily Mean Temperature.


TABLE XI．—June，1880．Daily Mean Temperature．

| $\dot{\dot{A}}$ | $\begin{aligned} & \dot{8} \\ & \stackrel{8}{E} \\ & \underset{B}{\ddot{n}} \end{aligned}$ |  |  |  |  | $\begin{aligned} & \dot{\circ} \\ & \stackrel{0}{0} \\ & \stackrel{y}{0} \\ & \text { E } \end{aligned}$ |  |  |  | B 00 0.0 0 0 0 0 0 0 0 | $\begin{aligned} & \dot{E} \\ & \text { E } \\ & \text { E } \end{aligned}$ |  |  |  |  | $\begin{aligned} & \dot{\pi} \\ & \stackrel{y}{\hat{E}} \\ & \stackrel{\text { In }}{\stackrel{0}{0}} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | － | － | 0 | － | － | － | － | － | － | － | － | － | － | $\bigcirc$ | $\bigcirc$ |  |
| 1 | 53.6 | $53 \cdot 0$ | 510 | 55.0 | 5－2 | 53.6 | 46.2 | 435 | 49＊2 | 54.5 | $49 \cdot 1$ | 53.8 | 56.9 | 54.0 | 53.6 | $55 \cdot 9$ |
| 2 | $57 \cdot 1$ | 52.6 | 54.0 | 56.0 | 58.2 | 54.2 | 55.0 | 53.8 | 2is | 57.5 | 54.6 | $55 \cdot 4$ | $55 \cdot 4$ | 53.3 | 60.7 | 56.9 |
| 3 | $59 \cdot 3$ | 56：8 | 49.0 | 58.5 | $60 \cdot 5$ | 57.3 | 49：3 | 48.6 | 50.0 | 57－0 | 52．0 | 54.7 | 56.4 | $55 \cdot 3$ | $52 \cdot 1$ | 55.5 |
| 4 | $62 \cdot 1$ | 61.0 | $61 \times 2$ | 57.5 | 57.4 | 53.9 | 567 | －54 3 | 56.4 | 28．7 | 545 | $56 \cdot 1$ | 56.5 | 53.3 | 51.2 | 57.5 |
| 5 | 64.6 | 61.3 | 615 | 60.3 | \％89 | 57.6 | $60 \cdot 5$ | 60.8 | 62.4 | $65 \cdot 9$ | 61.7 | 62.9 | 644 | 61.8 | 63.2 | 63.8 |
| 6 | ．．． | 68.5 | $6_{64}$ | 65.8 | 729 | $164 \% 3$ | 68.0 | $65 \cdot 3$ | $\ldots$ | $\cdots$ | $67 \cdot 3$ | 669 | $70 \cdot 3$ | 673 | ．． | 176 |
| 7 | 54， | － 5 | 48.0 | － H \％ | 59.0 | 58.2 | 49.7 | 50.3 | $51 \%$ | 56.4 | 49.6 | 593 | 66.0 | 6：30 | 61－1 | （i1＂ |
| 8 | 618 | ［9．3） | 57.0 | 62.0 | 59.6 | 56.9 | 52\％ | 4.9 | 54.0 | $60 \cdot 3$ | 蔀； | 518 | 63.1 | 61.8 | 58.8 | $61 \times 2$ |
| 9 | 67．1 | 6i\％ | 62.9 | （1：3 5 | （6） | 1：1．6 | 6is | 61.3 | 60： | 64.1 | 586 | $\mathrm{C6}^{\mathbf{2}}$ | 0．5－6 | 1：3\％ | 61.0 | 6.58 |
| 10 | $6 \times 6$ | 6.10 | 1118 | ${ }^{6} \mathrm{t} \mathrm{i}_{5} 5$ | 64.7 | 63－2 | 69\％ | 6S： | 66\％ | $75 \cdot 4$ | 68.9 | 712 | 69：5 | 675 | 6s． 7 | 70\％ |
| 11 | 50．1 | 7－3 | 70：3 | 7．3：3 | $7 \times 7$ | $70^{-4}$ | 67.9 | （2is | 6：9．1 | $71 ; 2$ | 64.5 | 17\％ | 72.4 | $72: 3$ | 720 | $71 \cdot 1$ |
| 12 | 7：3 | 7－3 | 81.7 | 71：3 | $71 \%$ | （6：） | 63.9 | $62 \cdot 7$ | 67.7 | 04.7 | $67 \cdot 0$ | 65.2 | 62－8 | 61.5 | 58.6 | $6{ }^{6} \cdot 4$ |
| 13 | $\cdots$ | \％$\quad 1.6$ | GH．1 | $6 \mathrm{G} \cdot 0$ | 71.3 | 48． 6.1 | 3513 | 570 | $\cdots$ |  | 90．8 | 607 | 61.3 | －5 5 | $\cdots$ | tio． 1 |
| 14 | 60.1 | \％$\quad$ ¢ 4 | $51 \cdots$ | 57.0 | 60－s | 57 | 56．1 | 388 | $54 \cdot 9$ | 615 | 55.9 | 54.9 | $61 \%$ | $60 \cdot 3$ | 50：\％ | $66^{9} 9$ |
| 1.5 | $60 \cdot 9$ | $60 \cdot 6$ | $5 \cdot 1$ | $64 \cdot 5$ | 59.9 | 152－7 | ${ }^{6} 7$ | 61.1 | 62.1 | 66：3 | 66.0 | 65.4 | 63.0 | ：${ }^{1} 5$ | $66 \cdot 1$ | 6.6 |
| 16 | 68.1 | 6：－7 | （20） | 63\％${ }^{\text {c }}$ | （is－7 | 64.4 | 615 | （13）${ }^{(1)}$ | $63 \%$ | （－500） | 64.2 | （is）： | （3i） | （n）＊ | 64.7 | 6i 9 |
| 17 | 06.8 | $68 \cdot 9$ | 135 | 70：3 | 70.5 | 6－ 6 | 63： 3 | 62\％ | 13.0 | $73 \cdot 4$ | 63.6 | $67 \cdot 6$ | 67.0 | 63.5 | 64.6 | 70.5 |
| 18 | 68.6 | 68.11 | $65 \%$ | 70： | 71.3 | （is． 1 | （5．0） | $83 \cdot 4$ | 际析 | $72 \%$ | $67 \%$ | $66 \cdot 8$ | $70 \cdot 8$ | 6063 | $67 \%$ | 71：3 |
| 19 | 706 | （is：） | 16i\％ | 70：5 | $71 \cdot 1$ | \％9．1 | （is $0 \cdot$ | 1is． 8 | 70\％ | 7－5 | ${ }_{6} 16.8$ | 692 | 71.1 | 670 | 72：3 | 71.5 |
| 20 | $\cdots$ | 70.0 | 68.2 | 74．8 | 764 | 73．1 | 66.0 | $65 \%$ | $\ldots$ |  | 6885 | $67 \cdot 4$ | 68.7 | 665 | $\ldots$ | 60.8 |
| 21 | 754 | 72 | 6688 | $71 \cdot 3$ | \％ | 7－2 | 66.0 | 16：3 | 6i $\cdot 1$ | \％ $0 \times 2$ | $65 \%$ | 6\％$\%$ | 62.9 | $6{ }^{6} 3.5$ | 615 | （is）${ }^{\text {S }}$ |
| 22 | 74．9 | 74．3 | 68.9 | $6 \mathrm{~S} \cdot 0$ |  | 450 | 66.8 | 6．\％ | 1360 | 67.2 | 65.1 | ${ }^{6} 313$ | 61.3 | ${ }^{6} 0 \cdot 8$ | 65.7 | 639 |
| 23 | 768 | 71：\％ | 7．31 | 745 | 77.0 | 717 | $71 \cdot 1$ | （ 612 | 758 | 72.2 | 73.7 | $64 \cdot 2$ | 63.6 | 62.3 | 65.4 | 63.4 |
| 24 | 78．1 | 77 | 7\％ | 7\％ | N1： | 79：3 | 7：3！ | 7．is | 73 | 810.8 | $75 \cdot 4$ | 73．4 | 734 | 720 | 74.8 | 70.4 |
| 25 | 73：3 | 704 | 6810 | $74 \cdot 8$ | 75：3 | 713 | 69.8 | 67.5 | 70：3 | 78． | 71.5 | 71．6 | 76.0 | 750 | 72\％ | 73：7 |
| 26 | 7.11 | 73＂3 | 71.7 | 74．0 | 75.3 | 72．2 | 68.1 | $66 \cdot 3$ | 71.5 | 76．3 | 713 | 71：8 | 736 | $72 \cdot 3$ | 71.3 | \％ |
| 27 |  | 71.9 | （的＂ | $72 \cdot 8$ | $\because \because 0$ | $70 \cdot 6$ | 71－9 | 6\％ 1 | ．．．． | ．．．． | $71 \cdot 9$ | 72： | 74－8 | 7iv |  | $\pi 0$ |
| 28 | 71.8 | $70 \%$ | ［it 7 | $70 \%$ | 747 | 710 | 137 | 66.8 | 67.8 | 72．2 | $70 \cdot 1$ | 71.6 | $73 \cdot 8$ | 71.8 | $72 \%$ | 707 |
| 29 | （s） 1 | $66 \cdot 4$ |  | 65 5 | 69.4 | $66 \cdot 7$ | 61.8 | $60 \%$ | 64.9 | 68.9 | 63.5 | 66.9 | 70：3 | 68.8 | 08．9 | 6\％ |
| 30 | 69.4 | 66.6 | 63.1 | 69．0 | 648 | ${ }_{6} \mathbf{4} \cdot 7$ | 61.4 | 59.8 | 65.0 | 087 | $69 \cdot 0$ | 671 | ${ }^{64}{ }^{7}$ | 64．0 | 636 | $65 \cdot 4$ |
|  | 67.7 | 66.2 | 63•3 | $88 \cdot \theta$ | 680 | 65.4 | 62.8 | 61.5 | 63.6 | 67.8 | 63.8 | 65.3 | 68.2 | $64 \cdot 1$ | 04：3 | 66.0 |

TABLE XI.--June, 1880. Daily Mean Temperature.

|  |  |  | $\begin{aligned} & \dot{B} \\ & \text { E } \\ & \text { O} \\ & \text { E } \\ & \text { E } \end{aligned}$ | $\begin{aligned} & \dot{\Xi} \\ & \stackrel{\vdots}{O} \\ & \stackrel{\rightharpoonup}{\Omega} \end{aligned}$ |  |  |  |  | $\begin{aligned} & \dot{\circ} \\ & \stackrel{y y}{*} \\ & \dot{\theta} \end{aligned}$ |  |  |  |  |  | $\begin{gathered} \stackrel{\rightharpoonup}{\Xi} \\ \stackrel{y}{3} \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | $\bigcirc$ | $\bigcirc$ | - | - | $\bigcirc$ | - | - | - | - | $\cdots$ | 0 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - |
| 87\% 1 | $5 \pm 0$ | 61.0 | 57.5 | $53 \cdot 6$ | $65 \cdot 3$ | 57.3 | 63.7 | $53 \cdot 3$ | 57.0 | . $\cdot$ | 547 | 61.8 | $58 \cdot 4$ | 50.7 | 39.0 |
| 35 | 53.5 | 55.5 | 48.1 | 56.8 | 57.0 | 55.0 | 60.7 | 53.0 | 53.5 | ... | 57.0 | $40 \%$ | 2.17 | 643 | 43.3 |
| 578 | 5 | 557 | 52\% | 51.8 | 53:5 | 55.0 | 51.2 | 458 | 51.5 | 19\% | 450 | fir | 18.2 | $15 \%$ | 45.0 |
| 57.9 | 59.5 | 57.8 | 51.5 | -3.6 | 53.2 | 57.0 | 52\% | 43.4 | $51 \%$ | 46.6 | $44^{\circ}$ | 147 | 17:3 | 450 | 41.7 |
| 60.6 | 6 fo 5 | $62 \cdot 0$ | 59.5 | 94:3 | $50 \cdot x$ | 60.7 | $52 \cdot 4$ | 409 | 330 | 15.7 | 110 | $46 \cdot 1$ | . 2.7 | 43.0 | 43.0 |
| .... | 650 | $64: 2$ | 61.0 | 3 B | $\ldots$ | $\cdots$ | 5 | 410 | 5 | 15.1 | $\ldots$ | 4.54 | 152 | 41.0 | 17\% |
| 665 | 0.5 | $62 \cdot 6$ | 58.8 | 56.6 | \% ${ }^{3}$ | 50 | $4 \times 9$ | 44.8 | 520 | 51.8 | 157 | 516 | 17.7 | 行 3 | -3: |
| $61 \cdot 1$ | 61.0 | 59.4 | 53.0 | 53.1 | 60, | 53 | 51.9 | $46!$ | 52\% | $12 \cdot 1$ | 51:; | 55.8 | ㅈ.0 | $4 \% 0$ | 5 $5 \%$ |
| 6197 | $\cdots$ | $6 \cdot 1$ | \% 4.8 | 96\%3 | 68 |  | 49: | 51\% | 57.0 | 60.6 | 537 | -74 | $54 \cdot 1$ | f12 ${ }^{-7}$ | 515 |
| 159 | 711 | (ia) | (6) $\%$ | 61\% | 130\% | (fi) 0 | 60.1 | $52 \cdot 1$ | $50 \cdot 8$ | $\ldots$ | 60.7 | $\cdots$ | 56.4 | 48.7 | 48:3 |
| 71.1 | 71:5 | $67 \cdot 1$ | 64 \% | 56.0 | 16.3 | 67.3 | 638 | 59.8 | 59.5 | 51, ${ }^{2}$ | 58.0 | 627 | 70.7 | -1.7 | 16.7 |
| 737 | 60.0 | 65:1 | $60 \cdot 3$ | 90:3 | (6.2 | $67 \times 3$ | $59 \cdot 4$ | 514 | 60.8 | 57.2 | 54\% | -8\% | (ii) 7 | 510 | 41.7 |
| $\cdots$ | 56.0 | 63.7 | 57.3 | $62 \cdot 6$ |  | $\ldots$ | $64 \cdot 9$ | 51.9 | 61.8 | 559 | $\ldots$ | -5.6 | 51.4 | 32: | +3,7 |
| (1)3 | 62.0 | 59.0 | -33 | 56.4 | - | $55^{\circ} 0$ | 55 | 507 | $54 \%$ | $\ldots$ | 500 | 49.1 | 50.6 | $5 \div$ | H4\% |
| $0.5-1$ | 61.0 | 63.8 | 570 | 665 | - 1 | 597 | 520 | 438 | 52.5 | $46 \cdot 1$ | .... | 44.1 | 4.88 | $41 \%$ | 11.7 |
| 11.7 | $60 \cdot 0$ | 69 S | 56.0 | 368 | 578 | $59 \cdot 3$ | 56 s | $51 \cdot 3$ | 515 | 52.1 | $\cdots$ | 54.5 | 56.6 | 120 | 133 |
| 71.0 | 64.0 | $65 \cdot 8$ | $54 \%$ | $6 \div 11$ | 6: | $87 \%$ | 59.6 | 55.8 | $5 \mathrm{~S} \cdot 0$ | 595 | 59.0 | 58.1 | 59.1 | H.7 | 12.0 |
| 72.2 | $62 \cdot 0$ | 78 | 67\%) |  | 65.3 | 71\% | 60.5 | 540 | 58.8 | 51.8 | $67 \%$ | (60.4 | $0: 34$ | 48.7 | 17.3 |
| 71.9 | 71.5 | 75 | His.0 | 55.7 | 69.5 | 697 | 65.9 | 62. 8 | 62.8 | $60 \cdot 1$ | 60.7 | 64.1 | 67.6 | 6:3 | 50.3 |
| .... | 715 | 67-3 | $58 \%$ | $\cdots$ | $\ldots$ | $\cdots$ | \% | 62.8 | 628 | \% | .... | 133 | 70.0 | $65 \%$ | 48.7 |
| $62 \cdot 6$ | 62.0 | 61.4 | 51.8 | 53.6 | $61 \cdot 6$ | $61 \% 3$ | 56.5 | 59.6 | 63.8 | $60 \cdot 2$ | 597 | 61.0 | 60.9 | $36 \%$ | $48 \cdot 3$ |
| 61.3 | 53.5 | $55 \%$ | 51.0 | 54.9 | 573 | 52.7 | $54 \cdot 6$ | 48.8 | 535 | 55.2 | 49.7 | 51\% | 507 | 42\%3 | 47.3 |
| 61.6 | $\ldots$ | $61 \%$ | 55 | 523 | 54.6 | 49.3 | $51 \cdot 4$ | $45 \cdot 5$ | 49.8 | $\ldots$ | 47.3 | 480 | 460 | 41.7 | 47.7 |
| 70.6 | 73: | $59 \cdot 1$ | 63\% | 53.0 | 58.2 | 56.0 | 51.4 | 48.0 | 54.5 | $49 \cdot 6$ | 58 | 46.5 | $45 \cdot 1$ | 423 | 4!7 7 |
| 75 | 75\% | 66.3 | $71 \cdot 8$ | $36 \cdot 9$ | ${ }^{65} 1$ | 59\% | $59 \cdot 1$ | 524 | 605 | $62 \cdot 3$ | 60.0 | 543 | 53.1 | 5.7 | 50.7 |
| Fir | 71.5 | 71.9 | 68.3 | 58.7 | 66.9 | 57.0 | $54 \cdot 1$ | $57 \cdot 4$ | 66.0 | $62 \cdot 3$ | 570 | 61.7 | $65{ }^{2}$ | H.0 | [fs 0 |
| .... | $2 \cdot 0$ | 74.6 | 68.0 | 66.1 |  | $\cdots$ | 69.4 | 59.5 | 66.5 | 640 | . | 62.0 | 63.7 | 523 | $45 \%$ |
| 72.2 | 69.5 | 71.9 | 71.3 | 58.8 | 69.7 | 67.0 | 66.7 | $62 \cdot 9$ | 65.8 | $\cdots$ | 693 | 67.3 | 72.7 | 523 | 56.0) |
| 72.6 | 675 | 73.8 | 64.8 | 58.0 | 710 | $70 \cdot 3$ | $60 \cdot 4$ | 64.8 | 67.0 | 68.2 | $65^{\circ} 0$ | 67.5 | 73.0 | 66.7 | 54.3 |
| 68-3 | 59.5 | $67 \cdot 4$ | 61.5 | 61.1 | $73 \cdot 4$ | 72.7 | 68.6 | $65 \cdot 1$ | 69.0 | 54.8 | 74.0 | 73'8 | $68 \cdot 9$ | $65 \% 3$ | 220 |
| 66.5 | 64.5 | 64.6 | 58.8 | 57.0 | $62 \cdot 1$ | $60 \cdot 8$ | 57.8 | 53.1 | $58 \cdot 1$ | 56.9 | 55.9 | 55.9 | 57.1 | $50 \sim 2$ | 47.0 |

TABLE XII．－July，1880．Daily Mean Temperature．

| $\stackrel{\dot{\ddot{\theta}}}{\dot{\mathrm{A}}}$ |  |  |  |  |  | $\begin{gathered} \text { B } \\ \end{gathered}$ | 菏 |  |  |  |  | $\begin{aligned} & \frac{\vdots}{4} \\ & \frac{B}{E} \\ & \frac{B}{3} \end{aligned}$ |  | $\begin{aligned} & \text { 気 } \\ & = \end{aligned}$ |  | $\frac{\dot{\pi}}{\frac{\pi}{x}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ＊ | 4 | $\bigcirc$ | － | 0 | $\checkmark$ | Q | － | － | － | － | $\bigcirc$ | $\bigcirc$ | － | $\bigcirc$ | － |
| 1 | 54\％ | ．．．． | 6.90 | （is 3 | 617 | $6.9+4$ | $62 \cdot 9$ | 60.5 | 590 | 605 | 6.1 | 668 | 67.0 | 71.9 | 67.0 | $\ldots$ |
| 2 | 59\％ | 88.0 | 1；9 | 710 | 660 | ${ }_{6} 6.8$ | $64 \cdot 9$ | （15\％ | 64.5 | 62.2 | $6 \mathrm{~F} \cdot 0$ | 6；3 | 66.0 | （沙） | 63.8 | $\ldots$ |
| 3 | 59\％ | 620 | （i） | 50 | 61.1 | 60\％ | 88.0 | 33 | 6i：0 | $60 \cdot 1$ | 63.0 | 63.7 | 62.8 | $69 \%$ | 63.5 | ．．．． |
| 4 | 63.0 | $\cdots$ | 61.1 | 57.8 | $\ldots$ | 58.0 | 62.1 | $57 \%$ | （10） 0 | 6；${ }^{\text {a }} 1$ | $71 \cdot 5$ | $\therefore 2 \because$ | 69.5 |  | 65：； | $65 \%$ |
| 5 | 65.5 | 6.0 | 620 | 62.8 | 54.8 | 610 | 603 | 647 | 60.0 | $6 \cdot 1$ | 69.5 | $66 \div$ | 63.5 | 72.1 | 66.0 | $64 \cdot 2$ |
| 6 | 633 | 620 | 57.6 | 65 | 59.4 | 74：） | 56.1 | 5\％1 | 48.0 | 336 | 61.1 | $15 \cdot 1$ | 64•3 | 2 B 0 | $60 \cdot 3$ | 65.6 |
| 7 | $61 \cdot 3$ | 5 | （970 | 69.0 | 65.8 | 66：5 | 666 | 234 | Sin | 6 E | 67：5 | 709 | $70 \cdot 5$ | 78.6 | 67.8 | tir 7 |
| 8 | 56.5 | 56.0 | 6.5 | 61.8 | 66.6 | 9.3 | 1；i． 1 | 16is | \％ |  | 70.8 | 77.7 | 76：2 | 70\％ | 745 | $5 \%$ |
| 9 | 57.3 | 53.0 | 65.8 | $63 \cdot 3$ | ${ }^{66} \cdot 4$ | 6.73 | 65.1 | 50： | 水： | 74.0 | 746 | 759 | 71\％ | in： | 723 | 839 |
| 11 | 5\％ | $56 \%$ | 66.7 | 66.8 | 68.7 | 66.7 | 6.9 | 45 | 5：5 | 沄： | 748 | 7－7 | 7－ | 701 | 748 | － 5 |
| 11 | 61 ； | $\ldots$ | 66.7 | $0 \cdot 0$ | $\ldots$ | 6.91 | 66.4 | 58.5 | \％10 | 6009 | 73.11 | － 28 | 180 |  | 75.0 | is 1 |
| 12 | 60.7 | 5611 | 64.6 | 865 | 64.8 | 64.0 | 6.50 | 353 | 630 | 6： 3 |  | 73.8 | 72 N | 81.9 | 7－0 | 740 |
| 13 | 65\％ | 59.0 | 68－9 | 66.5 | 67\％ | （6\％） | 64. | 40.5 | \％ 5 | 12：3 | 7，3\％ | $71 \%$ | 68.8 | 811.5 | 730 | － 2 |
| 14 | 6600 | 63.0 | 607 | 59.8 | 10.4 | （62：3 | （00\％ | 5－1 | 61\％ | （1912 | 710 | $73 \%$ | T2．\％ | 74： | $\because 0$ | －3．6 |
| 15 | （5） 3 | 65 | 650 | 63.0 | （13） 19 | 61：3 | 635 | 60.7 | 615 | 419 | 70： | 72\％ | 70.8 | 70．4 | 728 | 72． 5 |
| 16 | $60: 3$ | 70.0 | 6ib\％ | $10 ; 8$ | （\％） 9 | 61\％ | （1：） 1 | － 6 | $5 \times 0$ | （ii）： | （6） 0 | （i4， 9 | 1i：3 | $: 10$ | 64.0 | ${ }^{6} 18$ |
| 17 | $72 \cdot 5$ | 67.0 | 636 | 61＇3 | $60 \cdot 1$ | $60 \cdot 3$ | 61.1 | 5－ | 50 | 57 | $63 \cdot 4$ | 635 | 193） | 65.0 | 61.0 | 60.6 |
| 18 | 7108 | $\ldots$ | 58.0 | 58\％ | ．．．． | 58：3 | $60^{3}$ | 329 | 50 | 5 | 62.1 | 617 | 60.5 | $\cdots$ | 1228 | （6： 2 |
| 111 | 65.0 | 575 | 03.3 | 645 | $60 \cdot 1$ | 61.5 | 640：3 | $53 \cdot 3$ | 57.5 | 597 | 54：3 | 63.5 | （4） 3 | （i．） | 62\％ | tiv2 |
| 20 | 680 | 620 | 6.12 | 67.0 | 635 | $66 \cdot 8$ | $63 \cdot 1$ | －6 | 64， | 61.8 | 50 | is 2 | 77.5 | （12\％ | 59.0 | $50 \cdot 2$ |
| 21 | 08.0 | 72.0 | $\ldots$ | 4，9：3 | 65.4 | （i） 1 | 65.3 | 59.9 | 500 | 63 | $60 \cdot 4$ | 12.9 | 47.0 | 4602 | 59\％ | is 6 |
| 22 | 66\％ | 64．0 | $\cdots$ | 73.0 | 706 | $71 \%$ | $\ldots$ | 56.5 | 63.0 | 65：010 | 61.8 | （in） | 6i． 5 | 68.4 | 63\％ | $61 \%$ |
| 23 | 48：\％ | 65．5 | 730） | 7．3：； | 7.10 | 710 | 73.5 | $62 \cdot 4$ | （i） 0 | （0：3 7 | 60.0 | （i） 1 | 61.3 | （is．0 | 63：3 | 1314 |
| 24 | 71.0 | 1975 | 7： 5 | 750 | 72 | 74.7 | 64.0 | $67 \cdot 4$ | 725 | $66 \%$ | 70.6 | 205 | 685 | $\overline{7} 2$ | 610 | $6 \mathrm{id} \cdot 1$ |
| 25 | 66.7 |  | （in）！ | $70 \%$ | $\cdots$ | 70.3 | 66.2 | 58.7 | 14．7 | 6is：\％ | 710 | 73.7 | 70.8 | $\cdots$ | 713 | $72 \cdot 1$ |
| 26 | 570 | 62.0 | 6.17 | $68 \%$ | fili\％ | 643 | $71 \cdot 4$ | 53.5 | 55 | 60\％ | 619 | 05．2 | 64.5 | 729 | 645 | $65 \%$ |
| 9 | $5 \mathrm{x}, 3$ | 5.5 | 66.0 | （6i\％） | 60.0 | 68.1 | 7\％ | 31. | （ill | （i） $\mathrm{fi}_{6}$ |  | 6.17 | 61.3 | 68.1 | 64．0 | 62．2 |
| 23 | $61 \times 3$ | 560 | 70.9 | 74.0 | 72．1 | 717 | $72 \times 2$ | $53 \cdot 3$ | 03 | 183．${ }^{2}$ | 6.5 | （i：\％） | $59 \%$ | 67.4 | 60.0 | $59 \cdot 1$ |
| $2 \%$ | 58.8 | 57.5 | $70 \cdot 3$ | 660 | 700 | 70.3 | 70.6 | 66.9 | 690 | 64．4 | 72.8 | 65.1 | $63 \cdot 3$ | 67.5 | 63.5 | 63.4 |
| 30 |  | 52．5 | 66.5 | 70.0 | 65.9 | 68.8 | 65.2 | 76.8 | 765 | 63.9 | $71 \%$ | $74 \cdot 1$ | 70.8 | 729 | 67\％ | 65.0 |
| 31 | 573 | 58：3 | $70 \cdot 5$ | 63.5 | 71.8 | $70 \cdot 3$ | 68.8 | 78.0 | 710 | 01.1 | 733 | 74\％ | 74＊ | 76.7 | 70.8 | 675 |
|  | 6311 | 60.8 | 65.7 | 60.2 | $66^{\circ} 0$ | 65.6 | 62.0 | 68．9 | $60 \cdot 8$ | 1222 | 67.5 | 68.2 | 67.0 | 72．3 | 60.8 | 664 |

TABLE XII．－Tuly，1880．Daily Mean Temperature．

| $\stackrel{\dot{⿳ 亠 丷 厂 彡}}{\underline{y}}$ |  |  |  |  | $\begin{aligned} & \dot{5} \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |  |  |  |  |  | $\begin{aligned} & \dot{0} \\ & 0 \\ & 0 \\ & \text { B0 } \\ & E \\ & E \end{aligned}$ | $\begin{aligned} & \dot{E} \\ & \dot{E} \\ & \dot{E} \end{aligned}$ |  |  |  | 亩 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\bigcirc$ | $\because$ | $\bigcirc$ | － | $\because$ | $\bigcirc$ | $\checkmark$ | 0 | 0 | $\bigcirc$ | ？ |  | $\bigcirc$ | － | － | － |  |
| 22\％ | 67.5 | 65.2 | 61：\％ | 72.5 | 66.7 | 65.0 | $63 \cdot 4$ | 67.7 | 717 | 67.4 | 69.6 | 68.8 | 68.0 | $\ldots$ | 16i4 | 1 |
| 619 | 63.6 | 60.9 | 63.8 | 61.7 | 63.8 | 57.9 | $60 \cdot 1$ | 64.7 | 681 | $81 \%$ | 65.8 | 67.0 | 64－5 | $66^{\circ} 0$ | 66.0 | 2 |
| Bib：4 | （i．） 4 | にす | 65 | $6 \mathrm{~s} \cdot 1$ | $67 \cdot 4$ | tie＇2 | $62 \cdot 3$ | $65 \cdot 3$ | 68：1 | 63.5 | 67.8 | 65.2 | 67.3 | （6， 80 | 136\％ | 3 |
| $\cdots$ | 1559 | $\mathrm{EiO}_{6} 7$ | 896\％ | 70.9 | 676 | 69.0 | 66.9 | －•• | ．$\cdot$ | 68.6 | 70.0 | $70-2$ | 69.0 | $\cdots$ | 71 $\because$ |  |
| 699 | （ia） 3 | 60 | 158 | 69\％） | 66.3 | 06 | 63.2 | $\cdots$ | 727 | 67.6 | 72．1 | $71 \cdot 4$ | 68.8 | 650 | 71） 1 | 5 |
| 69.3 | 18．7 | （i2． 7 | 700 | 70.9 | 67.1 | 64.6 | 61.5 | （i） 7 | $71 \cdot 4$ | $65^{\circ} 0$ | 69.0 | 72．fi | $70 \cdot 5$ | 67：3 | 68.7 | 6 |
| 658 | 18.7 | 650 | ${ }_{6} 68.7$ | 71.9 | 63.5 | $64 \cdot 7$ | $60 \cdot 9$ | 66.6 | 68.7 | $63 \cdot 3$ | 668 | 69.0 | 67.0 | 6 m 5 | 69.0 | 7 |
| 76.6 | 726 | 7\％ 6 | 78.5 | 76.3 | 70\％ | 76.3 | 73.6 | 75.9 | 78.5 | 74：3 | 73.4 | 2－4 | 70.0 | 68.8 | 78.7 | 8 |
| $7:$ | 75.2 | －2＇4 | 78\％ | 79.7 | 76.4 | 763 | $75 \cdot 1$ | $\ldots$ | $82 \cdot 5$ | 79.7 | 76.0 | 78.2 | 76：5 | 79.8 | $80 \cdot 4$ | 9 |
| iot | 74.0 | 728 | 7\％） | $\pi 1$ | 73.9 | 76.1 | $73 \cdot 4$ | 74.4 | 798 | 73．19 | $74 \cdot 4$ | 76.8 | 76.0 | 72.2 | 75\％） | 10 |
| ．．．． | 7． 7 |  | －5\％ | 7.57 | 74．2 | 757 | 72.0 | ．．．． |  | $74 \cdot 4$ | $75 \cdot 3$ | $69 \cdot 4$ | 68.3 | ．．．． | 76.5 | 11 |
| 74.9 | 74．4 | 73.9 | 73.5 | 76.6 | 74.2 | ．．．． | 69.9 | 72.6 | 73.5 | $72 \cdot 8$ | $71 \cdot 1$ | $70 \cdot 3$ | 66：3 | 67.0 | 66.1 | 12 |
| $75 \cdot 4$ | $75 \cdot 1$ | 70.4 | $74 \cdot 8$ | 77.1 | 72． | 693 | 67.0 | $70 \cdot 1$ | 72.0 | $68: 9$ | $70 \cdot 3$ | 75.3 | 72：5 | 71：3 | 73.8 | 13 |
| 74＊ | 74.5 | 74．3 | 73：3 | 73.7 | 71：3 | 68.8 | 67.8 | 720 | 737 | 68.9 | 71.1 | 66.0 | 62.8 | $66 \cdot 1$ | 69.8 | 14 |
| 74.9 | $70 \cdot 1$ | 7．92 | $73 \%$ | 7：3 | 713 | $69 \cdot 4$ | 68.4 | $70 \cdot 8$ | 74．3 | 708 | 71.4 | 70.0 | 615 5 | 73.7 | 76.5 | 15 |
| 69.6 | 65.8 | $6{ }^{6} 3.9$ | 705 | 70\％ | 68.0 | 65.5 | $62 \cdot 2$ | 65.7 | 65.2 | 65.2 | 68.8 | $72 \cdot 2$ | 69.0 | 68.2 | 75：5 | 16 |
| nis．1 | ${ }_{6} 63.7$ | 56.4 | 69：3 | 18S： | 64： 3 | （i） 7 | 58.7 | 62.3 | 68.0 | 61.0 | 66.2 | 67.3 | 1550 | $66 \%$ | 69.6 | 17 |
| $\ldots$ | $69^{\circ} 0$ | \％ 5 | （5．0） | 1488 | 6332 | $54 \cdot 8$ | 52.7 | ．．．． | ．．．． | 615 | 67.7 | 70.7 | 188：3 | ．． | 71.8 | 18 |
| （is： 1 | 63．3 | $62 \cdot 1$ | $66^{\circ} 0$ | 67.6 | ${ }_{61} \cdot 1$ | 61.9 | 57.8 | $6+3$ | $67 \cdot 1$ | （6）： 3 | 712 | $69 \cdot 4$ | 66.8 | 6642 | 69.3 | 19 |
| 61－0 | 79．8 | 536 | $50 \cdot 3$ | 16．0 | （i）$\%$ | －$n$－ | 57.0 | 60：3 | 65.0 | 59.3 | 66.2 | 65.8 | $65 \cdot 3$ | 66.9 | $67 \cdot 4$ | 20 |
| （\％） | （ii）${ }^{\text {a }}$ 2 | ．14．7 | 65：3 | （i．） 1 | $181 \%$ | 502 | $54 \%$ | $60 \%$ | 11.7 | 58：9 | 66.6 | 640 | 62：5 | ［im； | 72•1 | 91 |
| 6， 17 | （i3．1 | $12 \cdot 7$ | （11）\％ |  | （12．… | 50 | 613 | 64：3 | 1780 | $64^{-1}$ | $60^{0} 0$ | 66.0 | 160 | H．S | 2101 | 22 |
| 13： 3 ； | $64 \cdot 3$ | （：1） | $10 \cdot 0$ | 70.0 | 63＇4 | \％ 0 | 513.6 | 017 | tib； | \％7 | 67.8 | 67.9 | 69.3 | 65.8 | 64.6 | 23 |
| 70： | 69.5 | 62\％ 6 | 78 | 74； | 6i7． 2 | $6 \div \cdot 1$ | 61.3 | 67.0 | 688！ | 659 | $66^{6}$ | 70.0 | 65.8 | 67. | 80.3 | 24 |
| ．．．． | 727 | $71 \%$ | 7.0 | 77.7 | $71: 3$ | $71 \%$ | 69.9 | ．．．． | ．．．． | $70 \cdot 9$ | 73.9 | 710 | 72.8 | ．．．． | 66.6 | 2 |
| 69.9 | （i）＊ | $69 \cdot 4$ | $71 * 0$ | $72 \cdot 8$ | 67.4 | 61.7 | $62 \cdot 8$ | 8 B 2 | 71.9 | （16） 2 | 68.6 | 68.2 | 156.0 | $66 \cdot 7$ | 62.7 | 20 |
| fili：3 | 61.6 | － $\mathrm{m}^{6}$ | $45 \%$ | $69 \cdot 4$ | 615 | 568 | 59.0 | 63.3 | 662 | $6 \pm .0$ | 62.7 | 64.3 | 61 \％ | 59.0 | 63.9 | $\because$ |
| 63.6 | 61＂2 | $59 \%$ | 63.5 | 707 | 19：6 | $58 \cdot 9$ | 58.8 | 1938 | 63.5 | $61 \cdot 1$ | $60 \cdot 4$ | 61\％ | 57：） | 613 | 718 | 23 |
| 6：3 | 63.7 | 59\％ | 69：5 | 68．6 | 15： 2 | 12：3 | 595 | 65.0 | 63.8 | 517 | 023 | 59.5 | 250 | 64．0 | 226 | 29 |
| 66.6 | $66 \cdot 3$ | 6if 1 | 71.8 | $70 \cdot 4$ | （15；${ }^{2}$ | $\ldots$ | 61.8 | 69.0 | 69：3 | 67.5 | 659 | $65 \cdot 1$ | 61.0 | （6； | 739 | 30 |
| 717 | 70.1 | 68.9 | $74 \cdot 8$ | 751 | 707 | 64.5 | 608 | 74.7 | 76：5 | 71.8 | $72 \cdot 4$ | 73\％ | 7\％ | 70\％ | 71.1 | 31 |
| 69.7 | 67.5 | 65.0 | 69.8 | 71\％ | $67 \cdot 6$ | $65 \cdot 1$ | 63.6 | 67．0 | $70 \cdot 2$ | 66.6 | $69 \cdot 1$ | 69．0 | 66.9 | 67.2 | 70.8 |  |

TABLE XLL．—Tuly，1880．Daily Mean Temperature．

| $\dot{c}$ |  |  | $$ | 范 |  |  |  |  | $\stackrel{\dot{E}}{E}$ | $\begin{aligned} & \therefore \\ & B \end{aligned}$ | $\stackrel{\dot{E}}{5}$ |  |  |  |  | 宽 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\bigcirc$ | － | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | － | $\bigcirc$ | $\bigcirc$ |  | － | － |  | $\bigcirc$ | － |  | 0 |
| 1 | 67.6 | 685 | 68.9 | 61.0 | 619 | $71 \cdot 4$ | $72 \%$ | 717 | ${ }^{67} \cdot 1$ | 65：3 | 65.0 | 710 | 70.0 | 68.8 | 64＊3 | $49 \cdot 3$ |
| 2 | 66.9 | 65.0 | 69.1 | 598 | 58.5 | 67.2 | $71 \%$ | 64.5 | 69.7 | $63 \cdot 3$ | 64． 6 | 710 | 67.8 | $65^{\circ} 2$ | 69.3 | ${ }^{60} 7$ |
| 3 | 6972 | 40．0 | 68.4 | 63.8 | 61.7 | $65 \cdot 9$ | $72 \cdot 3$ | 659 | 56.8 | $62 \cdot 8$ | $63 \cdot 1$ | 583 | 61.2 | 59.6 | 52．3 | 54.3 |
| 4 | ．．．． | 70.0 | 7：3 | 13： 5 | 61．1 | ．．．． | ．．．． | 63.9 | $60 \cdot 8$ | 1335 | $64 \cdot 4$ | ．－ | $64 \cdot 1$ | 61.4 | $52 \cdot 3$ | 52.0 |
| 5 | 7155 | 70．5 | 71.6 | 69.8 | $59 \cdot 9$ | 69.7 | 73.3 | 66.9 | 66.6 | $65 \cdot 3$ | 6is． 1 | 69.7 | $70 \cdot 1$ | $73 \cdot 0$ | $60 \%$ | 247 |
| 6 | 71.4 | （345 | 220 | 6\％ | $516 \%$ | 18.3 | 71.0 | 16.0 | $6{ }^{6} 56$ | 65.3 | $63: 3$ | 643 | 678 | 68．4 | 71.0 | 55：3 |
| 7 | $69 \%$ | 66.0 | 15．8 | 63.5 | 59.0 | $60 \cdot 1$ | $71 \%$ | 62.7 | 62.0 | $62 \cdot 3$ | 66＂2 | 61.7 | 66.5 | 67.2 | 687 | 50\％ |
| 8 | $69 \cdot 1$ | 1545 | $69 \cdot 4$ | 58.0 | 60.0 | 68.1 | 69.3 | 663 | 66.1 | $62 \cdot 3$ | 64.3 | 73.0 | 69.1 | 66.4 | 62\％ | $55 \cdot 3$ |
| 9 | $76 \cdot 1$ | 72.5 | 67.0 | 68.7 | 58.9 | 65.7 | 710 | 65.4 | $66 \%$ | 663 | 668 | 69.3 | 68.4 | 69.0 | 623 | 62.7 |
| 10 | 768 | 765 | $71 \%$ | $67 \cdot 5$ | 61.4 | 775 | 72.7 | 68.8 | 67.2 | 68.3 | 68.5 | $70 \cdot 3$ | 71.8 | 72.1 | 603 | 55.0 |
| 11 | $\cdots$ | $\mathrm{GH} \cdot 0$ | 69.7 | $60 \cdot 8$ | 67.2 | ．．．． | $\cdots$ | 66.9 | $62 \cdot 1$ | 62.8 | 61.2 | ． | 58.0 | 58.4 | $65^{\circ} 0$ | 50.7 |
| 12 | $70 \cdot 2$ | $\ldots$ | 688 | 63.0 | 62．8 | 61.7 | 733 | 63.7 | 583 | 61.0 | 59 | 43.3 | 65.6 | 66.1 | 57.0 | 52.7 |
| 13 | $75 \cdot 1$ | 68.5 | 73.7 | 67.0 | 57.5 | 62.8 | 70.0 | $61 \cdot 2$ | 60．4 | 61.3 | 63．1 | 6．17 | 65.7 | 679 | 63.0 | 53\％ |
| 14 | 67.2 | 61.0 | 65.2 | 59.0 | 64.8 | 63.6 | ${ }^{6} 5.0$ | 62.2 | 562 | 590 | 59.0 |  | 59.3 | 59.5 | 497 | 493 |
| 15 | 70：9 | 67.0 | 69.2 | 40.8 | 59.3 | 88.7 | 68.7 | $63 \cdot 4$ | $5 \times .7$ | 61.5 | 60， 4 | 63.7 | 1127 | 63.1 | 57.0 | $49 \cdot 3$ |
| 16 | $70 \cdot 0$ | 88.4 | 117. | 15：\％ | 60：3 | 1385 | $70 \cdot 3$ | 63－2 | $61 \cdot 7$ | 67.3 | 6i3\％ 6 | 640 | 64.9 | 67.6 | 63.3 | 63.3 |
| 17 | 仿． 4 | 63.5 | （6） | 120 N | 56 ty | 870 | 72.0 | 64.9 | 63.5 | 668 | 69.0 | 64.0 | 1317 | 70.6 | 61.0 | 40.0 |
| 15 | $\cdots$ | 68.5 |  | M5 | 5911 | $\cdots$ | $\cdots$ | 63.4 | 69.6 | 6is．0 | 67.8 | ．．．． | 70.8 | 717 | 613 | 500 |
| ［！ | T－11 | 685 5 | $78 \cdot 1$ | （14） 10 | 62.8 | 69.7 | 73.0 | 66.9 | 676 | $65 \cdot 3$ | 68.7 | 667 | $70 \cdot 5$ | 707 | $64^{\circ} 0$ | 5 |
| 20 | 87.9 |  | 199．19 | （1i） 3 | $63 \cdot 6$ | 20．4 | 74．0 | 13.3 .3 | 66.9 | 65：3 | 730 | 72.0 | 718 | $70 \cdot 4$ | 54．0 | $56 \times 3$ |
| $\because 1$ | 66.1 | 6it ${ }^{\text {a }}$ | bx： |  |  | （is．${ }^{\text {S }}$ | ${ }_{6} 6,4$ | 6.35 | 67.2 | ${ }^{6} 58$ | ．．． | 6i7\％ | 7103 | 16.9 | 61.7 | 57.0 |
| ？ | （ix？ | $13: 5$ | 679 | 445 | $61: 7$ | 70\％ | 689.0 | （3）5 | 73.1 | 67.8 | 740 | 78 | 720 | 707 | 783 | $58: 3$ |
| $\because$ | 70：9 | 89.0 | 718 | （1：3 H | 50 | Rijo 0 | 65.0 | $66^{3} 3$ | 73.6 | 635 | 738 | 760 | （s） 0 | 63.3 | $70 \cdot 3$ | $60 \%$ |
| 24 | $7 \cdots$ | 89.0 | 18.11 | 1110 | 318 | ${ }^{6} \cdot 1$ | 68.7 | 63.0 | 66.6 | 62.0 | 84.9 | 68.0 | 64．5 | （i5．2 | $70 \cdot 7$ | $61 \%$ |
| 25 | $\ldots$ |  | 78.10 | 0， 5 | 5－9 |  |  | 64\％ | $6{ }^{6}$ | 63.0 | 行 2 |  | （68．8 | 69.5 | 673 | 613 |
| $21{ }^{\circ}$ | tix． 4 | 700 | 721 | （ $\mathrm{H}^{\text {i }}$ | $52 \cdot 3$ | 60.2 | 73：3 | 10：1 | 683 | 61.8 | dit 4 | 70\％0 | 69.2 | $69 \cdot 8$ | 573 | 63．0 |
| 97 | $6^{6} \cdot 0$ | 165 | $6 \times 11$ | 68.11 | 56：3 | 65.7 | 69.3 | $63 \cdot 3$ | 66.7 | $64 \cdot 8$ | 060 | 71.0 | B88 6 | ${ }^{6} 86$ | 5\％ | 58.0 |
| 2 | $111{ }^{1}$ ？${ }^{\text {a }}$ | 58 | 5197 | 518 | 121.3 | 69.0 | 88.3 | （13：5 | 616 | 62.5 | 676 | 68.7 | 16.8 | 69．8 | 57.7 | 523 |
| 9 | ［ial：3 | 54 | 55 | 30.1 | （6） | 62－5 |  | 62．9 | 61.9 | 60.8 | 64\％ | $65 \cdot 3$ | $65 \cdot 8$ | 658 | 64 7 | 53.3 |
| 311 | ＋171 | 2，4：\％ | 63.11 | firl 1 | 314 | 62.2 | 57\％ 3 | $61 \% 3$ | 64.7 | 58.3 | $62 \cdot 1$ | 6．9．7 | $00 \cdot 3$ | 568 | $66^{3} 3$ | 57.0 |
| 31 | 728 |  | 71 s | 1；\％ S | 63.8 | 68.8 | 69.0 | \％ 9 | ${ }^{610} 8$ | 62.0 | $62 \cdot 1$ | $64^{\circ} 0$ | 645 | 65.0 | $00 \cdot 0$ | $59 \cdot 7$ |
|  | 6103 | 9616 | 686 | 13\％ | $60 \cdot 7$ | $66 \cdot 9$ | 60\％ | （148 | An：0 | 122 | 65.6 | 6i 3 | 668 | （itis | $62 \cdot 3$ | 5i．\％ |

TABLE XIII．－August，1880．Daily Mean Temperature．

|  |  |  |  | $$ | E | 良 |  |  |  |  |  |  |  | $\stackrel{\text { 号 }}{\underset{\sim}{3}}$ |  | 令 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\bullet$ | － | － | － | － | － | － | － | $\cdots$ | － | － | － | － | $\cdots$ | － | － |  |
| 59.0 | $\ldots$ | 54\％ | H0 | $\ldots$ | 56.6 | 50.0 | 563 | 63.5 | $64 \cdot 1$ | $77 \cdot 1$ | 76.6 | 76.3 | $\cdots$ | $73 \cdot 8$ | 74：5 | 1 |
| 15.7 | 120 | 59.9 | 663 | 60.6 | 60.5 | 545 | $53 \cdot 6$ | 24.5 | ${ }^{61} \cdot 6$ | 57.8 | 62.5 | 67.5 | 65.5 | 61.0 | 62.2 | 2 |
| 63.5 | 61.5 | 54．6 | 653 | 61.7 | 66.9 | 6 | 53.6 | －4：3 | 62.0 | 60\％ | 60.0 | 57.1 | 619 | 575 | ．15 7 | 3 |
| 585 | ．．．． | Gt＇4 | 65.5 | 6.7 | 1，6\％ | 697 | 54.2 | 52.0 | 54.7 | $65 \%$ | 61.9 | 658 | 67 | 63.0 | 59.6 | 4 |
| 57.5 | 285 | 68.8 | 71：3 | $6 \stackrel{4}{ }{ }^{4}$ | 66.8 | $70 \cdot 3$ | ． 22.4 | 565 | 59.7 | $60^{\circ} 0$ | $62 \cdot 2$ | 390 | 678 | 59.8 | 615 | 5 |
| 593 | 63.0 | 67.9 | $71 \cdot 3$ | 69.5 | $71 \pm$ | 70.0 | $47 \cdot 9$ | 63\％ | 61.9 | 67.9 | 63.8 | 63.0 | 69.5 | 62：3 | 60.9 | 6 |
| 61.0 | $63 \cdot 2$ | 64．2 | 65.5 | 65.9 | 6.57 | 6355 | 56.8 | $63 \cdot 5$ | 63.7 | 705 | 70.8 | 713 | 70.2 | 67.8 | 670 | 7 |
| 557 | ．．．． | 64.9 | 65.5 | $\ldots$ | 63.5 | 60.9 | 60.7 | 62.5 | 69.0 | 72.6 | $75 \cdot 1$ | 73.5 | $\ldots$ | 700 | es．9 | 8 |
| 49－1 | 65.5 | 639 | 63.5 | $63 \cdot 4$ | 65\％ | 65.8 | 54.9 | 59.5 | 61.3 | $69 \cdot 0$ | 71.6 | 71：5 | 74．6 | 88.5 | $\ldots$ | 9 |
| $50 \cdot 1$ | 56\％ | 60.6 | 61．8 | 62.6 | $62 \cdot 9$ | $61 \%$ | $55 \cdot 3$ | 56.0 | $62 \cdot 5$ | 66.6 | 67.8 | 665 | 73.5 | 60.5 | $\ldots$ | 10 |
| ［3］ | 56.5 | 68.3 | 673 | 67.2 | 69.5 | 68.9 | 61.8 | 58.5 | 64.2 | 64.5 | 67.5 | 64.0 | $70 \cdot 3$ | 66.5 | $\ldots$ | 11 |
| $55 \cdot 3$ | $\ldots$ | 68.7 | 708 | 70.4 | $71 \cdot 4$ | 68－2 | $64 \cdot 1$ | 61.0 | $60 \cdot 3$ | 70.7 | 66.2 | 63.5 | 71.2 | 645 | $\ldots$ | 12 |
| 56.6 | $\ldots$ | 65.6 | 69.0 | 67 \％ | ${ }_{17} 7.9$ | 66.4 | $52 \cdot 0$ | 60.5 | $67 \cdot 1$ | 69.3 | 69.0 | 69.8 | 72.2 | 69\％ | $\ldots$ | 13 |
| 1025 | $\ldots$ | 63．3 | 65.0 | 68.7 | 649 | 692 | 46.9 | $55 \%$ | $63 \cdot 2$ | $63 \cdot 1$ | 63.2 | 650 | 66.4 | 61.8 |  | 14 |
| 13．8 | ．．．． | 65.1 | 66.8 | $\ldots$ | 615 | 665 | 52.7 | 52.0 | 57.1 | $57 \cdot 4$ | 54.9 | 53.8 | $\ldots$ | 54．8 | 54.6 | 15 |
| 615 | ．．．． | 5\％ | 56.5 | 57.6 | 37.5 | （5）． 1 | 55.0 | 46 | 5711 | 59.7 | 57.8 | 57.8 | 63.2 | 560 | 55.0 | 16 |
| 55：3 | ．．．． | $\mathrm{fH}^{1} \mathbf{1}$ | 635 | 63.2 | 64.0 | 61.6 | 6619 | 61.0 | ${ }^{64} 4$ | 665 | 67.4 | 650 | $70 \cdot 3$ | 63.5 | $64 \cdot 4$ | 17 |
| 5 j 3 | 61.8 | 63.9 | $60^{6} 0$ | 63.5 | $13 \cdot 6$ | $64 \cdot 1$ | 65.6 | 61.0 | 67.2 | 72.5 | $7{ }^{7} 7$ | 713 | 77.9 | 730 | 72－8 | 18 |
| 50.6 | 65.0 | 443 | $67 \% 3$ | 6：3 | 1；2\％3 | 61.8 | 48.9 | $55 \%$ | 65.1 | 66.9 | $63 \cdot 7$ | 66．0 | $72 \cdot 5$ | 66.8 | $68 \cdot 7$ | 19 |
| 60.0 | 101：5 | 55.8 | 57.8 | \％i！ | 57.8 | 518 | 4.7 | 48：5 | 62：7 | 65\％ | 67.6 | 658 | $73 \times$ | 67．3 | $68 \cdot 4$ | 20 |
| 54.3 | 62： 5 | 57.2 | 56.0 | 58.7 | 569 | 575 | 53.5 | 48.0 | 551 | $65 \cdot 4$ | 65.8 | 68.0 | 68.8 | 61.1 | $63 \cdot 1$ | 21 |
| $53 \cdot 5$ | ．．． | 56.8 | $60 \cdot 8$ |  | 38.3 | 58.0 | 57.8 | 550 | ${ }^{6} \mathbf{6} \cdot 6$ | $\mathrm{BS}_{6} 0$ | 729 | 70：3 |  | 68.8 | 67.1 | 22 |
| 46.0 | 350 | 50.8 | 50\％ | 51.2 | $50 \cdot 3$ | 51.6 | \％18 3 | 5 | 58.0 | 68.6 | － 27 | 718 | 7＊） | －29 | 717 | 23 |
| $45 \cdot 3$ | 58.0 | 48.9 | 53.8 | Sid | 189 | $55 \%$ | 47\％ | 46.0 | 53.9 | （3） | 73：8 | 715 | 727 | 73：\％ | 73.0 | 24 |
| $45 \cdot 2$ | 5.0 | 58.9 | $59 \cdot 8$ | 5191 | 57.3 | 59.6 | t， 8 | 44.10 | 52.5 | 25：3 | 5ns | 54\％ | 6：0 | 59\％ | 58.9 | 25 |
| $48 \cdot 3$ | 550 | 56.2 | 59\％3 | 57.9 | 58.5 | $58 \cdot 1$ | 53 | 49.0 | \％ $5 \cdot 3$ | $59 \cdot 1$ | $63 \cdot 9$ | 61.8 | 69\％ | 61.3 | 60.0 | 26 |
| $47 \%$ | 515 | 60.0 | 64.0 | （i）${ }^{\text {d }}$（ | 58.6 | 73\％ | 58.8 | 58.0 | $62 \cdot 5$ | 71.8 | 75.2 | 753 | $81 \cdot 8$ | 75.5 |  | 27 |
| 48.0 | 525 | 59.6 | 65.3 | $60 \%$ | 62．0 | 60.7 | 52.6 | 55.5 | $61 \%$ | 67.5 | 706 | 665 | $76 \cdot 4$ | 73.0 | 728 | 28 |
| 495 | $\ldots$ | 65.1 |  | ． | 61.8 | 645 | 48.9 | 515 | 6.3 .0 | 6.0 | 67.6 | 66.8 | ．． | 64.8 | 64：3 | 29 |
| 50.0 | ．．．． | 61.8 | $70 \cdot 3$ | 64.7 | 66.4 | 65.3 | 54．4 | 555 | 608 | 663 | 66.2 | 633 | 65.8 | 6t． 0 | 13： | 30 |
| 57．0 | 56：5 | 61.9 | 81.3 | 61.8 | 62.5 | $60 \%$ | 817 | 00.5 | $50 \cdot 0$ | 67.3 | 697 | 70.5 | $73 \cdot 4$ | 675 | 67.1 | 31 |
| 650 | $5 \cdot 2$ | 61.6 | 83.2 | $\therefore \cdot 1$ | 69．2 | $62 \cdot 4$ | $55 \%$ | 56.4 | 61.2 | 65.8 | 67.6 | 66.4 | 70\％7 | 65.6 | 632 |  |

TABLE XIII.-August, 1880. Daily Mean Temperature.


TABLE XIIT.-August, 1880. Daily Mean Temperature.


TABLE XIV．－September，1880．Daily Mean Temperature．

| $\stackrel{\dot{x}}{\stackrel{\rightharpoonup}{4}}$ |  |  |  |  |  | 商 | $\dot{\vec{B}}$ |  |  |  |  |  |  |  |  | $\begin{aligned} & \text { 淢 } \\ & \frac{5}{5} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\bigcirc$ | 0 | $\bigcirc$ | － | － | － | － | $\bigcirc$ | － | $\bigcirc$ | － | － | － | － | 0 | － |
| 1 | （6i．0） | 59.0 | 540 | $59 \% 8$ | 58.13 | $61 \times 3$ | ． 36 | 6．5： | 4inis | 127 | －2．0 | 73 | 7．0：3 | 30\％ | 71s | 7\％1 |
| $\because$ | 56： | 575 | 61.9 | 630 | 63．7 | 6：37 | 62.6 | 60 | AE； | 61.5 | P！ 1 | $\therefore .91$ | 71.0 | －s：3 | 30 | － 9 |
| 3 | 19\％） | 535 | $\ldots$ | 62\％ | 61.9 | 63.0 | 11 | $16 \%$ | 「ご＂ | （i2\％ | － | mer | \％0： | 26 | 69.3 | －10\％ |
| 4 | 17－1 | 55.5 | 6：5 | （\％） 0 | $60 \cdot 1$ | 61.1 | 1.101 | 14： | 13）${ }^{\text {a }}$ | 6\％； |  | mo | 67.3 | 7178 | 70.0 | 71： |
| 5 | $47 \cdot 1$ | $\ldots$ | 56.7 | 5\％ | $\cdots$ | 54.5 | $\cdots$ | H1．0 | －，$\%$ ； | 1i：$\because$ | 66.6 | －2． | 720 |  | 71.0 | 712 |
| 6 | 51\％ | inv |  | 190 | 49.0 | 4193 | $19 \cdot 1$ | ＋59 | $47^{\circ}$ | $1: 2$ | 6\％ 6 | （ $3 \cdot 1$ | 63.3 | 1i： | 180 0 | 61：1 |
| 7 | $51 \%$ | 55.5 | 17： | 15：3 | 48.7 | 47.5 | （19．） | 12\％ | $17 \%$ | 4\％\％ | 509 | $\therefore$ 二 1 | －3\％ | 548 | 43 S | B s |
| 8 | 51.8 | 50.3 | 5＇5 | 51：3 | 54．6 | 5＇5 | 57.1 | 50 6 | $45 \%$ | 1－\％ | $3)$ | \％ 3 | 410 | －2\％ | 45.0 | 4゙3 |
| 9 | 16：9 | 220 | 519 | 53\％ | 540 | 5． 3 | $54 \cdot 1$ | 54.1 | 53： | ハ\％ | S！ | 197 | 14： | －170 | 二示 | 19.7 |
| 10 | $\underline{2}$ | $4!0$ | 64\％ | $83 \%$ | 50：3 | 60：； | 50：3 | 56.4 | $60 \%$ | 56 | 1i8：9 | ． 1.1 | 汭3 | －3， | （10） | 510 |
| 11 | 13 | 510 | 1.50 | ＋4．0 | 15－3 | 15.0 | 41：3 | 6.91 | 163\％ | －$\quad$ ： | 18 | 13： 6 | 61：7 | （ifor | is． | 3.1 |
| 12 | $41 \cdot 3$ | $\cdots$ | 4.8 | 11.5 | $\ldots$ | （11：3 | ：${ }^{\text {c }}$ | （it） 1 | －3．5 | $46 \%$ | （1） | 13： | 6゙， |  | （ii） $\mathrm{S}^{\text {\％}}$ | 6 |
| 13 | 4.6 | 56：5 | 心－ | 505 | $18 \cdot 1$ | 5110 | 5 5 5 | 15.6 | 13.5 | 192 | 3 | － | 0.0 | $3 \cdot 1$ | \％it | 108 |
| 1.1 | tis 3 | 5\％10 | $51 \%$ | $50 \cdot 0$ | 52.7 | 54．2 | 51－1 | $19 \cdot 1$ | $51 \%$ | 51.0 | 56： | 803 | $46 \%$ | らこ | （1）： | （1\％） |
| 15 | $15 \cdot 1$ | 56.0 | 53\％ | \％ 5 | 30 | －2i\％ | 5\％ | 5.56 | $51 \%$ | $53 \cdot 3$ | 575 | －7 | 5 | （i0） 4 | 500 | 717 |
| 113 | 11.2 | 51\％ | 8 | 25\％ | $53 \cdot 2$ | 55.1 | $52 \cdot 6$ | at 1 | 62\％ | $62 \cdot 1$ | 62：5 | $181 \%$ | 12－ | 12： | 61.0 | 610 |
| 17 | 12.7 | 500 | 724 | 503 | 54.1 | 3\％ | 111 | 51 | i1\％ | $\therefore 1.1$ | 61： 3 | 127 | 65： | 710 | 60： | 167 |
| 18 | $42 \cdot 2$ | 1）？ | ． 667 | 2，58 | 51\％ | 7\％ | IT | 52 | 190 | 53.1 | 6.33 | 7\％ | 66：\％ | 734 | 的0 | $19 \%$ |
| 19 | 42＂－ | $\ldots$ | $16 \%$ | 40；） | ．．． | $5 \cdot$ | （x－1 | $51 \cdot 4$ | 50.0 | $51 \cdot 4$ | $61 \cdot 1$ | （is） 1 | 6is |  | 6it 0 | $64 \cdot 4$ |
| 20 | $40 \cdot 7$ | ．．． | 129 | 40 | 14\％ | 4.6 | $13 \cdot 1$ | 544 | 10\％ | $40 \cdot 6$ | $57: 5$ | 62．2 | 63.3 | 62．1 | 58 8 | 81.3 |
| 21 | 38.5 | 53\％ | fir | to | $1: 36$ | 1335 | $12 \cdot 1$ | 13.9 | 40： | 439 | $4{ }^{4} 6$ | 53： | 5 Cl | 55.8 | 5： | －111 |
| 22 | 38： | 31\％ | $15 \cdot 3$ | L－0 | 5 | $16: 3$ | 4.6 | 11\％ | 3：4 | $49 \cdot 1$ | 503 | －1） 1 | ［200 | 520 | 570 | 45 |
| 23 | 1：3 | 52.0 | 47• | 453 | $4{ }^{4}$ | $19 \% 10$ | $51 \cdot 6$ | 45\％ | 40\％ | 415 | 53：3 | 53.5 | 540 | 3.9 | $14: 5$ | 山心 |
| 24 | 1：3 | 31.8 | $4 \cdot 8$ | 17： | $4 \mathrm{4} \times 3$ | 18＂3 | 48.6 | $41 \cdot 1$ | $13 \times$ | 495 | 60.1 | 60.7 | 61： | （6） | 57 | 518 |
| 25 | $5 \mathrm{~V} \cdot 1$ | $\ldots$ | 48.4 | $11 \%$ | $44^{5}$ | H．4 | ＋1．1 | $4 \%$ | 43.0 | 53.8 | $66_{6} 3$ | 6is | $684 \% 3$ | 60－9 | （in） | \％ |
| 26 | － $0 \cdot 2$ |  | $51 \times 2$ | い＊ |  | $1 \times 1$ | 49\％8 | $44^{\circ} 0$ | 38\％ | 450 | $61 \%$ | 67 | 630 |  | 67.0 | 16.6 |
| 27 | $47 \cdot 1$ | 53\％ | 44．4 | 48.3 | 48.0 | 50.0 | 50.4 | 12\％ | 190 | 17：3 | 48.6 | \％ 3 | 52 | 51•5 | 510 | 50．4 |
| 23 | 39\％ | 53.0 | ．．．． | 43.5 | 138 | 4.4 | 1－： | 4\％ | 12：\％ | 4．1） |  |  |  |  |  |  |
| 29 | 46.4 | 53.5 | 45\％） | $40 \cdot 8$ | $39 \cdot 6$ | 38.5 |  | 38.7 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | $33 \cdot 5$ | $30 \cdot 3$ | 4.3 | 16.8 | $4{ }^{\circ} 5$ | 483 | 413 | 43.7 |
| 30 | 46.4 | 548 | $\cdots$ | 460 | 453 | $46 \%$ | 403 | $36 \cdot 4$ | 33.0 | － 452 | H．5 | 45.2 | 49.0 | $46 \times 2$ | 438 | 39.4 |
|  | 46.6 | 54.0 | $50 \cdot 7$ | $50 \cdot 7$ | $50 \cdot \theta$ | 51.1 | $50 \cdot 1$ | 52.0 | $48 \cdot 2$ | 52．3 | 58.4 | 604 | $50 \%$ | 62：1 | 58．1 | $57 \cdot 6$ |

＇IALiLE XIV．－September，1880．Daily Medn Temperature．

| $\begin{gathered} \stackrel{y}{3} \\ \stackrel{3}{3} \\ \end{gathered}$ |  | $\begin{aligned} & \stackrel{3}{g} \\ & \text { 品 } \\ & \text { D } \\ & \text { H } \end{aligned}$ |  | $\stackrel{\text { É }}{\underset{E}{E}}$ |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| － | 0 | － | － | $\bigcirc$ | 0 | － | － | $\bigcirc$ | $\checkmark$ | － | － | － | － | － |  |
| 256 | 73： | 73：5 | 71－3 | 70.2 | 69.2 | 53.5 | 69－3 | $71 \cdot 1$ | $7 \because \cdot 4$ | $68 \cdot 3$ | 74－2 | 731 | 723 | 717 | 73.6 |
| $77 \times 3$ | $76 \cdot 8$ | 729 | 76.0 | 79.0 | 787 | 72．4 | $70 \cdot 9$ | 73.9 | 76.4 | $75 \cdot 1$ | 75：3 | 77 | 74.0 | 75.2 | 75.6 |
| 76 | $73 \cdot 3$ | $70 \cdot 9$ | 74.8 | 75.9 | 7.8 | 69.3 | $6{ }_{6} 8.5$ | 71.0 | 7\％ | 71ツ | $73 \cdot 9$ | 75.2 | 7n．5 | 7．？3 | 73 |
| 743 | 71.5 | 66.7 | 720 | 74.0 | 727 | 67.8 | 660 | 70．0 | 74.0 | 1698 | 74.8 | $75 \cdot 6$ | $75 \cdot 0$ | 728 | $74^{9} 9$ |
| ．．．． | $70 \cdot 4$ | 685 | 70.8 | 74.7 | 72.0 | 66.8 | 17.4 | $\cdots$ | ．．． | 6，90 | 69.9 | 300 | 71：3 | $\ldots$ | 73.2 |
| 6\％＇6 | 6.51 | 57 | 65.0 | $69 \cdot 1$ | 68.0 | 61.9 | 580 | ${ }^{64} 7$ | 64.9 | 620 | $71 \cdot 1$ | 69.6 | 663 | 65：3 | 66.5 |
| 5\％ 6 | $54 \cdot 1$ | $47: 5$ | 54.0 | －59 | 56.4 | $50 \%$ | 47.5 | 5.4 | 563 | 520 | 519\％ | $3 \% 1$ | 53.0 | 52.4 | 534 |
| 504 | $49 \cdot 4$ | 47.0 | 51.0 | $58 \%$ | 51.8 | 47.1 | 458 | $50 \cdot 0$ | 53.0 | 495 | $53 \cdot 8$ | 512 | 520 | 52.1 | FH． 4 |
| 5 | 57 | 15.8 | 54.5 | 35.8 | 54.0 | $50 \cdot 5$ | $5 \cdot 9$ | $5 \% 2$ | 5 | $50 \cdot 4$ | －7．6 | 55 | $5 \cdot 6$ | 51.7 | 55.3 |
| 529 | 53.4 | 48.0 | 5163 | 58.9 | 58.0 | 51.9 | $48 \cdot 3$ | 5－2 | $\cdots$ | 5－2 | 61.9 | 59.3 | 57.5 | 514 | 56．0 |
| rivis | 57．2 | $56 \cdot 6$ | 6is 3 | 61.4 | 60\％ | 68.5 | 56.7 | 61.1 | （0） 1 | 5）$\%$ | （ib） | 60.8 | 58.8 | 59.0 | 6：1\％ |
| ．．．． | 82.0 | 58.6 | 623 | 70．1 | $68 \cdot 9$ | 63.6 | 61.6 | ．．．． | ．．．． | $63 \cdot 1$ | $65 \cdot 4$ | 62.7 | 63：3 |  | 63.6 |
| $54 \times$ | 52.7 | 53.0 | $54 \cdot 8$ | －38 6 | $\cdots \cdot 1$ | $49 \cdot 4$ | $49 \cdot 9$ | 52.5 | 56.7 | 53 | 62：3 | 59.0 | 56．3 | －80 | ［10 |
| 509 | $49 \cdot 9$ | $41 \cdot 1$ | 52.3 | $54 \cdot 1$ | $52 \cdot 8$ | $42 \cdot 4$ | 44.0 | 49.0 | $51 \%$ | 47.2 | $54 \cdot 3$ | 53.6 | 48.5 | $48 \cdot 6$ | 50－9 |
| $51 \cdot 9$ | 51.9 | $50 \%$ | 59\％； | 56.8 | 54.9 | 50.4 | 49.4 | 54.7 | $54 \cdot 6$ | $49 \cdot 1$ | $67 \%$ | 58.8 | 53.8 | 513 | 579 |
| （i，$\times$ | 19.0 | $54 \cdot 1$ | 58： | $67 \cdot 1$ | 63.6 | 5290 | 563 | 60.4 | $60 \cdot 2$ | 59.0 | 61.3 | $10 \cdot \mathrm{x}$ | 57.3 | 54.0 | 585 |
| 69.6 | $66 \cdot 4$ | 657 | $67 \cdot 8$ | $70 \cdot 2$ | 65.9 | $60 \cdot 8$ | $59 \cdot 3$ | 66.6 | $66^{4} 4$ | ${ }_{6} 6 \cdot 7$ | $67 \cdot 0$ | $60 \cdot 4$ | 61.0 | 57.4 | 92．4 |
| 713 | 71.2 | 16.2 | 64.5 | 72.7 | 60.10 | 59.8 | 58.6 | 637 | 61.2 | 59.9 | 64．4） | 62.4 | （ia）${ }^{\text {a }}$ | 602 | 4i1－7 |
| ．．． | 6.54 | 6t：2 | $62 \cdot 3$ | $68 \times$ | 66.0 | 64．6 | 63.0 | ．．．． | ．．． | ${ }^{64} 7$ | 1.57 | $60 \cdot 3$ | 59.0 | ．．．． | 61.6 |
| 64.8 | $62 \cdot 9$ | $54 \times 2$ | 68.0 | 667 | 67.0 | 604 | 57.5 | （0\％） | 65.7 | $60 \%$ | 64.9 | （6）\％ | 633：5 | 12.2 | 63 |
| 55， 3 | 53.6 | $49 \cdot 3$ | 54：3 | $56 \cdot 3$ | 54.0 | $53 \cdot 1$ | 46.9 | ［130） | 54.4 | 51.0 | ${ }^{60 \cdot 1}$ | 58.0 | 56.0 | $53 \cdot 3$ | 52.9 |
| $4 \cdot 4$ | 48.0 | 41.4 | 49.8 | $52 \cdot 2$ | $19 \cdot 4$ | 4.1 | 41.6 | $48 \cdot 3$ | 47.3 | 49.0 | 51.2 | 47.6 | $45 \%$ | $17 \cdot 4$ | $4 \cdot 4$ |
| $46 \cdot 1$ | $48 \cdot 1$ | 4：－5 | $54 \cdot 3$ | 5017 | 47.7 | 416 | $45 \cdot 1$ | 50.0 | 49.5 | $47 \cdot 6$ | $50 \cdot 6$ | $4 \cdot 3$ | 44； | 50.8 | 475 |
| $54 \cdot 3$ | $55 \cdot 1$ | $54 \cdot 6$ | 动 4 | $55 \%$ | 54.0 | $52 \cdot 4$ | 53.9 | 56.3 | 55.9 | 53.9 | 57\％ | 59.6 | 57.5 | 59.0 | 60.5 |
|  | 63.8 | 64.3 | 62.0 | $65 \cdot 9$ | 61.0 | 64＊3 | 63.7 | 66.8 | 650 | $61 \cdot 3$ | 6.94 | 607 | $59 \cdot 3$ | 63.7 | 64． 2 |
| $\cdots$ | 66.5 | 66.8 | $63 \cdot 3$ | 70.5 | 6． 5 | $65 \%$ | $65 \cdot 1$ | $\cdots$ |  | $66-2$ | 66.0 | 7118 | （6s\％ |  | 6197 |
| 5\％ 3 | 53.7 | 5． 2 | 55.0 | $58 \cdot 3$ | 58.6 | 50.3 | 185 | 52.5 | 56.7 | 52 S | 60.9 | 59： | 56：5 | 52．5 | 56.7 |
| 23 | 50.2 | 495 | 52.5 | 51.16 | 53.4 | \％ N | 46.5 | 51.1 | $51 \cdot 3$ | 48.7 | $51 \cdot 4$ | $4 \mathrm{~S}^{\prime} 4$ | 51.5 | $46 ;$ | 49.73 |
| 469 | 44.0 | $42 \cdot 3$ | 50.3 | $48 \cdot 2$ | $49 \cdot 4$ | 43.7 | $45 \cdot 4$ | $49 \cdot 6$ | 50.5 | 46.3 | 53.6 | 52：2 | $50 \cdot 3$ | 49．1 | ［123 |
| 4 x | $40 \cdot 9$ | 417 | 51\％ | 48：3 | 44：3 | 40.5 | $37 \cdot 9$ | 41：3 | $43^{\circ} 0$ | ：194 | 17.7 | $46 \%$ | $43 \times$ | 23\％ | 41.2 |
| 59.1 | $58 \cdot 6$ | 56.2 | $60 \cdot 4$ | $62 \cdot 4$ | 60.2 | $50 \cdot 8$ | $54 \cdot 6$ | 57.8 | 59－2 | $57 \cdot 1$ | 61.9 | $60 \cdot 4$ | 58．8 | 57.0 | 59－9 |

TABLE XIV．－September，1880．Daily Mean Temperature．

| $\dot{\dot{L}}$ |  |  | $\begin{aligned} & \dot{\ddot{0}} \\ & \text { む } \\ & \ddot{\Xi} \end{aligned}$ |  |  |  |  |  | $\begin{gathered} \dot{\otimes} \\ \stackrel{\rightharpoonup}{0} \\ \stackrel{0}{0} \end{gathered}$ | $\begin{aligned} & \dot{\vdots} \\ & \frac{2}{\circ} \\ & \overline{\mathrm{~B}} \end{aligned}$ | $\begin{gathered} \dot{O} \\ \stackrel{y}{E} \\ \stackrel{y}{E} \end{gathered}$ |  |  |  |  | 灾 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | － | 0 | － | $\bigcirc$ | 0 | － | － | 0 | $\bigcirc$ | － | － | － | $\bigcirc$ | － | － | － |
| 1 | 707 | 66.0 | $\cos 4$ | 065 | 57.8 | 59\％ | 61.0 | 58.4 |  | 50.5 | ．．．． | 63.7 | $63 \cdot 1$ | 61.9 | 52\％ | 49.0 |
| 2 | 74.6 | 72．5 | $70 \cdot 9$ | 72．4 | 58.2 | $63 \cdot 4$ | $\cdots$ | $58 \cdot 9$ | $60 \cdot 2$ | 59.0 | $\ldots$ | 61.3 | $64 \cdot 7$ | 62.7 | 48.3 | 52.7 |
| 3 | $72 \cdot 9$ | 75.0 | 71.7 | 69.3 | $59 \cdot 4$ | 69.1 | 61.0 | $64 \cdot 4$ | 66.2 | 63\％ | 65.4 | 68.3 | $66 \cdot 6$ | 68.2 | $57 \cdot 3$ | 54.0 |
| 4 | $76 \cdot 9$ | 71：5 | 71\％ | 71.0 | 59.2 | $69 \cdot 4$ | 68.0 | $67 \%$ | 70．5 | 66.3 | 69.2 | －7．3 | 70.5 | 73.2 | 65.0 | 57.3 |
| 5 | ．．．． | 65\％ | 73.7 | $65 \cdot 2$ | $59 \cdot 6$ | ．．．． | ．．． | $71 \cdot 3$ | 70．9 | 66.3 | 68.6 | ．．．． | 70.9 | 712 | 66.3 | 52．7 |
| 6 | 71－2 | $63 \cdot 5$ | 67.8 | 64．3 | $62 \cdot 3$ | 71．3 | $75 \%$ | 70.0 | 714 | 64.8 | $67 \%$ | 73.0 | 72－2 | 73.9 | 68.3 | 69：3 |
| 7 |  | $55 \cdot 5$ | 558 | 48：3 | 63.0 | $63 \cdot 1$ | 61.7 | $66 \%$ | 638 | 63.8 | 60．1 | 65.3 | $63 \%$ | 60.9 | $67 \%$ | 56.3 |
| 8 | 55.2 | 55.5 | \％28 | 50.5 | 61.0 | 58.3 | 66.3 | 62.0 | 57.3 | 61 \％ | $60 \cdot 3$ | 58.7 | 59：5 | 58.3 | 54.0 | 58.7 |
| 9 | 57.8 | 58.0 | 兂 2 | 54.8 | 54.8 | 55.3 | 56.7 | 56.0 | ［in | 二io | $56 \%$ | $55 \%$ | 55.5 | $55 \%$ | 53.3 | 48.0 |
| 10 | $60 \cdot 9$ | $51 \cdot 5$ | 56.2 | 49.5 | 52.8 | $54 \cdot 3$ | 57.3 | $57 \cdot 3$ | $55 \cdot 3$ | － 5 | 27.3 | 55.0 | 56.3 | 56.7 | 50.6 | 52\％ |
| 11 | 64＊3 | 53.5 | \％ $8 \cdot 4$ | $54 \cdot 6$ | 55.9 | 52 | 61.0 | 56.5 | $56 \cdot 1$ | 53.0 | ［4．1 | $57 \cdot 7$ | $54 \cdot 8$ | 55.4 | 52.3 | 52\％ |
| 12 | $\ldots$ | 60.0 | 61.8 | $58 \cdot 8$ | 55.6 | $\ldots$ | $\ldots$ | 57.6 | 59.2 | 578 | 56.3 | $\ldots$ | 597 | 63.2 | 50.0 | 53.7 |
| 13 | －38．0 | 56.0 | 57.3 | 54.6 | 56.4 | 58.9 | 66.0 | 59.6 | 示 | 60.8 | $\cdots$ | 61.7 | 620 | 64.1 | 52.7 | 52： |
| 14 | 56.1 | 53.5 | －964 | 52.0 | 59.3 | $59 \cdot 4$ | 58\％ | 61.6 | $59 \cdot 1$ | \％0．5 | 640 | 18.7 | 63.3 | 63.8 | 537 | 56\％ |
| 15 | 50.4 | 53：5 | 53.1 | $53 \cdot 8$ | 60.0 | 59.0 | 57.0 | $61 \cdot 3$ | 578 | 59－5 | 1220 | 597 | 61.4 | $59 \cdot 8$ | $57 \cdot 3$ | 58.3 |
| 16 | 59.6 | 52.0 | $\mathrm{F}_{4} \cdot 6$ | 51.8 | $55 \%$ | 60.0 | 57.7 | 61.0 | 69.3 | 52.5 | $60 \cdot 8$ | 640 | $62 \cdot 9$ | 62.0 | 58.0 | 53.3 |
| 17 | 64.1 | 58：5 | 58.6 | 25\％ | 51.1 | 60.3 | 60.7 | 60.9 | 598 | $5 \% 3$ | 60.1 | 617 | 62.1 | 617 | $65 \cdot 3$ | 53.7 |
| 18 | 63.2 | 515 | 58.9 | 53.9 | 58.6 | \％s\％ | 59.7 | 80.5 | 58.4 | 5\％ 5 | 57.4 | 61：3 | $59 \%$ | 58.6 | 59\％ | 550 |
| 19 | $\cdots$ | $62 \cdot 5$ | 560 | 493 | $55 \%$ | ．．．． | ．．．． | 58.2 | 54－2 | 55.0 | 50.7 | $\cdots$ | 560 | 55.1 | 55.0 | 51\％ |
| 20 | 62.9 | 65.5 | 52.6 | 57.0 | 52.2 | 48.8 | 51.3 | 56.3 | 50.6 | 56.8 | 54.8 | 547 | 57.6 | 57.5 | 4 4 7 | 48.7 |
| 21 | 58.5 | ．．．． | 58.6 | 63.5 | $54 \cdot 9$ | 55.2 | 53.3 | $60 \cdot 9$ | 53.8 | 59.0 | $\ldots$ | 55.0 | 58.6 | 67\％ 3 | 50．3 | 49.7 |
| 22 | 50.4 | $\ldots$ | 48.7 | 43.3 | 53.4 | 53.1 | 540 | $56 \cdot 1$ | $50 \%$ | $54 \cdot 3$ |  | 58.0 | $55 \cdot 8$ | 65.2 | 51.7 | 54.0 |
| 29 | 50.0 | $\ldots$ | $45 \cdot 4$ | $38 \cdot 3$ | $50 \cdot 0$ | $46 \cdot 4$ | 50 | $50-2$ | $51 \cdot 4$ | 49－0 | $46: 3$ | 53.3 | 48.6 | $49 \cdot 1$ | 52．7 | $47 \cdot 3$ |
| 21 | 56.6 | $52 \cdot 0$ | $46 \cdot 8$ | $43 \cdot 6$ | 47：8 | $45 \cdot 2$ | 48.0 | 49.0 | $49 \cdot 2$ | 48：3 | 45.9 | 50.0 | 51.0 | 50.2 | $4 i \cdot 0$ | ד 74 |
| 2. | $59 \cdot 1$ | 58.5 | 48.7 | $49 \cdot 3$ | 53.4 | 52.8 | 50.3 | 53.2 | 50.0 | 53．3 | 48.1 | 47.3 | 48.5 | 47．8 | 47.0 | 48.3 |
| 23 | $\cdots$ | 67.0 | $50 \cdot 9$ | 61.0 | 53.2 | $\ldots$ | －$\cdot$ ． | 53.9 | 48.3 | 55.8 | 50.7 |  | 50.8 | 48.0 | 44\％ | 497 |
| 27 | 01.4 | 59.0 | 59.2 | 58.3 | 56.6 | $61 \%$ | 61.3 | 66.0 | 56.2 | 688 | $65 \cdot 1$ | 58.0 | $60-2$ | 61.4 | 460 | 45.7 |
| 28 | 48.8 | 48.0 | $46 \cdot 4$ | 48.0 | 58.8 | 61.8 | 54.7 | 663 | 65.9 | 72.0 | 69.4 | 687 | 64.3 | 59.3 | 56.0 | 51.6 |
| 29 | $52 \cdot 3$ | 41.5 | 49.6 | 47.8 | 54.8 | 56.4 | 57.3 | 62.0 | $68-2$ | 62.3 |  | 640 | $63 \cdot 3$ | 57.5 | 49.0 | 50.0 |
| 30 | 47.5 | 45.5 | 48.1 | $44 \cdot 8$ | 53.0 | $52 \cdot 9$ | 53.7 | 55.1 | $50 \cdot 6$ | 56.5 | 50.8 | 60.7 | 56.4 | 54.6 | 52.7 | $49 \cdot 3$ |
|  | 60.3 | 58－2 | $5 \cdot 1$ | 54.7 | 56.3 | 58.2 | 58.8 | 59.8 | 58.8 | 58.7 | 58．4 | 60．6 | 60.0 | 59.5 | 54.4 | 52－2 |

TABLE XV．－October，1880．Daily Mean Temperature．

|  |  |  |  |  |  | 言 |  |  |  |  |  |  | $\begin{aligned} & \text { 苟 } \\ & \text { 苟 } \end{aligned}$ | $\begin{aligned} & \text { gi } \\ & \text { g } \\ & \text { g } \\ & 0 \end{aligned}$ |  | 荷 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| － | $\boldsymbol{\beta}$ | － | － | － | $\checkmark$ | － | － | $\checkmark$ | $\bigcirc$ | $\bigcirc$ | － | － | － | $\bigcirc$ | $\bigcirc$ |  |
| $45 \times 2$ | 54.5 | ．．．． | 48.5 | $48 \cdot 1$ | $49 \cdot 5$ | $48 \cdot 6$ | 36.7 | 40.5 | $48 \cdot 1$ | $54 \cdot 8$ | 55.2 | 53.5 | 54.8 | $49 \cdot 3$ | 48.6 | 1 |
| $50 \cdot 6$ | ．．．． | $38 \cdot 3$ | 41.8 | $41 \cdot 6$ | 40.5 | 354 | 47.7 | 405 | 45.2 | 55.6 | $80 \cdot 4$ | 60.0 | $64 \%$ | $60 \cdot 3$ | 58.0 | 2 |
| $53 \cdot 3$ | ．．．． | 4.0 | ．．．． | $\ldots$ | 43.5 | 46.2 | $\cdots$ | 35.0 | 43．9 | 53.5 | $52 \cdot 5$ | 52.8 | ．．．． | 55.0 | 56.0 | 3 |
| $47 \cdot 4$ | 55.0 | 52．5 | 53.8 | 49.9 | $54 \cdot 1$ | 53.4 | 43.8 | 36.0 | 512 | $44 \cdot 3$ | $47 \cdot 4$ | 50.0 | 48：2 | 46.5 | $40^{\circ} 4$ | 4 |
| $46 \cdot 4$ | 53.0 | $42 \cdot 1$ | 445 | 42.7 | 44.6 | 43.9 | 42.8 | 38.0 | 46.0 | 49.8 | 54．4 | 54＊3 | 57.0 | 51.0 | 500 | 5 |
| 47.6 | 53.8 | 42.4 | 41.8 | 40.7 | 41.7 | 41.7 | 40.1 | 38.0 | 41.7 | 48.9 | 40.0 | 49.8 | 50.0 | 410 | 42.8 | 6 |
| 46.7 | 51.8 | ．．．． | 46.3 | 46.6 | 46.3 | $46 \cdot 3$ | $\ldots$ | $36 \cdot 5$ | 44.0 | $47 \cdot 3$ | 47.2 | $45 \cdot 5$ | 48.8 | 42．5 | 40.7 | 7 |
| $39 \cdot 2$ | $48 \cdot 0$ | 51.6 | $49 \cdot 3$ | 53.4 | 51.0 | 48.0 | 46.6 | $4{ }^{4} 0$ | 49.8 | 57.0 | 51.7 | 54．0 | 56．8 | $40 \cdot 0$ | 47＊4 | 8 |
| 32－5 | $46 \cdot 1$ | 54.6 | 49.8 | 5 c 18 | 49.6 | 50.0 | 53.7 | 49.0 | 53.6 | $61 \cdot 3$ | 619 | 59\％ | 64•1 | 55.5 | 51.0 | 9 |
| 37.7 | ．．．． | 43.3 | 43.3 | ．．．． | 43.7 | 43.2 | 63.9 | 53.0 | 58.6 | 63.8 | 63．4 | 63.0 | $\ldots$ | 58.8 | 57.5 | 10 |
| 55.8 | 45.0 | $35 \cdot 4$ | 36.8 | $39 \cdot 4$ | $37 \cdot 4$ | 37.8 | 49.1 | 46.5 | 47.9 | 61.9 | 65.9 | $60 \cdot 3$ | $65 \cdot 9$ | 65－0 | $64 \cdot 1$ | 11 |
| 417 | $40 \cdot 0$ | 43.7 | 43.0 | 44.4 | 46.7 | 47－9 | $35 \cdot 1$ | 35.0 | 42.5 | 42.1 | 464 | 49.5 | 53．6 | 44.0 | $44 \cdot 4$ | 12 |
| $33 \cdot 3$ | 50.0 | 47＇4 | 49.0 | 50.7 | 51.2 | 49.9 | 46.0 | 45.0 | $45 \cdot 8$ | 45.0 | 45.8 | 453 | 49.5 | 44.0 | $42 \cdot 4$ | 13 |
| 33.0 | 42.5 | $40 \cdot 9$ | $41 \cdot 3$ | 42.8 | 41.5 | 40.2 | 52.0 | 45.5 | 48.8 | 54．0 | 54.5 | 54.0 | 52．8 | 54．8 | 53.0 | 14 |
| 35.2 | 40.5 | 357 | 32.5 | 36.2 | 35.4 | 36.5 | 47.0 | 40.0 | 40.5 | $51 \cdot 8$ | 59.8 | 59.8 | $61 \cdot 9$ | 59.5 | $58 \cdot 3$ | 15 |
| $30 \cdot 6$ | 415 | 30.5 | 30.0 | 297 | 30.0 | 29.6 | 41.9 | 30.5 | 33.6 | 49.8 | 57.5 | 345 | 53.3 | 53.3 | 56.4 | 16 |
| $33 \cdot 6$ | ．．．． | 26.6 | 25.0 | ．．．． | 26.5 | $24 \cdot 3$ | 40.5 | 30.0 | 32－2 | 46.0 | $39 \cdot 2$ | 41.5 | $\ldots$ | 36－8 | 37.0 | 17 |
| 37.0 | 45.0 | 27.8 | 24.5 | 26.2 | 27.5 | $27 \cdot 1$ | 24.6 | 21.5 | 27.9 | $34 \cdot 8$ | 36.8 | 40.8 | 35.2 | 33.8 | 33－3 | 18 |
| 46.9 | 44.5 | 36.4 | $35 \cdot 0$ | $33 \cdot 7$ | 36.5 | 35.5 | $28 \cdot 9$ | 23.5 | 32.7 | 36.5 | $37 \cdot 4$ | 39.0 | $37 \cdot 0$ | 35.0 | 323 | 19 |
| 35.0 | 46.5 | 33.9 | $30 \cdot 3$ | 34.0 | 34.5 | $33 \cdot 1$ | 30.0 | 23.0 | 36.0 | $45 \cdot 3$ | $45 \cdot 3$ | 49.0 | $45 \cdot 4$ | 42.5 | $40 \cdot 1$ | $\pm 0$ |
| $41 \cdot 2$ | 43.5 | 24.4 | $22 \cdot 8$ | $24 \cdot 3$ | 25.0 | 24.7 | 26.8 | 18.5 | 28.0 | 42.5 | 45.2 | 44.3 | 48.8 | $40 \cdot 3$ | $41 \cdot 3$ | 21 |
| 34.5 | 42.5 | 30.6 | $2+3$ | $29 \cdot 9$ | 316 | 30.6 | $26 \cdot 6$ | 40.5 | $30 \cdot 8$ | 34.3 | 39.6 | 41.8 | $40 \cdot 9$ | $36 \cdot 3$ | 37.2 | 22 |
| $31 \times 3$ | 47.5 | 30.9 | 25.5 | 27.5 | 47 | 29.4 | $\cdots$ | 24.5 | 34.3 | 30.5 | 37.8 | 40.0 | $38 \cdot 4$ | $35 \cdot 8$ | 35.0 | 23 |
| $30 \cdot 6$ | ．．．． | 37.2 | $35 \cdot 5$ | … | 38.9 | 37.4 | $27 \cdot 8$ | 27.0 | 39.7 | 34.0 | 37.0 | $39 \%$ | ．．． | 34.8 | 38.7 | 24 |
| 31.5 | 54.0 | $\stackrel{21}{ } \cdot 1$ | 31.0 | 27.7 | 27.1 | $29 \cdot 1$ | $32 \cdot 1$ | 26．0 | $36 \cdot 4$ | 42.3 | $42 \cdot 4$ | 44.3 | 43.7 | 38.8 | 38.5 | 25 |
| 37.2 | 58.8 | $28 \cdot 3$ | $28 \cdot 3$ | $29 \cdot 3$ | 28.8 | 31.7 | 28.5 | 13.5 | 27.2 | 35.5 | $45 \cdot 3$ | 43.0 | ． 46.4 | 40.8 | 44.1 | 26 |
| 37.8 | 44.5 | 36.6 | $31 \cdot 0$ | 37.0 | $37 \cdot 4$ | $36 \cdot 4$ | 22.4 | 13.0 | 31－5 | $30 \cdot 6$ | $32 \cdot 4$ | 31.8 | 37.7 | 31.5 | $31-2$ | 27 |
| 358 | 450 | 33.0 | 32.5 | $36 \cdot 3$ | $34 \cdot 9$ | 35\％ | 29.5 | 26.0 | 34.6 | 37.9 | 333 | 335 | $39 \cdot 8$ | 32.5 | $30 \cdot 6$ | 28 |
| $40 \cdot 3$ | 42.0 | 29.4 | 32.5 | 34.0 | $33 \cdot 3$ | 34.5 | $35 \cdot 4$ | 315 | $35 \cdot 7$ | 41\％ | $39 \cdot 2$ | 40.8 | $44^{\prime 2}$ | $41 \cdot 3$ | $39 \cdot 1$ | 29 |
| 347 | 41.5 | 36－2 | $42 \%$ | 34.7 | 36.0 | $37 \cdot 4$ | $30 \cdot 3$ | $32 \cdot 5$ | 38\％ | 40.6 | 45：5 | $45 \cdot 3$ | 475 | 4.5 | $44 \cdot 4$ | 30 |
| $34 \%$ | ．$\cdot$ ． | 36．2 | $30 \cdot 5$ | $\ldots$ | $3 \overline{3} 3$ | ．．．． | 27.0 | 30.0 | 42.0 | 425 | 4：3 | 48 | ．．．． | 34.8 | 38．3 | 31 |
| $39 \cdot 3$ | 47.3 | 37.0 | 367 | 38.2 | 38.2 | 38.2 | 37.8 | $34 \cdot 3$ | 404 | 45\％ | 47.5 | 47.9 | $49 \%$ | $44 \cdot 3$ | $4 \cdot 3$ |  |

TABLE XV．－October，1880．Daily Mean Temperature．

| $\stackrel{\dot{4}}{\dot{A}}$ |  |  |  |  |  | $\begin{aligned} & \dot{0} \\ & \text { O } \\ & \text { O} \\ & \text { o } \end{aligned}$ |  |  |  |  |  |  |  | $\begin{aligned} & \text { 品 } \\ & \text { 皆 } \\ & \text { 品 } \\ & \text { 豈 } \end{aligned}$ |  | 妣 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | － | － | $\bigcirc$ | 0 | $\bigcirc$ | － | 9 | $\bigcirc$ | － | － |  |  |  |  |  |  |
| 1 | $52 \cdot 8$ | 487 | 46.7 | 49.3 | 52－9 | 46.8 | 48.1 | 47－1 | 48.8 | $48 \cdot 4$ | 46－2 | 51．0 | $50 \cdot 2$ | 483 | 507 | $49 \cdot 8$ |
| 2 | 60.4 | 57.8 | $56 \cdot 1$ | 58.5 | 59.6 | 53.3 | 54.3 | 52－1 | 57－6 | 55.8 | 54 | 57.8 | 55.1 | 56.0 | 532 | 53．5 |
| 3 | ．．．． | 59.4 | 52．8 | 61.0 | 62．9 | 60.0 | 55.6 | $52 \cdot 1$ | ．．．． | $\cdots$ | 55.4 | 63：2 | 637 | 65.5 | ．．．． | 57．2 |
| 4 | $49 \%$ | 17.5 | 41.8 | $47 \cdot 3$ | $50 \cdot 1$ | $48 \cdot 3$ | 43.6 | 408 | $45 \cdot 1$ | 47.7 | 48.7 |  | 50.7 | 49.0 | ＋4．8 | 45.3 |
| 5 | 50\％ | 50．1 | $48 \cdot 0$ | 49.5 | 52.5 | 17.8 | $49 \cdot 2$ | 47.0 | 50.0 | $49 \cdot 1$ | 47.0 | $50 \cdot 5$ | 49.6 | 49.5 | 47.8 | $45^{\circ}$ |
| 6 | $44 \cdot 6$ | $43 \cdot 6$ | 44.6 | $47 \cdot 0$ | 47.9 | $46 \cdot 2$ | $43 \cdot 5$ | $41 \cdot 1$ | $45 \%$ | $47 \cdot 4$ | 42.6 | $48 \cdot 1$ | $49 \cdot 2$ | 45.3 | $\pm 5.6$ | $17 \cdot 1$ |
| 7 | $42 \cdot 4$ | ＋1．2 | 40：2 | 453 | 45.0 | 43.2 | 38.0 | $35 \cdot 3$ | $43 \cdot 3$ | $\cdots$ | 38.0 | 45.5 | 44.0 | $41 \cdot 3$ | 41.0 | $43 \cdot 3$ |
| ${ }^{8}$ | $46 \cdot 1$ | $45 \cdot 4$ | $47 \cdot 4$ | $49 \cdot 0$ | 47.3 | $45 \cdot 4$ | 48.5 | 48.0 | 48.6 | 46 | $45 \cdot 3$ | $50 \cdot 1$ | $45 \%$ | 42.8 | 48.0 | 46＂ |
| 9 | 55.8 | $52 \cdot 3$ | 52.0 | 58.8 | 55.6 | $50 \cdot 4$ | 54.9 | 52.0 | 5.7 | 54.0 | $52 \cdot 3$ | 55.7 | 56.3 | 50.8 | 51.4 | 55.7 |
| 10 | ．．．． | 55.0 | 58.8 | 57.3 | 53.0 | 52－3 | 52.7 | 57.9 |  |  | 53.6 | 56.8 | 54．3 | 54.0 |  | 57.6 |
| 11 | 64.6 | 64－1 | 62.8 | 63.0 | 68.4 | 58.6 | 65.0 | 63.8 | $65 \cdot 4$ | 657 | 63.6 | 60.8 | 61.6 | $60 \cdot 8$ | $65 \cdot 4$ | $63 \cdot 3$ |
| 12 | $48 \cdot 8$ | 50．3 | 40.0 | 51.0 | 51.2 | 51.9 | 44.4 | $40 \cdot 6$ | 47－1 | 49.7 | $48 \cdot 9$ | 54.6 | 52.8 | 49.8 | 47.2 | 47.3 |
| 13 | 41\％ | 41.9 | 34.7 | 48 | $45 \cdot 2$ | 41.0 | 38.6 | $36 \cdot 1$ | $43 \cdot 5$ | 42.0 | 38.9 | 44.8 | 402 | $37 \cdot 3$ | $40 \cdot 9$ | 41－4 |
| 14 | 53.3 | $49 \cdot 8$ | 57.0 | 48.3 | 47.3 | 1 N 2 | 48. | 46.3 | 51.9 | 50.7 | $49 \cdot 9$ | 533 | 47.5 | 42.8 | $46 \cdot 6$ | 45.8 |
| 15 | $60 \cdot 3$ | 59.8 | 57.1 | $62 \cdot 0$ | $62 \cdot 8$ | $5_{5} 5^{4}$ | 51. | $49 \cdot 4$ | 58.1 | 57－5 | 54.9 | 59.6 | 56.1 | $52 \cdot 8$ | 536 | 53.2 |
| 16 | 60.9 | ．36．5 | 55 | 59.5 |  | 56.6 | 56 | $54 \cdot 1$ | $56-9$ | ．．． | 54\％ | 58.8 | 53.7 | 52.8 | 51.7 | 53.8 |
| 17 |  | 38.5 | $35:$ | $45 \%$ | 41 ＇t | 408 | $40 \cdot 3$ | $38 \cdot 1$ | ．．．． | $\cdots$ | 38.0 | 48.8 | 49.0 | 45.0 |  | 47.2 |
| 18 | $37 \cdot 1$ | 34.7 | 32.7 | $39 \cdot 8$ | $38 \cdot 9$ | ： | 30 | $34 \cdot 1$ | 38.1 | $\cdots$ | 33－5 | 38.1 | 39.2 | 368 | 39.9 | 30．0 |
| 19 | 35.6 | $33 \cdot 3$ | 32 | $35 \cdot 3$ | 38.5 | $36 \cdot 1$ | 330 | $30 \cdot 5$ | 347 | 360 | 32.7 | 36.6 | 393 | $36 \cdot 8$ | 36．1 | 36.6 |
| 20 | $40 \cdot 1$ | $34 \cdot 6$ | 32 | 435 | 41.6 | 39.3 | 40.6 | $38 \cdot 9$ | 40.7 | 39.0 | 38.3 | 40.6 | $40 \cdot 5$ | 36.3 | 39.9 | 39.8 |
| 21 | $49 \cdot 8$ | $46 \cdot 1$ | 37 | 47 | $51 \cdot 3$ | 46.4 | $44 \cdot 9$ | $3{ }^{3} 1$ | 41.8 | $47 \cdot 9$ | 41.6 | 47.9 | 51.8 | 495 | $44 \cdot 9$ | 45．1 |
| 22 | $40 \cdot 3$ | 35.7 | 33.7 | $4 \%$ | 39＊3 | 37.7 | ： $\mathrm{H}^{4}$ | 33.8 | $37 \cdot 1$ | $37 \cdot 4$ | 362 | $30 \cdot 3$ | 418 | 40.8 | 32．4 | 37.8 |
| 23 | $37 \cdot 6$ | 35.5 | 330 | $37 \cdot 3$ | $38 \cdot 2$ | 31.9 | $3{ }^{3}$ | 28.3 | $32 \cdot 2$ | 33.4 | $30 \cdot 5$ | 35 | $42 \cdot 9$ | 40.8 | $33 \cdot 4$ | 38.3 |
| 21 |  | $34 \cdot 5$ | ：31 | 32：3 | 36.5 | 34．6 | $30 \cdot 5$ | 21.8 | －．${ }^{\text {a }}$ |  | 27.6 | 49.0 | 31.2 | 29.5 |  | 317 |
| 25 | $42 \cdot 3$ | $39 \cdot 4$ | $3 \times \cdot 1$ | $37 \cdot 8$ | $43 \cdot 4$ | $10 \cdot 3$ | 38.6 | $31 \cdot 6$ | $37 \cdot 0$ | 35－8 | $33 \cdot 1$ | 30\％2 | $30 \cdot 4$ | 27.0 | 33.0 | 31＊5 |
| 26 | $52 \cdot 8$ | $45 \cdot 8$ | $37 \cdot 9$ | 463 | 49.5 | 44.9 | 36 | 81.7 | 39.1 | $38 \cdot 1$ | $35 \cdot 1$ | $3 \mathrm{~F} \cdot 4$ | $34 \cdot 4$ | 33.0 | 33.2 | 33.0 |
| 27 | 3＇4 | 33.5 | 277 | 3388 | 34.8 | $33 \cdot 6$ | 25 | 24．8 | 30.5 | 31.2 | 32．1 | 31.7 | $30 \cdot 5$ | $29 \cdot 8$ | 30.0 | 31－5 |
| 28 | $35 \cdot 8$ | $30 \cdot 7$ | 297 | $34 \cdot 0$ | 362 | 32.5 | 26 | 230 6 | 32．3 | $29 \cdot 2$ | 268 | 31.8 | 29.0 | 27.0 | 265 | 30.8 |
| 29 | $43 \cdot 4$ | 39.5 | 35 | $40 \cdot 3$ | 42－1 | 39.7 | 3 | 34.9 | 397 | $37 \cdot 5$ | $38 \cdot 1$ | 37.5 | 32－2 | 30.8 | 336 | 327 |
| 30 | $48 \cdot 1$ | 44.7 | 417 | $42 \cdot 5$ | $44 \cdot 3$ | $45 \%$ | 40 | 38.0 | 44.0 | $4{ }^{4} \cdot 2$ | 34.5 | 5.1 | 34.8 | $39 \cdot 3$ | 36.0 | 38．3 |
| 31 | $\cdots$ | 407 | 35.7 | 42－5 | 45.2 | 41＇4 | 37－3 | 31.6 | $\cdots$ | $\cdots$ | 36.0 | 37.7 | 38.0 | 34.8 | ．．．． | $37 \cdot 4$ |
|  | 47.3 | 44.8 | 127 | $48 \cdot 4$ | $47 \times 4$ | 45.0 | $4 \pm 6$ | $40 \cdot 2$ | $44 \cdot 9$ | $44 \cdot 4$ | 423 | $45 \%$ | 45．2 | $43 \cdot 1$ | 42.6 | 43.9 |

TABLE XV.-October, 1880. Daily Mean Temperature.


TABLE XVI.-November, 1880. Daily Mean Tenperature.


TABLE XVI．－November，1880．Daily Mean Temperalurc．

|  |  |  |  | $\frac{\stackrel{1}{0}}{\underset{y}{3}}$ |  |  |  |  |  | $\begin{aligned} & \dot{0} \\ & \text { é } \\ & \text { M } \\ & \dot{B} \end{aligned}$ | $\begin{aligned} & \text { 苞 } \\ & \text { 易 } \\ & \text { E } \end{aligned}$ | $\begin{aligned} & \dot{\tilde{I}} \\ & \text { た } \\ & \text { B } \\ & \text { B } \end{aligned}$ | 总 |  | $\begin{aligned} & \text { 范 } \\ & \stackrel{\pi}{4} \\ & \stackrel{\rightharpoonup}{0} \end{aligned}$ | － |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| － | － | － | － | － | $\bigcirc$ | － | 0 | － | － | － | － | － | $\bigcirc$ | $\bigcirc$ | － |  |
| 39.9 | 38.4 | 84.2 | 41.3 | 48.0 | $40 \cdot 8$ | 360 | $81 \cdot 1$ | 39.0 | $38 \cdot 1$ | 30.2 | 39.3 | $37 \cdot 6$ | $35 \cdot 8$ | $37 \cdot 8$ | $30 \cdot 7$ | 1 |
| 36.1 | $33 \cdot 4$ | 33.0 | 36.0 | 36.6 | \＄14 | 28.5 | $26 \%$ | $33 \cdot 3$ | $34 \cdot 2$ | 31.2 | $32 \cdot 9$ | 30.0 | 30.5 | 28.7 | $30 \cdot 2$ | 2 |
| $37 \cdot 3$ | 41.8 | 470 | 34.0 | $40 \%$ | 42.3 | $40 \cdot 5$ | $39 \cdot 1$ | $4 \cdot 7$ | 40.6 | 38.7 | $39 \cdot 8$ | $32 \cdot 4$ | 33.0 | $33 \cdot 1$ | $33 \cdot 4$ | 3 |
| 53.4 | 487 | 50.3 | 49.5 | 45.4 | 48.2 | $47 \cdot 2$ | $46 \cdot 5$ | 48.6 | $46 \cdot 8$ | $46 \cdot 3$ | 46.5 | 41.8 | 42.0 | 418 | 42.1 | 4 |
| 58.8 | 53.2 | 51.0 | 53.8 | 53.4 | 50.5 | $51 \cdot 1$ | 49.8 | 53.7 | 54.7 | 52.8 | $51 \cdot 1$ | 52.7 | $49 \cdot 3$ | $50 \cdot 3$ | $45 \cdot 3$ | 5 |
| 46.9 | $41 \cdot 4$ | 36.9 | $47 \cdot 3$ | 44.4 | $45 \cdot 3$ | $40 \cdot 4$ | $38 \cdot 1$ | 409 | 47.0 | 48.7 | 53.9 | 54.1 | 53.0 | 42.8 | 55.4 | 6 |
| ．．．． | 819 | $34 \cdot 1$ | 35－0 | 3.58 | 38.0 | $31 \cdot 9$ | 28.5 | ．．．． | ．．．． | 31.5 | 40.2 | 377 | 36.3 | ．．．． | 357 | 7 |
| 3 s 9 | $34 \cdot 3$ | 34－2 | 83.8 | 35.2 | $35 \cdot 1$ | $33 \cdot 9$ | 323 | 33.7 | 35.7 | $32 \cdot 1$ | $40 \cdot 6$ | 332 | 31.5 | 31.1 | $32 \cdot 4$ | 8 |
| 46.8 | 43.2 |  | $40^{\circ} 0$ | $45 \%$ | 410 | $36 \cdot 9$ | 36.5 | 41.5 | $40 \cdot 2$ | $38 \cdot 5$ | $44 \cdot 3$ | 40.9 | 36.0 | 34.9 | $35 \cdot 1$ | 9 |
| $47 \cdot 9$ | $4 \cdot 2$ | 46.0 | 43.5 | 454 | 44.8 | $44 \cdot 2$ | 42.6 | 47.2 | 43.5 | $44 \cdot 9$ | $45 \cdot 5$ | 40.4 | 37.3 | 39.0 | 38.1 | 10 |
| 43：9 | $41 \%$ | 41.2 | 44.8 | 45.0 | 44.8 | 42.1 | $39 \cdot 4$ | 43.7 | 45.7 | $40 \cdot 4$ | 47.3 | 46.0 | 43.8 | 42.8 | 42：3 | 11 |
| 33.4 | $31 \cdot 4$ | $31 \cdot 7$ | 33.8 | $35 \% 3$ | 358 | \％ 5 | $20 \cdot 9$ | 33.6 | 35.5 | 32.9 | 38.5 | 37－8 | 38.0 | $35 \cdot 1$ | $36 \cdot 1$ | 12 |
| 30.7 | 29.4 | 263 | 32.0 | 30.9 | 31.9 | 20.5 | $24 \cdot 8$ | $31 \cdot 9$ | ．．．． | $25 \cdot 4$ | 34.2 | 324 | $30^{\circ} 0$ | 28 | 29\％ | 13 |
|  | 27.5 | $23 \cdot 1$ | $30 \cdot 8$ | 330 | 30.5 | $25 \cdot 1$ | 18.0 | ．．． | $\cdots$ | $25 \cdot 1$ | 30.0 | $24 \cdot 7$ | 24.0 | ．．． | 265 | 14 |
| $25 \cdot 1$ | 23.0 | 23.6 | 28．3 | 28.7 | 290 | 26.4 | 23.5 | 27.7 | 28.9 | 26\％ | 28.3 | 25.2 | 20.5 | 26.9 | 26.0 | 15 |
| $28 \cdot 9$ | $25 \cdot 4$ | $22 \cdot 8$ | 31.3 | 29.8 | 30.6 | 28.8 | 27.8 | 28.0 | $29 \cdot 1$ | 28.0 | 33.5 | 23－9 | 25.3 | 29.1 | 38.4 | 16 |
| $21 \cdot 3$ | $19 \cdot 4$ | 18.9 | 24.8 | 24.2 | $24 \cdot 8$ | 22\％ | 21.3 | 22.8 | $24 \cdot 3$ | 20.8 | 28.8 | 29.4 | 275 | 26.5 | $27 \cdot 5$ | 17 |
| 16.9 | 14.7 | 16.8 | 21.0 | 19.8 | 20.8 | 22.6 | $30 \cdot 2$ | 21.0 | 19.1 | 17.7 | 22.8 | 23.7 | $20 \cdot 7$ | $24 \cdot 3$ | 21.6 | 18 |
| 19.6 | 15.6 | 14.5 | 22.8 | 21.5 | 22.6 | $\because 0 \cdot 3$ | 19.0 | 21.6 | 22.0 | 20.0 | $23 \cdot 9$ | 23.8 | 18.5 | $24 \cdot 1$ | 23.8 | 19 |
| 21.9 | 19.0 | $17 \cdot 1$ | 22.8 | 23.5 | 24：3 | 22.0 | 193 | 227 | 243 | 207 | 28.0 | $25 \cdot 5$ | 24.3 | 21\％ | 21.8 | 20 |
| ．．．＇ | 73 | $9 \cdot 6$ | $12 \cdot 3$ | 12.0 | 12.2 | 12.9 | 82 | ． | ．．．． | $9 \cdot 4$ | 16.6 | 16.2 | $12 \cdot 3$ | ．．． | 14.3 | 21 |
| 8.9 | 6.2 | 9.5 | 11.5 | $10 \cdot 4$ | 10.8 | $11 \cdot 3$ | $7 \cdot 8$ | 127 | 10.5 | $7 \cdot 1$ | $12 \cdot 2$ | 11.0 | 5.0 | $5 \cdot 8$ | 8.0 | 22 |
| $7 \cdot 6$ | $10 \cdot 1$ | 23 | 113 | 13.6 | 11.7 | $2 \cdot 5$ | $3 \cdot 1$ | 10.9 | 58 | $0 \cdot 3$ | 10.3 | 8.6 | 0.0 | $5 \cdot 9$ | $9 \cdot 2$ | 23 |
| $20 \cdot 4$ | 18.4 | 177 | $19 \cdot 3$ | 235 | $30-8$ | 178 | 14.1 | 19.7 | $17 \cdot 4$ | 14.7 | $18 \cdot 5$ | 12.6 | 88 | 8.6 | $10 \cdot 6$ | 24 |
| $17 \cdot 1$ | $17 \cdot 2$ | 16.7 | 15.3 | 23.0 | 18.3 | $8 \cdot 6$ | $1 \cdot 8$ | 14.4 | 13.7 | $8 \cdot 3$ | 16.4 | 167 | 16.5 | $12 \cdot 4$ | 15.5 | 25 |
| 14－1 | 19 | $10 \cdot 1$ | 11.8 | 18.2 | 16.0 | 3.8 | $3 \cdot 4$ | 12.0 | 79 | 8.0 | $5 \cdot 0$ | 77 | 5.8 | $9 \cdot 7$ | $8 \cdot 9$ | 26 |
| $21 \cdot 1$ | 20.0 | 23.8 | $23 \cdot 8$ | $25 \cdot 5$ | 22.5 | $24 \cdot 3$ | $23 \cdot 4$ | 267 | 167 | 17.6 | 19.6 | $10 \cdot 3$ | $15 \cdot 5$ | 20.9 | $16 \cdot 1$ | 27 |
|  | 27.5 | 27.3 | $30 \cdot 3$ | 297 | $30 \cdot 4$ | $27 \cdot 6$ | $25 \cdot 1$ | ．．． | ．．． | 26.7 | 31.0 | 29.8 | 25.5 | $\ldots$ | 24.4 | 28 |
| $26^{1}$ | 253 | 21.0 | 29.8 | 28.9 | 28.6 | $20 \cdot 4$ | 17.0 | 23.8 | 25.0 | 26.3 | 28.9 | 267 | $22 \cdot 5$ | 21.0 | 23.0 | 29 |
| $19 \cdot 4$ | 168 | 196 | $26 \cdot 8$ | 21.6 | 23.0 | $17 \cdot 1$ | 148 | $20 \cdot 4$ | 178 | 15.8 | 20.5 | 17.3 | 16.0 | 16.6 | 17.0 | 30 |
| 30－2 | $2 \cdot 0$ | 28.5 | 29.9 | $30 \cdot 7$ | $30 \cdot 3$ | 26.8 | 24.3 | $20 \cdot 9$ | 29－9 | $20 \cdot 1$ | 30－9 | 28.8 | 26.3 | 26.9 | 27.2 |  |

TABLE XVI.—November, 1880. Daily Mean Temperature.


TABLE XVII.—December, 1880. Daily Mean Temperature.

|  |  |  |  |  | $\stackrel{\text { din }}{\substack{0 \\ 0}}$ | 立 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q | 0 | $\bigcirc$ | - |  | - | Q | - | $\bigcirc$ | 。 | - | $\bigcirc$ | - | - | - | - |  |
| 21.8 | $35 \cdot 5$ | 02 | 1.0 | 3.7 | 1.8 | 14 | 11.9 | 15 | 21.9 | 245 | 23.3 | 29.8 | 27.7 | 26.3 | 26.5 | 1 |
| 33.0 | 24.0 | 11.8 | 13.0 | 12.8 | 14.2 | 129 | $11 \cdot 1$ | 15 | 76 | 28.9 | : $: 10$ | 310 | 31:5 | 20.3 | 29.1 | 2 |
| $34 \cdot 9$ | 16.0 | $10 \cdot 1$ | 11.0 | 11.9 | 13.7 | 7.9 | $: 2$ | $9 \%$ | $6 \cdot 0$ | 30.5 |  | 29.8 | 2.7 | 24.5 | 24.5 | 3 |
| 25.8 | 18.5 | $8 \cdot 1$ | 7\% | 6.8 | 8.2 | $5 \cdot 9$ | 1.6 | 13.0 | $15: 8$ | 34.3 | 312 | $32 \cdot 3$ | 33.7 | 29.6 | 27.0 | 4 |
| 24.0 | .... | 17.3 | 19.0 |  | $17 \cdot 1$ | $8 \times$ | 21.9 | 1.0 | 4.9 | 33.0 | 33.0 | $31 \%$ | .... | 28.7 | 33.8 | 5 |
| 24.0 | $38 \cdot 3$ | $17 \cdot 4$ | 18.0 | 194 | 17.0 | 11\% | 2.0 | 10 | 6.6 | $15 \cdot 1$ | $1!3$ | 25 | 17.6 | 1.58 | 16.7 | 6 |
| 8.8 | $43 \cdot 3$ | 103 | 15.5 | 18.2 | 17.2 |  | 11.9 | 13.5 | 0.8 | 103 | 152 | 19.8 | 13.0 | $9 \cdot 0$ | 11.0 | 7 |
| 6.9 | $42 \cdot 5$ | 13-3 | 12.5 | 14\% | 17.2 | $8 \cdot 1$ | $16 \cdot 1$ | 125 | J.1 | 165 | 11.0 | 158 | 117 | $10 \cdot 0$ | $9 \cdot 3$ | 8 |
| $0 \cdot 1$ | 42.0 | 57 | 1.0 | 1.7 | $t$ | 6.7 | 120 | 12.0 | 08 | 10 | 13.8 | 13.0 | 13\%) | 10.5 | $9 \cdot 1$ | 9 |
| 10.6 | 450 | 27.5 | 21.0 | 187 | 18.0 | 20.8 | $2 \cdot 6$ | 4.0 | 29.5 | 11.0 | 195 | 16.3 | 17.8 | $11 \cdot 3$ | $0 \%$ | 10 |
| $16 \cdot 3$ | $50 \cdot 3$ | $2 \overline{5}$ | 26.5 | 23.9 | 22.8 | $\underline{-1.1}$ | $\ldots$ | 17.0 | 251 | 31.8 | 23.0 | 29.8 | 25.5 | 250 | : $2-2$ | 11 |
| $32 \cdot 1$ | .... | 18.2 | 18\% |  | 16.5 | 18.5 | 8.7 | 40 | 20.9 | 328 | 31\% | 34.0 | $\cdots$ | 34.0 | 3i"2 | 12 |
| $7 \cdot 6$ | كَ383 | 28.9 | 26.8 | 28: | $24 \cdot 9$ | 27.5 | 74 | 40 | 19.0 | 139 | 30.4 | 31.0 | $32 \cdot 3$ | 29.0 | $20 \cdot 3$ | 13 |
| 0.7 | 41.3 | 11.2 | 10.0 | 10.9 | $9 \cdot 9$ | $5 \cdot 1$ | 58 | 4.0 | $13 \cdot 1$ | 25.6 | 34.0 | 34.0 | 87.3 | 32.8 | 33.3 | 14 |
| 12.0 | 36.0 | .... | 5.8 | 5.0 | $2 \cdot 1$ | $4 \cdot 3$ | 6.5 | 20 | 15.5 | $12 \cdot 3$ | $29 \cdot 9$ | 29.5 | 33.9 | 29.0 | $28 \cdot 3$ | 15 |
| 6.6 | 33.5 | $\ldots$ | $7 \cdot 5$ | 100 | $8 \cdot 9$ | 6:3 | 7.0 | 30 | 93 | 11 s | 28.2 | 250 | 260 | 21.5 | 197 | 16 |
| 18.2 | 30.0 | $\ldots$ | 17.0 | $17 \cdot 4$ | 159 | 17.4 | $7 \cdot 3$ | 35 | 68 | 11.3 | \% | 24.5 | 26.0 | 18.0 | $1 \pm 1$ | 17 |
| 16.7 | 29.5 | $19 \cdot 7$ | $22 \cdot 3$ | $19 \cdot 6$ | 172 | $17 \cdot 6$ | .... | 60 | 11.9 | $1: 3$ | 90 | 21.8 | 21.8 | 12.5 | 16.2 | 18 |
| $1 \ddagger 3$ | ... | 18.2 | 15.5 |  | $16 \%$ | 17.4 | $\ldots$ | 1.0 | 13:5 | 21.0 | 23.9 | 23.8 | $\cdots$ | 23.5 | 21.7 | 19 |
| $23 \cdot 6$ | 26.5 | .. | 8.8 | $10 \cdot 1$ | 74 | 12.7 | .... | 40 | $7 \cdot 7$ | 16.5 | 2:6 | 13 | 26.3 | 21.7 | 197 | 20 |
| $33 \cdot 2$ | 27.8 | $2 \cdot 8$ | 23 | $2 \cdot 1$ | 14 | 3.0 | .... | 8.0 | $9 \cdot 9$ | 10.8 | 204 | 22.3 | 258 | 17:5 | 17.0 | 21 |
| 367 | 26.5 | 7.2 | 10.0 | 10.9 | 7.9 | 18.7 | .... | 2.0 | 14.1 | 13.8 | 218 | 253 | 23.8 | 20.0 | $17 \cdot 1$ | 22 |
| 40.6 | 27.0 | $2 \cdot 6$ | 0.3 | - 18 | 3.0 | $2 \cdot 1$ | .... | 15.0 | 11.1 | 20.5 | 2 k 3 | 255 | 26.1 | 23.6 | 21.0 | 23 |
| 32.2 | 29.0 | 13.6 | $8 \cdot 3$ | 12.6 | $12 \cdot 1$ | 8.8 | .... | 05 | 17.4 | 238 | $25 \cdot 1$ | 27.0 | 24.8 | $2 \mathrm{t} \cdot 8$ | 23.6 | 24 |
| -27.8 | $\ldots$ | 19.6 | .... |  | 201 | 21 | ... | 1.5 | $9 \cdot 3$ | $20 \cdot 1$ | 263 | 27.0 | 28.4 | 25.5 | 24.0 | 25 |
| -35.6 | .... | 26.0 |  | .... | 22.2 | 214 |  | $6 \cdot 5$ | 4.6 | 25.6 | 29.4 | 29.8 | ... | 29.6 | 30.0 | 26 |
| 94.1 | 32.0 | $30 \cdot 5$ | .... | 34.0 | $32 \cdot 2$ | $30 \cdot 1$ | $\ldots$ | 85 | 24.9 | 163 | $20 \cdot 3$ | 19.5 | 17\% | 15.7 | 20.7 | 27 |
| 0.5 | $30 \cdot 5$ | 14.9 | .... | $\underline{20}$ | 20.6 | 16.1 | $\ldots$ | 9.0 | 23.9 | 0.8 | 1\% | 5.3 | 0.7 | 13 | 2.6 | 23 |
| -31.6 |  | 22 | $5 \cdot 3$ | 6.3 | 8.9 | 4:5 | ... | 11.0 | 6.5 | 0.0 | $2 \cdot 1$ | 1.8 | 5.6 | $9 \cdot 2$ | $10 \cdot 1$ | 29 |
| $30 \cdot 3$ | 33.0 | 2.6 | 18 | 8 | 3.6 | $1 \cdot 4$ | ... | 6.0 | 13.7 | 58 | 10 | 85 | 2.3 | $0 \cdot 3$ | $2 \cdot 1$ | 30 |
| 8.7 | 36.5 | 7•4 | 8.3 | $4 \cdot 1$ | $5 \cdot 1$ | 8.7 | $\cdots$ | 90 | $2 \cdot 6$ | 95 | 6.2 | 98 | $4 \cdot 3$ | $0 \cdot 2$ | $3 \cdot 1$ | 31 |
| $-15$ | $33 \cdot 4$ | -21 | 19 | 0.9 | -25 | 1.9 | $2 \cdot 2$ | ${ }^{4} 11$ | 6.2 | 16.5 | 22.0 | $23 \cdot 2$ | 21.3 | 19.2 | 184 |  |

TABLE XVII．—December，1880．Daily Mean Temperature．

|  |  |  |  |  |  | $\begin{aligned} & \dot{+} \\ & \text { O } \\ & 0 \\ & 0 \\ & \text { B } \end{aligned}$ |  |  |  | $\begin{aligned} & \text { B. } \\ & \text { B0 } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & \stackrel{\rightharpoonup}{0} \\ & \text { 苟 } \\ & \text { 品 } \end{aligned}$ | $\begin{aligned} & \text { 呙 } \\ & \text { 荡 } \\ & \text { 吕 } \end{aligned}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | － | － | － | － | 0 | 0 | $\bigcirc$ | － | $\cdots$ | 0 | － | － | － | 0 | － | － |
| 1 | $\underline{20.6}$ | $\simeq 1: 9$ | 270 | 27.0 | 29\％ | 27.3 | 22.6 | 20.9 | 24.0 | $2 \cdot 1$ | $21 \cdot 4$ | $\because 1 \because$ | 16.8 | 14.0 | $19 \cdot 1$ | 18.8 |
| 2 | $31 \cdot 6$ | $\because$ | －！ | ： 20 | 32.9 | 29.9 | 21＊6 | 20.4 | 26.6 |  | $\because 1 \sim$ | 16.5 | 11.8 | 98 | 17.4 | 14.9 |
| 3 | 32.6 | 20 | 2；； | 21.0 | $30 \cdot 6$ | 2－ | 26.8 | 24.7 | $26 \cdot 1$ | ．．．． | 26.4 | 20.6 | $15 \cdot 9$ | 13.0 | 216 | 17.3 |
| 4 | 29 | $\cdots$ | 314 | 家： | 27.1 | 29.4 | 28.7 | $2 \cdot 9$ | 308 | 804 | $\cdots 4$ | 27.4 | 247 | 23 | $27 \cdot 1$ | $24 \cdot 3$ |
| 5 | ．．．． | 31.5 | 31.5 | 37.0 | \％9 | $56 \%$ | 32.0 | 3） | $\ldots$ | $\cdots$ | 53： 2 | $85 \%$ | $85 \%$ | 350 | ．．．． | ：3：3 |
| ${ }^{6}$ | 190 | 心ツ | 16.8 | 21：3 | $\cdots$ | 23.7 | $\underline{29} 4$ | $\because 0.0$ | $21 \cdot 1$ | 23.0 | $\cdots$ | 09 | 27.4 | 45 | 24.4 | 26.8 |
| 7 | 1\％\％ | 11.7 | 185 | 17.0 | 16.8 | 182 | 11\％ | 6：5 | 15.2 | 13.9 | 1109 | 15.9 | 14.7 | 11：5 | $0 \cdot 1$ | $11 \cdot 8$ |
| 8 | $1: 1$ | $9 \%$ | S： | $13: 0$ | 15．1 | 14：7 | 6.1 | 3：3 | 115 | $1 \because 7$ | $8 \cdot 4$ | $13 \%$ | 11.8 | 88 | 78 | 8.0 |
| $!$ |  | 111 1 | 15 | $10 \cdot 3$ | $14 \cdot 1$ | 10.7 | $1 \times 2$ | 59 | 7.0 | $5!$ | $1 \%$ | 9\％ | 160 | 1：3 | 103 | $1 \cdots$ |
| I0） | 9 | \＆s | $7 \cdot 1$ | 10.0 | 11.1 | 6＂ | 15 | $4 \cdot 1$ | $1 \cdot 3$ | $2: 5$ | $\because$ | $4 \cdot 4$ | － | 53 | 40 | 32 |
| 11 | $\cdots 8$ | 07 | － 210 | $27 \%$ | $29 \cdot 1$ | 26.1 | $17 \cdot 6$ | 20.5 | $\because 1 \because ;$ | $24 * 2$ | $\cdots$ | $\because 4$ | 14＂2 | $10: 3$ | 12.6 | $7 \cdot 0$ |
| 12 | ． | 33.6 | $3: 7$ | 30 0 | $36 \cdot 3$ | 31 | 30.8 | 296 | $\ldots$ | $\ldots$ | 32：5 | 8310 | 20.6 | 20.3 | ．．． | 19.6 |
| 13 | 823 | 84.4 | 28.1 | 33.0 | ． $33 \cdot 9$ | ：33．2 | $\because 7.7$ | $\cdots$ | $30 \cdot 3$ | $32 \cdot 4$ | 29.5 | 3：3 | 29.0 | 23 | 26.5 | 28.8 |
| 14 | $23 \cdot 6$ | ： | 33.1 | 34.3 | 3.98. | ：4\％ | $31 \cdot 1$ | $29 \cdot 8$ | $32 \%$ | 31.7 | 329 | －•．． | 28.5 | $\square 5$ | 25.5 | 27.5 |
| 15 | 81.0 | ：20： | $\cdots 1$ | $29 \%$ | 23：3 | 300 | $23 \cdot 1$ | 19：1 | 316 | 27.9 | 20.0 | 310 | 32.9 | $30 \cdot 8$ | 24.2 | $20 \cdot 1$ |
| 16 | $\cdots$ | 2\％ | $17 \cdot 4$ | 23：3 | － | －2． | $0 \%$ | $5 \cdot 8$ | 11.9 | $12 \cdot 5$ | 9.6 | 193 | 158 | 11.0 | 10\％ 7 | 14.8 |
| 17 | $15 \%$ | 16．0 | 16.9 | 19\％ | 1：$\because 2$ | 19.6 | 10－1 | $9 \cdot 8$ | $14 \% 7$ | ．．． | $11 \cdot 1$ | 136 | 12.7 | 10.8 | 11.2 | 11.9 |
| 18 | $10 \cdot 3$ | 17\％ | $1 \cdot 1 \cdot 0$ | 15.0 | 14：9 | 16.1 | 120 | 8 s | 13.4 | $1 \because 0$ | $10 \cdot 4$ | 13.1 | 10.4 | ＊＊ | $9 \cdot 2$ | $12 \cdot 1$ |
| 1：） |  | $\because 8$ | 21.0 | $2 \cdot 3$ | 258 | －2：3 | $18 \cdot 6$ | 16.7 | $\cdots$ | $\ldots$ | $15 \%$ | 15.3 | $10 \cdot 3$ | 175 |  | $2 \because \cdot 4$ |
| 20 | $2: 8$ | 21.0 | $19 \cdot 8$ | 1：10 | 22：3 | 20.1 | 17.6 | 1.53 | 17.4 | 17.4 | 16.4 | 18.9 | 20.6 | $20 \cdot 3$ | 13.0 | $18 \cdot 4$ |
| $\because 1$ | 2－3 | 186 | $17 \cdot 1$ | 16\％ | $\because 1.1$ | 18.4 | 73 | 111 | 150 | 16.9 | 12.1 | 17.9 | 14.8 | 11.5 | 12.7 | $11 \cdot 1$ |
| ［2 | $21 \cdot 1$ | $15 \%$ | $13 \%$ | 10.3 | 18：7 | 17.7 | 6．2 | $8 \cdot 4$ | 19：8 | 175 | $12 \cdot 1$ | $14 \%$ | 77 | 65 | $\because 4$ | 6.6 |
| ※3 | $\cdots$ | 22： | 230 | 218 | 58 | $21: 3$ | 16＇s | 13.0 | $21 \times$ | $21 \%$ | 40＂ | 13.9 | 17．6 | 16.3 | $0 \cdot 1$ | $5 \cdot 7$ |
| 21 | $\because 9$ | $24 \cdot 7$ | 230 | $\cdot 25 \cdot 5$ | 274 | 25.5 | 2 | $20 \cdot 8$ | $2 \% 1$ | 21＂2 | $20 \cdot 9$ | 18•3 | 14.2 | 10.8 | 13.0 | 12\％ |
| $\cdots$ | $\square$ | $2 \cdots$ | 218 | 278 | $29 \cdot 6$ | 26.0 | $23 \cdot 4$ | $\because 18$ | 23 | 2：2 | 214 | 1 s 2 | 15.8 | 15＇5 |  | 17.6 |
| 96 | $\cdots$ | $\stackrel{210}{ }$ | 30.0 | 18.8 | $31 \cdot 6$ | $30 \cdot 4$ | 3 | 24.8 | ．$\cdot$. | $\cdots$ | 240 | 21.0 | 17.8 | 153 | $\cdots$ | $24 \cdot 1$ |
| $\because 7$ | 231 | $21 \cdot 1$ | 170 | $1: 8$ | $\because 1 \%$ | 24\％ | 18.2 | 11：\％ | 20：3 | $\because 1$ | $1: 9$ | 21.0 | 236 | 22.0 | $22 \cdot 1$ | $2 \%$ |
| $\because$ | 19 | －0\％ | $0 \cdot 6$ | 08 | 3.8 | 50 | $3 \cdot 1$ | 11.4 | 15 | －3：1 | 0： | 10：3 | 54 | 25 | －0．9 | 6.1 |
| 29 | － $8 \cdot 1$ | －$\because$ | － $8 \%$ | $\because 5$ | 29 | 0.8 | －4．4 | － s | 75 | － 1 | －is | $5 \cdot 2$ | 35 | 1：3 | 27 | 3.0 |
| 310 | $2 \cdot 3$ | $4 \cdots$ | 0.3 | 1.0 | 0.9 | 08 | 2.5 | $\because 3$ | 28 | 0.6 | － 15 | 2.2 | 0.3 | 15 | 0 | 4 S |
| 31 | $\because 1$ | $0 \cdot 1$ | 24 | $1 \%$ | 1.6 | 4.8 | 34 | $1 \cdot 0$ | $\because 2$ | $4 \cdot 5$ | 00 | 8：3 | $5 \cdot 3$ | 2.8 | $0 \cdot 2$ | $0 \cdot 9$ |
| － | $20 \cdot 1$ | 18.0 | 187 | $19 \cdot 8$ | 20.6 | $21 \cdot 1$ | 15\％ | $13 \%$ | $17 \cdot 1$ | 16.4 | 15：0 | 1.9 | 15.8 | 13.8 | 11：2 | 143 |

TABLE XVII．—December，1880．Daily Mean Temperature．

|  | 品 | $\begin{aligned} & \text { © } \\ & \text { 苞 } \\ & \text { O } \end{aligned}$ |  |  |  |  |  |  | $\begin{aligned} & \dot{B} \\ & \stackrel{0}{b 0} \\ & \stackrel{0}{n} \end{aligned}$ | $\circ$ 열 岕 |  |  |  |  |  | $\dot{ \pm}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q | － | － | 0 | $\bigcirc$ | Q | $\bigcirc$ | － | $\checkmark$ | $\bigcirc$ | $\checkmark$ | 0 | \＆ | － | － | － |  |
| 15.0 | 15\％ | $7 \cdot 1$ | $3 \cdot 4$ | $12 \cdot 2$ | 1.9 | 67 | $17 \cdot 3$ | $1: \because 2$ | 21.8 | 14.8 | 15.7 | $9 \cdot 5$ | $9 \cdot 2$ | 18.3 | 16.0 | 1 |
| 14.0 | 11.0 | $11 \cdot 3$ | 8.0 | 11.9 | $9 \cdot 7$ | 13.3 | 15.6 | 19.7 | $19 \cdot 3$ | 15\％ | 20.0 | 12.9 | 15.1 | 29.3 | 18.3 | 2 |
| 18.0 | 8.5 | 14.1 | $11 \cdot 3$ | 208 | 19.7 | $23 \cdot 3$ | 22.0 | $4 \cdot 3$ | 253 | $\ldots$ | 24.0 | $22 \cdot 1$ | 24.9 | 21.7 | $10 \cdot 3$ | 3 |
| 23.5 | $18 \cdot 5$ | 14.5 | 12.0 | 18.8 | 17.8 | 22.7 | 21.4 | 27.9 | $23 \cdot 5$ | 21.7 | 24.7 | 23.0 | $23 \cdot 0$ | 19.0 | $2 \%$ | 4 |
| ．．．． | 31.0 | 21.0 | 22.5 | 22.8 | $\ldots$ | ．．．． | 21.8 | 289 | 27.3 | $2 \cdot 1$ | ．．．． | 23.9 | $25 \cdot 4$ | 28.7 | $31 \cdot 3$ | 5 |
| 29.5 | 23.0 | 253 | 24.8 | 36.8 | 31.8 | 313 | 39.2 | 34.3 | 39.8 | ．．．． | 347 | 35.6 | 32.8 | $31 \cdot 3$ | 27.7 | 6 |
| 17.9 | 16.0 | $15 \cdot 9$ | 110： | 24．5 | 220 | 22.3 | $30 \cdot 9$ | 33.4 | $30 \cdot 5$ | 27.5 | 33.3 | 26.0 | 24.6 | ！ 35.7 | 293 | 7 |
| 101 | 6.0 | 4.6 | $4 \cdot 3$ | 13.8 | 7.0 | 7.0 | 20.8 | $21 \cdot 4$ | $20 \cdot 3$ | $12 \cdot 5$ | 22.3 | $11 \cdot 4$ | 9.2 | $\cdots$ | 18.7 | 8 |
| 11.0 | 11.0 | 9\％ | 6：3 | 11.6 | 4.9 | 4.0 | 18.1 | 23.9 | 17.5 | 6.8 | 24.0 | 13.3 | 9.0 | 33.7 | 190 | 9 |
| $1 \cdot 3$ | 7.0 | $9 \cdot 6$ | 3.0 | $9 \cdot 7$ | 2.7 | 2.0 | $16 \% 2$ | $21 \sim$ | 18.0 | $\ldots$ | 17.0 | 13.7 | $5 \cdot 1$ | 28.3 | $20 \cdot 0$ | 10 |
| $9 \cdot 1$ | 8.0 | 4.3 | $4 \cdot 3$ | $9 \cdot 1$ | 2.0 | $2 \cdot 0$ | 193 | $25 \cdot 3$ | 22.0 | 20.1 | 230 | 19.7 | 19.0 | 31.7 | 19.7 | 11 |
| ．．．． | 20.0 | 13.8 | 16.4 | 18.0 | ．．．． | ．．．． | $20 \cdot 4$ | $24 \cdot 2$ | $25 \cdot 3$ | $11 \cdot 1$ | $\ldots$ | 1.54 | 16.5 | 31.0 | 21.3 | 12 |
| $27 \cdot 2$ | $20 \cdot 0$ | 25.2 | $27 \cdot 5$ | 31.6 | 237 | 23.0 | 30.8 | 258 | 37.0 | 269 | 25.7 | 25.5 | 25.0 | 27.3 | 213 | 13 |
| 29.9 | 26.5 | $2 \overline{4} \cdot 6$ | 27.0 | 37.3 | $33 \cdot 9$ | 29.0 | 37.0 | 36.9 | 37 ¢ | ．．．． | 887 | $34 \cdot 2$ | 33.7 | 85． 3 | 30.7 | 14 |
| $33 \cdot 6$ | 28.0 | $30 \cdot 6$ | 29.8 | 36.4 | 33.6 | 29.3 | 35 | S $3 \cdot 1$ | 37.3 | 347 | 33：3 | $33 \cdot 1$ | $31 \cdot 1$ | ：36：3 | 330 | 15 |
| $19 \cdot 4$ | 14.0 | 23.7 | 18.0 | $32 \cdot 3$ | 30.6 | 27.3 | $33 \cdot 9$ | $34 \cdot 9$ | 338 | 33.5 | 37.0 | 31.6 | 33.0 | 37.0 | 310 | 1 S |
| 14\％ | 9.0 | 14.7 | 108 | $20 \cdot 5$ | 18.8 | 21.7 | $26 \cdot 3$ | $32 \cdot 4$ | 238 | 23.0 | 31.7 | 23.4 | 22.4 | 33.0 | 300 | 17 |
| 107 | 5.5 | 11.5 | 8.0 | 21.5 | 19.9 | $28 \cdot 3$ | 26.7 | 24.4 | 27.0 | 26：3 | 23.7 | 25.1 | 26.5 | $30 \cdot 3$ | 23.0 | 18 |
| ．．．． | 120 | 21.6 | $22 \cdot 6$ | 28.7 | ．．．． | $\cdots$ | $20 \cdot 9$ | 31.9 | $33 \cdot 3$ | $31 \cdot 1$ | $\cdots$ | 30.5 | 32.0 | 26.7 | 25.0 | 19 |
| $2 \cdot 1$ | 17.5 | 18.1 | 203 | 265 | 22.0 | $20 \cdot 7$ | 30.0 | $32 \cdot 3$ | $31 \cdot 0$ | 24.8 | 323 | 29.1 | 27.3 | 30\％ | $20 \cdot 3$ | 2） |
| 18.9 | 14.0 | 18.2 | 12.0 | 21） 2 | 11.8 | 20.0 | 25.5 | 27.9 | $27 \%$ | ．．．． | 26.0 | 26.6 | 25.9 | 34.0 | 26.7 | 21 |
| $15 \%$ | 65 | $15 \cdot 4$ | 13\％ | $27 \cdot 1$ | 26.9 | 26.0 | 30.7 | ：32 | 32.0 | ．．．． | 3.7 | $32 \cdot 3$ | $30 \cdot 1$ | 33.3 | 31.7 | 22 |
| 13.8 | 13.0 | $10 \cdot 1$ | 11.0 | 32：3 | 31.6 | 27.7 | 335 | 34.2 | 35．0 | $32 \cdot 3$ | 34.7 | 32.3 | 31.5 | $3 \pm 3$ | 33.3 | 23 |
| 11．9 | 90 | 1.11 | 15\％ | 28.2 | $24 \cdot 1$ | $25 \cdot 7$ | 218 | $32 \cdot 7$ | 31.0 | 28.9 | 33.0 | 29.5 | $27 \cdot 9$ | $33 \cdot 3$ | $32 \cdot 7$ | 24 |
| 17.0 | 12.0 | $21 \cdot 3$ | $15 \cdot 5$ | 27.0 | $27 \cdot 4$ | $\ldots$ | 20.7 | 31.7 | 30.5 | 28.9 | 26.7 | 30－1 | 29.0 | 32.0 | 27.7 | 25 |
|  | 22.5 | 23.4 | $20 \cdot 8$ | $29 \cdot 4$ | $\ldots$ | $\ldots$ | $29 \cdot 6$ | 31.5 | 30.8 | 27.6 | ．．． | $30 \cdot 1$ | 27.7 | 30.3 | $3 \% 0$ | 26 |
| $24 \cdot 5$ | 23.5 | 25.8 | 220 | $30 \cdot 4$ | （2）：3 | 28.0 | 33.6 | 328 | 33.0 | \％ $3 \cdot 1$ | 33.0 | 31－8 | 303 | 30.0 | 27.3 | 27 |
| $9 \cdot 9$ | 5.0 | 11．8 | 5.0 | $24 \cdot 4$ | 22.3 | 32\％ | 31.0 | 31：6 | 2 T 3 | 30.0 | 35.0 | 25.6 | 24.8 | $35 \cdot 7$ | $3 \cdot 0$ | 28 |
| 57 | 3.0 | 3.6 | 30 | 132 | 8.6 | 63 | 23：\％ | $24 \cdot 1$ | 218 | $\cdots$ | $19 \cdot 3$ | 16.1 | 12.3 | 29.7 | 19．0） | 29 |
| 0.7 | 4.0 | 2.7 | 6.3 | 8.7 | $4 \cdot 9$ | 11.3 | 18.9 | $29 \cdot 1$ | 13.0 | $1 \pm \cdots$ | 253 | $14 \cdot 1$ | 8.7. | 32.0 | 22.0 | 30 |
| 37 | $0 \cdot 0$ | 17 | 25 | 5－4 | 0.4 | 23 | 12.4 | 12.7 | 15.8 | 11.2 | $12 \cdot 3$ | 4.9 | $3 \cdot 4$ | 20.3 | 80 | 31 |
| 15.7 | 13.2 | $15 \cdot 1$ | 12.9 | 22.2 | 17．6 | 143 | $20 \cdot 3$ | $28 \cdot 3$ | 27.2 | 23.3 | $27 \cdot 4$ | 23.5 | 22.4 | $30 \cdot 3$ | 25－2 |  |

TABLE XVIII.-New Westminster, B.C. Maximum

| $\stackrel{\dot{\Delta}}{\dot{A}}$ | January. |  | February. |  | March. |  | Aprll. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. ${ }^{1 /}$ |
|  | $\bigcirc$ | - | - | - | - | $\underline{\square}$ | $\bigcirc$ | - | ! | - | 8 | - |
| 1 | 38.0 | 33.0 | 41.0 | 33.0 | $40 \cdot 5$ | 315 | 51.0 | 28.0 | 60.0 | 48.0 | 56.0 | 46.0 |
| 2 | 30.0 | 30.0 | 39.0 | 29.5 | 39.0 | 32.0 | 49.0 | 30.0 | $55 \%$ | 45.0 | 60.0 | 47.5 |
| 3 | 39.0 | 29.0 | 370 | 28.0 | 39.0 | 30.0 | 45.5 | $32 \cdot 0$ | 55.0 | $42 \cdot 0$ | 58.0 | $47 \cdot 5$ |
| 4 | 35.0 | 32.0 | 30.0 | 31.5 | 3.5 | 25.5 | 44.5 | 32.0 | 55.0 | 43.0 | 59.0 | $43 \cdot 0$ |
| 5 | $3: 3 \cdot 0$ | 24.0 | 39.1 | 32.0 | 42.5 | 33.0 | 48.0 | (10) | -5i0 | 42.5 | 58.0 | 48.0 |
| 6 | 31.0 | 20 | 420 | 340 | 41.0 | 27.0 | 59.0 | 29.0 | 53.5 | 40.0 | 64.0 | 49.0 |
| 7 | 20.0 | 150 | 43.0 | 36 | 42.0 | 32.0 | 67.5 | 315 | 55.0 | 39.0 | 57.0 | 46.5 |
| 8 | 20.0 | 120 | $3 \%$ | 25.0 | 43.5 | 26.0 | 73.0 | 310 | 56.0 | 420 | $60 \cdot 0$ | 48.0 |
| 9 | $30 \cdot 5$ | 14\% | 350 | 330 | 42.5 | 34.0 | 26.0 | 48.0 | 55.0 | 41.0 | 650 | 470 |
| 10 | 27.0 | 85 | 42.0 | 33.0 | 47.5 | 35.5 | 56.0 | 440 | 56 | 40.0 | $66^{\circ} 0$ | 45.5 |
| 11 | 22.4 | $12: 5$ | $40 \cdot 0$ | 28.0 | 48.0 | 37.0 | .... | $\cdots$ | 540 | 88.0 | $72 \cdot 5$ | 47.0 |
| 12 | 36.0 | 18.5 | 440 | 28.0 | 420 | 29 | 56.0 | $30 \%$ | 58.0 | 40.0 | 60.0 | 49.5 |
| 1:3 | 41.0 | 29.0 | 420 | 26.5 | 46.0 | 210 | 57.0 | 41.0 | 61.0 | 39.0 | 61.0 | 46.0 |
| 14 | 44.0 | $31 \%$ | 42.0 | 31.5 | 42.0 | 28.0 | 45.0 | 40.0 | 61.0 | 47.5 | 64.0 | 62.0 |
| 15 | 45.0 | 36.11 | 37.0 | 23.5 | 47.0 | 250 | 45.5 | $35^{\circ} 0$ | 53.0 | 47.0 | 69.0 | 40.0 |
| 16 | 46.0 | 35.0 | 350 | 19.0 | 49.0 | 330 | 50.5 | 1325 | 65.0 | 45.0 | 67.0 | 470 |
| 17 | 46.0 | $31 \cdot 0$ | 32.0 | 21.0 | 17\% | 20.0 | 58.0 | 330 | 62.0 | 46.0 | 62.0 | 49.0 |
| 18 | $35 \cdot 10$ | 20.0 | 870 | 29\% | 50.0 | $2 \cdot 10$ | 580 | 350 | 63.0 | $42^{\circ} 0$ | 64.5 | 48.0 |
| 19 | 35.0 | 24.0 |  | (20) | 49.0 | 82 | 400 | 35.0 | 70.0 | 49.0 | 62.0 | $45 \cdot 0$ |
| 20 | 30.0 | 33.0 | $34 \%$ | $24 \%$ | 49.0 | 360 | 58.5 | 35.5 | 60.0 | 48.0 | 62.0 | 4.50 |
| 21 | 42.0 | $33 \cdot 5$ | 410 | 285 | $49 \cdot 0$ | : $\mathrm{H}^{0}$ | 61\% | 42.0 | $58: 3$ | 42.0 | $65 \cdot 2$ | 49.0 |
| 22 | 41.0 | 375 | 42.0 | 34.0 | 47.0 | 41.0 | 52.0 | 41.5 | 51.0 | 42.0 | 71.0 | $49^{\circ} 0$ |
| 23 | 450 | 37.0 | 41.0 | :111 | 570 | 3.0 | 505 | 41.1 | 58.0 | $43 \cdot 0$ | 77.0 | 48.0 |
| 24 | 42:) | $25 \%$ |  | 315 | 450 | 350 | 1030 | 41.5 | 60.0 | 43.0 | $7 \cdot 0$ | 51.0 |
| 25 | 380 | $26^{\circ} 0$ | 42.0 | \% | $11 \%$ | 35.0 | 620 | $4: 0$ | $66 \%$ | 38.0 | 76.0 | 50.0 |
| 26 | 35.0 | 27\% | 41.5 | 07 | 45.0 | 370 | 62\% | 37.3 | 71.0 | 38.0 | 86.0 | 52.0 |
| 27 | 3.10 | 20 | 320 | 175 | 4.0 | 235 |  | 37\% | 70.0 | 48:3 | $90 \%$ | 52.0 |
| 28 | 26.0 | 11:0 | 33 | 20 | 430 | :30110 | $7 \%$ | 39:5 | $63 \cdot 5$ | 46.0 | 84.0 | 535 |
| 29 | $32 \cdot 5$ | 15\% | :30 | 5 | $4: 0$ | $31 \%$ | 81.0 | 45.0 | 86 | 45\% | 72.0 | 54.0 |
| 30 | 33.0 | $6_{6} 0$ | . $\cdot \cdot$ | $\cdots$ | 5.1) | : 10 | 180 | 49.5 | 68.0 | 410 | 68.0 | 54.0 |
| 31 | 39.0 | 310 | $\cdots$ | .... | -14\% | 30.0 |  | $\cdots$ | 720 | $46^{\circ} 0$ | ... | $\ldots$ |
|  | 35.8 | 05.9 | 38.0 | 28\%3 | $45 \cdot 5$ | 31\% | 58.1 | $37 \cdot 1$ | $60 \cdot 1$ | 48.1 | 67.2 | $49 \cdot 3$ |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | 安 |
| - | - | - | - | $\bigcirc$ | - | $\bigcirc$ | - | - | - | - | - |  |
| 70.0 | 62.0 | 79.0 | $55^{\circ} 0$ | 64.5 | 54.5 | 60.0 | 52.5 | 44.0 | 34.0 | 41.0 | $30 \cdot 5$ | 1 |
| 70.0 | $50 \cdot 5$ | 710 | 56.5 | 65.0 | 55.0 | .... | .... | $40^{\circ} 0$ | 35.0 | 34.0 | 190 | 2 |
| $76 \cdot 5$ | 49.5 | $72 \cdot 0$ | 57.0 | 85.0 | 54.0 | 645 | 46.0 | 48.0 | $30 \cdot 0$ | 24.0 | 12.0 | 3 |
| 82.0 | 52.0 | 72.0 | 54.0 | 69.0 | 52.0 | $\mathbf{7 0 \%}$ | $43 \cdot 0$ | 43.5 | $39 \%$ | 24.0 | 130 | 4 |
| 780 | 52.0 | 71.0 | 53.5 | 720 | 470 | 05.0 | 48.0 | 4.0 | $41^{\circ}$ | 21.0 | 14.5 | 5 |
| 68.5 | 57.5 | 79.0 | 52.0 | 70.0 | 51\% | $57 \cdot 0$ | 49.0 | 500 | 43.0 | 44.5 | 19.0 | 6 |
| $65 \cdot 5$ | 53.0 | 76.0 | 52.0 | 68.0 | 47.0 | 59.0 | 49.0 | 520 | 47.0 | 46.0 | 30.5 | 7 |
| 64.0 | 51.0 | 730 | 52.0 | 64.0 | 45.0 | 54.0 | 45.0 | 43.0 | 32.0 | 47.0 | 38.0 | 8 |
| 59.0 | 49.5 | 70.0 | 48.5 | 61.5 | 51.0 | 55.0 | 380 | $4 \cdot 0$ | 38.0 | 47.0 | 35.0 | 9 |
| 66.5 | 50.5 | 64.0 | 46.0 | G.0 | 45.0 | 55.5 | 36.0 | 46.0 | 340 | 48.0 | 420 | 10 |
| 64.0 | 535 | 68.0 | 48.0 | 85.0 | 45.5 | 56.0 | 360 | 440 | 34.0 | 35.0 | 43.11 | 11 |
| 65.0 | 53.0 | .... | .. . | 71.0 | 40.5 | 58.0 | 40.0 | 45.0 | 350 | $5 ; 0$ | 42.0 | 12 |
| 72.0 | 52.5 | .... | - | 61.0 | 49.5 | 53.0 | 460 | 46.5 | 32.5 | 40.0 | $3+0$ | 13 |
| 76.0 | 54.0 | .... | $\ldots$ | 59.0 | 495 | 33:\% | 34\% | 46.5 | 31.0 | $43 \cdot 1$ | 37.0 | 14 |
| 83.0 | 53.0 | .... | .... | 59.0 | 50.5 | 54.0 | 355 | $43: 5$ | 30.0 | 450 | 3200 | 15 |
| 87.0 | 54.5 | .... | .... | 620 | 52.5 | 550 | 35.0 | 52.0 | 33.0 | 37.0 | $\because$ | 16 |
| 74.0 | 57.0 | .... | ... | 58.0 | 47.0 | 55.0 | 36.5 | 42.0 | 29.0 | :110 | $2 \% 0$ | 17 |
| 65.0 | 58.0 | 82.0 | 52.5 | 620 | 45.0 | $50 \cdot 0$ | 36.0 | $\pm 0$ | 27.0 | 33.0 | 220 | 19 |
| $68 \cdot 0$ | 52.5 | 79.0 | 54.5 | 66.0 | $39 \cdot 5$ | $48 \cdot 0$ | 43.0 | 380 | 20.0 | 3.0 | 25.0 | 19 |
| $76 \cdot 5$ | 50.0 | 78.0 | 55.0 | 62.0 | 45.0 | 50.0 | 43.0 | 4-0 | 30.0 | 380 | 25 | 20 |
| $80 \cdot 0$ | 54.0 | 74.0 | 530 | 67.0 | 51.0 | 49.0 | 400 | 345 | 26.0 | 2s0 | 20.0 | 21 |
| 79.0 | 57.0 | 68.0 | 50.0 | 59.5 | 530 | 51.5 | 36.5 | 430 | 20 | 36.0 | 205 | 22 |
| 81.0 | 54.0 | 67.0 | 50.0 | 57.0 | $5 \% 0$ | 51.0 | 42.0 | 40 | $2 \cdot 0$ | $3 \cdot 0$ | 200 | 23 |
| 79.0 | 58.0 | 66.0 | $54 \cdot 5$ | 590 | 49.0 | 53.0 | 42.0 | 390 | 23.0 | 40 | 22.0 | 24 |
| 79-5 | 57.0 | 650 | 540 | 63.0 | 49.0 | 600 | 50.5 | 380 | 20 | $\because 4$ | 25.1 | $\cdots$ |
| 66.0 | 49.0 | 62.0 | $50 \cdot 0$ | 65.0 | 48.0 | 54.0 | 50.0 | 30.11 | 26.0 | :n | $25 \%$ | 26 |
| 67.0 | $48 \cdot 5$ | $62 \cdot 0$ | $52 \cdot 0$ | 670 | 48.0 | 52.0 | 41.0 | 36.0 | 25.1 | $3: 0$ | (10:3) | 97 |
| 67.0 | 46.0 | 62.0 | $49 \cdot 0$ | 68.0 | 43.0 | 520 | 39.5 | 39.0 | $2: 0$ | :\%\% | 20 | 23 |
| $67 \cdot 0$ | $54 \cdot 0$ | 64\% | 52.0 | $57 \cdot 0$ | 46.0 | 51.0 | 38.0 | 33.0 | 230 | 320 | $\because \because$ | $\bigcirc 9$ |
| 67.0 | 52.0 | 58.0 | 51.5 | 50.0 | 52.0 | 47.0 | 3: 0 | $37 \cdot 0$ | 31.0 | 340 | 2711 | 30 |
| 72.0 | 51.0 | 66.0 | 55.0 |  | $\ldots$ | 48.0 | 38.0 | $\ldots$ |  | $40 \cdot 5$ | 3:\% | 31 |
| 70.9 | 52.7 | 70.0 | 519 | 63.8 | 485 | $54 \cdot 8$ | $41 \cdot 3$ | $43 \cdot 2$ | $30 \cdot 9$ | $37 \cdot 6$ | 27.5 |  |

TABLE XIX．－Ladner＇s Landing，B．O．Maximum

| $\stackrel{\dot{Q}}{\dot{4}}$ | January． |  | February， |  | Narch． |  | April． |  | May． |  | June． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max． | Min． | Max． | Min． | Max． | Min． | Max． | Min． | Max． | Min． | Max． | Min． |
|  | － | － | $\bigcirc$ | － | － | － | $\underline{9}$ | － | 9 | － | － | － |
| 1 | 39.0 | 32.0 | $40 \cdot 0$ | 32.0 | 42.0 | 30.0 | $47 \cdot 0$ | 32.0 | 58.0 | 47.0 | 68.0 | 50.0 |
| 2 | 40.0 | 29.0 | 40.0 | 27.0 | 37.0 | 31.0 | 49.0 | 320 | 56.0 | 42.0 | 61.0 | 47.0 |
| 3 | 40.0 | 32.0 | 39.0 | 32.0 | 41.0 | 29.0 | 44.0 | 34.0 | 57.0 | 44.0 | 610 | 450 |
| 4 | 87.0 | 240 | 38.0 | 31.0 | 38.0 | 31.0 | 4.0 | 270 | 550 | 43.0 | $60 \cdot 0$ | 480 |
| 5 | 360 | 28.0 | 40.0 | 32.0 | 41.0 | 210 | 47.0 | 210 | 56.0 | 38.0 | 59.0 | 49.0 |
| 6 | 34.0 | 23.0 | 41.1 | 29.0 | 44.0 | 340 | 50.0 | 30.0 | 52.0 | 37.0 | 640 | $47 \cdot 0$ |
| 7 | 25.0 － | 12.0 | $39 \cdot 0$ | 330 | 450 | 270 | 500 | 330 | 56.0 | 40.0 | ．．．． | ．$\cdot$ ． |
| 8 | 25.0 | 15.0 | 40.0 | 33.0 | 450 | 30.0 | 60.0 | 36.0 | 570 | 420 | ．．．． | $\ldots$ |
| 9 | 31.0 | 130 | 43.0 | 33.0 | $\cdots$ | ．．．． | 64.0 | 45.0 | 54.0 | 42.0 | $\ldots$ | $\cdots$ |
| 10 | $25^{\circ} 0$ | 13.0 | 43.0 | 27.0 | ．．．． | $\ldots$ | 5.0 | 350 | $53 \cdot 0$ | 42.0 | $66^{\circ} 0$ | 46.0 |
| 11 | 26.0 | 16.0 | 40.0 | 30.0 | 46.0 | 50 | 560 | 370 | 49.0 | 44.0 | 71.0 | 47.0 |
| 12 | 41.0 | 25.0 | 42.0 | $2 \times 0$ | ．．．． | $\cdots$ | 55.0 | 350 | 55.0 | 12.0 | 67.0 | 48.0 |
| 13 | 39.0 | 32.0 | 420 | 30.0 | 41.0 | 23.0 | 3：0 | 36.0 | 62.0 | 44.0 | 62.0 | 41.0 |
| 14 | 45.0 | 38.0 | 430 | 30.0 | 1：30 | 240 | 54.0 | 350 | 59.0 | － 47.0 | －63．0 | $49 \cdot 0$ |
| 15 | 570 | 390 | 37.0 | 21.0 | 45.0 | 310 | 470 | 35.0 | 550 | 46.0 | 70.0 | 48.0 |
| 16 | 4160 | 30 | ：1\％ | 190 | 150 | 20.0 | 50.0 | 33.0 | 59.0 | 42.0 | 64.0 | 47.0 |
| 17 | 470 | $4 \pm 0$ | ［5］\％ | 21.0 | 470 | 33.0 | 50.0 | 36.0 | 61.0 | 41.0 | 640 | 45.0 |
| 18 | 38.0 | 330 | 39.0 | 18.0 | 47.0 | 35.0 | 50.0 | 洨 0 | （20） | 45.0 | 61.0 | 44.0 |
| 19 | 350 | 300 | 37.0 | 22.0 | 49.0 | $34 \cdot 0$ | 45.0 | 32.0 | 6＊0 | 52.0 | 64.0 | 48.0 |
| 20 | 43.0 | 38.0 | 40.0 | 27.0 | 49.0 | 36.0 | 540 | 41.0 | 62.0 | 420 | 64.0 | 47.0 |
| 21 | $4 \%$ | 340 | 410 | 21.0 | 510 | 42.0 | ぶッ | 4.0 | 630 | $13 \cdot 11$ | 66.0 | $47 \cdot 0$ |
| 22 | 43.0 | 31.0 |  | －x＇1 | （i） | 36.0 | 540 | 120 | 520 | 420 | 74.0 | $48 \cdot 0$ |
| 23 | 16.0 | 34.0 | 47.0 | $\because \square$ | （1） 0 | 35i） | \％ | 41.0 | 53.0 | $1: 10$ | 750 | 53.0 |
| 24 | 47.0 | 29.0 | 44.0 | 31.0 | 5100 | 330 | 12.9 | 420 | 61.0 | 48.0 | 70.0 | $55^{\circ} 0$ |
| 25 | 37.0 | 26.0 | 42.0 | $30 \cdot 0$ | 410 | 35.0 | 64.0 | 40.0 | 630 | 39.0 | 67.0 | 62．0 |
| 2 i | 35.0 | 25.1 | 43.0 | 17.0 | 4.0 | 350 | 57.1 | 38.0 | 690 | 41.0 | 72.0 | 52.0 |
| 27 | 34.0 | 17.0 | 31.0 | 21.0 | 42.0 | 32.0 | 58.0 | 30 | 86.0 | 43.0 | 76.0 | 50.0 |
| 28 | 27.0 | 17.0 | $37 \cdot 0$ | 29.0 | 4510 | 29.0 | 66.0 | 42.0 | 67.0 | 47.0 | 81.0 | 56.0 |
| 2） | 34.0 | 26.0 | 42.0 | 31.0 | $46 \%$ | 320 | 710 | 46.0 | 62.0 | $47 \cdot 0$ | 70.0 | 51.0 |
| 30 | 32.0 | 28.0 | ．$\cdot$ | ．．． | $49 \cdot 0$ | 31.0 |  | $\ldots$ | 630 | $40 \cdot 0$ | 67.0 | 49.0 |
| 31 | 39.0 | $32 \cdot 0$ | －．．${ }^{\text {c }}$ | $\cdots$ | 48.0 | 32.0 | $60 \cdot 0$ | 41.0 | 67.0 | 44.0 | ．$\cdot$ ． | －•• |
|  | $38 \cdot 6$ | 27.3 | $40 \cdot 1$ | $37 \cdot 1$ | $45 \cdot 1$ | 31.8 | 546 | 37.1 | $59 \cdot 2$ | $48 \cdot 1$ | 67.4 | $52 \cdot 1$ |

and Minimum Temperature, 1880.

| Juls. |  | August. |  | September. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | 宔 |
| - | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | $\bullet$ | $\bigcirc$ | - | - | - |  |
| 68.0 | 47.0 | 67.0 | 55.0 | 65.0 | 53.0 | 63.0 | 51.0 | 51.0 | 40.0 | . | $\cdots$ | 1 |
| .... | $\ldots$ | 71.0 | 56.0 | fis 0 | 40 | 59.0 | 53.0 | 50.0 | 29.0 | 39.0 | 25.0 | 2 |
| . | .... | 71.0 | 52.0 | 68.0 | 51.0 | 60.0 | 42.0 | 47.0 | 34.0 | 28.0 | 11.0 | 3 |
| .... | .... | 68.0 | 52.0 | $\ldots$ | .... | 58.0 | 38.0 | 48.0 | 37.0 | $\pm 0$ | 12.0 | 4 |
| $\ldots$ | $\ldots$ | 70.0 | 52.0 | . | .... | 64.0 | 38.0 | 50.0 | 42.0 | 33.0 | 15.0 | 5 |
| $7 \% 0$ | 400 | 71.0 | 51.0 | 70.0 | 41.0 | 63.0 | 50.0 | 51.0 | 45.0 | 29.0 | 16.0 | 6 |
| 69.0 | 56.0 | .... | $\cdots$ | 63.0 | 41.0 | 58.0 | 51.0 | 50.0 | 32.0 | 46.8 | 29.0 | 7 |
| $\ldots$ | .... | 710 | 8.10 | .... | - | 60.0 | 46.0 | 43.0 | 33.0 | 47.0 | 38.0 | 8 |
| 70.0 | 50.0 | 71.0 | 51.0 | .... | .... | $54 \cdot 0$ | 34.0 | .... | . $\cdot$. | $44 \cdot 0$ | 35.0 | 9 |
| 610 | 49.0 | 73.0 | 440 | $\cdots$ | $\ldots$ | 53.0 | 35.0 | .... | . $\cdot$. | 49.0 | 41.0 | 10 |
| 65.0 | $40 \cdot 0$ | 66.0 | 4.0 | 65.0 | 34.0 | 53.0 | 33.0 | .... | . | 49.0 | 40.0 | 11 |
| 65.0 | $5 \pm \cdot 0$ | .... | .. | 64.0 | 34.0 | 56.0 | 36.0 | .... | .... | 54.0 | 39.0 | 12 |
| 66.0 | 47.0 | 72.0 | 45.0 | .... | .... | $\cdots$ | $\ldots$ | . $\cdot$ | .... | 49.0 | 33.0 | 13 |
| 70.0 | 500 | $\cdots$ | .. | 6\%\% | 43.0 | $\ldots$ | $\ldots$ | $\ldots$ | .... | 40.0 | 38.0 | 14 |
| 74.0 | 52.0 | 71.0 | 48.0 | 57.0 | 50.0 | -• | $\cdots$ | 41.0 | 27.0 | 44.0 | 38.0 | 15 |
| 80.0 | 54.0 | $69 \cdot 0$ | 520 | 63.0 | 49.0 | $\ldots$ | $\ldots$ | .... | -• | $\ldots$ | $\ldots$ | 16 |
| 81.0 | 55.0 | . | . $\cdot$. | 61.0 | $4 \cdot 0$ | 55.0 | 320 | .... | .... | 410 | $24 \cdot 0$ | 17 |
| 71.0 | 56.0 | . | .... | 610 | 39.0 | 9 | 3.0 | $\ldots$ | . $\cdot$. | 37.0 | 22.0 | 18 |
| 69.0 | 51.0 | $\cdots$ | -• | 61.0 | 350 | 510 | 44.0 | $\ldots$ | .... | 34.0 | 20.0 | 19 |
| $73 \cdot 0$ | 49.0 | $\cdots$ | . $\cdot$ | 59.0 | 41.0 | $54^{\circ} 0$ | 43.0 | .... |  | 37.0 | 20.0 | 20 |
| .. | .... |  | . $\cdot$. | (\%20) | 50.0 | 50.0 | 42.0 | 52.0 | 23.0 | $\cdots$ | . $\cdot$. | 21 |
| 75.0 | 55.0 | 710 | 500 | 58.0 | 52.0 | 490 | 32.0 | $\cdots$ | .... | 33.0 | 22.0 | 22 |
| 750 | 52.0 | .... | $\ldots$ | $\ldots$ | .... | 51.0 | 37.0 | 40.0 | 23.0 | $\cdots$ | $\cdots$ | 23 |
| 760 | 54.0 | 69.0 | 52.0 | .... | $\cdots$ | 54.0 | 50.0 | .... | $\ldots$ | 36.0 | 20.0 | 24 |
| $7 \pm .0$ | 54.0 | 66.0 | 52.0 | 63.0 | 42.0 | - | . $\cdot$. | $36^{\circ} 0$ | 20.0 | 35.0 | 28.0 | 25 |
| 74.0 | 54.0 | 61.0 | 48.0 | 61.0 | 45.0 | . $\cdot$. | .... | 38.0 | 24.0 | $\ldots$ | $\ldots$ | 26 |
| 670 | 53.0 | (in) | 480 | 61.0 | 510 | 60.0 | 36.0 | 38.0 | 250 | 36.0 | 26.0 | 97 |
| 66.0 | 48.0 | $63 \cdot 0$ | 45.0 | 59.0 | 39.0 | 59.0 | 37.0 | 35.0 | 20.0 | 34.0 | 29.0 | 3 |
| $65 \%$ | 30 |  | .... | 63.0 | $\pm 40$ | 53.0 | 29.0 | 35.0 | 20.0 | 30.0 | 29.0 | 29 |
| (66.0 | $5 \cdot 0$ | $58 \cdot 0$ | 50.0 | 61.0 | 46.0 |  | $\cdots$ | 32.0 | $\because 1.0$ | 33.0 | 28.0 | 30 |
| 64.0 | 46.0 | 03.0 | 520 | -•• | $\cdots$ | 49.0 | 82.4 | $\ldots$ | .... | $35 \cdot 0$ | 31.0 | 31 |
| $70 \cdot 4$ | 51.6 | $68 \cdot 1$ | $50 \cdot 1$ | $62 \cdot 8$ | $44 \times 3$ | 55.7 | 39.8 | $43 \cdot 2$ | $29 \cdot 1$ | 39.9 | 27.2 |  |

TABLE XX.—Lilloet, B. C. Maximum

| $\dot{\Delta}$ | January. |  | February, |  | March. |  | April. |  | May. |  | Jnne. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Mas. | Min. | Max. | Min. | Мах. | Min. | Max. | Min. | Max. | Min. |
|  | - | $\bigcirc$ | $\cdots$ | - | - | - | - | - | - | - | - | - |
| 1 | 32.0 | 25.0 | 450 | 15.0 | 300 | 20.0 | 310 | 200 | 55.0 | 50.0 | .... | .... |
| 2 | 40.0 | 25.0 | 45.0 | 14.0 | 290 | $10 \cdot 0$ | $30 \cdot 0$ | 200 | 50.0 | 45.0 | 70.0 | 45.0 |
| 3 | 30.0 | $20 \cdot 0$ | 45.0 | 20.0 | 20.0 | 10.0 | 2 nc | 160 | 50.0 | 450 | 65.0 | 40.0 |
| 4 | $3 \cdot 0$ | 25.0 | 50.0 | 2 S 0 | 20.0 | 10.0 | 30.0 | 150 | $52 \%$ | 40.0 | 68.0 | 40.0 |
| 5 | $10 \cdot 0$ | 00 | 30.0 | 18.0 | 300 | 10.0 | 28.0 | 10.0 | 50.0 | 50.0 | 70.0 | 45.0 |
| 6 | 50 | $0 \cdot 0$ | 40.0 | 25.0 | 30.0 | 10.0 | 32.0 | 27.0 | 50.0 | 400 | 650 | 50.0 |
| 7 | $5 \cdot 0$ | 5.0 | $40 \cdot 0$ | 17.0 | 30.0 | 10.0 | 45.0 | 35.0 | 56.0 | 40.0 | 70.0 | 45.0 |
| 8 | 25.0 | 10.0 | 15.0 | 15.0 | 40.0 | 25.0 | 55.0 | 450 | 60.0 | 42.0 | 65.0 | 450 |
| 9 | 2.0 | 15.0 | 40.0 | 90 | $54 \cdot 0$ | 40.0 | $56 \%$ | 40.0 | 50.0 | 40.0 | 65.0 | 42.0 |
| 10 | 10.0 | 22.0 | 45.0 | $32 \cdot 0$ | 20 | 20.0 | 50.0 | 350 | 450 | 40.0 | 65.0 | $42^{\circ} 0$ |
| 11 | 5.0 | 10.0 | 40.0 | 15.0 | 250 | 20.0 | 50.0 | $35 \%$ | 450 | 40.0 | 70.0 | 45.0 |
| 12 |  | 5.0 | $45^{\circ} 0$ | 15.0 | 20.0 | 15.0 | 60.0 | 400 | 560 | 40.0 | 750 | $60 \cdot 0$ |
| 13 | 25.0 | 1.0 | $40 \cdot 0$ | 15.0 | 30.0 | 10.0 | 50.0 | 370 | 60.0 | 42.0 | 700 | 40.0 |
| 14 | 50.0 | \% 50 | 32.0 | 15.0 | 35.0 | 20.0 | 40.0 | $30 \cdot 0$ | 64.0 | 45.0 | 60.0 | 40.0 |
| 15 | 55.0 | 40.0 | 300 | 15.0 | 40.0 | 35.0 | 40.0 | 30.0 | 50.0 | 40.0 | $70 \cdot 0$ | 45.0 |
| 16 | 50.0 | 38.0 | 20.0 | 0.0 | 50.0 | 250 | 40.0 | 2 SO | 520 | 46.0 | 70.0 | 50.0 |
| 17 | $40 \cdot 0$ | 28.0 | 10.0 | 0.0 | 50.0 | :200 | 40.0 | 280 | 52.0 | 46.0 | 6S.0 | 40.0 |
| 18 | 25.0 | 15.0 | 40.0 | 220 | 50.0 | 25.0 | 55.0 | 32.0 | 70.0 | 450 | 68.0 | $40 \cdot 0$ |
| 19 | 50.0 | 300 | 3100 | 15.0 | 50.0 | $\because 0$ | 560 | 42.0 | 72.0 | 50.0 | 70.0 | 42.0 |
| 20 | 50.0 | 23.0 | $\underline{20}$ | 10.0 | 10.0 | 20.0 | 50.0 | 35.0 | 70.0 | 50.0 | 70.0 | 45.0 |
| 21 | 60.0 | $3 \% \cdot 0$ | 40.0 | 30.0 | 50.0 | 35.0 | 60.0 | 38.0 | 6.0 | 450 | 75.0 | 56.0 |
| 22 | 45\% | 28.0 | 20.0 | 20.0 | 50.0 | 35.0 | 60.0 | 40.0 | 60.0 | 450 | 80.0 | 58.0 |
| 23 | 35.0 | $20 \cdot 0$ | 34.0 | 27.0 | 540 | 36.0 | 60.0 | 42.0 | 56.0 | 450 | 82.0 | 68.0 |
| 24 | 40.0 | 15.0 | 34.0 | 29.0 | $60 \%$ | 42.0 | 70.0 | 42.0 | 70.0 | 40.0 | 86.0 | 560 |
| 25 | 30.0 | 14.0 | 300 | 18.0 | 40.0 | 32.0 | 70.0 | 42.0 | 70.0 | 50.0 | $90 \cdot 0$ | 56.0 |
| 28 | $15 \cdot 0$ | 5.0 | 32.0 | 5.0 | 40.0 | $30 \cdot 0$ | 76.0 | 40.0 | 75.0 | 50.0 | 90.0 | 60.0 |
| 27 | 10.0 | 50 | 200 | 5.0 | 30.0 | 20.0 | 72.0 | 40.0 | 70.1 | 470 | 90.0 | 56.0 |
| 28 | 15.0 | 0.0 | $80 \cdot 0$ | 12.0 | $30 \cdot 0$ | 15.0 | $72 \cdot 0$ | 40.0 | 71.0 | 47.0 | 90.0 | 60.0 |
| 29 | 20.0 | 10.0 | . $\cdot$ | .... | 30.0 | $15 \cdot 0$ | 72.0 | 40.0 | 650 | 47.0 | 90.0 | 56.0 |
| 30 | 20.0 | 10.0 | $\ldots$ | $\cdots$ | 35.0 | 20.0 | $72 \cdot 0$ | $40^{\circ} 0$ | 700 | 40.0 | 90.0 | 56.0 |
| 31 | 45.0 | 50.0 | $\cdots$ | -•• | 40.0 | 24.0 | .... | $\ldots$ | 700 | 40.0 | .... | . $\cdot$ |
|  | $28 \cdot 1$ | 18\%8 | 34.0 | 18.0 | 37.0 | 22.4 | 51.8 | 33.5 | 597 | 443 | 71-9 | 45*6 |

and Minimum Iemperature, 1880.

| July, |  | August. |  | September. |  | October. |  | November. |  | December: |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | M1n. | Max. | Min. | Max. | Min. | 立 |
| - | - | $\bigcirc$ | - | $\bigcirc$ | - | - | - | - | - | - | - |  |
| 60.0 | 56.0 | 60.0 | 48.0 | 60.0 | 45.0 | 70.0 | 40.0 | 5011 | 0 | 10.0 | 4.0 | 1 |
| .... | .... | 58.0 | 45.0 | 60.0 | 45.0 | $\because 0$ | 40.0 | 50.0 | 9 | 6.0 | $2 \cdot 0$ | 2 |
| 70.0 | $50^{\circ} 0$ | 70.0 | 60.0 | 65.0 | 50.0 | 72.0 | 420 | 60.0 | (20) | 8.0 | 2.0 | 3 |
| 90.0 | 60.0 | 65.0 | 50.0 | 68.0 | 50.0 | 740 | 42.0 | 60.0 | 32.0 | 8.0 | 140 | 4 |
| 90.0 | $60 \cdot 0$ | 60.0 | 50.0 | 70.0 | 50.0 | 75.0 | 40.0 | 51.0 | 27.11 | 14.0 | $2 \cdot 0$ | 5 |
| 90.0 | 64.0 | 80.0 | 50.0 | 70.0 | 50.0 | $55 \%$ | 50.0 | 56.0 | 17.0 | 18.0 | 4.0 | 6 |
| 65.0 | 54.0 | 80.0 | 56.0 | 75.0 | 45.0 | 60.0 | 40.0 | 50.0 | $30 \cdot 0$ | 39.0 | 12.0 | 7 |
| 60.0 | $50 \cdot 0$ | 82.0 | 56.0 | 750 | 45.0 | 56.0 | 40.0 | 50.0 | 30.0 | 40.0 | 31.0 | 8 |
| 55.0 | 50.0 | 80.0 | 60.0 | 70.0 | 42.0 | 56.0 | 40.0 | 50.0 | 330 | 34.0 | 31.0 | 9 |
| 75.0 | 54.0 | 82.0 | 60.0 | 65.0 | 40.0 | 56.0 | 35.0 | 50.0 | 30.0 | 41.0 | 38.0 | 10 |
| 75.0 | 54.0 | 82.0 | $6{ }^{6} \cdot 0$ | $69 \%$ | 35.0 | 60.0 | 32.0 | 50.0 | 30.0 | 830 | 36.0 | 11 |
| 60.0 | 540 | 84.0 | 50.0 | 60.0 | 34.0 | 60.0 | 32.0 | 50.0 | 30.0 | $42 \cdot 0$ | 38.0 | 12 |
| 70.0 | 57.0 | 84.0 | 56.0 | 56.0 | 40.0 | 60.0 | 340 | 40.0 | 20.0 | 40.0 | 32.0 | 13 |
| 90.0 | 60.0 | 86.0 | 56.0 | $75 \cdot 0$ | 400 | 64.0 | 34.0 | 40.0 | $30 \cdot 0$ | 970 | 33.0 | 14 |
| 95.0 | 60.0 | 86.0 | $50 \cdot 0$ | 70.0 | 40.0 | 64.0 | 38.0 | 40.0 | 28.0 | 30.0 | 350 | 15 |
| 1020 | 65.0 | 86.0 | 55.0 | 60.0 | 35.0 | 70.0 | 36.0 | 38.0 | 28.0 | 39.0 | 230 | 16 |
| 95.0 | 65.0 | 86.0 | $70 \cdot 0$ | 64.0 | 30.0 | 70.0 | 36.0 | 36.0 | 25.0 | 23.0 | 18.0 | 17 |
| 85.0 | 62.0 | 90.0 | 60.0 | 600 | 35.0 | 720 | 31.0 | $3 \cdot 5$ | 22.0 | 17.0 | 110 | 18 |
| 70.0 | 62.0 | 92.0 | 60.0 | 60.0 | 35.0 | 70.0 | 350 | 30.0 | 17.0 | 10.0 | 11.0 | 19 |
| 85.0 | 62.0 | 90.0 | 56.0 | 60.0 | 30.0 | 680 | 36.0 | 30.0 | 20.0 | 14.0 | 11.0 | $\because 0$ |
| 86.0 | 62.0 | 92.0 | 50.0 | 56.0 | 30.0 | 68.0 | 35.0 | 40.0 | 22.0 | 10.0 | 6.0 | 21 |
| 90.0 | 64.0 | 70.0 | 50.0 | 50.0 | 15.0 | 65.0 | 36.0 | 45.0 | 25.0 | 10.0 | 6.0 | 23 |
| 90.0 | $64 \cdot 9$ | 65.0 | 50.0 | 60.0 | 420 | 60.0 | 34.0 | 40.0 | 10.0 | 8.0 | 10.0 | 23 |
| 700 | 57.0 | 56.0 | 40.0 | 65.0 | 45.0 | 54.0 | 34.0 | 38.0 | 10.0 | 10.0 | 2.0 | 24 |
| 68.0 | 50.0 | 52.0 | 50.0 | 68.0 | 10.0 | 56.0 | 34.0 | 20.0 | 1.40 | 13.0 | $0 \cdot 0$ | 25 |
| 64.0 | 46.0 | 60.0 | 450 | 68.1 | 40.0 | 60.0 | 350 | 260 | 18.0 | 16.0 | 11.) | 26 |
| 55.0 | 45.0 | 45.0 | 40.0 | 70.0 | 40.0 | 56.0 | 32.0 | 40.0 | 25.0 | 13.0 | $7 \cdot 0$ | 27 |
| 650 | 55.0 | 44.0 | 40.0 | 70.0 | 40.0 | 55.0 | 32.0 | 40.0 | 250 | 2.0 | 2.0 | 28 |
| 650 | 55.0 | 56.0 | 45.0 | 74.0 | 42.0 | 58.0 | 32.0 | 40.0 | 26.0 | 40 | 30.0 | 29 |
| 60.0 | 46.0 | 50.0 | $42 \cdot 0$ | 74.0 | 42.0 | 58.0 | 320 | 36.0 | 20.0 | 17.0 | 6.0 | 30 |
| 70.0 | 50.0 | 690 | 46.0 | $\cdots$ | .... | - 58.0 | 30.0 | $\cdots$ | .... | 27.0 | 20 | 31 |
| 75.5 | 56.7 | 72.0 | 52.8 | $65 \cdot 1$ | 40.7 | $62 \cdot 1$ | $30 \cdot 4$ | 42.7 | 25.6 | $21 \cdot 3$ | 15.1 |  |

TABLE XXI.—Poplar Heights. Maximum

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | M1n. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | 安 |
| $\bullet$ | - | - | $\bullet$ | $\bullet$ | $\bullet$ | - | - | - | $\bigcirc$ | - | - |  |
| $77 \cdot 2$ | 41.9 | $65 \cdot 9$ | $46 \cdot 1$ | 64.5 | 45.6 | 64.0 | 33.8 | $42 \cdot 5$ | 22.5 | 21.0 | 9.9 | 1 |
| 73-3 | 46.8 | $73 \cdot 3$ | 388 | 78.7 | $48 \cdot 1$ | 499 | 26.5 | 46.0 | $29 \cdot 1$ | 6.4 | 16.7 | 2 |
| $69 \cdot 8$ | $50 \cdot 8$ | 767 | 43.4 | 74.9 | $46 \cdot 1$ | 61.7 | 20.5 | 42.9 | 21.3 | $4 \cdot 1$ | 26.6 | 3 |
| 76.2 | $40 \cdot 4$ | 77.8 | 4:3 | 76.5 | 41.6 | 70.8 | 31.0 | 31.0 | 16.7 | $4 \cdot 4$ | 169 | 4 |
| 75 | 46.9 | 78.6 | 40.0 | 6. 5 | $45 \cdot 1$ | $56 \cdot 6$ | 31.0 | 31.7 | 13.0 | $5 \cdot 0$ | 31.0 | 5 |
| 66.9 | 84.7 | $77 \cdot 1$ | $55 \cdot 1$ | $61 \cdot 4$ | 38.8 | $49 \cdot 9$ | 20.1 | 38.6 | 193 | $5 \cdot 1$ | $24 \cdot 4$ | 6 |
| 76.4 | $47 \cdot 1$ | 76.2 | 527 | 61.6 | 25.1 | 58.8 | $24 \cdot 4$ | 38.0 | $24 \cdot 1$ | 50 | $-27 \cdot 9$ | 7 |
| 74.0 | 57.0 | $73 \cdot 2$ | 51.5 | 69.4 | $35 \cdot 8$ | 737 | 35; 8 | 39.6 | 240 | $1 \cdot 1$ | -21.9 | 8 |
| $74 \cdot 9$ | 53.4 | $74 \cdot 3$ | 458 | 575 | $41 \cdot 1$ | 65.7 | 31.8 | 36.0 | 16.1 | $9 \cdot 1$ | 21.8 | 9 |
| $76 \cdot 9$ | $43 \cdot 1$ | 72.7 | 12.9 | 76.7 | 44.2 | 49.5 | 39.0 | 32.6 | 10.3 | $39 \cdot 6$ | 15 | 10 |
| 69.9 | 54.5 | 78.0 | 51.8 | 56.7 | 40.5 | 47.0 | 26.3 | 22.7 | $8 \cdot 3$ | 40.4 | 17.2 | 11 |
| $71 \cdot 3$ | 58.9 | $\mathbf{8 0} \cdot \mathbf{3}$ | 54.5 | $50 \cdot 1$ | 32.8 | 64.7 | 22.3 | 18.1 | 63 | 23.8 | $4 \cdot 2$ | 12 |
| 79.5 | 508 | 78.4 | 52.3 | 64.9 | 32.8 | 55.9 | 34.0 | 17.0 | 112 | 31.1 | 20.9 | 13 |
| $7 \because 0$ | 51.8 | $73 \%$ | 51.8 | 63.5 | 40.0 | $47 \cdot 1$ | 31.2 | 35.4 | $2 \cdot 7$ | 28.7 | 18 | 14 |
| 71.7 | 53.5 | $73 \cdot 1$ | 48.5 | $64 \cdot 1$ | 33.8 | 38.5 | 30.5 | 373 | 4.0 | .... | $8 \cdot 1$ | 15 |
| 777 | $47 \cdot 4$ | $63 \cdot 1$ | 55.0 | $64 \cdot 4$ | 36.0 | 35.5 | 20.5 | 63 | 3.0 | ... | $\ldots$ | 16 |
| 73.0 | $39 \cdot 9$ | 77.2 | 53.9 | 67.5 | 350 | 31.7 | 20.4 | 14.7 | $3 \cdot 1$ | $22 \cdot 3$ | $\ldots$ | 17 |
| $69 \cdot 2$ | $47 \cdot 3$ | 76.5 | 46 | 65.0 | 41.8 | 85 | 10: | 12.7 | 28 | $22 \cdot 1$ | 16: | 15 |
| 72.7 | 38.0 | 74.8 | $51 \cdot 4$ | 56.0 | $42 \cdot 1$ | 41.6 | 19.5 | $10 \cdot 1$ | -117 | 20.4 | 122 | 19 |
| 76.8 | 38.5 | 62: | 54 1 | Tis | 30.6 | : ${ }^{4} 4$ | 40 | $-67$ | -199 | $21 \cdot 1$ | 8.0 | 20 |
| .... | .... | 73 | 46.1 | 5.8 | 29.0 | 302 | 185 | 0.2 | $21 \cdot 4$ | 12.7 | 11.9 | 21 |
| Si. 7 | $41^{7}$ | 1i: 9 | 1190 | 56 | 341 | 31 | $2 \cdots ;$ | 8 | 24.2 | 61 | 257 | 22 |
| $86 \cdot 9$ | $53 \%$ | 5 | 12- | 54.6 | 37.8 | 38.9 | $17 \%$ | 4.9 | 13.2 | 4.1 | 169 | 2 |
| $8: 7$ | 595 | (i0) 5 | $33 \cdot 8$ | 19.7 | 4.0 | 41.5 | 2:3 | 40 | -22.1 | $\cdots 2$ | 93 | 21 |
| 70 | 818 | (fitis) | 1:3! | .... |  | 37.0 | 17.0 | $12 \cdot 0$ | 14.3 | 13.2 | -37\% | 25 |
| 78.2 | 48.6 | (1s\% | $52 \cdot 5$ | $64 \cdot 7$ | 24.9 | 31.4 | 11.3 | $\because 1$ | 8.0 | 8.9 | 40\% | 26 |
| $80 \cdot 2$ | 43.0 | 69.4 | $44 \cdot 1$ | 64.3 | 400 | 11\% | 212 | $\because 21$ | 3.2 | 21\% | 44:3 | 27 |
| 84.2 | 53.8 | $73 \cdot 6$ | 37.9 | 51.7 | $57 \cdot 1$ | 408 | 20 | $1 \cdot 1$ | 17.8 | 9.7 | 359 | 28 |
| 76.7 | 60.7 |  | $48 \cdot 1$ | $52 \cdot 9$ | $2 \cdot 9$ | 37.9 | 20.8 | 6.1 | $\underline{24} 7$ | $1 \cdot 1$ | 14.7 | 29 |
| 774 | 52" | 73•2 | 51.4 | 63:8 | 24.5 | $51 \cdot 4$ | 18.7 | 22.8 | $7 \cdot 7$ | 9.8 | - 2.5 | 30 |
| 815 | 51.5 | 69.7 | 54.0 | $\cdots$ | .... | 47.9 | 248 | $\cdots$ | $\cdots$ | 7.0 | 14.7 | 31 |
| $76 \cdot 3$ | $48 \cdot 9$ | 72.2 | $47{ }^{\circ}$ | 620 | $37 \cdot 1$ | $47 \%$ | 254 | 22.0 | 18 | $7 \cdot 7$ | 1:0) |  |

TABLE XXII.-St. John's College, Winnipeg. Maximum

| $\stackrel{\Delta}{4}$ | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | M1n. |
|  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | - | $\bigcirc$ | $\bigcirc$ | - | - | - | $\bigcirc$ | $\checkmark$ |
| 1 | $39 \cdot 9$ | 5.0 | 07 | $31 \cdot 1$ | 77 | $24 \cdot 1$ | 32-9 | $16 \cdot 1$ | $79 \cdot 7$ | 43.0 | $57 \cdot 3$ | $38^{\circ} 0$ |
| 2 | 23.8 | - 10.6 | 0.7 | 5.0 | 25.8 | 11.7 | $23 \cdot 9$ | 10.1 | $81 \cdot 7$ | 53.0 | 66.7 | 37.0 |
| 3 | $37 \cdot 9$ | 20 | 27 | 9.0 | 4.3 | 21.4 | $34 \cdot 9$ | 11.4 | 647 | 37.0 | 73.8 | 500 |
| 4 | $7 \cdot 2$ | 120 | 6.7 | 21.1 | 18.7 | - $22 \cdot 6$ | $27 \cdot 9$ | $8 \cdot 0$ | $67 \cdot 3$ | 34.0 | 73\%3 | 53.5 |
| 5 | 31.9 | 4.8 | 8.3 | 29.2 | $4 \cdot 7$ | $21 \cdot 1$ | 27.9 | 2. | 75.8 | 450 | 65.7 | 48.0 |
| 6 | 33 | - 22.5 | 1.0 | $32 \cdot 1$ | $2 \cdot 7$ | -18.1 | $28 \cdot 9$ | 3.0 | 52.6 | 47.0 | 68.8 | 43.0 |
| 7 | 1.3 | - 12.4 | 77 | 4.0 | 163 | - $35 \cdot 1$ | 319 | 1.0 | 67.8 | 44.0 | $74 \cdot 3$ | 4.5 |
| 8 | 26.9 | - 9.2 | 113 | 26.1 | 4.7 | - 20.1 | 45.9 | $8 \cdot 1$ | $72 \cdot 8$ | 52.0 | $75 \cdot 8$ | 54.0 |
| 9 | 3:3 | 196 |  | 15.1 | 103 | - 32.1 | $46-9$ | 25.5 | 63.2 | 41.0 | 73.8 | 54.0 |
| 10 | 197 | $12 \cdot 1$ | 207 | 5.0 | 8.7 | $38 \cdot 1$ | $34 \cdot 9$ | 19.0 | 63.2 | 42.0 | $77 \cdot 7$ | 55.0 |
| 11 | 1.7 | $-22.6$ | 297 | 30 | 13 | $19 \cdot 1$ | $39 \cdot 9$ | 17.0 | $71 \cdot 3$ | 560 | 85.7 | $56 \%$ |
| 12 | 9.3 | -20.1 | $\because 3$ | $21 \cdot 1$ | 23 | 931 | 407 | 20.0 | 657 | 47.5 | 57.2 | 4.0 |
| 13 | 21.8 | 280 | 6.7 | $20 \cdot 1$ | $5 \cdot 7$ | $19 \cdot 1$ | 258 | 151 | 71.3 | 53.0 | 617 | 45.0 |
| 14 | 42 | - 191 | 15.7 | 131 | 10.2 | $20 \cdot 1$ | $18 \cdot 2$ | $16 \cdot 1$ | 792 | 50.0 | 64.2 | 515 |
| 15 | 21.7 | $18 \%$ | 20.8 | $12 \cdot 1$ | 3.7 | $20 \cdot 1$ | $34 \div$ | $4 \cdot 0$ | 72.8 | $50 \cdot 0$ | 7.9 | 480 |
| $1 ;$ | 17.7 | 8.6 | 20.7 | 12\% | 3 | - $\quad 1 \cdot 1$ | 47.7 | 26.0 | 73.8 | 40.0 | $73 \cdot 4$ | 56.2 |
| 17 | 27.6 | 14.0 | 1-\% | -18.1 | 127 | -13.1 | $4: 1$ | 270 | 53.7 | 450 | 763 | 56.5 |
| 18 | 11:\% | 10.0 | 123 | 2i 1 | \% | - 15.1 | 3: 3 | 230 | 505 | 44.0 | 807 | 61.5 |
| 19 | 8:; | 2911 | 127 | 8512 | - | $\cdots 1$ | 374 | $19 \%$ | 46.7 | 33.0 | 84.7 | 62.6 |
| 20 | 14.7 | $5 \cdot 0$ | 2י8 | 7.0 | 8 | 110 | $31: 1$ | 14.0 | 527 | 30.0 | 87:2 | 67.0 |
| 21 | 17.7 | - 10.0 | $20 \cdot 7$ | 75 | $\cdots 4$ | 115 | 45.9 | $\underline{5}$ | 67.3 | 39.0 | 707 | 82.0 |
| 22 | 9.2 | - 15.1 | 24.8 | 1.0 | $35 \cdot 9$ | - $\quad \begin{array}{r}0 \\ \hline\end{array}$ | 48.1 | 20.0 | $54 \cdot 7$ | $46^{\circ} 0$ | 824 | 60.0 |
| 23 | 15.7 | 5.5 | 35.9 | $3 \cdot 1$ | 16.7 | 58 | 5 | 28.10 | $71 \%$ | 45.0 | 74.8 | 54.0 |
| 21 | 113.7 | + | 29.9 | 13.1 | $36 \cdot 9$ | 101 | 50.7 | $31 \%$ | 12.8 | 90\% | 54 | 550 |
| 25 | $30 \cdot 9$ | $-10$ | ¢7 | 11.1 | 3109 | $11 \cdot 1$ | 5 | 200 | 65 | 490 | 718 | 530 |
| 26 | 12.2 | 181 | $12 \cdot 7$ | $15 \cdot 1$ | :6.1 | : 31 | 47.0 | ハ00 | - | 89.0 | $74 \cdot 8$ | 59.0 |
| 97 | - $10 \cdot 3$ | 22.6 | - 93 | - | 314 | : | तv | 310 | $53 \%$ | 35.0 | 67.5 | $61 \%$ |
| 28 | $11^{9}$ | 21.1 | $5 \cdot 3$ | $32 \cdot 1$ | 17.9 | 205 | 140 | $23 \cdot 11$ | $63 \%$ | 1:30 | 69.8 | 49.0 |
| 29 | 8.7 | - $21 \cdot 1$ | 1.7 | 24.6 | 419 | $30 \cdot 0$ | $15 \%$ | $\cdots$ | 13: ${ }^{\text {\% }}$ | 50 | 70.8 | 460 |
| :11) | 2.9 | 15.1 | . $\cdot$ | .... | $\because 1$ | 30 | 637 | 2 | 617 | 38.0 | 751 | 48.2 |
| 31 | $10 \cdot 3$ | -211 | ...' | .... | :3) | $1 \times 0$ | $\ldots$ |  | S37 | 34.0 | $\ldots$ | .... |
|  | 12:3 | - 131 | 98 | - 143 | 17.3 | -74 | $40 \cdot 7$ | $18 \cdot 7$ | 64.9 | 44.0 | 73\% | 52.7 |

and Minimum Temperature, 1880.

| July. |
| :---: |

T.IBLE XxIII.-Fort Garry, Man. Maximum

| $\dot{\Delta}$ | January. |  | Tebruary, |  | Marcli. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Mn. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | $\bullet$ | - | - | - | - | - | - | - | - | - | 2 |
| 1 | 40.5 | $0 \cdot 2$ | 0.2 | 35.3 | $8 \cdot 0$ | $-27 \cdot 3$ | 340 | 13.6 | $81 \cdot 4$ | 41.0 | 637 | 34.0 |
| 2 | 23.4 | 10.0 | 40 | $4 \cdot 3$ | 28.5 | 14.3 | $30 \cdot 5$ | 5.2 | 83.5 | 43.3 | 667 | 37.0 |
| 8 | 39.0 | 33 | $2 \cdot 4$ | 85 | 10\% | $-143$ | 32.0 | 15.0 | 66.3 | 46.0 | 76.5 | $48 \cdot 5$ |
| 4 | 215 | 14.8 | $4 \cdot 0$ | 18.3 | 19.5 | 22.5 | 27 | $7 \%$ | 98.7 | 34.0 | $74 \cdot 4$ | 49.0 |
| 5 | $32 \cdot 4$ | 1.4 | 0.5 | 34.3 | 75 | 18.3 | 250 | 37 | 7:\% | 43.3 | $67 \cdot 0$ | 49.5 |
| 6 | 6.4 | -21.8 | $2 \cdot 2$ | $30 \cdot 3$ | 4.0 | 14.3 | 270 | $9 \cdot 6$ | $63 \cdot 3$ | 17.3 | 71.0 | 45.0 |
| 7 | $1 \cdot 4$ | 14.5 | 0.2 | $10 \cdot 4$ | $11 \cdot 4$ | 86.3 | 30.0 | $3 \cdot 2$ | 66.0 | 415 | 73.7 | $44 \cdot 4$ |
| 8 | $27 \cdot 4$ | -143 | $2 \cdot 4$ | 24.3 | 4.5 | -23.3 | 47.0 | $11 \cdot 1$ | 76.4 | 397 | 76.3 | $49 \cdot 5$ |
| 9 | 3.2 | $-17.5$ | $3 \cdot 5$ | 23.5 | 8.4 | 293 | $47 \%$ | $30 \cdot 0$ | 635 | $47 \cdot 4$ | $73 \cdot 5$ | 54.0 |
| 10 | 21.5 | -18.3 | 20.5 | 6.3 | 7ij | 3\% | $37 \%$ | 175 | 64.5 | 11.3 | 79.7 | $54 \cdot 7$ |
| 11 | 8.6 | 313 | 29.5 | 6.4 | - 2.4 | - 143 | 39\% | 115 | 70.0 | $35 \cdot 4$ | 667 | 56.2 |
| 12 | $10 \cdot 4$ | 313 | 8.4 | 143 | 3.5 | -30 | 53.7 | 24.0 | 67.2 | 51.0 | 62.0 | $46 \cdot 5$ |
| 13 | 250 | -30*3 | 73 | 235 | 1:3 | 23.4 | 32.7 | 150 | 71:5 | 52.0 | 63.7 | 41.5 |
| 14 | 0.2 | 23.3 | 16.0 | 15:3 | 85 | -23.3 | 31.5 | 14.5 | 745 | 57.0 | 6.1 | 48.3 |
| 15 | 20 | $6: 3$ | 205 | $\because 4$ | $3 \cdot 4$ | 18:3 | 34\% | 17 | $71 \times 2$ | 57.0 | $74 \cdot 3$ | 47.0 |
| 16 | $20 \cdot 0$ | 25 | 22.0 | $5 \times$ | 23 | -113 | 405 | 23.7 | $74 \cdot 8$ | 450 | 71.5 | 54.7 |
| 17 | 27.5 | 3.2 | $16 \%$ | 16.3 | $1+0$ | 145 | $4+3$ | 27.5 | 58.7 | 48.5 | 76.7 | 55.5 |
| 18 | 14.5 | -6:3 | $7 \cdot 4$ | -1\% | 31 | 14.3 | 30.7 | 217 | 51.7 | 45.0 | 80.2 | 57.7 |
| 18 | 6.5 | -21:3 | 10.0 | $35 \cdot 3$ | 260 | -54 | 37.0 | 213 | 407 | 37.0 | 84.3 | 60.7 |
| 20 | 15.0 | $4 \cdot 4$ | 175 | :3:3 | $31 \cdot 4$ | 12.3 | 38\% | $11 \%$ | 5; 8 | 298 | 87.0 | 65.0 |
| 21 | 1:9\% | (1) | 235 | 1:3 | 30.5 | $10 \cdot 1$ | 46.7 | 23.0 | $65 \cdot 7$ | 3107 | 797 | 61.0 |
| $2!$ | $9 \cdot 4$ | 11: | 255 | 4.4 | $40 \%$ | $9 \cdot 1$ | 456 | 100 | 59.7 | -14.5 | 84.7 | 56.0 |
| 23 | 17:3 | $10: 3$ | 36.4 | 50 | 150 | 47 | 3.:7 | 2311 | $71 \%$ | 403 | 79.0 | 56.0 |
| 24 | 181 | 65 | $2 \cdot 0$ | $\because$ | 80 | 6 | 5\% | $2 \cdot 7$ | 708 | 495 | 7\%9 | 54.0 |
| 25 | 31:3 | $1 \cdot 1$ | 85 | 17\% | 3 J | $11 \%$ | 51\% | 2 r | 0.57 | 487 | 77.0 | 52.3 |
| 26 | $10 \cdot 4$ | 83 | 14.5 | 1108 | $36: 3$ | $22 \cdot 5$ | 18.5 | $30 \%$ | 540 | 38.0 | $78 \pm$ | 58:3 |
| 27 | (6) | - 3 | $\pm 4$ | - ${ }^{2103}$ | 36.11 |  |  | $\cdots 3$ | 57.0 | :1\% | 70.2 | $50 \cdot 5$ |
| 28 | $9 \cdot 1$ | -24.5 | $3: 3$ | - $31 \%$ | 447 | 0 | 4.7 | 29.7 | $59 \%$ | 41:5 | 72.7 | 46.0 |
| 29 | 8.5 | - 28.4 | $2 \cdot 4$ | 24.5 | 435 |  | $40 \%$ | 25.0 | 730 | 51.5 | 73.5 | 47.0 |
| 30 | 4.2 | -17.5 | $\cdots$ | . $\cdot$ | 415 | 31.5 | 67\% | $25^{\circ} 0$ | 5167 | 37.5 | 78.2 | 42 |
| 31 | 7.8 | $2 \% 3$ | $\cdots$ | $\cdots$ | :30 | $2 \cdot 5$ | $\ldots$ | $\cdots$ | 51.0 | 31.0 | $\cdots$ | .... |
|  | $13 \cdot 4$ | $-10.7$ | 11.0 | -155 | 18.5 | -7.3 | 11\% | 18.5 | 65.9 | $43^{\circ} 0$ | $74 \times$ | $50 \cdot 9$ |

and Minimum Temperature, 1880.

| July. |  | August. |  | Septeminer. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Mix. | M1n. | Max. | Min. | Max. | Min. | Max. | Min. | 安 |
| $\bigcirc$ | - | - | - | - | - | - | - | - | - | 0 | - |  |
| 77.3 | 17.0 | 66.7 | 51.0 | 68.4 | 16.0 | 60.3 | $34 \cdot 7$ | $40 \cdot 5$ | $24 \cdot 4$ | $21 \cdot 4$ | -113 | 1 |
| 767 | 513 | 73.7 | 42.7 | $\cdots 7$ | $31 \%$ | $49 \cdot 7$ | 357 | 46:3 | $29 \cdot 3$ | $2 \cdot 0$ | 23.5 | 2 |
| 73.5 | 53.0 | 78.4 | $49 \cdot 3$ | 74.5 | 20 | 59.5 | 24.0 | 40.0 | $25 \cdot 3$ | $-4.2$ | $24 \cdot 4$ | 3 |
| 7-5 | 50.0 | $80 \cdot 4$ | 498 | 76.3 | 460 | 6s. 4 | 36.3 | 343 | 17.0 | -6.2 | 123 | 4 |
| 783 | 51.0 | 805 | 52.0 | 6t. 4 | 450 | $57 \cdot 4$ | 36.0 | 31.5 | $19 \cdot 1$ | -94 | 28.3 | 5 |
| $75 \%$ | 390 | 80.0 | $60 \cdot 5$ | 020 | 43.0 | 513 | 247 | 354 | 18.0 | $8 \cdot 4$ | 26.3 | 6 |
| 84 | 543 | 73 | $5 \pi \cdot 3$ | 63.4 | 31.0 | 500 | 37.7 | 35.5 | 28.3 | $8 \cdot 4$ | 30.5 | 7 |
| 773 | 593 | $76 \%$ | -i\% | 65 | 8.8 | 743 | 33.7 | 43.0 | 24.4 | $5 \cdot 4$ | 27.5 | 8 |
| 747 | 5:\% | 7 T | 51.7 | 61.4 | 410 | 63.0 | 41.0 | 36.4 | 18.0 | 12.5 | 20.5 | 9 |
| 7-5 | $50 \cdot 3$ | 743 | 47.8 | 7 mo | S 7 | 45 | 42.0 | 815 | $10 \cdot 1$ | $30 \cdot 5$ | $2 \cdot 4$ | 10 |
| 71.0 | 38.3 | 800 | 5.10 | is\% | :10 | $46 \cdot 3$ | 320 | 245 | 10.2 | 34.5 | 14.4 | 11 |
| 70\% | (11.) | 81\% | 57.8 | $1 \cdot 1$ | 850 | 60.5 | 27.8 | 214 | $8 \cdot 3$ | $25 \cdot 4$ | 53 | 12 |
| 81\% | 53 | 8: | $57 \%$ | 614 | $\because$ | 50.4 | 3 | 105 | 8.1 | $33 \cdot 3$ | $17 \cdot 3$ | 13 |
| 75 | 530 | 76 | 3.7 | $63 \cdot 3$ | 41.8 | $4 \%$ | 36.5 | 34.0 | 1" | 280 | $4 \cdot 4$ | 14 |
| -5\% | 55.7 | 760 | 225 | 61\% | :3\% | $43 \cdot 4$ | 317 | 354 | 22 | $11 \%$ | 143 | 15 |
| 80.7 | 54.7 | $60: 3$ | 550 | 67.0 | 45 | 315 | 250 | 14.5 | - 2 | 18.1 | $\bigcirc$ | 16 |
| 787 | 417 | $70 \cdot 4$ | 54.8 | 616:3 | 17.0 | ? | 105 | $1.5 \cdot 4$ | $\cdots$ | 2 | $3 \cdot 1$ | 17 |
| 69 | 82 | 7.94 | 517 | 67 | 0 | $\because$; | 11.0 | $10 \%$ | $\cdots$ | 23:3 | $14 \cdot 3$ | 18 |
| 708 | 40 | 750 | 500 | 55.0 | 100 | 160 | $\because 5$ | $7 \cdot 4$ | 10.2 | $2 \cdot 4$ | 12.0 | 19 |
| $80 \cdot 3$ | 470 | $64 \cdot 4$ | 920 | . 310 | 38 | 5 | 300 | 7.3 | - 18.6 | 10\% | 40 | 20 |
| $\therefore 1 \cdot 1$ | 47. | 734 | 450 | 55.5 | 30.5 | 3.0 | 210 | - 24 | - | 11\% | $-4.4$ | 21 |
| 85 | 53.5 | 60\% | 47.8 | $52 \cdot 9$ | 81.7 | :14 | 21.0 | 2\% | 24.5 | 14 | $23 \cdot 3$ | 22 |
| 00.3 | 575 | $60 \cdot 4$ | 415 | 53.0 | 12.7 | : 4 | 190 | 33 | 18.7 | $4 \cdot 4$ | 14.5 | 23 |
| 88.3 | C20 | $13: 7$ | 3\%0 | 5 | 4; 0 | 43.5 | 24.0 | $4 \cdot 4$ | $-18.3$ | $3 \cdot 4$ | $20 \cdot 3$ | 24 |
| 84* | 580 | 68.4 | : 4 | 5 m | 30 | 373 | 23.0 | 12:5 | 14.5 | 10.4 | $33 \cdot 3$ | 25 |
| 70\% | 53.3 | 64.5 | 55 | $61 \cdot 4$ | 270 | 31.4 | 183 | $\underline{21}$ | 62 | 9.6 | $34 \cdot 6$ | 26 |
| 89.7 | 51.5 | 70.0 | 50.0 | 60.0 | 127 | 42.5 | $\because 70$ | 95 | 42 | $\underline{36}$ | $4 \pm 3$ | 27 |
| 87.9 | 550 | 740 | 46.5 | $51 \cdot 4$ | 38.0 | 450 | 318 | 14.5 | 16.3 | $10 \cdot 4$ | 44.4 | 28 |
| S0ッ | 61.0 | 7.58 | $50: 3$ | $51 \%$ | 278 | 4 | $\because 7.3$ | 54 | $\pm 5.3$ | $2 \cdot 4$ | 18.5 | 29 |
| $80 \cdot 3$ | 54.0 | 760 | 53.5 | 59\% | 310 | 51.5 | 22.1 | 23.0 | 1.4 | $8: 3$ | -83 | 30 |
| 86.3 | 525 | $70 \cdot 1$ | 575 | .... | $\ldots$ | 47.5 | 26.0 | .... | $\cdots$ | $5 \cdot 0$ | $12 \cdot 3$ | 81 |
| 79\% |  | 73. | 51.2 | 618 | 40.1 | 47.9 | 28.6 | 21.8 | $2 \cdot$ | 77 | 12-9 |  |

TABLE XXIV.—Rockwood, Man. Maximum

| $\underset{\Delta}{3}$ | Jannary. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | 9 | - | - | 0 | - | 0 | - | - | $\bigcirc$ | 0 | - |
| 1 | 36.0 | $5 \cdot 0$ | 20.0 | 34.0 | $2 \cdot 0$ | 290 | 33.0 | 24.0 | $80 \cdot 0$ | 33.0 | 51.0 | 38.0 |
| 2 | 20.0 | 50 | $0 \cdot 0$ | - 1.0 | 32.0 | 120 | 31.0 | 14.0 | 80.0 | 45.0 | 56.0 | $44 \cdot 0$ |
| 3 | 30.0 | $5 \cdot 0$ | 0.0 | 2.0 | 0.0 | 130 | 320 | 12.0 | 640 | 40.0 | 70.0 | 48.0 |
| 4 | 15.0 | 13.0 | 0.0 | 19.0 | 12.0 | 290 | 30.0 | 5.0 | 60.0 | 48.0 | 700 | 50.0 |
| 5 | 26.0 | $5 \cdot 0$ | - 60 | 31.0 | 80 | 15.0 | 300 | 0.0 | 73.0 | $45 \cdot 0$ | 64.0 | 42.0 |
| 6 | 10.0 | 20.0 | $-60$ | $\underline{26.0}$ | $8 \cdot 0$ | 12.0 | $24 \cdot 0$ | 2.0 | 60.0 | 44.0 | 70.0 | 45.0 |
| 7 | 30 | 14.0 | 5.0 | 100 | 150 | 35.0 | 250 | 1.0 | 70.0 | 38.0 | 72.0 | 45.0 |
| 8 | 20.0 | 10.0 | 5.0 | 26.0 | 0.0 | 40.0 | 42.0 | 5.0 | 72.0 | 46.0 | 760 | 48.0 |
| 0 | $0 \cdot 0$ | 21.0 | $0 \cdot 0$ | 28.0 | $5 \cdot 0$ | $28 \cdot 0$ | 50.0 | 1.0 | 70.0 | 34.0 | 71.0 | $54 \cdot 0$ |
| 10 | 180 | 15.0 | 10.0 | - 6 | $1 \cdot 0$ | 28.0 | 450 | 0.0 | 60.0 | 43.0 | 78.0 | 55.0 |
| 11 | 20 | 31.0 | 12.0 | -22.0 | 3.0 | 20.0 | 35.0 | 20.0 | 67.0 | 38.0 | 64.0 | 55.0 |
| 12 | 20 | $30 \cdot 0$ | 15.0 | 15.0 | $0 \cdot 0$ | 25.0 | 50.0 | 30.0 | 650 | 220 | 59.0 | 48.0 |
| 1:3 | 18.0 | 31.0 | $5 \cdot 0$ | 19.0 | $5 \cdot 0$ | $2 \cdot 0$ | 30.0 | 15*0 | 62.0 | 24.0 | 59.0 | 44.0 |
| 14 | 20.0 | 10.0 | $7 \cdot 0$ | 17.0 | $10 \cdot 0$ | 26.0 | 350 | 150 | 76.0 | 56.0 | 64.0 | 49.0 |
| 15 | 180 | 12.0 | 20.0 | 0.0 | $0 \cdot 0$ | 14.0 | 30.0 | 12.0 | 69.0 | 55.0 | 71.0 | 50.0 |
| 16 | 18.0 | 5.0 | 20.0 | 2.0 | $3 \cdot 0$ | 31.0 | 43.0 | 300 | 66.0 | 45.0 | 60.0 | 55.0 |
| 17 | 24.0 | 7.0 | 15.0 | 10.0 | 10.0 | 14.0 | 44.0 | 28.0 | 53.0 | 42.0 | 72.0 | 55.0 |
| 18 | 18.0 | 12.0 | 10.0 | 20.0 | 15.0 | 15.0 | 40.0 | 22.0 | 63.0 | 43.0 | 78.0 | 57.0 |
| 19 | . $\cdot$. | 18.0 | 15.0 | 35.0 | 210 | 0.0 | 35.0 | 15.0 | 60.0 | 350 | 82.0 | 70.0 |
| 20 | .... | 5.0 | 15.0 | 8.0 | 26.0 | 13.0 | 36.0 | 20.0 | 58.0 | 30.0 | 85.0 | 72.0 |
| 21 | .... | 1.0 | $20 \cdot 0$ | 0.0 | 28.0 | 12.0 | $43 \cdot 0$ | 240 | 65.0 | 39.0 | 75.0 | 60.0 |
| 22 | $\ldots$ | 10.0 | 15.0 | 5.0 | 35.0 | 10.0 | 46.0 | 25.0 | 83.0 | 440 | 81.0 | 59.0 |
| 23 | $\cdots$ | 10.0 | $30 \cdot 0$ | $5 \cdot 0$ | 25.0 | $5 \cdot 0$ | 51.0 | 29.0 | 70.0 | 50.0 | 75.0 | 58.0 |
| 21 | .... | 0.0 | 10.0 | 15.0 | 31.0 | 15.0 | 49.0 | 28.0 | 65.0 | 50.0 | 71.0 | 55.0 |
| 25 | 26.0 | 10.0 | $4 \cdot 0$ | 10.0 | 30.0 | 15.0 | 49.0 | 28.0 | 60.0 | 5.0 | 72.0 | 50.0 |
| 20 | 15.0 | . 8.0 | 20.0 | 18.0 | 32.0 | 10.0 | 48.0 | 28.0 | 54.0 | 40.0 | 710 | 52.0 |
| 27 | 3.0 | 20.0 | 6.0 | -20.0 | 35.0 | 31.0 | 49.0 | 20.0 | 53.0 | 32.0 | 710 | 56.0 |
| 28 | $0 \cdot 0$ | -22.0 | $2 \cdot 0$ | 40.0 | 37.0 | 250 | $49^{\circ} 0$ | 30.0 | 570 | 47.0 | 720 | 56.0 |
| 29 | . 3.0 | 24.0 | 3.0 | 20.0 | $39 \cdot 0$ | 25.0 | 45.0 | 28.0 | $65 \cdot 0$ | 47.0 | 68.0 | 45.0 |
| 80 | $5 \cdot 0$ | -10.0 | $\ldots$ | $\cdots$ | 38.0 | 30.0 | 61.0 | 32.0 | 56.0 | 38.0 | 75.0 | 47.0 |
| 31 | 2.0 | 21.0 | $\ldots$ | . $\cdot$. | 31.0 | 25.0 | . $\cdot \cdot$ | .... | 55.0 | 350 | .... | .... |
|  | . $\cdot$. | 87 | $7 \times 6$ | 15.0 | 154 | - 6.8 | $40 \cdot 1$ | 18.1 | 64-2 | 41.2 | 70.2 | 52.2 |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | October |  | Norember. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | 安 |
| - | $\bigcirc$ | - | $\bigcirc$ | - | - | - | - | $\bigcirc$ | - | 0 | $\bigcirc$ |  |
| 75.0 | 56.0 | $80 \cdot 0$ | 50.0 | 63.0 | 46.0 | 61.7 | $34 \cdot 1$ | 52.0 | 22.0 | 18.0 | $9 \cdot 0$ | 1 |
| 780 | 60.0 | 81.0 | 56.0 | 75.0 | 519 | 59.0 | 31.0 | 51.0 | 24 | $3 \cdot 0$ | $20 \cdot 0$ | 2 |
| 70.0 | $54 \cdot 0$ | 76.0 | 45.0 | 75.0 | 49.0 | .... | $\ldots$ | 50.0 | 20.0 | 4.0 | 21.0 | 3 |
| $74 \cdot 0$ | 49.0 | 78.0 | 45.0 | 76.0 | 15.0 | 70.0 | 301 | 520 | $\because 0$ | 50 | 12.0 | 4 |
| 7.9 | 45.0 | 81.0 | 54.0 | 61.7 | 16.0 | (i, 0 | $32 \cdot 1$ | 48.0 | 20.0 | 7.0 | 21.0 | 5 |
| 72.0 | $54 \cdot 0$ | $80 \cdot 0$ | 52.0 | 61.0 | 4.0 | 49.0 | $30 \cdot 1$ | 490 | 220 | 3.0 | 25.0 | 6 |
| 78.0 | 48.0 | 77.0 | 48.0 | $60^{\circ} 0$ | 35.1 | 50 | $40 \cdot 1$ | 45.0 | 24.0 | $3 \cdot 0$ | 26.0 | 7 |
| 82.0 | 60.0 | 780 | 54.0 | 66.0 | 36.1 | 74.0 | $3 \% 1$ | 44.0 | 30.0 | $0 \cdot 0$ | 20.0 | 8 |
| 760 | 60.0 | 72.0 | 58.0 | 56.0 | 480 | 61.7 | 41.0 | 40.0 | 18.0 | 11.0 | 17.0 | 9 |
| 700 | 80.0 | 70 | 54.0 | $7 \%$ | 450 | 550 | 40.0 | $35^{\circ} 0$ | 10.0 | 31.0 | 0.0 | 10 |
| 720 | 58.0 | 78.0 | 48.0 | $61 \%$ | i $0 \cdot 1$ | 40.0 | 33.0 | 30.0 | 12.0 | 37.0 | 19.0 | 11 |
| 710 | 50.0 | 84.0 | 59.0 | fil $\%$ | $3 \mathrm{~s} \cdot 1$ | 60.0 | 200 | $20 \cdot 9$ | 100 | 200 | $7 \cdot 0$ | 12 |
| 810 | 54.0 | 80.0 | 60.0 | 61.7 | 271 | 55.0 | 39.0 | $: 100$ | 8.0 | $32 \cdot 0$ | $10 \cdot 0$ | 13 |
| 750 | 50.0 | 73.0 | 53.0 | ${ }^{60} 0$ | 43.0 | 51.0 | 32.0 | 30.0 | 50 | 250 | 5.0 | 14 |
| iju | 50.0 | 700 | 50.0 | 017 | 340 | 490 | 30.0 | 30.0 | 20 | 130 | $\mathrm{G}^{0}$ | 15 |
| 750 | 5.0 | 61.0 | 55.0 | $6{ }^{\circ} \mathrm{O}$ | $41 \cdot 1$ | 50.0 | 270 | 320 | $\because 0$ | 11.0 | 2.0 | $1 ;$ |
| 76.0 | 590 | 76.0 | 55.0 | 07.0 | $13 \%$ | 31.0 | 2). 0 | 300 | $0 \cdot 0$ | 21.0 | 8.0 | 17 |
| 68.0 | 46.0 | 74.0 | 51.0 | 65.0 | 44.1 | 35.0 | 11.0 | 32.0 | 40 | 20.0 | 130 | 15 |
| 720 | 48.0 | 70.0 | 50.0 | 5.5 | $41 \cdot 1$ | 40.0 | $\cdots$ | 25.0 | $2 \cdot 0$ | 200 | 9.0 | 19 |
| 77.0 | 50.0 | $62 \cdot 0$ | 52.0 | 50.0 | $42 \cdot 1$ | 38.0 | 20.0 | 20.0 | 120 | 130 | 711 | 91) |
| 78.0 | 51.0 | 71.0 | 490 | 57.0 | $33 \cdot 1$ | 350 | 20.0 | $5 \cdot 0$ | 210 | 13.0 | $-10$ | 21 |
| 84.0 | 53.0 | 70.0 | 52.0 | 51.0 | $36 \cdot 1$ | 30\% | 200 | 8.0 | 200 | -1.0 | 240 | 22 |
| 86.0 | 60.0 | $67 \cdot 0$ | $48^{\circ} 0$ | $51 \%$ | 421 | 40.0 | 18.0 | $3 \cdot 0$ | 020 | $5 \cdot 0$ | 12.0 | 23 |
| $84 \cdot 0$ | $62 \cdot 0$ | 70.0 | 47.0 | 51.0 | $42 \cdot 1$ | 40.0 | 28.0 | 3.0 | 16.0 | $7 \cdot 0$ | $20 \cdot 0$ | 24 |
| 79.0 | 60.0 | $68 \cdot 0$ | 39.0 | 50, 0 | $40 \cdot 1$ | 40.0 | 18.0 | 12.0 | 150 | . |  | - |
| 77.0 | 53.0 | $70 \cdot 0$ | 42.0 | 61.0 | 28.1 | 40.0 | 24.0 | 20.0 | 6.0 | . | .... | 26 |
| 750 | 52.0 | $72 \cdot 0$ | 410 | 61.0 | $40 \cdot 1$ | 41.0 | $\underline{9} 0$ | 20.0 | $10 \cdot 0$ | . | .... | 9-1 |
| 860 | $64^{\circ} 0$ | 73.0 | 41.0 | 51.7 | 38.1 | 40.0 | 30.0 | 210 | 8.0 | -••• | .... | 35 |
| 88.0 | 630 | 7.11 | 55.0 | 51.7 | $20 \cdot 1$ | 41.0 | 250 | 18.0 | 25.0 | $3 \cdot 0$ | 120 | 21 |
| $87 \cdot 0$ | 53.0 | 760 | 120 | 61.7 | $34 \cdot 1$ | 50.0 | 230 | 200 | $0 \cdot 0$ | 100 | 16.0 | 30 |
| 86.0 | 59.0 | 69.0 | t.).0 | $\ldots$ | $\ldots$ | 36.0 | 28.0 | .... | $\ldots$ | 120 | $15 \cdot 0$ | 31 |
| 77.8 | $54 \cdot 4$ | 737 | $50 \cdot 4$ | 59.0 | $38 \cdot 8$ | 18.5 | 27.9 | 28.4 | 5 | $10 \cdot 8$ | $7 \cdot 1$ |  |

TabLe XXV.-Gimli, Keewatin. Maximum

| $\dot{A}$ | January. |  | February. |  | Harch. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | $\checkmark$ | - | - | - | - | - | - | - | 0 | - | - |
| 1 | 410 | : $:$ | 112 | 3:5 | 61 | 34.9 | $34 \cdot 1$ | 18.0 | 61.1 | 39.8 | 47.2 | .... |
| 2 | 165 | 20 | $4 \cdot 1$ | $10 \cdot 0$ | 248 | 22.3 | 20.6 | $10 \cdot 0$ | $6{ }^{6} \cdot 1$ | 4.0 | $6 \pm 8$ | ... |
| 3 | 35.8 | 100 | 12 | 188 | 13.0 | 170 | 29.1 | 1.50 | \% 37 | 36.0 | 717 | - |
| 4 | 10.0 | $12 \cdot 8$ | $5 \cdot 1$ | 2.9 | $15 \times$ | $20 \%$ | 21.2 | 50 | 304 | $30 \cdot 0$ | 66.8 | . |
| 5 | 32-4 | $1 \%$ | 87 | 沰雨 | 16.0 | -16.8 | - | 2.0 | 51.1 | \% 0 | 60.8 | .... |
| 6 | 4.4 | $-31.8$ | 41 | +1\% | (0) |  | 29.9 | 6.0 | 537 | 36.0 | 60.8 | . $\cdot$. |
| 7 | 1.0 | $-178$ | $10 \%$ | 70 | 145 | 377 | $37 \cdot 1$ | 0.0 | 65.6 | $30 \cdot 5$ | 71.2 | .... |
| 8 | 26.0 | - 10.0 | $4 \cdot 1$ | 18.7 | 1.8 | - 21.8 | 54.0 | 16.0 | 73.7 | 36.5 | 71.7 | ... |
| 9 | $0 \cdot 3$ | - 23.0 | 9.0 | - 20.3 | $5 \%$ | 37.9 | -10\% | 250 | 59.8 | 37.0 | 66.8 | .... |
| 10 | 198 | -173 | 18.8 | 18.8 | 18 | 49.5 | 31.0 | 50 | $50 \% 6$ | 3.0 | 67.0 | . $\cdot$ - |
| 11 | - 0.8 | - 238 | 23.6 | 0.0 | 6.6 | - 142 | 40.0 | 12.0 | $\therefore 10$ | 29.0 | 58.6 | . $\cdot$ |
| 12 | $7 \%$ | - 27.8 | 41 | 2.8 | 81 | 23.8 | 51.2 | 21.0 | 53.0 | 39.0 | $5 \%$ | .... |
| ${ }^{13}$ | 23.2 | - 307 | 7.0 | 21.8 | $6 \cdot 1$ | 12.9 | $\because 4.0$ | 12.0 | 56.0 | 39.0 | $52 \cdot 7$ | . $\cdot$ • |
| 14 | 23.0 | $-148$ | 18.3 | 20-8 | $15 \cdot 1$ | - 26.7 | 23.5 | 11.5 | 60.2 | 41.0 | $61 \%$ | .... |
| 15 | $10 \cdot 8$ | $9 \cdot 0$ | 23.6 | 11.0 | $4 \%$ | 10.8 | 23.4 | 13.0 | 700 | 41.0 | 72.7 | . $\cdot \cdot$ |
| 16 | 19.0 | $-1.0$ | 16.8 | 0.0 | 37 | 11.1 | 43.0 | 21-5 | 63.0 | 37.0 | 64.6 | . $\cdot$. |
| 17 | 258 | - 3.0 | 16.8 | 15.8 | 17.8 | 26.0 | 4-3 | :1\% | (13:5 | 83.3 | 71.7 | .... |
| 18 | 23.8 | - 21.3 | 0.8 | 29.7 | $\because 48$ | $21 \times$ | :33 3 | 10\% | 488 | 42.0 | 80.1 | -••• |
| 10 | 03 | -37 7 | $3 \cdot 1$ | 53.0 | 20:1 | 12.0 | 33.8 | 17\% | 457 | 868 | $76 \cdot 6$ | .... |
| 20 | 14.2 | -183 | 17.2 | 4.0 | $30 \cdot 8$ | 21.8 | $34 \cdot 8$ | 17.0 | 47.8 | 31.0 | 85.1 | 59.8 |
| 21 | 18.6 | - $10 \cdot 2$ | $3{ }^{3}$ | -6.0 | $31 \cdot 8$ | 182 | 37.7 | 27.0 | 54.0 | 41.0 | 78.6 | 60.8 |
| 2 | 130 | -198 | 198 | 9.0 | 15.7 | 10.2 | 88.9 | 295 | $49 \cdot 0$ | $43 \cdot 4$ | 78.6 | 51.0 |
| 23 | 28 | -11.0 | 34.3 | 60 | 15.0 | 87 | $4 \%$ | 210 | 130 | .... | 75 | 55.0 |
| $\because 1$ | 278 | - 60 | $27 \cdot 8$ | $\underline{110}$ | 36.8 | 152 | 47.0 | 36: | $65 \%$ | .... | 73.7 | 613 |
| 25 | 32.2 | 55 | $6 \cdot 1$ | 14.8 | $34 \cdot 7$ | 10.8 | $40 \cdot 7$ | 2<0 | 03.6 | .... | 7.7 | 49.4 |
| 20 | 28.8 | - 11.0 | 10.0 | 11.0 | 36.8 | 31.0 | 43.3 | $\bigcirc 0$ | 4.7 | . | $73 \%$ | 60\% |
| 27 | 4.7 | - 20.8 | $5 \cdot 6$ | - 18.3 | 39.8 | 310 | 387 | 930 | $51 \cdot 3$ | . | (14\% | (1) 3 |
| 25 | 1\% | 35 | 1.6 | - 41.3 | 440 | 31.0 | 7 | 2S0 | 3.7 | . | \% ${ }^{\text {an }}$ | 51.4 |
| 20 | 51 | 26.3 | : 3 | $-33.7$ | $40 \cdot 1$ | 24 | 40.9 | 240 | 63.6 | .... | 697 | 514 |
| 30 | $1 \cdot 6$ | 129 | . . . | .... | 40.8 | 2 So | $60 \cdot 0$ | 24.8 | 61\% | .... | 71.3 | 17\% |
| 31 | - 4.8 | - 23.8 | -••• | $\ldots$ | 38.1 | 24 | .... | .... | $51 \%$ | - | .... | .... |
|  | 1.98 | -137 | $10 \cdot 4$ | - 203 | 10.8 | 9.8 | 38.6 | 183 | is.1 | 37.8 | 68.6 | $\cdots$ |

and Minimum Temperature, 1880.

| July. |  | Angust. |  | September. |  | October. |  | November: |  | Decomber. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | - |
| - | - | - | $\bigcirc$ | - | $\bigcirc$ | - | $\bigcirc$ | - | - | - | - |  |
| 74.0 | $45 \cdot 9$ | 69.8 | 48.9 | 61'6 | $46 \cdot 4$ | $61 \cdot 1$ | 31.8 | .... | $\cdots$ | 23.8 | 10.0 | 1 |
| 74.6 | $48 \cdot 9$ | 723 | $42 \cdot 4$ | 747 | $51 \cdot 4$ | 41.5 | 28.8 | .... | $\ldots$ | $4 \cdot 1$ | 18.3 | 2 |
| 677 | $53 \cdot 1$ | $78 \cdot 1$ | 49-9 | 71.7 | $45 \cdot 9$ | 58.6 | 24.2 | . $\cdot$ | $\ldots$ | 11.0 | $24 \cdot 2$ | 3 |
| $72 \cdot 1$ | 47.5 | 77.6 | [9.3 | 73.9 | 49.3 | 67.7 | 38.9 | $\cdots$ | $\cdots$ | $4 \cdot 1$ | 12.8 | 4 |
| $73 \cdot 5$ | 47-9 | 778 | 48.9 | 60.6 | 46.4 | 53.7 | 360 | .... | $\ldots$ | 48 | 19.8 | 5 |
| $67 \cdot 1$ | 32.0 | $79 \cdot 6$ | 63.3 | 58.1 | $40 \cdot 1$ | 49.2 | 26.0 | $\ldots$ | .... | 60 | 16.8 | 6 |
| 71.2 | $41 \cdot 3$ | 73.7 | 51.9 | 60.6 | 30.0 | $51 \cdot 1$ | $39 \cdot 4$ | .... | $\ldots$ | $\ldots$ |  | 7 |
| 66. 6 | 59.8 | $09 \cdot 7$ | 539 | 66.2 | 38.9 | 59.6 | 29.0 | .... | .... | 40 | 15.8 | 8 |
| 74.7 | 55.9 | $71 \cdot 3$ | 53.5 | 58.4 | 48.9 | 56.6 | 290 | .... | .... | 11.0 | 6.3 | 9 |
| 78.7 | $49 \cdot 3$ | 73-2 | 56.9 | 72.4 | $50 \cdot 9$ | $48 \cdot 2$ | 38.9 | ... | .... | 38.7 | 10.2 | 10 |
| 72.2 | $56 \cdot 3$ | 74.2 | 598 | 56.6 | $39 \cdot 9$ | 457 | 29.0 | .... | .... | 29.8 | 147 | 11 |
| 74.7 | 61.6 | 77.9 | 593 | 41.7 | 33.2 | $60 \%$ | $25 \cdot 1$ | . $\cdot$ | $\ldots$ | 21.3 | 6.2 | 12 |
| 79.6 | 50-9 | 78.6 | 54.9 | $62 \cdot 1$ | 29.0 | 54.7 | 41.4 | .... | . $\cdot$. | $30 \cdot 8$ | 19.8 | 13 |
| 717 | $55 \cdot 3$ | 707 | 51.9 | $60 \cdot 1$ | 42.9 | 48.7 | 32.5 | .... | .... | 27.8 | 12 | 14 |
| $72 \cdot 3$ | 49.9 | 71.7 | 58.8 | 60.2 | $39 \cdot 4$ | 38.7 | 30.0 | -••• | .... | 10.0 | 11.0 | 15 |
| 77.6 | 51.4 | 66.6 | 56.9 | 63.6 | 39.9 | 36.8 | 21.2 | $\ldots$ | ... | 10.5 | 28 | 16 |
| 68.2 | 424 | 72.2 | $54 \cdot 4$ | 62.6 | $39 \cdot 9$ | $30 \cdot 3$ | 18.2 | .... | ... | 21.8 | 5.2 | 17 |
| 67-9 | $49 \cdot 3$ | 74.7 | 49.5 | $6{ }^{6} 6$ | 36.9 | 33.8 | 15: | -... | $\ldots$ | $20 \cdot 8$ | 15.2 | 18 |
| 71.2 | 51.9 | 73.7 | 50.9 | 57.6 | 42.9 | 423 | 22.2 | .... |  | 20.0 | 11.7 | 19 |
| 74.7 | 41.3 | 60.6 | 49.9 | $47 \cdot 3$ | 40.9 | 37\% 6 | 28.0 | $\cdots$ | $\cdots$ | $20 \cdot 3$ | 9.7 | 20 |
| ... | .... | 70.7 | 45.9 | 53.7 | 33.5 | $31 \cdot 8$ | 197 | ... | $\ldots$ | 13.5 | 13.2 | 21 |
| .... | .... | 67.3 | $48 \cdot 9$ | 48.7 | 32.0 | $33: 8$ | 10.7 | $\cdots$ | $\cdots$ | 32 | 25.2 | 22 |
| $81 \cdot 6$ | 67.7 | 57.4 | $43 \cdot 9$ | 54.7 | 41.9 | 36.5 | 107 | ... | $\ldots$ | 9.7 | 19.8 | 23 |
| $82 \cdot 1$ | 60.3 | 70.5 | 46.4 | 52.5 | $45 \cdot 9$ | 46.0 | $\because 6.0$ | ... | .... | $4 \cdot 1$ | 17.7 | 24 |
| 76.1 | 547 | $65 \cdot 6$ | 48.9 | 52-3 | 32.0 | 38.0 | 21.5 | $\cdots$ | . $\cdot$ | $0 \cdot 6$ | $\pm 0.0$ | 25 |
| 79.6 | 51.4 | $61 \cdot 6$ | 52.9 | $61 \cdot 1$ | 273 | 330 | 22.0 | . $\cdot$. | $\ldots$ | $4 \cdot 1$ | - 28.7 | 26 |
| $81 \cdot 6$ | 61.8 | $67 \cdot 7$ | 45.9 | 61.6 | 42.5 | 45.0 | 20.0 | . $\cdot$. | .... | 3.8 | 337 | 27 |
| 85.4 | 61.8 | 66.2 | $40 \cdot 3$ | 51.9 | 38.7 | 40.0 | 30.0 | ...] | . $\cdot$. | $8 \cdot 6$ | 23.7 | 28 |
| $76 \cdot 7$ | 63.8 | 717 | 56.1 | 51.7 | 29.8 | 33.0 | 29.0 | . $\cdot$. | .... | 711 | 13.8 | 29 |
| 77.2 | 53.9 | $72 \cdot 1$ | 56.8 | 51.5 | 29.3 | 50.0 | 24.0 | .... | . $\cdot$. | 11.0 | 13 | 30 |
| $80 \cdot 6$ | .... | 693 | 50 | $\ldots$ | $\cdots$ | - $\cdot$. | $\cdots$ | -••• | $\cdots \cdot$ | $4 \cdot 1$ | 17.8 | 31 |
| 74.6 | $52 \cdot 4$ | $71 \cdot 1$ | 52.2 | 57.3 | 38.3 | 45.6 | $27 \cdot 7$ | .... | $\cdots$ | 120 | ${ }^{-8.6}$ |  |

Table XXVI.-Fort Dunvegan, N. W. T, Maximum

| $\begin{aligned} & \dot{\Delta} \\ & \dot{\Delta} \end{aligned}$ | January. |  | February, |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | M1n. | Max. | Min. | Max. | MIn. | Max. | M10. | Max. | Min. | Max. | Min. |
|  | $\bigcirc$ |  | 0 | - | $\bigcirc$ | $\ldots$ | - | - | - | - | - | - |
| 1 | $7 \cdot 2$ | 24.2 | 39.0 | $13 \cdot 3$ | $3 \cdot 0$ | - 29.0 | $27 \cdot 8$ | 10 | 59.0 | 340 | 640 | $\cdot 36 \cdot 4$ |
| 2 | 13.7 | 27.3 | 40.0 | 3.2 | 72 | 43.0 | 15.0 | 21.0 | 57.0 | 35.0 | 65.0 | $43 \times 3$ |
| 3 | 24.2 | 41.4 | 19.0 | $5 \cdot 2$ | 1.0 | 28.0 | 14.0 | 20.0 | 64:0 | 37.0 | 64.0 | $42 \cdot 3$ |
| 4 | 25.2 | 31.2 | $20 \cdot 6$ | 6.5 | 8.0 | 29.5 | 21.0 | 27.4 | 64.0 | 30.0 | $65^{\circ} 0$ | $12: 3$ |
| 5 | 27.2 | 44.5 | 37.0 | 12 | 120 | 31.2 | 30.0 | 25.0 | 600 | 32.0 | 62.0 | $30 \cdot 3$ |
| 6 | 33:3 | 51.1 | 23.8 | 0.0 | 110 | 52.0 | 53.0 | 1.0 | 62.0 | 31.0 | 630 | :1:4 |
| 7 | 32.7 | 53.6 | 8.6 | 158 | 70 | 23.0 | 59.0 | 13.0 | 54.0 | 42.0 | 65.0 | 湤4 |
| 8 | 31.8 | 58.8 | $3 \cdot 3$ | 19.8 | 9.5 | 310 | 58.0 | 110 | 610 | 30.0 | 61.0 | $30 \cdot 4$ |
| 9 | $\cdots$ | 62. 4 | 15.0 | 12.1 | 34.0 | 1.0 | 54.0 | 21.0 | 45.0 | 34.0 | 69.0 | $45 \cdot 3$ |
| 10 | 22.7 | 47.9 | 21.5 | 85 | 30.0 | 9.0 | 510 | 20.0 | 47.0 | 32.0 | 740 | $37 \cdot 3$ |
| 11 | .... | 56.2 | 26.0 | 29.2 | 140 | 18.0 | 40.0 | 140 | 50.0 | 23.0 | $80 \cdot 0$ | 38.3 |
| 12 | -31.7 | 57.7 | 34.5 | 9.4 | 19.0 | 21.0 | 23.0 | 90 | 54.0 | 350 | 62.0 | 45.3 |
| 13 | 9.0 | 34.2 | $30^{\circ} 0$ | 11.8 | 320 | 10 | 25.0 | 12.0 | 61.0 | 26.0 | 65.0 | 34.4 |
| 14 | - 28 | -260 | 23.5 | 6.5 | 30.0 | 160 | 320 | 60 | 67.0 | 27.0 | 60.0 | $39 \cdot 3$ |
| 15 | 7.0 | 20.3 | 25 | 24.2 | 40.0 | 9.0 | 29.0 | 100 | 660 | 30.0 | 680 | $39 \cdot 3$ |
| 16 | 1.7 | -31.2 | 9.3 | 37.4 | 45.0 | 21.0 | 32.0 | 90 | 610 | 30.0 | 74.0 | 31.4 |
| 17 | 0.3 | 28.7 | 11.0 | $45 \cdot 4$ | 47.0 | 11.0 | 380 | 9.0 | 70.0 | 30.0 | 740 | 37 \% |
| 18 | 26.2 | $42 \cdot 5$ | 34 | 287 | 41.0 | 29.0 | 44.0 | 5.0 | 76.0 | 340 | 73.0 | $84 \cdot 3$ |
| 13 | -12.4 | -33:2 | $5 \%$ | -33.9 | 550 | 10.0 | 500 | 110 | 750 | 350 | 70.0 | $52 \cdot 1$ |
| 20 | 4.0 | -22.8 | 350 | 210:3 | 26.8 | 28.5 | 540 | 15.0 | 75.0 | 35.0 | 64.0 | 47.2 |
| 21 | $2 \cdot 4$ | 23:9 | 5 | $2 \cdot 2$ | 46.0 | 220 | 51.0 | 190 | 64.0 | 46.0 | 58.0 | 48.2 |
| 22 | $34 \cdot 3$ | $4 \cdot 1$ | $25 \cdot 1$ | $10 \cdot 4$ | 23.0 | 13.5 | 48.0 | $30 \cdot 0$ | 620 | 40.0 | 72.0 | $50 \cdot 1$ |
| 23 | $22 \cdot 8$ | 10 | 44.7 | 18.2 | $30 \cdot 2$ | 7.0 | 54.0 | $32 \cdot 0$ | 62.0 | 21.0 | 78.0 | 52.1 |
| 24 | 16.7 | 8.9 | 34.0 | -334 | 42:3 | 11.0 | 59.0 | 23.0 | 57.0 | 37.0 | 76.0 | 46.2 |
| 25 | - 75 | 26.) | 35.0 | -85 | 37.8 | 3.0 | 60.0 | 27.0 | 61.0 | 40.0 | 60.0 | 38:3 |
| 26 | -18.6 | -38.3 | 6.0 |  | 918 | $-170$ | 50.0 | 32.0 | 72.0 | 28.0 | 65.0 | 44.3 |
| 27 | -28.2 | -48.6 | 1\% | 50.4 | 428 | 30 | $51 \%$ | 30.0 | 61.0 | 4.0 | 75.0 | $53 \cdot 1$ |
| 28 | 70 | - 51.6 | 20\% | $-148$ | $9 \cdot 0$ | 10 | 61.0 | 19.0 | 56.0 | 34.0 | 79.0 | 48.2 |
| 29 | $4 \cdot 4$ | 15.6 | 11.0 | 5.2 | 1.9 | - 8.0 | 73.0 | 27.0 | 600 | 31.0 | $78 \cdot 0$ | $60 \cdot 1$ |
| 30 | 13.6 | $15 \cdot 1$ | ... | .... | 2 Sr | 70 | 71.0 | $30 \cdot 0$ | 63.0 | 38.0 | 73.0 | 54.1 |
| 31 | 368 | 1.0 | $\cdots$ | $\ldots$ | 23.0 | 7.0 | $\cdots$ | $\ldots$ | 65.0 | $30 \cdot 0$ | $\cdots$ | $\cdots$ |
|  | 8.1 | ${ }^{35} 1$ | $20 \cdot 4$ | ${ }^{14} 8$ | 22.5 | -65 | $44 \cdot 9$ | $11 \cdot 4$ | 62.0 | 33.5 | 68.6 | 423 |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | $\stackrel{\dot{C}}{\stackrel{4}{4}}$ |
| 0 | - | $\bigcirc$ | - | $\because$ | 0 | - | - | ? | - | - | - |  |
| 67.0 | 47.2 | 69.0 | $41 \cdot 3$ | 75.0 | 48.2 | 68.0 | $28 \cdot 4$ | 43.0 | 23.3 | 6.4 | 29.3. | 1 |
| 67.0 | $42 \cdot 3$ | 73.0 | 41.3 | 7\%0 | 38.3 | 72.0 | $25 \cdot 3$ | 34.8 | 23.3 | $22 \cdot 2$ | 38.4 | 2 |
| 700 | $50 \cdot 1$ | 740 | $47 \cdot 1$ | 65.0 | $33 \cdot 4$ | 70.0 | $30 \cdot 4$ | $34 \cdot 8$ | $18 \cdot 4$ | 26.3 | 42.4 | 3 |
| 77.0 | $36 \cdot 4$ | 74.0 | $45 \cdot 3$ | 62.0 | $33 \cdot 4$ | 68.0 | $32 \cdot 4$ | 35.8 | 203 | $20 \cdot 2$ | 40.9 | $\pm$ |
| 79.0 | 45-3 | 72.0 | 41.3 | 67.0 | 25.4 | 65.0 | 324 | 579 | $28 \cdot 3$ | 15.1 | 29.3 | 5 |
| 84.0 | $53 \cdot 1$ | 75.0 | 403 | 69.0 | $32 \cdot 4$ | 62.0 | $31 \cdot 4$ | 52.0 | 29.3 | 181 | 37.8 | 6 |
| 73.0 | 47.2 | 760 | $41 \cdot 3$ | 61.0 | 44.3 | 59.0 | $33 \cdot 4$ | 44.0 | $25 \cdot 3$ | 5.0 | 18.8 | 7 |
| 67.0 | 47.2 | 70.0 | 48.1 | 66.0 | $28 \cdot 4$ | 51.0 | $33 \cdot 4$ | 31.8 | $20 \cdot 3$ | 11.6 | 6.2 | 8 |
| $69^{\circ} 0$ | 34.4 | 54.0 | 453 | 64.0 | $33 \cdot 4$ | 44.0 | 274 | 24.8 | 11.4 | 18.6 | 4.0 | 9 |
| 68.0 | 38.3 | 62.0 | 41.3 | 48.0 | 39.3 | 50.0 | 203 | 278 | $20 \cdot 3$ | 24.8 | 2.0 | 10 |
| 72.0 | $50 \cdot 1$ | 67.0 | $39 \cdot 3$ | 60.0 | $30 \cdot 4$ | $66^{\circ} 0$ | $31 \cdot 4$ | 268 | 6.3 | 28.0 | 6.6 | 11 |
| 75.0 | $46 \cdot 2$ | $70 \cdot 0$ | $41 \cdot 3$ | 68.0 | $30 \cdot 4$ | 61.0 | 37.3 | 25.8 | 6.3 | $4 \cdot 1$ | $27 \cdot 1$ | 12 |
| $79 \cdot 0$ | $51 \cdot 3$ | 72.0 | $42 \cdot 3$ | $60^{\circ} 0$ | $35 \cdot 4$ | 38.8 | $24 \cdot 3$ | 35.8 | $18 \cdot 4$ | 31.6 | $1 \cdot 0$ | 13 |
| 80.0 | 44.3 | 73.0 | 39.3 | 59.0 | $32 \cdot 4$ | 4.0 | $23 \cdot 3$ | 55.0 | 243 | 28.4 | 2.8 | 14 |
| 830 | $41 \cdot 3$ | 70.0 | $52 \cdot 1$ | 62.0 | $39 \cdot 3$ | 43.0 | 23.3 | 43.0 | $20 \cdot 4$ | 18.6 | -- ${ }^{4.2}$ | 15 |
| 85.0 | 48.2 | 75.0 | 57.2 | 59.0 | $28 \cdot 1$ | 38.8 | $29 \cdot 4$ | 19.8 | $3 \cdot 4$ | 188 | - $20 \cdot 8$ | 16 |
| 86.0 | $52 \cdot 1$ | 68.0 | $49 \cdot 1$ | 51.0 | $34 \cdot 4$ | $37 \cdot 8$ | $27 \cdot 4$ | $25 \cdot 1$ | 19.1 | - 12.1 | - 28.9 | 17 |
| 86.0 | $54 \cdot 1$ | 66.0 | 463 | 57.0 | $32 \cdot 4$ | 55.0 | $23 \cdot 3$ | 18.8 | $0 \cdot 0$ | -123 | 26.3 | 18 |
| $76 \cdot 0$ | $60 \cdot 2$ | 69.0 | $40 \cdot 3$ | 58.0 | 31.4 | $55^{\circ} 0$ | $36 \cdot 4$ | 11.8 | 179 | 11.1 | 15.8 | 19 |
| 81.0 | $44 \cdot 3$ | 73.0 | 463 | 59.0 | $27 \cdot 4$ | $50^{\circ} 0$ | 243 | 0.7 | 21.8 | -125 | 29.3 | 20 |
| 81.0 | $50 \cdot 1$ | $66^{\circ} 0$ | $39 \cdot 3$ | 53.0 | $29 \cdot 4$ | 58.0 | 324 | 10.6 | 14.4 | 24.2 | 363 | 21 |
| 80.0 | $50 \cdot 1$ | 63.0 | $46 \cdot 3$ | 58.0 | $29 \cdot 4$ | 44.0 | 29.4 | 146 | $1 \cdot 1$ | 29-2 | $43 \cdot 4$ | 22 |
| 850 | $50 \cdot 1$ | 61.0 | 33.4 | 49.0 | 33.4 | 35.0 | $29 \cdot 3$ | 77 | $9 \cdot 2$ | $30 \cdot 4$ | $44 \cdot 4$ | 23 |
| 85.0 | 443 | 550 | $35 \cdot 4$ | 59.0 | $43 \cdot 3$ | 35.0 | 26.4 | $2 \bigcirc 0$ | 4.2 | 25.2 | 47.1 | 24 |
| 76.0 | $56 \cdot 1$ | 55.0 | $41 \cdot 3$ | 66.0 | $32 \cdot 4$ | 39.0 | $30 \cdot 4$ | 27.8 | $10 \cdot 4$ | $27 \cdot 2$ | 3202 | 25 |
| 67.0 | $53 \cdot 1$ | 59.0 | $40 \cdot 3$ | 65.0 | 433 | 44.0 | 28.4 | $25 \%$ | 104 | 24.2 | 17:3 | 26 |
| $6+4$ | 423 | 58.0 | 423 | $62 \cdot 0$ | 324 | 46.0 | $34 \cdot 4$ | 27.3 | 214 | 153 | 3 | 4 |
| 73.0 | 45.3 | 620 | 423 | 620 | 23.3 | 44.0 | 29.4 | 18.8 | 14 | 15ㅡㅡㄴ | 359 | $2 \times$ |
| 64.0 | $50 \cdot 1$ | 64.0 | $41 \cdot 3$ | 70.0 | 472 | $46^{\circ} 0$ | 314 | 21.8 | $4 \cdot 2$ | 23.2 | $36 \cdot 7$ | 29 |
| 63.0 | $50 \cdot 1$ | 68.0 | 38.3 | 66.0 | 423 | 50.0 | 25.3 | 368 | $7 \cdot 3$ | $2 \cdot 3$ | 49 | 30 |
| 63.0 | $53 \cdot 1$ | 76.0 | 38.3 | $\ldots$ | $\ldots$ | 440 | 26.3 | $\cdots$ | . | $1 \because$ | 28.5 | 31 |
| 75.0 | 477 | $67 \cdot 4$ | 42.7 | 61.9 | 44.6 | $51 \cdot 1$ | $29 \cdot 2$ | 287 | $10 \cdot 1$ | $5 \cdot 6$ | -24.4 |  |

TABLE XXVIT.—Marten's Falls, B. B. Maximum

| $\begin{aligned} & \dot{B} \\ & A \\ & A \end{aligned}$ | Janmary. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | - | - | - | - | - | - | - | - | - | - |
| 1 | 32.0 | 11.0 | $5 \cdot 0$ | 28.0 | 14.0 | 43.0 | 45.0 | 240 | $52^{\circ} 0$ | 24.0 | 49.0 | 25.0 |
| 2 | 33.0 | 24.0 | 3.0 | 40.0 | 20.0 | $26^{\circ} 0$ | 35.0 | $5 \cdot 0$ | 50.0 | 18.0 | 62.0 | 29.0 |
| 8 | 21.0 | 25.0 | $2 \cdot 0$ | 44.0 | 19.0 | 20 | 40.0 | 10 | 46.0 | 29.0 | 69.0 | 29.0 |
| 4 | 31.0 | $7 \cdot 0$ | 8.0 | 39.0 | 5.0 | 20.0 | 33.0 | 2.0 | 83.0 | $2: 0$ | 76.0 | 46.0 |
| 5 | 320 | 21.0 | 1.0 | 28.0 | 8.0 | 22.0 | 31.0 | 2.0 | 35.0 | 17.0 | 70.0 | 54.0 |
| 6 | 34.0 | 12.0 | $7 \cdot 0$ | 30.0 | 13.0 | 3.0 | 21.0 | 18.0 | 410 | 1.0 | 56.0 | 44.0 |
| 7 | 20 | 140 | $2 \cdot 0$ | 260 | 11.0 | 28.0 | 34.0 | 90 | 40.0 | 25.0 | 55.0 | 39.0 |
| 8 | 24.0 | 120 | 12.0 | 24.0 | 3.0 | 51.0 | 41.0 | 6.0 | 63.0 | 31.0 | 65.0 | 42.0 |
| 9 | $37 \cdot 0$ | 12.0 | 4.0 | 32.0 | 3.0 | 17.0 | 4.0 | 20.0 | 55.0 | 31.0 | 79.0 | 40.0 |
| 10 | 4.0 | 30.0 | 16.0 | $5 \cdot 0$ |  | 41.0 | 26.0 | 20 | 430 | 32.0 | 66.0 | 46.0 |
| 11 | 23.0 | 12.0 | 8.0 | 9.0 |  | 41.0 | 32.0 | 2.0 | 50.0 | 33.0 | 60.0 | $40 \cdot 0$ |
| 12 | 12.0 | 25.0 | 40 | 3.0 |  | 18.0 | 47.0 | $9 \cdot 0$ | 54.0 | 29.0 | 54.0 | 41.0 |
| 13 | 5.0 | 28.0 | 5.0 | 23.1 | 17.0 | 320 | 32.0 | 10 | 57.0 | 21.0 | 6 $5 \cdot 0$ | $3 \% 0$ |
| 14 | $30 \cdot 0$ | 9.0 | 16.0 | 34.0 |  | 5.0 | 10.0 | 15.0 | 67.0 | 29.0 | 600 | 37.0 |
| 15 | $10 \cdot 0$ | 16.0 | 160 | 18.0 |  | 22011 | 29.6 | 10 | 74.0 | 39.0 | 81.0 | 32.0 |
| 16 | $10 \cdot 0$ | 6.0 | 0.0 | 270 |  | $2 \geq 0$ | 450 | 12:0 | 64.0 | 360 | 88.0 | 35.0 |
| 17 | 17.0 | 4.0 | 4.0 | 80 | $14 \cdot 0$ | : | $5 \cdot 0$ | $5 \cdot 0$ | 48.1 | 31.0 | $90 \cdot 0$ | 47.0 |
| 18 | 24.0 | - 4.0 | 0.0 | 11.0 | 35.0 | 18.0 | 49.0 | 320 | 57.0 | 30.0 | 84.0 | 60.0 |
| 19 | 11.0 | 24.0 | 50 | 10.0 | 35.0 | 9.0 | 310 | 120 | 53.0 | 30.0 | 90.0 | 52.0 |
| 20 | 7.0 | - 37.0 | $20 \cdot 0$ | 140 | 11.0 | 20.0 | 23.0 | $9 \cdot 0$ | 40.0 | 18.0 | 81.0 | $59 \cdot 0$ |
| 21 | $10 \cdot 0$ | - 31.0 | 19.0 | 30 | 35.0 | 50 | 80.0 | $5 \cdot 0$ | 65.0 | 20.0 | 72.0 | 52.0 |
| $2:$ | $8 \cdot 0$ | - 50 | 190 | 90 | 23.0 | 21.0 | 37.0 | 80 | $65 \%$ | 27.0 | $74 \cdot 0$ | 530 |
| 23 | 0.0 | 28.0 | 0.0 | 47.0 | 8.0 | 14*) | 45.0 | 60 | 650 | 40.0 | 75.0 | 50.0 |
| 21 | $20 \cdot 0$ | 16.0 | 370 | $3 \cdot 0$ | 230 | 41.0 | 30\% | $1 \times 1$ | 67.0 | 35.0 | 80.0 | 55.0 |
| 2.5 | 21.0 | 120 | 10.0 | 24.0 | 40.0 | 1.0 | $52 \cdot 0$ | 8.0 | 62.0 | 44.0 | 69.0 | 53.0 |
| 29 | 30.0 | 14.0 | $5 \cdot 0$ | 210 | 390 | 16.0 | 39.0 | 210 | 58.10 | 35.0 | 6 H 0 | 440 |
| 27 | 24.0 | 120 | 50 | 19.0 | 390 | $21 \%$ | $40 \%$ | 2.0 | 37.0 | 29.0 | 720 | 57.0 |
| 23 | 80 | 220 | 8.0 | 20.0 | 36.0 | 7.0 | $47 \%$ | 20 | 56.0 | 24.0 | 710 | 48.0 |
| 29 | 0.0 | 43.0 | $0 \cdot 0$ | 250 | 45.0 | 15.0 | 30.0 | 11.0 | 63.0 | $\underline{20}$ | $62 \cdot 0$ | $43 \cdot 0$ |
| 30 | $10 \cdot 0$ | 2.0 | " | ... | 55.0 | 5.0 | 43.0 | 9.0 | $72 \cdot$ | 420 | $73 \cdot 0$ | 38.0 |
| 31 | 4.0 | $2{ }^{4} 0$ | .... | .... | 55.0 | 10.0 | . $\cdot$. | ... | 58.0 | 38.0 | -• | -• |
|  | 15.6 | 10.0 | 5.0 | $22 \cdot 2$ | 21.5 | - 16.9 | $37 \cdot 6$ | 4.0 | 54.4 | 28.6 | 70.7 | $43 \cdot 1$ |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | 会 |
| - | $\bullet$ | $\bigcirc$ | $\bigcirc$ | 9 | - | $\bigcirc$ | - | - | - | - | - |  |
| 78.0 | 40.0 | 70.0 | 48.0 | 770 | 54.0 | 51.0 | 30.0 | 32.0 | 22.0 | 8.0 | 110 | 1 |
| 86.0 | 43.0 | 60.0 | 40.0 | 720 | 530 | 46.0 | 350 | 33.0 | 18.0 | 10.0 | 7.0 | 2 |
| 82.0 | 50.0 | 69.0 | 50.0 | 79.0 | 450 | 40.0 | 30.0 | $40 \cdot 0$ | 23.0 | 1.0 | - 20.0 | 3 |
| 77.0 | 43.0 | 64.0 | 40.0 | 74.0 | 53.0 | 40 | 28.0 | 36.0 | 24.0 | 10 | 27.0 | 4 |
| 750 | $45 \%$ | 77.0 | 36.0 | 65.0 | 46.0 | 43.0 | 33.0 | 26.0 | 17.0 | 8.0 | 6.0 | 5 |
| 61.0 | 35.0 | 75.0 | 52.0 | 540 | 40.0 | 42.0 | 34.0 | 27.0 | 11.0 | $5 \cdot 0$ | 13.0 | 6 |
| 720 | 4.0 | 71.0 | 56.0 | 59.0 | 36.0 | 44.0 | 29.0 | 23.0 | 15.0 | 7.0 | 20.0 | 7 |
| 80.0 | 37.0 | 70 | :1190 | 66.0 | 250 | 50.0 | 38.0 | 250 | 15.0 | 3.0 | - 20 | 8 |
| 63.0 | 48.0 | 71.6 | 480 | 69.0 | 38.0 | 68.0 | 30.0 | 30.0 | 220 | $\because 0$ | 220 | 9 |
| 60.0 | 45.0 | 71.0 | 41.0 | 720 | 48.0 | 62.0 | 4.0 | 33.0 | 21.0 | 23.0 | 15.0 | 10 |
| 730 | \% 5 | 180 | 360 | 79.0 | 450 | 38.0 | 370 | 240 | 104 | 21.0 | 13.0 | 11 |
| 74.0 | 52.0 | 730 | 49.0 | 1-. 0 | 42.0 | 420 | $2 \times 0$ | 20.0 | 11.0 | 150 | 70 | 12 |
| 700 | 30.0 | 68.0 | 53.0 | 54.0 | 33.0 | 60.0 | 30.0 | 25.0 | $0 \cdot 0$ | 15.0 | 7.0 | 13 |
| 730 | 50.0 | $62 \cdot 0$ | 49.0 | 66.0 | 360 | 55.0 | 860 | 18.0 | $0 \cdot 0$ | $7 \cdot 0$ | - 10 | 14 |
| 74.0 | 550 | 71.0 | 33.0 | 61.0 | 48.0 | 480 | 920 | ! 22.0 | 80 | $5 \cdot 0$ | - 9.0 | 15 |
| 70.0 | 46.0 | 81.0 | $48 \cdot 0$ | 61.0 | $44^{\circ}$ | 34.0 | 270 | $15^{\circ} 0$ | 50 | F-0 | - 13.0 | 16 |
| (6.) | 46.0 | 70.0 | 52.0 | 63.0 | 40.0 | $\because 10$ | 96 | 18.11 | 50 | $10 \cdot 0$ | 17.0 | 17 |
| 65.0 | 450 | (is) | 55.0 | 67.0 | 31.0 | - 11 | 150 | \| 130 | $-1.0$ | 150 | 3.0 | 18 |
| 71.0 | 44.0 | 61.0 | 50.0 | 560 | $4 \cdot 0$ | \% 0 | 15.0 | 12.0 | - 17.0 | 8.0 | - 100 | 10 |
| 70 | $45^{\circ} 0$ | 860 | 41.0 | 5.0 | 44.0 | 300 | 16.0 | 2.0 | 18.0 | 15.0 | 10.0 | 20 |
| 680 | 480 | 5 5 0 | 38.0 | 47.0 | 340 | $\underline{9} 0$ | 90 | 40 | 11.5 | 140 | 2.0 | 21 |
| 720 | 54.0 | 650 | 450 | 470 | 31.0 | 26.0 | 15.0 | 1.0 | 21.0 | 11.0 | 15.0 | 22 |
| 86.0 | $44^{\circ}$ | 63.0 | 40.0 | 56.0 | 25.0 | 31.0 | 19.0 | 4.0 | 20.0 | 2.0 | $3 \cdot 20$ | 23 |
| 850 | $60 \%$ | 57.0 | 35.0 | 65.0 | 31.0 | 340 | 20.0 | 1.0 | 22.0 | 15.0 | 14.0 | 24 |
| 73.0 | 550 | $64 \cdot 0$ | 24.0 | $55 \%$ | 31.0 | 33.0 | 10.0 | $7 \cdot 0$ | 20.0 | 140 | 17.0 | 25 |
| 68.0 | 47.0 | 70.0 | 28.0 | 45.0 | $32 \cdot 0$ | 26.0 | 1.0 | 12.0 | 8.0 | 70 | 20.0 | 26 |
| 79.0 | 420 | 66.0 | 50.0 | 59.0 | 27.0 | 30.0 | 4.0 | 18.0 | $5 \cdot 0$ | - 10.0 | $27 \%$ | 27 |
| 87.0 | 38.0 | 700 | 41.0 | 470 | 38.13 | 35.0 | 17.0 | 22.9 | - 3.0 | $-10.0$ | 28.0 | 28 |
| 93.0 | 450 | 63.0 | 46.0 | 390 | 28.0 | 350 | 28.0 | 1.0 | - | - 2.0 | 20.0 | 29 |
| 96.0 | 63.0 | 74.0 | 34.0 | 390 | 27.0 | 40.0 | 25.0 | $5 \cdot 0$ | 28.0 | 8.0 | 210 | 30 |
| 85.0 | 57.0 | 75.0 | 46.0 | .... | $\cdots$ | 33.0 | 27.0 | .... | $\cdots$ | 0.0 | 18.0 | 31 |
| $75 \cdot 1$ | $46 \cdot 4$ | 68.9 | 438 | $60 \cdot 1$ | 38.4 | $40 \cdot 7$ | 27.9 | $18 \cdot 1$ | $1 \cdot 9$ | $5 \cdot 9$ | 14.1 |  |

TABLE XXVIII.-Moose Factory, B. Maximum

| $\dot{甘}$ | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | $\bigcirc$ | - | $\bigcirc$ | - | - | $\bigcirc$ | $\bigcirc$ | 0 | $\bigcirc$ | - | $\underline{\square}$ | - |
| 1 | 29.5 | 72 | 12.7 | 30.7 | 25 | 23.3 | 4.0 | 28.8 | $45 \cdot 8$ | 12.8 | $4 \cdot 2$ | 34.3 |
| 2 | 32.0 | - 16.9 | $2 \cdot 0$ | 24.1 | 14.2 | 10.5 | 440 | 29.3 | 37.7 | $23 \cdot 4$ | 46.2 | 33.8 |
| 3 | 16.9 | 20.0 | $3 \cdot 6$ | 24.1 | 26.0 | 6.0 | 32.2 | 243 | $32 \cdot 2$ | 18.3 | 62.3 | 33.7 |
| 4 | 30.5 | $1 \cdot 4$ | $4 \cdot 6$ | 29.0 | 8.0 | 130 | 32.0 | 18.8 | 25.1 | $18 \cdot 1$ | 67.0 | 46.3 |
| 5 | 15.1 | 16.1 | $4 \cdot 2$ | $20 \cdot 6$ | 3.0 | $20 \cdot 1$ | 21.4 | 6.7 | 31.8 | $24 \cdot 3$ | $70 \cdot 1$ | 54.3 |
| 6 | 35.1 | $2 \cdot 9$ | $7 \cdot 4$ | 31.1 | $9 \cdot 3$ | $20 \cdot 1$ | 18.1 | $0 \cdot 1$ | 32.0 | 15.5 | $60 \cdot 3$ | $38 \cdot 3$ |
| 7 | 8.2 | $9 \cdot 0$ | 1.7 | 25.9 | $5 \cdot 9$ | $24 \cdot 1$ | $24 \cdot 4$ | 37 | 42.5 | 18.5 | $43^{\prime} 9$ | 37.5 |
| 8 | 29.5 | $4 \cdot 1$ | $5 \cdot 5$ | 27.7 | 4.0 | :3 4 | 23.9 | 1.7 | 57.2 | 336 | $55 \cdot 1$ | 373 |
| 9 | $\underline{40.8}$ | 26 | 10.6 | 34.6 | $4 \cdot 6$ | 293 | 42.0 | 21.2 | $50 \cdot 8$ | 37\% | 61.6 | 41.5 |
| 10 | $2 \cdot 3$ | 14.7 | 14.4 | 11.0 | $6 \cdot 5$ | 31.8 | $25 \cdot 1$ | 8.2 | $52 \cdot 9$ | 39.6 | $62 \cdot 3$ | 47.3 |
| 11 | $25 \cdot 1$ | $2 \cdot 9$ | $13 \cdot 1$ | $5 \cdot 6$ | 0.8 | 39•5 | 15.1 | 3\% | 48.9 | 34.5 | 47.0 | 345 |
| 12 | 3.4 | 20.3 | $2 \cdot 1$ | 56 | 1:5 | 262 | 146 | 4.6 | 37.3 | 30.8 | 43.2 | 34.8 |
| 13 | 7.7 | 20.2 | $5 \cdot 4$ | 16.1 | 12.2 | 24.5 | 11.1 | 2.0 | $38 \cdot 9$ | 27.8 | 53.8 | 33.9 |
| 14 | $30 \cdot 2$ | 15.6 | 60 | 27.2 | $10 \cdot 8$ | 2.1 | 15.0 | $10 \cdot 1$ | 54.9 | 24.5 | 61.6 | 37.0 |
| 15 | $10 \cdot 1$ | 12.0 | 18.1 | 1.6 | $19 \cdot 1$ | 73 | 25.9 | 11.2 | 65.8 | 38.8 | 668 | $42 \cdot 5$ |
| 16 | 16.1 | $2 \cdot 1$ | 6.2 | -123 | 17.4 | $7 \cdot 8$ | $32 \%$ | $2 \cdot 5$ | 49.0 | $35 \cdot 8$ | (17) | 44.3 |
| 17 | 26.3 | 0.0 | 34.0 | - 11.0 | $17 \cdot 1$ | 20.8 | 372 | 15.4 | 440 | 28.5 | 82.8 | 47'4 |
| 18 | 27.5 | 10.2 | $34 \cdot 0$ | - 5.5 | 23.7 | 90 | 51.0 | $29 \cdot 3$ | 48.2 | 26.6 | 72.0 | 56.2 |
| 19 | $18 \cdot 1$ | $17 \cdot 1$ | -1.6 | - 10.0 | 33.8 | - 9.2 | 50.0 | 367 | 65.9 | $42 \cdot 8$ | 82-3 | $52 \cdot 3$ |
| 20 | 6.6 | 28.7 | 18.9 | - 140 | 26.8 | - 12.0 | $42 \cdot 5$ | 15.3 | 42.0 | $25 \cdot 3$ | 60:3 | 42.5 |
| 21 | $5 \cdot 8$ | 25.2 | 20.1 | $2 \cdot 1$ | $22 \cdot 1$ | 22.8 | 32.7 | $15 \%$ | 45.0 | $24 \cdot 8$ | 58.8 | 374 |
| 22 | 11.4 | 3.4 | 21.5 | $-4.2$ | 20.0 | - 4.1 | 29.0 | 8.2 | 51.8 | $38 \cdot 3$ | 65.2 | 42.7 |
| 23 | 6.5 | $9 \cdot 2$ | 7.0 | - 27.6 | $2 \cdot 3$, | , 110 | 37.0 | 12.6 | 53.4 | $40 \cdot 4$ | 78.7 | $54 \cdot 1$ |
| 24 | $12 \cdot 1$ | 20.8 | 32.0 | -- 25.4 | 0.8 | $\left.\right\|^{--} 227$ | 33.8 | 14.8 | 64.0 | 41.3 | 76.6 | $60 \cdot 3$ |
| 25 | $20 \cdot 3$ | 11.8 | 28.0 | - 5.2 | 28.9 | -13.6 | 46.0 | 14.3 | 62.7 | 52.6 | 78.8 | 403 |
| 26 | 36.0 | $7 \cdot 6$ | 1.9 | - 11.9 | 39.0 | 42 | 332 | $12 \cdot 3$ | 58.9 | 34-8 | 61.8 | 41.4 |
| 27 | 36.8 | $2 \cdot 6$ | - $2 \cdot 4$ | - 13.5 | 27.0 | $7 \cdot 9$ | 35.0 | $12 \cdot 5$ | 53.5 | $33 \cdot 6$ | 78.1 | 58.0 |
| 28 | 23 | 181 | $-16$ | - 16.1 | $21 \cdot 1$ | $2 \cdot 1$ | 38.4 | 13.8 | 45.7 | 29.8 | 72.9 | 53.9 |
| 29 | $7 \cdot 3$ | $30 \cdot 4$ | 1.6 | $-10.5$ | 19.0 | $0 \cdot 0$ | $35 \cdot 8$ | 14.3 | 64.6 | 34.0 | 62\%8 | 47\%5 |
| 30 | 13.3 | 0.7 | ... | .... | 34.0 | $7 \cdot 6$ | 29.0 | 125 | 73.9 | 50.0 | 738 | $46 \cdot 1$ |
| 81 | 74 | $22 \cdot 1$ | $\cdots$ | . | $49 \cdot 5$ | $9 \cdot 3$ | . $\cdot$. | .... | 663 | 41.7 | $\cdots$ | . $\cdot$. |
|  | $16 \cdot 6$ | - 11.3 | 8.2 | $1{ }^{-16.4}$ | $15 \cdot 3$ | -124 | 307 | 11.4 | $49 \cdot 5$ | 81.6 | 68.0 | 44.4 |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | 0ctober. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | M1n. | Max. | Min. | Max. | Min. | ® A |
| - | - | $\bigcirc$ | - | - | - | - | - | - | - | - | $\bigcirc$ |  |
| $68 \cdot 8$ | 52.2 | 77.6 | 50.3 | $72 \cdot 9$ | 61.2 | 43.2 | 30.6 | 32.8 | 23.6 | 13.8 | $5 \cdot 5$ | 1 |
| $80 \cdot 3$ | $50 \cdot 6$ | 60.2 | 47.0 | 77.9 | $81 \cdot 4$ | 56.8 | 348 | 31.5 | 24.4 | 15.6 | 4.6 | 2 |
| 80.8 | 58.1 | 68.0 | 44.0 | \%80 | 58.8 | 49.0 | 393 | 39.0 | 243 | 12.2 | $8 \cdot 1$ | 3 |
| 70.9 | $51 \cdot 5$ | 54.9 | 47.0 | 70\%5 | $57 \cdot 3$ | $50 \cdot 3$ | $35 \cdot 3$ | $43 \cdot 5$ | 33:3 | $3 \cdot 2$ | 140 | 4 |
| 76.7 | 530 | 669 | $45 \cdot 4$ | 70.2 | 53.4 | 46.4 | $41 \cdot 3$ | 40.5 | 364 | 25.8 | 0.0 | 5 |
| 61.0 | 422 | 54.0 | 42.3 | 58.0 | $43 \cdot 4$ | $44^{4}$ | 37.3 | 36.0 | 25.4 | 25.2 | $\cdots 8.3$ | 6 |
| $55 \cdot 0$ | $47 \cdot 4$ | 63.8 | 42.8 | $40 \cdot 3$ | 390 | 46.0 | 36.7 | 32.7 | 27.5 | 6.3 | 15.0 | 7 |
| $69 \cdot 9$ | 46.2 | 72.7 | 53.5 | 58.5 | 35 | 49.5 | 36.8 | $34 \cdot 4$ | 22.9 | $10 \cdot 1$ | 26.7 | 8 |
| $59 \cdot 6$ | 45.8 | 643 | $51 \cdot 2$ | 62.9 | 39.0 | 61.2 | 42.3 | $35 \cdot 4$ | 23.0 | 3.7 | 24.0 | 9 |
| 59.5 | 43.2 | 64.2 | $42 \cdot 5$ | 631 | 44.3 | \% 20 | 52.0 | 39.2 | 27.4 | 10.8 | 20.9 | 10 |
| 61.8 | 40.3 | 71.9 | 48.2 | 75.1 | 52.6 | 66.0 | 42.3 | 35.5 | 335 | 23.2 | $3 \cdot 2$ | 11 |
| 617 | 50.0 | 76.7 | $51 \cdot 4$ | 68.3 | 546 | 42.7 | $33 \cdot 8$ | $34 \cdot 2$ | $23 \cdot 1$ | $10 \cdot 8$ | 33 | 12 |
| 59:3 | 43.0 | 58.7 | 48.8 | 568 | 38.4 | 20, 0 | $33 \cdot 1$ | 240 | 17.1 | 11.0 | $7 \cdot 0$ | 13 |
| $65 \cdot 3$ | $42 \cdot 3$ | 51.1 | $44 \cdot 8$ | 62.6 | 36.2 | 60.3 | $44 \cdot 1$ | $24 \cdot 1$ | $17 \cdot 3$ | 10.0 | 05 | 14 |
| 70.7 | 56.4 | 59.8 | 42.5 | $60 \cdot 3$ | 45.0 | 55.7 | $40 \cdot 3$ | 25.1 | 171 | $8 \cdot 0$ | 0.9 | 15 |
| 67.8 | 51.8 | 72.0 | $50 \cdot 1$ | 65.8 | 52.2 | 44.5 | 36.8 | $2+1$ | 11.1 | 13.2 | $2 \cdot 9$ | 16 |
| 57.8 | 48.5 | 737 | 49.5 | 59.8 | 44.3 | 46.5 | 38.8 | 17.6 | $5 \cdot 3$ | 12.2 | 30 | 17 |
| 58.6 | $49 \cdot 0$ | 749 | $49 \cdot 4$ | 65.2 | 40.7 | 37.9 | 29.3 | $22 \cdot 1$ | 11.5 | .... | .... | 18 |
| 61.8 | $49 \cdot 4$ | 619 | 46.4 | 58.8 | 43.9 | 324 | 23.3 | 138 | 4.4 | 21.5 | 84 | 19 |
| 56.7 | 42:3 | $52 \cdot 5$ | 43.0 | $62 \cdot 8$ | 51.0 | 37.0 | 26.5 | 23.6 | 10.4 | 19.5 | 9.9 | 20 |
| 69.0 | 50.5 | 577 | 51.2 | 50.9 | 41.5 | 31.0 | 22.0 | $12 \cdot 4$ | $2 \cdot 2$ | 20.0 | 13.3 | 21 |
| 60.8 | 52.2 | 63.4 | 49.0 | 47.1 | 36.3 | 30.7 | 16.9 | 18 | - 73 | 23.9 | 5.8 | 22 |
| $71 \cdot 4$ | $50 \cdot 1$ | 64.6 | 52.4 | 62.7 | $32 \cdot 3$ | 34.2 | 16.3 | 24 | 6.0 | $9 \cdot 0$ | - 78 | 23 |
| 78.9 | 54.6 | $56 \cdot 1$ | $41 \cdot 3$ | 47.3 | $36 \cdot 3$ | 34.0 | 15.1 | 6.7 | $12 \cdot 2$ | 12.7 | $2 \cdot 3$ | 24 |
| $74 \cdot 9$ | 496 | 52.9 | 36.9 | $47 \cdot 7$ | 37.3 | 3.54 | 27.6 | .... | ... | 202 | 2.6 | 25 |
| ${ }^{61} 5$ | 49.0 | 63.8 | 39.0 | $46^{\circ} 0$ | 39.9 | 33.2 | 26.3 | $20 \cdot 1$ | $10 \cdot 4$ | 6.8 | 13 | 26 |
| 608 | $46 \cdot 3$ | 61.8 | $51 \cdot 1$ | 50.2 | 29.8 | 30.5 | 17.9 | $\cdots$ | . $\cdot$. | 22.6 | 4.4 | 27 |
| $63 \cdot 4$ | 423 | 61.0 | 49.2 | $55 \cdot 3$ | $35 \cdot 4$ | 33.0 | $15 \cdot 3$ | 26.4 | 12.3 | - 4.3 | $26 \cdot 2$ | 28 |
| $76 \cdot 9$ | 453 | 53.6 | $43 \cdot 1$ | 43.8 | 31.8 | 38.2 | 33.0 | 22.0 | -124 | 10.2 | 29.9 | 29 |
| 87.5 | 64.0 | $62 \cdot 8$ | 36.7 | 44.0 | 31.0 | 35.2 | 26.3 | 10.5 | $19 \cdot 6$ | $-30$ | 17.0 | 30 |
| 85.1 | ${ }^{66} \cdot 1$ | $76 \cdot 1$ | 48.2 | $\cdots$ | $\cdots$ | $31 \cdot 3$ | 23.0 | $\ldots$ | .... | $3 \cdot 9$ | 12.5 | 31 |
| 67.5 | 49.5 | 63.8 | 46.6 | 59.8 | 43.6 | 45.5 | 31-1 | $25 \cdot 4$ | 13.0 | 10'5 | - 6.1 |  |


| $\dot{A}$ | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | $\bigcirc$ | $\bullet$ | - | - | $\bullet$ | - | $\bullet$ | - | - | $\bigcirc$ | Q |
| 1 | 893 | $8 \cdot 3$ | 1.0 | 23.0 | 8.5 | - 23.0 | $40 \cdot 9$ | 28.1 | $47 \cdot 3$ | 31.0 | 557 | 29.0 |
| 2 | 38.3 | 1.6 | 16.0 | 7.0 | 26.0 | 17.0 | 39.4 | $17 \cdot 3$ | 48.1 | 29.0 | 54.3 | 31.2 |
| 3 | $36 \cdot 8$ | 10:3 | 75 | 12.0 | 42.5 | 18.0 | 42.6 | 38.1 | 61.9 | $33 \cdot 5$ | $55 \cdot 7$ | 33.0 |
| 4 | 35.5 | 10.0 | 3.0 | 230 | 23.5 | 10 | 40.5 | 380 | $46 \cdot 3$ | 34.0 | 52.8 | 35.4 |
| 5 | 35.0 | 10 | 1.0 | 21.0 | 26.5 | 5 | 330 | 33 | 55.2 | 37.1 | $50 \cdot 7$ | $43 \cdot 2$ |
| 6 | 37.5 | 45 | $2 \cdot 5$ | 29.0 | 28.0 | 30 | 3\% 5 | $16 \cdot 3$ | 40.0 | 30.0 | 59.2 | 48.1 |
| 7 | 35.0 | 4.0 | 15.0 | 20.5 | 190 | 11.5 | 345 | $9 \cdot 3$ | 42.3 | 345 | $60 \cdot 7$ | 44.7 |
| 8 | 37.0 | 25.0 | 16.0 | $5 \cdot 5$ | 7.0 | 19.0 | 4:8 | $15 \cdot 3$ | 493 | 34.5 | 72.8 | 40.2 |
| 9 | 37.0 | 20 | 8.5 | 235 | 10.0 | 13.0 | 53.3 | 20.0 | 56.2 | $37 \cdot 1$ | 532 | 44.2 |
| 10 | 31.5 | -90 | 25.5 | 6.0 | $2 \cdot 5$ | 29.0 | 3:-3 | 29 | 81.2 | 37.1 | 67.3 | $46 \cdot 1$ |
| 11 | 34.0 | - 9.0 | 33.0 | 10.0 | $8 \cdot 5$ | 3.0 | 37.5 | 124 | (6) 2 | 402 | 703 | 48.7 |
| 12 | 1.5 | 21.0 | 33.0 | 3.0 | 150 | 13.0 | 42.3 | 237 | 59.2 | 42.2 | 53.8 | 442 |
| 13 | 23.5 | $\underline{23.5}$ | 14.0 | $5 \cdot 0$ | 125 | 1.0 | 40't | 200․․ | 51.7 | 37.6 | 60.2 | 43.2 |
| 14 | 28.5 | - $7 \cdot 0$ | 20.0 | $5 \cdot 5$ | 16.3 | - $5 \cdot 1$ | 269 | 15.3 | 488 | $38 \cdot 1$ | 64.8 | 40.7 |
| 15 | 23.0 | - 13.0 | 27.0 | 0.0 | 20.7 | - 92 | 32.5 | 11.3 | 595 | $35 \cdot 1$ | 69.8 | 42.2 |
| 16 | 22.0 | 45 | 31.5 | 14.0 | 17.3 | 9.2 | 36.8 | $20 \cdot 2$ | 65.2 | $41 \% 2$ | $70 \cdot 6$ | $45 \cdot 2$ |
| 17 | 37.5 | 10.5 | $35 \%$ | 10.0 | 14.8 | 16.3 | 27.0 | 20.2 | 62.7 | 42.2 | 68.3 | 47.2 |
| 18 | 35.0 | 28.0 | 125 | 12.0 | 28.3 | 0.0 | $43 \cdot 3$ | 30.0 | $40 \cdot 2$ | +2.2 | 65.0 | 47 |
| 19 | 31.0 | - 70 | 9.0 | 160 | 35.5 | 6.2 | 41.0 | $24 \cdot 2$ | 68.8 | 44.2 | 807 | 52.8 |
| 20 | 10.3 | - 9.5 | 20.0 | 11.0 | 28.1 | 20 | 3:0 | $20 \cdot 2$ | $50 \cdot 3$ | 33.0 | $82 \cdot 6$ | 56.0 |
| 21 | 29.0 | 2.0 | 24.0 | 1.0 | 42.8 | 16.3 | 37.0 | $18 \cdot 3$ | $49 \cdot 3$ | $35 \cdot 0$ | $72 \cdot 3$ | 54.5 |
| 22 | $30^{\circ} 0$ | 16.0 | 26.0 | $3 \cdot 5$ | 33.0 | 11.8 | 38.5 | 23.2 | 53.7 | 29.0 | 70.8 | 49.7 |
| 23 | $18 \cdot 5$ | $2 \cdot 0$ | 18.5 | 0.0 | 31.8 | $3 \cdot 1$ | 39.0 | 23.1 | 61.2 | $43 \cdot 2$ | 78.5 | 58.0 |
| 24 | 24.0 | 9.0 | 38.0 | 4.0 | 19.0 | 6.6 | 41.0 | 30.0 | 76.8 | 41.2 | 82.6 | 55.0 |
| 25 | $32 \cdot 5$ | 3.0 | 32.0 | 4.0 | 31.5 | 10.3 | 38.5 | $30 \cdot 0$ | 62.7 | 452 | 76.7 | 51.5 |
| 26 | $38 \cdot 5$ | 12.0 | 13.0 | 1.0 | 36.0 | 28.1 | 48.8 | 31.5 | 62.9 | $45 \cdot 1$ | $67 \cdot 3$ | 40.7 |
| 27 | 14.5 | 40 | 14.0 | 0.5 | 45.8 | 31.0 | 41.8 | 20.5 | $52 \cdot 8$ | $39 \cdot 2$ | 68.8 | 56.0 |
| 28 | 1.0 | - 20.0 | $2 \cdot 5$ | $0 \cdot 0$ | $42 \cdot 8$ | $18 \cdot 3$ | 453 | $26 \cdot 1$ | 52.0 | 30.0 | 71.8 | $53 \cdot 5$ |
| 29 | 20.0 | 23.0 | 5.5 | 140 | 33.0 | 17.3 | $41 \cdot 3$ | 32.0 | 58.0 | 40.2 | 70.6 | $45^{1} 1$ |
| 30 | 22.5 | 0.5 | $\cdots$ | . $\cdot$. | $36 \cdot 5$ | 98 | $48 \cdot 8$ | 23.2 | 63.0 | 45.2 | 748 | $40 \cdot 1$ |
| 31 | 2.0 | 11.5 | . ${ }^{\text {. }}$ | . ${ }^{\prime}$ | $30 \cdot 9$ | 26.6 | $\ldots$ | .... | i3.5 | 40.7 | . $\cdot$. | $\cdots$ |
|  | 27.1 | -0.5 | 17.6 | - 0.3 | 232 | 10.8 | $30 \cdot 7$ | 22.7 | 56.2 | 37.7 | $67 \cdot 1$ | $46 \cdot 1$ |

and Minmum Temperature, 1880.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | $\stackrel{\Delta}{4}$ |
| 9 | - | - | - | - | - | - | - | $\bigcirc$ | $\bigcirc$ | - | - |  |
| $69 \cdot 8$ | $45 \cdot 1$ | 83.6 | 50.0 | $70 \cdot 3$ | 53.5 | 54.2 | 29.0 | 877 | 24-2 | 20.0 | $15 \cdot 3$ | 1 |
| 72.8 | 4711 | 72.8 | 42.2 | 79.0 | $50 \cdot 1$ | $55 \%$ | 33.0 | 39.2 | $24 \cdot 2$ | 237 | $4 \cdot 4$ | 2 |
| 79.3 | $48 \cdot 1$ | 748 | 46.0 | 68.8 | $48 \cdot 1$ | 51.8 | 31.0 | 473 | 30.0 | 87 | $2 \cdot 1$ | 8 |
| 77.8 | 52.0 | 68.1 | 470 | 777 | 54.0 | 627 | $27 \cdot 6$ | 40.0 | 31.5 | 29.0 | 0.0 | 4 |
| $78 \cdot 8$ | $50 \cdot 6$ | $70 \cdot 8$ | $37 \cdot 1$ | 73.8 | 48.0 | $52 \cdot 3$ | 38.0 | $36 \cdot 4$ | 182 | 12.8 | 20 | 5 |
| 837 | $40 \cdot 1$ | 72.3 | 49.0 | 60.7 | 41.2 | 48.8 | 31.0 | 32.0 | 11.3 | 35 | 14.3 | 8 |
| $71 \cdot 3$ | 43.2 | 73.8 | 53.5 | 58.0 | 36.1 | 47.0 | 30.5 | 33.5 | $12 \cdot 8$ | 1.0 | $18 \cdot 4$ | 7 |
| 607 | 50.2 | 81.6 | 52.0 | 60.0 | 26.2 | 55.2 | $42 \cdot 2$ | $38 \cdot 4$ | 25.2 | 3.0 | $20 \cdot 4$ | 8 |
| 87.6 | 487 | 72.8 | 50.0 | 63.6 | 28.0 | 58.7 | $37 \cdot 1$ | $45 \cdot 3$ | 33.0 | 8.8 | $10 \cdot 7$ | 9 |
| $62 \cdot 2$ | 48.2 | $71 \cdot 4$ | 46.1 | 68.1 | 50.0 | 68.9 | 49.0 | $39 \cdot 4$ | 32.0 | 32.2 | 5.6 | 10 |
| 67.2 | $48 \cdot 1$ | 78.8 | 44.7 | $67 \cdot 3$ | 47.0 | 61.7 | $39 \cdot 1$ | 42.0 | 18.2 | $31 \cdot 0$ | 12.3 | 11 |
| 68.2 | 55.0 | 67.0 | 46.1 | 56.5 | 39.6 | 50.3 | 29.6 | 197 | 14.4 | 28.0 | 11.3 | 12 |
| $79 \cdot 3$ | 55.6 | $79 \cdot 3$ | 52.0 | 61.7 | 36.6 | 49.8 | $28 \cdot 1$ | 22.7 | 12.4 | 27.0 | 83 | 13 |
| 65.8 | 54.5 | 78.7 | 52.0 | 60.7 | 29.5 | $51 \cdot 3$ | 40.0 | 22.5 | 11.3 | 28.7 | $9 \cdot 3$ | 14 |
| 67.8 | $51 \cdot 3$ | $64 \cdot 2$ | 43.7 | $70 \cdot 8$ | 49.2 | $49 \cdot 3$ | 32.0 | 232 | - 3.1 | 23.7 | 4.2 | 15 |
| $73 \cdot 9$ | 53.8 | $66 \cdot 1$ | $\mathbf{3 7} \cdot 1$ | 78.7 | 49.5 | $37 \cdot 4$ | $30 \cdot 0$ | $7 \cdot 4$ | - 61 | 178 | - 10.2 | 18 |
| 67.3 | 51.2 | 73.8 | $54 \cdot 1$ | 61.7 | 49.5 | 36.3 | 27.6 | $17 \cdot 6$ | $5 \cdot 1$ | 18.2 | -127 | 17 |
| 65.8 | 39.0 | $77 \cdot 3$ | 54.6 | 60.2 | 418 | 31.8 | 21.2 | 187 | $2 \cdot 6$ | 20.7 | 0.0 | 18 |
| 68.2 | 46.8 | 71.6 | 51.0 | 61.7 | 48.1 | 37.0 | 16.3 | 183 | $5 \cdot 1$ | 22.7 | -4.1 | 19 |
| $74 \cdot 2$ | 47.5 | 72.0 | 52.0 | 62.8 | 40.8 | 41.3 | 30.0 | 8.9 | - 16.3 | $22 \cdot 9$ | 9.2 | 20 |
| 78.0 | $44 \cdot 1$ | $65 \cdot 1$ | 45.2 | 53.3 | 36.5 | 33.0 | 23.2 | 5.0 | 20.4 | 18.7 | 8.2 | 21 |
| 82.9 | $54 \cdot 4$ | 74.8 | $47 \cdot 1$ | $58 \cdot 4$ | $32 \cdot 5$ | 340 | 23.2 | 1.0 | $22 \cdot 4$ | 19.0 | 6.2 | 22 |
| 715 | 48.7 | 71.0 | 49.6 | 49.0 | 42.2 | 397 | 22.7 | 205 | 20.9 | 17.8 | $0 \cdot 0$ | 23 |
| 723 | 54.6 | 73-8 | 46.1 | 525 | 45.6 | 46.8 | 30.0 | 143 | $7 \cdot 6$ | 25.8 | $3 \cdot 1$ | 24 |
| $77 \cdot 4$ | 55.5 | 61.3 | 43.2 | 66.5 | 47.6 | 41.0 | 31.0 | 12.5 | 16.3 | 128 | 2.0 | 25 |
| 08.6 | 50.5 | $62 \cdot 1$ | 42.5 | 54.3 | 34.0 | 35.0 | 20.2 | 177 | 0.2 | 8.8 | $7 \cdot 1$ | 26 |
| $69 \cdot 1$ | $40 \cdot 5$ | 724 | 62.0 | 54.8 | 28.1 | 367 | $20 \cdot 2$ | 27.8 | 12.3 | $3 \cdot 0$ | 30.5 | 27 |
| $73 \cdot 3$ | 412 | $70 \cdot 8$ | $47 \cdot 1$ | 51.8 | 38.1 | $38 \cdot 4$ | 32.0 | 28.5 | $3 \cdot 1$ | $19 \cdot 1$ | $35 \cdot 5$ | 28 |
| $70 \cdot 8$ | 43.2 | 71.8 | 48.6 | $44 \cdot 8$ | 35.0 | 37.0 | 31.0 | 0.0 | 153 | $0 \cdot 0$ | 21.9 | 29 |
| 72.3 | 53.0 | 66.8 | $49 \cdot 1$ | 58.1 | 32.0 | 458 | 31.0 | 23.1 | $13 \cdot 3$ | $5 \cdot 6$ | $25 \cdot 4$ | 30 |
| 70.8 | 51.5 | 60.7 | 59.5 | $\cdots$ | $\cdots$ | 46.8 | 28.0 | $\ldots$ | .... | $7 \cdot 4$ | 23.4 | 31 |
| $71 \cdot 9$ | 48.3 | $71 \cdot 4$ | 48.0 | 61.8 | 41.3 | $46 \cdot 8$ | $30 \cdot 1$ | 247 | 6.5 | 15.5 | 61 |  |

TABLE XXIX.-Little Current. Maximum

| $\begin{gathered} \dot{4} \\ \text { A } \end{gathered}$ | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | $?$ | 9 | - | - | 0 | - | 0 | - | - | $\bigcirc$ | - | 0 |
| 1 | 36.5 | 20.5 | 17.3 | $10 \cdot 3$ | 19.3 | $10 \cdot 1$ | $45 \cdot 3$ | 29-0 | $49 \cdot 1$ | 27.0 | 56.6 | 43.2 |
| 2 | 86.8 | $10 \cdot 1$ | 21.3 | 1.8 | 26.4 | $2 \cdot 9$ | 41.5 | 32.2 | $53 \cdot 4$ | $35 \cdot 3$ | $60 \cdot 6$ | 37-8 |
| 3 | $39 \cdot 5$ | $7 \cdot 1$ | $20 \cdot 3$ | $8 \cdot 1$ | $43 \cdot 5$ | 20.5 | 40.5 | $35 \cdot 6$ | 73.0 | $40 \cdot 5$ | $61 \cdot 6$ | 417 |
| 4 | 46.6 | $30 \cdot 4$ | 17.3 | $3 \cdot 4$ | 41.5 | 29.6 | 42.5 | $36 \cdot 3$ | $60 \cdot 6$ | $39 \cdot 8$ | $53 \cdot 1$ | 477 |
| 5 | $32 \cdot 4$ | 17.8 | $21 \cdot 3$ | $9 \cdot 1$ | 30.4 | 20.5 | 38.5 | 296 | $73 \cdot 1$ | $40 \cdot 1$ | $61 \cdot 6$ | 50.7 |
| 6 | 88.0 | 29.8 | 13.4 | 3.1 | 30.0 | 19.0 | 344 | $24 \cdot 6$ | $51 \cdot 6$ | 34.8 | 71.6 | 52.7 |
| 7 | 38.0 | 22.6 | 16.6 | $2 \cdot 4$ | 37.5 | $5 \cdot 1$ | $30 \cdot 4$ | 17.0 | $52 \cdot 1$ | 40.8 | 58.6 | $44 \cdot 2$ |
| 8 | $38 \cdot 1$ | 33.5 | 34.8 | 77 | 6.3 | 10\% | 38.5 | 18.6 | $58 \cdot 9$ | $38 \cdot 8$ | $62 \cdot 6$ | 42.9 |
| 9 | 44.5 | $30 \cdot 8$ | $10 \cdot 8$ | 9.9 | 26.9 | - 25 | 50.6 | 31.8 | 71.7 | 417 | 63.6 | 447 |
| 10 | 33.4 | 12.3 | 28.4 | $7 \cdot 6$ | 123 | - 77 | $40 \cdot 5$ | 27.6 | 60.6 | 45.7 | $68 \cdot 1$ | 53.7 |
| 11 | 48.0 | 17.0 | 39.5 | $2 \cdot 2$ | 19.8 | $-37$ | 33.4 | 18.8 | 60.1 | $40 \cdot 3$ | $73 \cdot 1$ | 57.7 |
| 12 | $29 \cdot 4$ | 13.1 | $43 \cdot 7$ | 10.6 | $13 \cdot 3$ | - 1.5 | 420 | 19.5 | 59.6 | 41.3 | 66.6 | 57.0 |
| 13 | 16.3 | 8.6 | $24 \cdot 3$ | 16.5 | 203 | 4.7 | 55.6 | $32 \cdot 8$ | $55 \cdot 6$ | 36.3 | 63.6 | 53.7 |
| 14 | 38.0 | 13.3 | $23 \cdot 3$ | 8.3 | 223 | 8.6 | 36.5 | $26 \cdot 6$ | 57.6 | 37.8 | 61.6 | 50.7 |
| 15 | 27.8 | $\theta \cdot 1$ | $31 \cdot 4$ | 20.5 | $2 \div 0$ | $9 \cdot 4$ | 56.6 | 30.1 | $62 \cdot 6$ | 38.8 | $75 \cdot 6$ | 51.7 |
| 16 | 38.0 | 27.8 | 380 | 14.8 | 24 | 123 | 35.5 | 28.6 | 75.6 | $49 \cdot 2$ | $75 \cdot 6$ | 55.7 |
| 17 | 37.5 | 32.8 | $46 \cdot 6$ | 216 | 143 | $3 \cdot 4$ | 45.8 | 28.6 | 68.6 | 52.5 | 76.6 | $52 \cdot 2$ |
| 18 | 87.5 | 318 | $46 \cdot 1$ | 5.0 | 335 | 123 | 42.5 | 31.8 | $55 \cdot 6$ | 48.7 | 78.8 | $56^{\circ} 7$ |
| 19 | 37.5 | 21.0 | 15.6 | 23 | 280 | 218 | $62 \cdot 1$ | 36.8 | $70 \cdot 6$ | $46^{2}$ | $77 \cdot 6$ | 537 |
| 20 | 31.3 | 3.5 | $27 \cdot 1$ | 29 | 25\% | $7 \cdot 6$ | 46.6 | $33 \cdot 3$ | 57.6 | 48.2 | 76.6 | 62.3 |
| 21 | 18.3 | 1.6 | 311 | 18.0 | 38.5 | 4.3 | $54 \cdot 4$ | $32 \cdot 3$ | 61.6 | 48.7 | $74 \cdot 6$ | 58.7 |
| 22 | 21.3 | 14.3 | 33.9 | 105 | : 1 | 127 | $51 \cdot 1$ | 33.8 | 586 | 48.7 | $60 \cdot 6$ | 58.2 |
| 33 | $20 \cdot 3$ | -83 | 28.1 | $11 \cdot 1$ | * $\mathbf{S}^{0}$ | 13.8 | 43.5 | 27.2 | 63.6 | 45.7 | 85.1 | 577 |
| 24 | 25.4 | $3 \cdot 8$ | $40 \cdot 7$ | 11.9 | $14 \%$ | - 33 | $49 \cdot 2$ | 29.8 | 68.6 | 54.7 | 85.1 | $65 \cdot 2$ |
| 25 | 34.9 | $15 \cdot 3$ | 4.9 | 32 | 209 | -- 0.3 | 44.6 | 36.8 | $80 \cdot 6$ | 527 | $73 \cdot 6$ | 62.7 |
| 26 | 42.5 | 14.8 | $34 \cdot 4$ | 24 | :3\% | 163 | $49 \cdot 6$ | 36.8 | $80 \cdot 6$ | 547 | 76.6 | $60 \cdot 2$ |
| 27 | 41.5 | 31.8 | $30 \cdot 4$ | $22 \cdot 3$ | 4.0 | $2 ; 1$ | $50 \cdot 6$ | 32.8 | 76.6 | 477 | $80 \cdot 6$ | 577 |
| 28 | 33.4 | 7.4 | 264 | $1+2$ | 46.2 | 24.6 | $50 \%$ | $29 \cdot 7$ | 61.6 | $44^{7}$ | 746 | 62.2 |
| 29 | $9 \cdot 6$ | $5 \cdot 3$ | $25 \cdot 4$ | $3 \cdot 1$ | 41\% | 296 | 427 | 38.3 | $70 \cdot 1$ | 427 | $72 \cdot 6$ | 55.7 |
| 30 | $43 \%$ | $10 \cdot 1$ | $\cdots$ | ... | 4: | 21.6 | 36.5 | 24.6 | 60.6 | $41 \cdot 7$ | 72.6 | 58.2 |
| 31 | 33.4 | $13 \cdot 3$ | $\ldots$ | ... | 51.6 | 23.8 | $\cdots$ | . ${ }^{\circ}$ | $64 \cdot 6$ | 447 | … | $\cdots$ |
|  | 33.5 | 16.0 | $28^{\circ} 6$ | 180 0 | $30 \cdot 5$ | $9 \cdot 3$ | 44.4 | 29.5 | 687 | $43^{\prime} 6$ | $70 \cdot 2$ | $\square^{58 \cdot 6}$ |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | October. |  | November. |  | December: |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | MIn. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | - |
| 0 | - | - | $\bigcirc$ | $\bigcirc$ | - | - | - | - | - | - | - |  |
| 73•1 | 58.7 | 83.6 | 657 | $78 \cdot 6$ | 65.7 | $60 \cdot 6$ | 41.8 | $43 \cdot 5$ | 30.6 | 30.0 | 12:3 | 1 |
| $73 \cdot 6$ | 53.7 | $84 \cdot 6$ | 527 | 78.6 | 64.7 | 68.6 | 57.7 | 38.5 | 27.6 | 32.0 | 20.5 | 2 |
| 78.8 | 537 | $67 \cdot 1$ | 39.8 | 76.6 | 86.2 | 63.6 | 45.7 | $54 \cdot 6$ | 28.8 | 33.0 | 29.6 | 3 |
| 80.0 | 597 | 74.6 | 51.7 | $71 \cdot 6$ | 63.7 | 56.6 | 408 | 51.6 | 42.7 | 35.0 | $28 \cdot 6$ | 4 |
| $75 \cdot 1$ | 62.2 | 67.6 | $49 \cdot 2$ | $79 \cdot 6$ | 80.7 | 57.6 | 437 | 59.0 | 42.7 | 38.0 | 29.5 | 5 |
| $73 \cdot 6$ | 58.2 | 73.1 | 49.7 | $\mathrm{fB}_{6} 6$ | 56.7 | $52 \cdot 6$ | 348 | $44 \cdot 5$ | 30.0 | 24.3 | 11.6 | 6 |
| $74 \cdot 8$ | 52.7 | $80 \cdot 1$ | 557 | 58.6 | 46.7 | 50.0 | 38.8 | 345 | 28.6 | 130 | 6.1 | 7 |
| $81 \cdot 6$ | 55.7 | $83 \cdot 1$ | 58.7 | 58.6 | 417 | 59.6 | 42.8 | 42.0 | $25 \cdot 6$ | $9 \cdot 0$ | $1 \cdot 8$ | 8 |
| $83 \cdot 1$ | $64 \cdot 2$ | $79 \cdot 1$ | 61.2 | 61.0 | 37.8 | 67.6 | 52.7 | $50 \cdot 0$ | 35.8 | 4.0 | $4 \cdot 3$ | 9 |
| $82 \cdot 1$ | 677 | 76.6 | 58.7 | $69 \cdot 6$ | 457 | 70.0 | 55.7 | 50.0 | 38.8 | 24.0 | 8.3 | 10 |
| $82 \cdot 1$ | 617 | 76.6 | 52.7 | $72 \cdot 6$ | 44.7 | 72.6 | 53.0 | 58.0 | 36.0 | 34.0 | 24.6 | 11 |
| $73 \cdot 1$ | 647 | 77.6 | 48.7 | $69 \cdot 6$ | 567 | 54.6 | 33.8 | 37.0 | 28.8 | 35.0 | 28.6 | 12 |
| $78 \cdot 9$ | 607 | $75 \cdot 1$ | 62.7 | 59.6 | 50.7 | 53.6 | 29.6 | $30 \cdot 0$ | 25.6 | $18 \cdot 0$ | 11.1 | 13 |
| 78.9 | 63.7 | $70 \cdot 1$ | $58 \cdot 3$ | 61.6 | 34.8 | 56.6 | 43.7 | $32 \cdot 4$ | $20 \cdot 5$ | 30.0 | $11 \cdot 1$ | 14 |
| 88.9 | 57.2 | $63 \cdot 6$ | 477 | $65 \cdot 6$ | 42.7 | $6 \div \cdot 0$ | 42.0 | $29 \cdot 4$ | $16 \cdot 3$ | 15.0 | 71 | 15 |
| 71.9 | 587 | 66.6 | $\mathbf{3 9 7}$ | 68.6 | 51.7 | 61.6 | 427 | 334 | 19.5 | 17.0 | 5.0 | 16 |
| 72.1 | 577 | $69 \cdot 6$ | 607 | 66.6 | 50.7 | 48.0 | 34.8 | $30 \cdot 0$ | 16.3 | 16.0 | 5.4 | 17 |
| $67 \cdot 6$ | 64.2 | 79.0 | 617 | $68 \cdot 6$ | 567 | 42.5 | 318 | 240 | 16.3 | 16.0 | 3.9 | 18 |
| 641 | 54.7 | 73.6 | $60 \cdot 7$ | 67.1 | 55.7 | 42.0 | 26.6 | 38.0 | 19.5 | 23.0 | 123 | 19 |
| $61 \cdot 6$ | 53.7 | 69.6 | 537 | $63 \cdot 6$ | 58.7 | 50.0 | $30 \cdot 6$ | $30 \cdot 0$ | 13.3 | 22.0 | 13.3 | 20 |
| $67 \cdot 6$ | 63.7 | 71.1 | 62-0 | $54 \cdot 6$ | 45.7 | 49.0 | 38.8 | 20.0 | 9.1 | $15 \cdot 3$ | $5 \cdot 1$ | 21 |
| $69 \cdot 6$ | 52.7 | $74 \cdot 1$ | 50.7 | 54.1 | 34.8 | 39.5 | 31.8 | 143 | 6.1 | 16.5 | $2 \cdot 3$ | 22 |
| $70 \cdot 1$ | 54.7 | 74.6 | 50.7 | 58.6 | 51.7 | 340 | 27.6 | 230 | 03 | 22.5 | 15.3 | 23 |
| 77.0 | 53.2 | 67.6 | 50.7 | 656 | 517 | 37.0 | 25.6 | 28.0 | 10.0 | 27.5 | 21.6 | 24 |
| $81 \cdot 6$ | 58.2 | 61.6 | 437 | 74.6 | 56.7 | 450 | 32.8 | $20 \cdot 3$ | $0 \cdot 3$ | $24 \cdot 0$ | 17.0 | 25 |
| $70 \cdot 6$ | $62 \cdot 7$ | 626 | 52.7 | 68.6. | $56 \cdot 7$ | 43.6 | 340 | $2 \cdot 4$ | $2 \cdot 3$ | 30.0 | 150 | 26 |
| 70.6 | 55.7 | $78 \cdot 1$ | 53.7 | $57 \cdot 6$ | 43.7 | $38 \cdot 5$ | 25.6 | 34.0 | 230 | $17 \%$ | 150 | 27 |
| $73 \cdot 1$ | 477 | 76.6 | 64.7 | 56.6 | 457 | 44.5 | 25.6 | $34 \cdot 0$ | 25.6 | 4.0 | $4 \cdot 0$ | 28 |
| 776 | 52.7 | $74 \cdot 0$ | $57 \cdot 0$ | $56 \cdot 1$ | 41.2 | 496 | 35.8 | 35.0 | $13 \cdot 3$ | 50 | 9.0 | 29 |
| $77 \cdot 6$ | 557 | $74 \cdot 1$ | 56.7 | 516 | 36.8 | 48.6 | $34 \cdot 8$ | 290 | 13:3 | 00 | 13.0 | 30 |
| $78 \cdot 1$ | 57.7 | $60 \cdot 6$ | 55.7 | $\cdots$ | $\ldots$ | 50.0 | 318 | $\cdots$ | $\ldots$ | 12.0 | $0 \cdot 0$ | 31 |
| 74.9 | 677 | 73.4 | $54 \cdot 7$ | $63 \cdot 3$ | 48.8 | 52.6 | 376 | $35 \cdot 2$ | $21 \cdot 3$ | 20.5 | 9.8 |  |

TABLE XXX.-Parry Sound, Ont. Maximum

| $\stackrel{\dot{B}}{\dot{B}}$ | January. |  | February, |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Mln. | Max. | M1n. | Max. | M1n. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | a | 0 | - | 0 | - | - | - | - | - | - | - | - |
| 1 | $35 \cdot 8$ | 23.8 | $24 \cdot 8$ | $19 \cdot 2$ | $19 \cdot 6$ | 8-2 | $40 \cdot 0$ | $23 \cdot 8$ | 430 | 27.3 | 52.8 | 38-2 |
| 2 | 377 | 11.5 | 16.6 | 22.4 | 28.6 | $13 \cdot 5$ | 51.8 | 26.8 | 64.8 | $38 \cdot 2$ | 66.8 | 33.0 |
| 8 | 85.0 | 8.2 | $13 \cdot 1$ | $5 \cdot 2$ | 46.0 | 238 | $52 \cdot 8$ | $39 \cdot 3$ | 68.8 | 447 | 59.8 | 39.7 |
| 4 | 46.0 | 20.8 | $19 \cdot 6$ | 3.0 | 407 | 31.0 | $48 \cdot 3$ | 34.0 | 70.8 | $44 \cdot 7$ | 67.0 | 387 |
| 5 | 84.8 | 10.0 | $25 \cdot 8$ | 9.2 | 34.0 | $18 \cdot 5$ | $38 \cdot 4$ | 25.8 | 768 | 427 | $69 \cdot 8$ | $55 \cdot 1$ |
| 8 | 88.7 | 24.8 | $17 \cdot 1$ | 2.0 | 30.8 | 14.5 | 34.8 | 20.0 | 54.8 | 351 | 79.0 | 60.2 |
| 7 | 35.8 | 21.8 | 13.8 | $4 \cdot 2$ | 397 | $5 \cdot 2$ | 28.0 | 13.0 | $52 \cdot 8$ | 41.7 | $63 \cdot 8$ | $44 \cdot 2$ |
| 8 | 38.2 | 29.8 | $35 \cdot 0$ | 1.2 | $15 \cdot 1$ | 8.2 | 35.8 | 17.5 | $70 \cdot 3$ | $47 \cdot 1$ | $60 \cdot 8$ | 41.7 |
| 9 | $45 \cdot 0$ | 34.0 | $10 \cdot 1$ | 12.2 | 25.8 | 10 | 457 | 23.8 | $75 \cdot 6$ | $50 \cdot 1$ | $78 \cdot 4$ | 41.2 |
| 10 | $35 \cdot 3$ | 14.0 | 22.8 | 8.0 | $15 \cdot 6$ | $8 \cdot 0$ | 41.7 | 26.8 | 86.8 | 46.2 | 817 | 58.2 |
| 11 | 48.0 | 24.8 | 58.3 | 5.0 | $25 \cdot 3$ | $9 \cdot 0$ | 31.8 | $12 \cdot 3$ | $55 \cdot 8$ | $38 \cdot 1$ | 74.8 | 56.1 |
| 12 | 33.8 | $10 \cdot 5$ | 437 | 23.8 | 18.8 | 3.0 | 37.3 | 17.8 | 60.8 | $40 \cdot 2$ | 70.0 | $57 \cdot 1$ |
| 13 | 23.8 | 3.2 | 26.8 | $15 \cdot 5$ | 29.0 | $5 \cdot 0$ | 530 | $32 \cdot 8$ | 57.8 | 35.0 | 64.8 | $48 \cdot 1$ |
| 14 | $35 \cdot 8$ | $7 \%$ | 23.3 | 5.2 | 28.0 | $9 \cdot 2$ | $47 \cdot 3$ | 310 | 57.8 | 24.5 | 65.0 | $48 \cdot 1$ |
| 15 | 34.8 | 67 | 31.8 | 19.8 | 290 | 4.0 | 53.3 | 26.8 | $61 \cdot 6$ | 30.5 | 78.2 | $51 \cdot 1$ |
| 16 | 38.7 | 21.8 | 37.0 | 18.5 | $9 ; 8$ | $5 \cdot 2$ | 40.0 | 268 | 64.8 | $42 \cdot 1$ | 80.7 | $47 \cdot 1$ |
| 17 | 40.2 | 34.0 | 49.8 | $29 \cdot 8$ | 228 | 2.2 | 41.0 | 26.8 | $65 \cdot 8$ | 43.2 | 790 | 44.2 |
| 18 | $30 \cdot 0$ | 320 | 46.8 | $7 \cdot 2$ | 31.6 | 12 | 48.0 | 24.3 | 67.3 | $53 \cdot 1$ | 76.8 | 45.7 |
| 19 | 87.0 | 24.8 | 13.6 | 1.0 | 397 | 15.5 | 69.0 | 370 | 70.0 | $51 \cdot 1$ | 78.0 | $47 \cdot 2$ |
| 20 | 25.5 | 9.2 | 24.5 | 8.0 | 38.2 | 12\% | 478 | 360 | 86.8 | 47.1 | 75:3 | 58.2 |
| 21 | 220 | 20 | $30 \cdot 8$ | 18.5 | 39.0 | $7 \cdot 0$ | 57.8 | 293 | 670 | $50 \cdot 1$ | 74.8 | 577 |
| 22 | 368 | 18.5 | $3: 38$ | 12\% | 36.7 | 24.0 | $55 \cdot 8$ | 31.0 | $64 \cdot 8$ | $46 \cdot 1$ | $78 \cdot 2$ | 50.2 |
| 23 | 35.8 | $13 \cdot 5$ | 24.0 | 105 | $39 \cdot 7$ | $10 \%$ | 48.6 | 23.8 | 68.6 | 44.2 | 83.0 | 57.2 |
| 24 | 22.8 | 3.0 | $34 \cdot 2$ | 105 | $16 \cdot 1$ | $5 \cdot 0$ | 63.8 | 28.8 | 77.7 | 50.1 | $83 \cdot 6$ | $57 \cdot 2$ |
| 25 | 35.6 | 19.5 | 42.7 | 33.0 | 23.3 | $9 \cdot 0$ | 51.8 | 28.8 | 80.7 | $60 \cdot 2$ | 72.8 | 68.0 |
| 26 | 427 | $23 \%$ | 39.7 | 278 | 41.7 | 42 | 453, | $37 \cdot 3$ | 8:1-7 | 58.2 | 79.0 | $57 \cdot 4$ |
| 27 | 42.0 | 25.0 | $35 \cdot 5$ | 26.8 | 49.0 | 298 | 40.7 | 31.8 | 777 | 502 | 83.2 | 607 |
| 28 | 63.8 | 8.2 | 38.5 | 27.8 | 39.0 | 25.8 | $45 \cdot 8$ | 27.8 | 65.8 | 40.2 | $75 \cdot 8$ | 627 |
| 29 | $15 \cdot 1$ | 5.3 | $48 \cdot 8$ | 10.5 | 40.7 | 17.5 | 59.5 | $30-2$ | 72.8 | 36.1 | $72 \cdot 1$ | 56.9 |
| 30 | 43.0 | 10.5 | ... | . . . | 48.8 | 22.8 | 437 | 24.8 | 698 | 63.8 | 72.6 | $54 \cdot 1$ |
| 31 | 33.8 | 18.5 | $\ldots$ | $\ldots$ | 46.2 | 20.0 | .... | $\ldots$ | 488 | $47 \cdot 1$ | .... | -• |
|  | $35 \cdot 4$ | 10.1 | 30.8 | 8.1 | 325 | 7.8 | $16: 3$ | 235 | $68 \cdot 4$ | $44 \cdot 1$ | $78 \cdot 3$ | 51.2 |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | 呙 |
| - | 9 | 0 | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | - | - |  |
| $72 \cdot 8$ | $54 \cdot 4$ | $82 \cdot 5$ | 62.2 | 80.7 | 63.2 | $55 \cdot 4$ | 37.6 | 44.5 | 30.5 | 28.1 | 17.5 | 1 |
| $75 \cdot 1$ | 54.4 | 74*3 | $50 \cdot 1$ | 75.0 | 68.9 | $62 \cdot 8$ | 46.2 | $34 \cdot 8$ | $26 \cdot 8$ | 30.8 | 17.5 | 2 |
| 76.7 | 46\% | $67 \cdot 6$ | $4 \times 2$ | $78 \cdot 7$ | 662 | 59.0 | 45.6 | 53.0 | $27 \cdot 8$ | 31.8 | 21.3 | 3 |
| 79.2 | 48.9 | $71 \cdot 3$ | 44.7 | $73 \cdot 3$ | $61 \cdot 4$ | 47.8 | $41 \cdot 2$ | $54 \cdot 8$ | 40.2 | 32.8 | 25.3 | 4 |
| 72.8 | 60.2 | 67.0 | 47.2 | 79.5 | $55 \cdot 1$ | 55.7 | 42.2 | 55.8 | 45.2 | 42.7 | 25.8 | 5 |
| 740 | 56.7 | 70.0 | 42.2 | $69 \cdot 6$ | $52 \cdot 1$ | 53.0 | 38.7 | 478 | 34.0 | 28.8 | 15.8 | 6 |
| $75 \cdot 0$ | $55 \cdot 9$ | 78.5 | 51.6 | 58.0 | 44.2 | 49.0 | 31.0 | 36.7 | 26.8 | 19.6 | 3.0 | 7 |
| $84 \cdot 1$ | 58.0 | 81.9 | $55 \cdot 1$ | 57.2 | $40 \cdot 4$ | 58.0 | $37 \cdot 1$ | 39.5 | 22.8 | 16.6 | - 0.0 | 8 |
| 84.0 | 66.8 | $75 \cdot 8$ | 56.6 | 61.2 | $36 \cdot 1$ | $67 \cdot 1$ | 42.2 | 46.7 | 33.0 | 11.0 | 19.2 | 9 |
| 81.5 | 65.0 | 76.5 | 58.2 | $63 \cdot 3$ | $36 \cdot 1$ | 71.6 | 45.2 | $51 \cdot 3$ | 33.0 | 77 | 26.4 | 10 |
| 83.0 | 62.2 | $77 \cdot 7$ | 56-1 | $70 \cdot 3$ | 44.7 | 73.0 | $50 \cdot 4$ | $49 \cdot 8$ | $36 \cdot 1$ | 31.3 | 5.2 | 11 |
| 74.8 | $6{ }^{6} \cdot 2$ | 78.0 | 51.1 | 74.0 | 46.2 | 56.6 | 35.0 | 37.7 | 26.8 | 33.8 | 24.8 | 12 |
| $77 \cdot 0$ | 64.0 | $75 \cdot 6$ | 59.2 | 623 | 44.2 | 54.0 | 27.8 | 31.8 | 23.8 | 33.8 | 19.5 | 13 |
| 82.7 | 57.2 | $68 \cdot 3$ | 52.1 | 57.0 | 390 | 62.8 | 33.0 | 28.8 | 17.0 | $34 \cdot 8$ | 20.8 | 14 |
| 84.5 | 57.7 | 60.8 | 42.0 | 63.8 | 34-1 | 63.6 | 442 | 30.8 | 12.0 | 34.8 | 15.0 | 15 |
| $70 \cdot 3$ | 60.2 | 66.0 | 37-1 | 67.0 | $50 \cdot 4$ | 64.0 | 42.2 | $34 \cdot 8$ | 23.8 | $18 \cdot 4$ | 3.7 | 16 |
| $71 \cdot 2$ | $54 \cdot 9$ | $77 \cdot 0$ | 42.7 | 68.5 | $51 \cdot 1$ | 50.5 | 34.0 | 31.3 | 21.6 | 18.6 | $0 \cdot 2$ | 17 |
| 68.5 | $54 \cdot 6$ | 84.7 | 62.2 | 67.6 | 55.1 | 45.7 | 33.0 | 26.0 | 19.3 | 14.6 | 3.2 | 18 |
| 66.5 | 51.6 | 76.6 | 56.9 | 68.0 | 60.2 | 35 | 28.6 | 27.8 | 193 | 22.0 | 10.5 | 19 |
| $64 \cdot 6$ | 55.6 | 767 | $49 \cdot 1$ | 67.0 | 58.2 | 478 | 28.8 | 27.8 | 17.5 | $21 \cdot 3$ | 12.0 | 20 |
| $65 \cdot 3$ | $54 \cdot 1$ | 71.0 | 56.1 | $60 \cdot 3$ | $47 \cdot 2$ | 48.8 | 35.7 | 21.3 | 42 | 21.8 | 0.2 | 21 |
| 73.6 | $51 \cdot 1$ | 76.0 | 51.1 | $52 \cdot 6$ | $38 \cdot 2$ | 41.7 | $30 \cdot 6$ | $15 \cdot 1$ | 0.7 | 17.6 | 9.0 | 22 |
| 668 | $52 \cdot 1$ | 797 | $49 \cdot 1$ | 57.6 | 34.5 | 357 | 25.6 | 13.0 | 6.0 | 23.8 | 0.7 | 23 |
| 75.5 | 48.1 | 797 | 59.9 | $67 \cdot 8$ | 42.2 | 34.0 | 243 | 26.5 | 0.5 | 25.8 | 17.5 | 24 |
| 84.0 | $55 \cdot 2$ | $65 \cdot 8$ | 47.2 | $75 \cdot 4$ | $52 \cdot 1$ | 40.0 | 27.8 | 23.0 | 8.0 | 27.8 | $22 \cdot 3$ | 25 |
| $75 \cdot 3$ | 56.1 | $72 \cdot 0$ | 41-2 | $70 \cdot 8$ | 52.2 | 41.2 | 32.0 | 20.2 | 15.2 | 31.0 | 22.8 | 28 |
| 68.7 | 48.1 | 83.7 | 56.1 | 65.8 | 45.2 | $34 \cdot 6$ | $23 \cdot 4$ | $30 \cdot 8$ | 17.5 | 29.0 | 8.2 | 27 |
| 70.0 | $45 \%$ | 71.6 | 64.0 | 55.0 | $46^{2}$ | 37.2 | 17.0 | 33.8 | 25.0 | 108 | 4.0 | 28 |
| 72.8 | $47 \cdot 2$ | 74*8 | 54.6 | 55.0 | 43.2 | 44.0 | $27 \cdot 8$ | $33 \cdot 8$ | 11.5 | 10.6 | 4.0 | 29 |
| 77.0 | $49 \cdot 1$ | 770 | $50 \cdot 1$ | 470 | 310 | 43.7 | 30.5 | 21.8 | 8.2 | 11.6 | 16.2 | 30 |
| 80.7 | $55 \cdot 1$ | 750 | $52 \cdot 0$ | $\ldots$ | $\cdots$ | $44 \cdot 0$ | 32.0 | $\cdots$ | $\cdots$ | 12.6 | 15.2 | 31 |
| $75 \cdot 1$ | 55.2 | 74.6 | 517 | 65.6 | $48 \cdot 1$ | 50.9 | 84.5 | $34 \cdot 4$ | 18.2 | 237 | 6.7 |  |

TABLE XXXI.-Port Stanley, Ont. Naximum

| $\begin{aligned} & \text { B } \\ & \text { A } \end{aligned}$ | Janaary. |  | Februars. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | MIn. | Max. | MIn. |
|  | - | $\bigcirc$ | - | $\bigcirc$ | - | 0 | - | - | - | $\bigcirc$ | - | - |
| 1 | 35.5 | 20.0 | $40 \cdot 6$ | 97 | 37.0 | 21.6 | 645 | 31.0 | 50.0 | 26.5 | 66.0 | 47.2 |
| 2 | 44.6 | 26.2 | 23.0 | 9.5 | 43.8 | 20.0 | 480 | 29.0 | 58.6 | 43.2 | 70.0 | 430 |
| 3 | 44.0 | 24.4 | 29.0 | 15.0 | 42.0 | 3:3 | 512 | 402 | 60.5 | 44.2 | 69.5 | $52 \cdot 6$ |
| 4 | 47.6 | 32.2 | 30.5 | 11.2 | 50.0 | 35.2 | $64 \cdot 0$ | 42.7 | 67.0 | 44.7 | $69 \cdot 2$ | $52 \cdot 2$ |
| 5 | 40-4 | 27.0 | 330 | 13.4 | 51.5 | 330 | 51.0 | 380 | 72.0 | 47.8 | 67.5 | 58.4 |
| 6 | $45 \cdot 2$ | 38.2 | $34 \cdot 8$ | 10.2 | 440 | 30.5 | 46.0 | 28.0 | 71.0 | 48.2 | $72 \cdot 4$ | 59.7 |
| 7 | 40.1 | 32.2 | 40.0 | 4.9 | 48.0 | 202 | 38.2 | $26^{\circ} 0$ | 66.5 | 482 | 73.0 | 56.4 |
| 8 | $45 \cdot 2$ | 34.8 | $38 \cdot 6$ | 0.9 | 32.0 | 13.8 | $42 \cdot 6$ | 21.0 | 69.5 | 52.6 | $70 \cdot 6$ | 49.2 |
| 9 | $47 \cdot 4$ | 37.0 | $40 \cdot 5$ | 21.4 | 34.4 | 12.0 | $44 \cdot 5$ | 32.7 | 71.0 | 56.7 | 77.0 | $48 \cdot 4$ |
| 10 | $48 \cdot 4$ | 38.4 | 42.4 | $17 \cdot 6$ | $43 \cdot 5$ | 16.5 | $50 \cdot 0$ | 29.2 | 66.0 | 54.2 | 75.0 | 58.2 |
| 11 | 48.0 | 38.2 | 40.0 | 14.6 | $36^{\circ} 0$ | 17.0 | $40 \cdot 5$ | 24.0 | 71.8 | 47.4 | 81.4 | 62.0 |
| 12 | $30 \cdot 0$ | 18.0 | 48.0 | $3+2$ | 43.0 | 16.8 | 45.0 | 22.6 | 71.5 | $41^{\circ} 0$ | $80 \cdot 0$ | $66 \cdot 1$ |
| 13 | 35.0 | 15.5 | 45.3 | 29.0 | 39.5 | 16.8 | 50.5 | 37.0 | 63.0 | 37.2 | 93.5 | $59 \cdot 1$ |
| 14 | 38.8 | 29.2 | $40 \cdot 4$ | 20.0 | $40 \cdot 5$ | 21.6 | 60.8 | 41.2 | 62.0 | 362 | 65.8 | $52 \cdot 2$ |
| 15 | 43.0 | 27.2 | 38.0 | 26.0 | $39 \cdot 6$ | 21.2 | 59.5 | 44.7 | 62.5 | $34 \cdot 2$ | 72.8 | 50.0 |
| 18 | 42.0 | 327 | $30 \cdot 4$ | 27.4 | 38.0 | 24.0 | 47.0 | 35.7 | 67.0 | 46.0 | 82.0 | 52-8 |
| 17 | 42.5 | $32 \cdot 4$ | $45 \cdot 3$ | $34 \cdot 2$ | 38.0 | 21.0 | $50 \cdot 6$ | 32.7 | 69.5 | 492 | 78.5 | 53.6 |
| 18 | 43.2 | 31.0 | 50.5 | 23.0 | 37.5 | 28.6 | $56 \cdot 6$ | 29.8 | 71.8 | 53.0 | $76 \cdot 2$ | $52 \cdot 4$ |
| 18 | $48 \cdot \mathbf{8}$ | $29^{\circ} 0$ | $35^{\circ} 0$ | 11.8 | 41.8 | 27.0 | 64.6 | 40.2 | 78.0 | 56.0 | 79.0 | 51.2 |
| 20 | 48.0 | 28.4 | 32.0 | 16.3 | 39.6 | 26.0 | 50.0 | 38.0 | 74.0 | 55.2 | 89.0 | 56.2 |
| 21 | $38 \cdot 4$ | 28.2 | 41.6 | 20.8 | 38.5 | 18.6 | 58.0 | 40.2 | 70.0 | 58.2 | 89.0 | $65 \cdot 1$ |
| 22 | 40.0 | 31.8 | $40 \cdot 8$ | 24.2 | 50.0 | 32.8 | 65.0 | $43 \cdot 4$ | 66.0 | 52.2 | 86.8 | $03 \cdot 1$ |
| 28 | 36.0 | 20.0 | 415 | $22 \cdot 4$ | 63.0 | 24.6 | 50.8 | 33.0 | 88.0 | 48.2 | 82.2 | $63 \cdot 1$ |
| 24 | 87.5 | 26.6 | $40 \cdot 4$ | 24.6 | 26.6 | 13.6 | 50.0 | $35 \cdot 2$ | 740 | 58.2 | $80^{\circ} 0$ | 60.7 |
| 25 | 40.0 | 30.2 | 48.0 | 36.2 | $20 \cdot 5$ | 8.0 | 53.5 | 39.2 | 78.5 | 53.7 | 77.2 | 65.6 |
| 26 | 42.0 | 31.0 | 44.8 | $20 \cdot 5$ | $45^{\circ} 0$ | 240 | 58.0 | 447 | 80.0 | 59.2 | 79.5 | $62 \cdot 9$ |
| 27 | 417 | $34 \cdot 2$ | 50.5 | 318 | $46^{\circ} 0$ | 357 | 63.5 | $38 \cdot 2$ | 74.0 | $60 \cdot 1$ | 79.2 | $62 \cdot 1$ |
| 28 | 38.2 | 85.0 | 48.0 | 36-2 | 44.0 | 28.5 | 55.5 | $40 \cdot 2$ | 72.0 | 49.2 | 79.5 | $64 \cdot 1$ |
| 29 | 36.6 | 18.2 | 50.5 | 26.0 | 41.0 | 26.8 | 55.0 | $45 \cdot 2$ | 67.8 | $44 \cdot 2$ | 74.5 | 59.2 |
| 80 | $46 \cdot 2$ | $20 \cdot 5$ | . $\cdot$ | .... | 50.1 | $27 \cdot 1$ | 53.5 | 30.2 | 760 | 57.2 | 73.8 | 59.2 |
| 81 | 36.2 | $23 \cdot 4$ | .... | ... | 50.0 | 27.8 | . $\cdot$. | .... | 69.5 | 53.2 | .... | . $\cdot$. |
|  | 42.0 | 28.7 | $40 \cdot 4$ | 207 | 42:2 | 23.6 | 52.8 | $33 \cdot 8$ | 69.0 | 48.8 | $71 \cdot 3$ | 55.8 |

and Minimum Temperature, 1880.

| Juis: |  | August. |  | Septeriber. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | 官 |
| - | - | - | - | - | - | - | - | $\checkmark$ | - | $\bullet$ | - |  |
| $77 \cdot 8$ | 56.4 | 82.0 | 61.0 | 84.0 | $67 \cdot 1$ | 64.0 | $35 \cdot 1$ | 52.8 | $3: 0$ | $43 \cdot 1$ | $20 \cdot 2$ | 1 |
| $72 \cdot 5$ | $60 \cdot 1$ | 92.0 | 55.6 | 84.5 | 71.3 | 67.6 | 58.2 | 51.0 | $21 \cdot 3$ | $39 \cdot 5$ | 28.0 | 2 |
| 78.0 | 53.2 | $70 \cdot 5$ | $50 \cdot 6$ | 82.0 | 68.6 | 69.0 | 53.1 | 55.0 | 29.2 | $40 \cdot 4$ | 27.0 | 3 |
| 77.5 | 51.2 | 74.0 | 46.0 | 81.0 | 65.8 | 57.8 | 41.1 | 550 | 13.2 | $44 \cdot 5$ | 13.2 | 4 |
| 750 | 59.2 | 78.0 | $54 \cdot 1$ | 80.5 | 62.7 | 61.5 | 41.2 | 57.0 | 48.6 | 51.8 | 21.0 | 5 |
| $79 \cdot 5$ | $60-2$ | 78.5 | 477 | $79 \cdot 0$ | $57 \cdot 1$ | 59.0 | 36.7 | 500 | 38.2 | 23.0 | 14.0 | 6 |
| 780 | 54.4 | 80.0 | $52 \cdot 2$ | $68 \cdot 5$ | 47.6 | 58.8 | 35.0 | 48.0 | 25.2 | 27.2 | 8.3 | 7 |
| $81 \cdot 6$ | 59.0 | 824 | 53.6 | 64.0 | 45.2 | 62.5 | 36.0 | 49.0 | 950 | 24.0 | $7 \cdot 1$ | 8 |
| $82 \cdot 8$ | 651 | 83.0 | 58.2 | $66^{\circ} 0$ | 4.7 | 68.0 | 38.2 | 56.0 | 347 | 31.4 | $6 \cdot 4$ | 9 |
| $82 \cdot 8$ | $67 \cdot 1$ | 78.5 | 59.2 | 690 | $40 \cdot 2$ | 68.0 | 42.2 | 53.0 | 46.2 | 28.0 | 7.9 | 10 |
| 810 | 67.9 | 80.5 | 59.1 | $72 \cdot 8$ | +3\%2 | 74.0 | 50.2 | 53.0 | 88.4 | 36.8 | $17 \cdot 5$ | 11 |
| 800 | 68.1 | 820 | 55.6 | 748 | 52.0 | 67.0 | 37.2 | $39 \cdot 0$ | 31.0 | 38.0 | 31.2 | 12 |
| 85.0 | 67.9 | 78.5 | 52.0 | 63.0 | 48.2 | 50.0 | 32.2 | 44.0 | 27.0 | $46^{\circ} 0$ | 29.0 | 13 |
| 83.0 | $60 \cdot 1$ | 76.8 | 57.2 | 63.0 | 42.2 | 61.8 | 36.2 | 430 | 23.5 | 44.8 | 30.2 | 14 |
| 84.0 | $64 \cdot 1$ | $70 \cdot 5$ | 51.6 | 67.0 | $38 \cdot 2$ | 67.4 | 55.6 | 37.0 | 18.0 | 41.0 | 30.0 | 15 |
| $79 \cdot 8$ | $62 \cdot 1$ | 71.8 | 48.2 | 74.0 | $53 \cdot 3$ | 65.0 | 49.6 | 13.0 | 234 | 31.5 | 22.0 | 16 |
| $78 \cdot 4$ | 57.2 | 76-5 | 48.8 | 75.0 | $60 \cdot 2$ | 51.0 | 85.2 | 39.0 | 18.0 | 33.0 | 10.0 | 17 |
| 81.5 | 57.7 | 79.0 | 63.5 | 76.0 | 60.1 | 43.0 | 32.7 | 33.5 | 12.0 | 35.5 | 18.0 | 18 |
| 72.0 | 58.0 | 77.2 | 657 | 75.8 | 502 | 43.0 | 30.5 | 36.8 | 14.0 | 31.4 | 20.0 | 19 |
| 730 | 56.1 | 73.5 | 65.7 | 72.0 | 56.2 | 52.0 | 32.2 | 38.6 | 11.5 | 37.6 | 21.5 | 20 |
| 73.0 | 53.4 | 70.0 | 59.2 | 61.0 | 48.0 | 59.6 | $39 \cdot 1$ | 25.6 | $3 \cdot 7$ | 36.5 | $19 \cdot 5$ | 21 |
| 76.4 | $50 \cdot 2$ | 79.5 | 512 | 62.0 | 43-2 | 46.0 | 34.6 | $30 \cdot 5$ | $0 \cdot 3$ | $32 \cdot 8$ | 16.2 | 22 |
| 76.0 | 58.2 | 85.0 | 61.7 | $63 \cdot 5$ | $35-2$ | 47.9 | 33.2 | 32.0 | 0.9 | 35.2 | 210 | 23 |
| 790 | 57.2 | 83.0 | 62.6 | $71 \cdot 4$ | 40.0 | 42.0 | $33 \cdot 4$ | 36.0 | $3 \cdot 9$ | 38.2 | 240 | 24 |
| 81.6 | 58.4 | 71.0 | 58.2 | 74.0 | 50.7 | 51.5 | 26.7 | 35.5 | $14 \cdot 0$ | 37.0 | 25.0 | 25 |
| $81 \cdot 4$ | 640 | 73.0 | 54.2 | 72.0 | $63 \cdot 3$ | 51.5 | 40.2 | 40.0 | 5.9 | $41 \cdot 2$ | 27.0 | 26 |
| 76.0 | 59.2 | 81.5 | 63.1 | 68.5 | $50 \cdot 1$ | 51.4 | 27.7 | 33.0 | 4.9 | 88.2 | 5.0 | 27 |
| 76.0 | 52.2 | 82.0 | $71 \cdot 1$ | 615 | 47.2 | 49.8 | 26.2 | 43.0 | $10 \%$ | 6.4 | $4 \cdot 1$ | 23 |
| $70 \cdot 0$ | $52 \cdot 4$ | 730 | $64 \cdot 1$ | 51.0 | $44^{\prime} 1$ | $51 \cdot \frac{1}{}$ | $32 \cdot 4$ | $45 \cdot 8$ | 15.5 | 14.0 | 10.5 | 20 |
| 79.5 | $52 \cdot 2$ | 71.2 | 60.2 | 55.2 | 36.2 | 53.2 | $4{ }^{4} 2$ | 315 | 10.8 | 9.5 | 10.8 | 30 |
| 83.2 | 55.2 | $79 \cdot 2$ | 62.6 | *** | $\ldots$ | $49 \cdot 5$ | $38 \cdot 2$ | ...' | . $\cdot$. | 16.0 | $2 \cdot 9$ | 31 |
| 78.9 | 58.9 | 78.3 | 56.6 | $67 \cdot 4$ | 50.7 | $67 \cdot 4$ | 377 | 43.0 | 21.7 | 33.5 | 16.5 |  |

TABLE XXXII.—Port Dover, Ont. Maximum

| $\begin{aligned} & \dot{4} \\ & \dot{R} \end{aligned}$ | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | $\checkmark$ | - | - | - | - | - | - | - | $\bigcirc$ | - | - |
| 1 | 85.0 | 22.0 | 28.0 | 5.6 | 290 | 23.0 | 48.8 | 33.0 | 46.9 | 20.0 | $62 \cdot 8$ | 48.7 |
| 2 | $41-9$ | 30.0 | $20 \cdot 1$ | 5.6 | 39.9 | 27.0 | 46.9 | 30.0 | $64 \cdot 1$ | $46 \cdot \theta$ | 68.7 | 43.0 |
| 3 | 44.9 | 24.0 | $17 \cdot 1$ | 138 | 40.9 | 32.0 | 498 | 45.9 | $71 \cdot 1$ | 40.7 | 72.1 | 52.7 |
| 4 | $49 \cdot 8$ | 33.0 | 26.0 | 12.8 | 45.9 | 36.0 | $60 \cdot 1$ | 45.0 | 62.1 | 49.7 | 76.1 | 49.7 |
| 5 | 37.0 | 29.0 | 27.0 | 11.8 | 45.9 | 34.0 | 46.9 | 36.0 | 78.0 | 50.7 | $64 \cdot 1$ | 58.8 |
| 6 | 40.9 | 36.0 | 24.0 | 11.8 | 38.9 | 30.0 | 36.0 | 28.0 | 71.7 | 51.7 | 67.1 | 61.8 |
| 7 | $39 \cdot 9$ | 33.0 | 31.0 | 8.8 | 42.0 | 24.0 | 33.0 | 25.0 | 69.7 | 47.0 | 66.1 | 55.7 |
| 8 | 45.9 | 35.0 | 37.0 | 8.8 | 24.0 | 12.8 | 38.9 | 230 | 69.7 | 42.0 | 73.1 | 52.7 |
| 9 | 44.9 | 350 | 37.0 | 6.6 | 33.0 | 9.8 | 46.9 | 33.0 | 80.0 | 50.7 | 83.0 | 50.7 |
| 10 | 44.9 | 30.0 | 38.0 | 6.6 | 33.0 | 19.0 | $51 \cdot 1$ | 30.0 | 67.8 | 55.7 | 717 | 61.8 |
| 11 | 46.3 | 320 | 38.9 | 138 | 36.0 | 18.0 | 32.0 | 22.0 | $0 \times 8$ | $52 \cdot 7$ | $75 \cdot 1$ | 61.8 |
| 12 | 38.0 | 24.0 | 48.9 | 35.0 | $32 \cdot 0$ | 17.0 | 89.9 | 22.0 | 68.1 | 470 | 77.8 | 67.8 |
| 13 | 32.0 | 18.0 | $35 \cdot 0$ | 28.0 | 30.0 | 17.0 | 60.1 | 370 | 57.8 | 40.0 | 83.0 | $59 \cdot 3$ |
| 14 | 37.9 | 23.0 | 30.0 | 18.0 | 33.0 | 24.0 | 59.8 | 44.0 | 56.8 | 39.0 | 67.7 | 53.7 |
| 15 | 36.0 | 27.0 | 34.0 | $5 \cdot 0$ | 31.0 | 24.0 | 57.8 | 44.9 | $50 \cdot 8$ | 38.0 | 73.7 | 55.7 |
| 16 | 40.9 | 33.0 | 37.0 | 29.0 | 30.0 | 270 | $44 \cdot 9$ | 34.0 | 74.7 | 51.7 | 717 | 53.7 |
| 17 | 44.9 | 38.0 | 41.8 | 36.0 | 30.0 | 23.0 | 42.9 | 34.0 | $60 \cdot 7$ | 54.7 | $74 \cdot 1$ | 53.7 |
| 18 | 39.0 | 33.0 | 42.9 | 25.0 | 38.0 | 250 | 50.0 | 30.0 | 697 | 55.7 | $77 \cdot 8$ | 52.7 |
| 19 | 45.0 | $30 \cdot 0$ | 25.0 | 118 | 350 | 27.0 | 558 | 40.9 | 79.8 | 52.7 | $77 \cdot 1$ | 63.7 |
| 20 | 37.0 | 24.0 | 30.0 | 12.8 | 33.0 | 24.0 | 51.8 | 39.0 | 75.7 | 578 | 83.0 | 59.8 |
| 21 | 32.0 | 22.0 | 35.0 | 26.0 | 37.0 | 17.0 | 58.8 | 450 | 68.7 | 58.7 | $\mathbf{8 3 . 0}$ | 6 C '8 |
| 20 | $38 \cdot 9$ | 28.0 | 38.0 | 28.0 | 48.1 | 33.0 | 66.1 | $42 \cdot 9$ | 65.8 | 57.1 | 84.8 | 638 |
| 23 | 36.0 | $23 \cdot 0$ | 38.0 | 23.0 | 450 | 25.0 | 42.0 | $3 \pm 0$ | 69.9 | 537 | 84.8 | 50.8 |
| 24 | 33.0 | 27.0 | 40.0 | 22.0 | 25.0 | 15.0 | 46.9 | 35.0 | 75.7 | 57.7 | 78.0 | 65.8 |
| 25 | 38.9 | 31.0 | 42.0 | 37.0 | 31.0 | 10.8 | 51.1 | 39.0 | $75 \%$ | 56.7 | 74.7 | 67.8 |
| 28 | $42 \cdot 3$ | 34.0 | 42.0 | 34.0 | $48 \cdot 1$ | $24 \cdot 0$ | $51 \cdot 1$ | 44.0 | 778 | 64.8 | $82 \cdot 8$ | 64.8 |
| 27 | $42 \cdot 9$ | 30.0 | $52 \cdot 1$ | 33.0 | 30.9 | 33.0 | $48 \cdot 1$ | 38.0 | $80 \cdot 8$ | $59 \cdot 8$ | 757 | 678 |
| 28 | 38.0 | $20^{\circ} 0$ | 45.0 | 34.0 | 38.0 | 30.0 | $55 \cdot 1$ | 39.0 | 66.8 | 53.7 | 76.7 | 658 |
| 29 | 28.0 | 18.0 | 44.9 | 29.0 | 389 | 27.0 | $50 \cdot 1$ | 44.9 | 68.7 | 46.0 | 73.7 | 598 |
| 30 | $42 \cdot 0$ | 18.0 | .... | .... | 45.9 | 29.0 | $46 \cdot 9$ | 31.0 | 6077 | 56.7 | $75 \cdot 7$ | $60 \cdot 8$ |
| 31 | 38.0 | 24.0 | -••' | -• | $46 \cdot 9$ | 31.0 | $\cdots$ | *.. | 72-1 | 55.7 | $\cdots$ | .... |
|  | $30 \cdot 8$ | 28.5 | $35 \cdot 4$ | $20 \cdot 4$ | 37.0 | 24.6 | 49.0 | 35.6 | 693 | 51.2 | $75 \cdot 3$ | 58.4 |

and Minimum Temperature, 1880.

| * | July. |  | August. |  | September. |  | October. |  | November. |  | December. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | M1n. |
|  | - | - | 9 | - | - | $\bigcirc$ | - | $\bigcirc$ | - | $\bigcirc$ | $\bullet$ | - |
| 1 | $79 \cdot 8$ | $60 \cdot 8$ | $81 \cdot 8$ | 81.8 | 86.0 | 63.8 | $58 \cdot 1$ | 36.0 | 46-9 | 36.0 | 32.0 | 24.0 |
| 2 | 69.7 | 59.8 | $73 \cdot 1$ | $59 \cdot 1$ | 86.0 | 71.8 | $66 \cdot 1$ | 53.7 | $44 \cdot 9$ | $29 \cdot 0$ | 33.0 | 29.0 |
| 8 | $74 \cdot 7$ | 53.7 | 68.1 | 517 | 79.8 | 70.8 | 691 | 567 | 53.1 | $30 \cdot 0$ | 33.0 | 23.0 |
| 4 | 77•8 | 53.7 | 727 | 497 | 79.8 | 68.8 | $57 \cdot 1$ | 46.0 | 53.8 | 48.7 | 38.9 | 11.8 |
| 5 | $75 \cdot 7$ | 61.8 | 77.8 | 57.8 | 80.0 | 64.8 | 61.8 | 40.0 | $54 \cdot 1$ | 49.7 | $49 \cdot 8$ | 23.0 |
| 6 | 77.8 | 57.8 | 77.8 | 51.7 | 74.7 | 50.7 | 52.0 | 40.9 | $52 \cdot 1$ | $40 \cdot 0$ | 23.0 | 16.0 |
| 7 | 83.0 | 56.7 | 79.0 | 55.7 | 64.8 | 497 | 54.8 | 36.0 | $44 \cdot 9$ | 30.0 | $16 \cdot 1$ | 11.8 |
| 8 | 89.2 | 59.8 | 78.0 | 56.7 | 59.1 | 46.0 | 61.1 | 37.0 | $44 \cdot 9$ | 28.0 | $15 \cdot 1$ | 9.8 |
| 9 | 82.8 | 65.8 | 82.8 | 66.8 | 63.8 | 46.0 | 65.1 | $44 \cdot 1$ | 52.1 | 38.0 | $17 \cdot 1$ | 56 |
| 10 | 81.8 | $65 \cdot 8$ | 80.0 | 60.8 | 658 | 42.0 | 68.1 | 43.0 | $52 \cdot 1$ | 38.0 | 16.1 | $2 \cdot 6$ |
| 11 | 79.8 | 89.8 | $80 \cdot 0$ | 61.8 | $70 \cdot 1$ | 45.0 | $66 \cdot 1$ | 52.7 | $52 \cdot 1$ | $39 \cdot 9$ | 31.0 | 16.0 |
| 12 | 81.8 | 67.8 | 80.0 | 56.7 | 72-1 | 59.8 | $61 \cdot 1$ | $40 \cdot 9$ | $30 \cdot 9$ | 31.0 | $3 \cdot 0$ | 31.0 |
| 13 | 83.8 | 69.8 | 78.8 | 557 | $65 \cdot 1$ | 47.7 | $56 \cdot 1$ | 35.0 | 370 | 28.0 | 340 | 31.0 |
| 14 | 88-2 | 66.8 | 76-1 | 59.8 | 61.8 | 43.0 | $66 \cdot 1$ | 38.0 | 34.0 | 26.0 | 38.0 | 31.0 |
| 15 | 83.8 | 63.8 | 70-1 | 51.7 | $64 \cdot 1$ | 40.0 | $64 \cdot 1$ | 567 | 30.0 | 21.0 | 35.0 | 31.0 |
| 16 | 74.7 | 61.8 | $75 \cdot 1$ | 460 | $74 \cdot 1$ | 51.7 | 62.1 | 527 | 35.0 | 23.0 | 31.0 | 19.0 |
| 17 | 74.7 | 57.8 | 78.0 | 48.7 | 73.7 | 61.8 | 52.8 | 37.0 | 26.0 | 19.0 | $22 \cdot 1$ | 15.0 |
| 18 | 737 | 57.8 | $78 \cdot 8$ | $63 \cdot 8$ | 737 | 62.8 | 40.9 | 32.0 | 20.1 | 10.8 | 21.1 | 13.8 |
| 19 | $68 \cdot 1$ | 58.8 | $72 \cdot 7$ | 67.8 | $72 \cdot 1$ | 60.8 | 39.9 | 30.0 | 27.0 | 15.0 | 28.0 | 18.0 |
| 20 | $68 \cdot 1$ | 58.8 | 74-1 | 61.8 | 71-1 | 59.8 | $48 \cdot 1$ | 32.0 | 28.0 | 14.0 | 25.0 | 21.0 |
| 21 | 73.7 | 52.7 | $77 \cdot 1$ | 65.8 | 60.8 | 497 | $57 \cdot 1$ | $39 \cdot 9$ | $14 \cdot 1$ | 3.6 | 24.0 | 20.0 |
| 22 | $74 \cdot 1$ | 51.7 | 76•1 | 60.8 | 56.1 | $44^{\circ} 0$ | 44.9 | 35.0 | $15 \cdot 1$ | 2.6 | 24.0 | 18.0 |
| 23 | $75 \cdot 1$ | 59.8 | 86.0 | 64.8 | 63.1 | 38.0 | 41.9 | 33.0 | 20.1 | 0.8 | 26.0 | 23.0 |
| 24 | $76 \cdot 1$ | 608 | $81 \cdot 8$ | 61.8 | $70 \cdot 1$ | 40.0 | 38.9 | 33.0 | 26.0 | 0.8 | 30.0 | 23.0 |
| 25 | 78.0 | 65.8 | $75 \cdot 1$ | 58.8 | 70.1 | 53.7 | 48.1 | 35.0 | 26.0 | 150 | 30.0 | 25.0 |
| 26 | 78.8 | 63.8 | 73.7 | 54.7 | 68.1 | $62 \cdot 8$ | 50.1 | $40 \cdot 9$ | 23.0 | 5.8 | 34.0 | 28.0 |
| 27 | $77 \cdot 8$ | 59-8 | 83.0 | 66.8 | $65 \cdot 1$ | 52.7 | $40 \cdot 9$ | 31.0 | 80.0 | 11.8 | 330 | 6.6 |
| 28 | 72.7 | 54.7 | 87.0 | $71 \cdot 1$ | $50 \cdot 1$ | 487 | $41 \cdot 9$ | 28.0 | 32.0 | 20.0 | $7 \cdot 1$ | 1.6 |
| 29 | $74 \cdot 1$ | 537 | 707 | 63.8 | $54 \cdot 1$ | $43 \cdot 9$ | $50 \cdot 1$ | 340 | 30.0 | 21.0 | $3 \cdot 1$ | $0 \cdot 0$ |
| 30 | $77 \cdot 1$ | 517 | $69 \cdot 1$ | 61.1 | $51 \cdot 1$ | 36.0 | 51.8 | 43.0 | 24.0 | 12.8 | $5 \cdot 1$ | $9 \cdot 0$ |
| 81 | 79.0 | 58.8 | 82.8 | 63.8 | $\ldots$ | ... | $48 \cdot 1$ | 41.9 | $\cdots$ | $\cdots$ | 6.1 | 0.6 |
|  | $77 \cdot 6$ | $60 \cdot 2$ | 773 | 583 | 68.8 | 527 | 640 | 89.5 | $38 \cdot 3$ | 23.0 | 254 | 164 |

TABLE XXXIII.—Windsor, Ont. Maximum

| $\begin{aligned} & \dot{4} \\ & \dot{4} \end{aligned}$ | January. |  | February, |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | $\mathbf{M a x}$. | Min. |
|  | - |  | - | - | $\bigcirc$ | - | - | - | - | - | - | - |
| 1 | 37.5 | $20 \cdot 2$ | 30.0 | $9 \cdot 5$ | $58 \cdot 4$ | 210 | 58.7 | $37 \cdot 4$ | 84.2 | 29.4 | 64:3 | $50 \cdot 3$ |
| 2 | $49 \cdot 4$ | 29.0 | 250 | 18.0 | 50.5 | 27.0 | 48.2 | 48.4 | ... | ...' | 71.2 | 457 |
| 3 | 58.4 | $26 \cdot 2$ | 25.8 | 13.5 | 47.5 | 33.7 | 61.2 | 38.2 | $81 \cdot 5$ | 45.9 | 790 | 56.2 |
| 4 | .... | $\ldots$ | 27.2 | 90 | $55 \cdot 1$ | +3 | .... | $\ldots$ | $83 \cdot 6$ | 51.6 | $77 \cdot 1$ | 54.6 |
| 5 | 54-9 | 31.7 | 29.0 | 85 | 58.1 | 32.2 | 68.4 | $34 \cdot 9$ | 837 | 519 | 74.1 | 61.5 |
| 6 | 51.0 | 352 | 32.0 | 15.8 | 47-2 | 32.2 | $44 \cdot 1$ | $32 \cdot 5$ | $67 \cdot 4$ | $49 \cdot 4$ | .... | .... |
| 7 | 41.3 | 32.7 | $\ldots$ | . $\cdot$ | .... | .... | $43 \cdot 8$ | 26.4 | 88.2 | 48.9 | 748 | 54.8 |
| 8 | 41.6 | $35 \cdot 2$ | 41.9 | 120 | 52.0 | 12.5 | 41.5 | 24.2 | $87 \cdot 4$ | 61.4 | $74 \cdot 1$ | 49.9 |
| 9 | 56.4 | 33.2 | 46.0 | 150 | $43 \cdot 0$ | 17.2 | 59.3 | 27.2 | .... | .... | 76.1 | 578 |
| 10 | 40.7 | 26.0 | 484 | 22.0 | 310 | 162 | 60.2 | 28.1 | 77.0 | 58.8 | 88.3 | 64.0 |
| 11 | .... | ... | 510 | 36.7 | 88.6 | 21.0 | $\ldots$ | .... | 730 | 477 | 930 | 66.0 |
| 12 | 59.7 | 23.0 | 39.0 | 29.5 | 33.0 | 160 | $51 \cdot 1$ | 247 | 760 | 529 | 91.6 | $72 \cdot 6$ |
| 13 | 35.8 | 20.5 | 358 | 26.0 | 338 | 19.0 | 72.6 | $38 \cdot 4$ | 579 | 427 | ... | .... |
| 14 | 41.6 | 25.5 | .... | .... | .... | $\ldots$ | 78.6 | 38.4 | 59.6 | - 46.9 | $83 \cdot 2$ | 50.5 |
| 15 | $35^{\circ} 0$ | 26.5 | 52.7 | 27.0 | 370 | 20.2 | 67.2 | 43.2 | $71 \cdot 4$ | 397 | 697 | 52.6 |
| 16 | $49 \cdot 1$ | 31.0 | 55.6 | 407 | 34.7 | 25.0 | 50.7 | 38.2 | . $\cdot$ | .... | 78.2 | 540 |
| 17 | 53.9 | 352 | 53.9 | 250 | 35.8 | 172 | 56.9 | 35.0 | $85 \cdot 1$ | 44.7 | 78.0 | 47.9 |
| 18 | .... | .... | 25.3 | 12.5 | 43.2 | 23.5 | .... | . $\cdot$. | 88.7 | 68.2 | $84 \cdot 1$ | 50.8 |
| 19 | 51.9 | $32 \cdot 2$ | 31.2 | 11.2 | 410 | 31.0 | $69 \cdot 3$ | 36.5 | $84 \cdot 4$ | $60 \cdot 9$ | $85 \cdot 6$ | 613 |
| 20 | 37.7 | 30.7 | 35.3 | 26.0 | 42.6 | 29.0 | 617 | 31.5 | 726 | 56.6 | $\ldots$ | .... |
| 21 | 35.8 | 285 | $\cdots$ | .... | .... | .... | $73 \cdot 0$ | 42.2 | 59.9 | $55 \cdot 1$ | 88.2 | 58.3 |
| 22 | 42.0 | 33.2 | 4102 | 26.0 | 51.9 | 190 | 68.6 | $42 \cdot 4$ | $68 \cdot 1$ | 52.6 | 88.9 | 63.5 |
| 23 | $33 \cdot 9$ | 28.0 | 198 | 26.0 | 5\% 4 | 250 | 44.0 | 30.7 | -•• | .... | 91.7 | 61.5 |
| 24 | $41 \cdot 4$ | 27.0 | $52 \cdot 1$ | 4 | 31.0 | 17.0 | 490 | $35 \cdot 4$ | 84.9 | 51.3 | 90.8 | 64.1 |
| 25 | .... |  | $5 \cdot 5$ | 327 | 38.8 | 110 | .... | $\cdots$ | 88.9 | 59.8 | 81.0 | $67 \%$ |
| 26 | 51.2 | 28.2 | 54.4 | 36.2 | 524 | :2.7 | $62 \cdot 2$ | 40.0 | $87 \cdot 1$ | 619 | 86.2 | 61.9 |
| 27 | 58.6 | 32.7 | 63.4 | $36 \cdot 4$ | 51.2 | $37 \cdot 6$ | $56 \cdot 1$ | 39.4 | 83.9 | 63.6 | .... | .... |
| 28 | 45.0 | 29.5 | .... | .... |  | .... | $65 \cdot 9$ | $37 \cdot 4$ | 78:5 | 51.1 | 827 | 66.8 |
| 29 | 31.0 | 19.0 | .... | .... | 442 | $30 \cdot 2$ | $60 \cdot 4$ | 46.9 | 88.6 | 523 | 74.8 | 59.5 |
| 30 | 53.3 | 25.2 | .... | $\cdots$ | 49.2 | $25 \cdot 9$ | $49 \cdot 0$ | 36.7 | ... | .... | $78 \cdot 1$ | $58 \cdot 1$ |
| 31 | 33.8 | 21.0 | . $\cdot$. | . $\cdot$. | 516.7 | 23:5 | .... | . $\cdot$ | 78.7 | 52.6 | .... | $\cdots$ |
|  | 45.1 | 28.4 | 41.8 | 23.2 | $4{ }^{1} 9$ | 24.6 | 58.6 | $35 \cdot 8$ | 767 | 52.2 | \% 81.0 | 58.0 |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | M1n. | Max. | Min. | Max. | Min. | Max. | MIn. | Max. | Min. | Max. | Min. | 耎 |
| - | - | - | - | $\bullet$ | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - |  |
| 83.9 | 59.0 | .... | .... | 98.2 | $67 \cdot 1$ | 62-9 | $42 \cdot 2$ | $54 \cdot 1$ | 33.2 | 31.0 | 23.0 | 1 |
| 73.3 | 61.1 | $87 \cdot 1$ | 58.9 | 87.9 | $72 \cdot 1$ | $73 \cdot 8$ | $52 \cdot 1$ | $54 \cdot 1$ | 31.5 | $32 \cdot 8$ | 28.0 | 2 |
| 77.8 | 54.6 | 67.7 | $52 \cdot 1$ | 84.9 | 71.1 | .... | .... | $60 \cdot 9$ | 372 | $35 \cdot 2$ | 21.0 | 3 |
| .... | - | 77.6 | $40^{\circ} 0$ | $86 \cdot 1$ | $69 \cdot 1$ | $88 \cdot 9$ | 43.9 | $56 \cdot 4$ | $49 \cdot 2$ | 38.7 | 17.2 | 4 |
| 84.4 | 54.0 | 754 | 57.3 | .... | .... | 66.5 | 40.2 | 81.1 | $41 \%$ | $\ldots$ | $\ldots$ | 5 |
| 84.9 | 61.1 | $77 \cdot 3$ | 52.8 | 85-9 | $62 \cdot 1$ | 59.7 | 34.2 | 430 | 300 | $32 \cdot 6$ | 13.0 | 8 |
| $86 \cdot 4$ | 59.1 | $84 \cdot 4$ | $52 \cdot 1$ | $64 \cdot 9$ | $50 \cdot 2$ | 57.9 | 34.2 | . | $\ldots$ | 17.5 | 8.0 | 7 |
| $87 \cdot 4$ | 82.1 | .... | .... | 61.7 | $45 \cdot 2$ | $72 \cdot 4$ | 38.7 | $51 \% 3$ | 27.0 | 15.7 | 8.0 | 8 |
| $90 \cdot 5$ | $64 \cdot 6$ | $87 \cdot 4$ | 54.4 | $65 \cdot 9$ | 51.9 | 79.2 | 397 | $64 \cdot 9$ | 387 | $18 \cdot 1$ | 6.0 | 9 |
| $89 \cdot 4$ | 64.9 | $79 \cdot 9$ | $63 \cdot 1$ | 71.2 | 40.2 | $\ldots$ | .... | 54.1 | 41.2 | $22 \cdot 1$ | 9:5 | 10 |
| .... | .... | 75.6 | 62.1 | 74.0 | 457 | 78.8 | 46.7 | 53.7 | $34 \cdot 2$ | 317 | 15.0 | 11 |
| 907 | 68.1 | 78.8 | 57.6 | .... | ... | $64 \cdot 3$ | 46.7 | 35.8 | 30.0 | $\ldots$ | $\ldots$ | 12 |
| 94.7 | $73 \cdot 1$ | 84.4 | $57 \cdot 1$ | 77.8 | 49.2 | 58.0 | 36.2 | $42 \cdot 4$ | 25.0 | 38.3 | 20.0 | 13 |
| 81.0 | 686 | $73 \cdot 8$ | 63.5 | 63.0 | 41.2 | 627 | 41.2 | .... | $\ldots$ | $\pm 0 \cdot 6$ | 30.0 | 14 |
| 86.9 | 65.1 | ... | .... | $70 \cdot 9$ | 37.7 | $69 \cdot 3$ | 53.6 | 36.0 | 22.0 | $33 \cdot 6$ | 31.0 | 15 |
| $79 \cdot 2$ | 63.1 | $69 \cdot 9$ | $48 \cdot 2$ | 78.8 | $54 \cdot 1$ | $64 \cdot 1$ | 39.2 | 34.2 | 21.0 | :28 | $2 \pm 0$ | 16 |
| 76.6 | $57 \cdot 1$ | $77 \cdot 1$ | 52.1 | $84 \cdot 9$ | 61.1 | $\ldots$ | $\ldots$ | 21.9 | 17.0 | 278 | 22.5 | 17 |
| ... | .... | 87.9 | $64 \cdot 1$ | 85.5 | $60 \cdot 1$ | 45.5 | 32\% | 19.0 | 10.0 | 27.0 | $19 \cdot 0$ | 18 |
| 79.6 | 57.1 | 78.6 | 66.1 | .... | ... | 44.2 | 27.0 | 200 | 5.0 | $\cdots$ |  | 19 |
| 71.8 | 55.1 | $83 \cdot 4$ | $60 \cdot 3$ | 79.3 | 54.1 | $52 \cdot 7$ | 31.0 | 270 | 130 | 280 | 17.4 | 20 |
| 74.8 | 51.4 | 793 | 62.0 | 63.9 | 497 | $59 \%$ | 39.2 | $\ldots$ |  | 27.5 | 24.9 | 21 |
| $77 \cdot 1$ | 50.4 | .... | ... | 63.9 | 41.2 | 43.2 | 38.2 | 15:5 | $2 \cdot 0$ | 250 | 20:3 | 22 |
| 77.8 | $57 \cdot 1$ | $88 \cdot 4$ | 53.3 | 68.7 | $42 \cdot 4$ | 4.0 | $31 \%$ | 21.9 | $5 \cdot 6$ | 4 | 24.0 | 23 |
| $85-2$ | 58.1 | $85 \cdot 4$ | $57 \cdot 1$ | 78.8 | 43.7 | $\ldots$ | $\ldots$ | $24 \cdot 8$ | $9 \cdot 0$ | 250 | 257 | 24 |
| - | ... | $72 \cdot 8$ | 61.6 | $81 \cdot 9$ | 57.1 | $53 \cdot 1$ | 28.0 | $2{ }^{2} 0$ | 14.1 | $29 \cdot 4$ | 23.11 | 2.5 |
| 86.4 | 61.5 | 74.6 | $59 \cdot 1$ | .... | $\cdots$ | $53 \cdot 1$ | 39.2 | $\because 60$ | 14.0 |  |  | 26 |
| $76 \cdot 1$ | $60 \cdot 1$ | 92-2 | 64.6 | 74.2 | $49 \cdot 7$ | 41.0 | 35.2 | $30 \cdot 2$ | 9.5 | 32.0 | 4.7 | 27 |
| 73.7 | $51 \cdot 4$ | $84 \cdot 9$ | 68.6 | 59.9 | 47.2 | 43.0 | 30.0 | $\cdots$ |  | $1 \times$ | $4 \cdot 4$ | 24 |
| $79 \cdot 8$ | 57.9 |  | .... | 54.9 | 43.2 | $52 \cdot 4$ | 32.7 | 338 | 16.0 | 14 | 114 | 29 |
| $84 \cdot 1$ | 55.3 | 72.3 | 63.6 | 57.3 | 34:2 | 502 | $45 \%$ | 276 | 80 | $9 \cdot 5$ | 9:5 | 50 |
| $85 \cdot 2$ | 577 | 82-9 | $68 \cdot 1$ | .... | .... | . | .... | $\cdots$ | .... | 9.0 | $4 \times$ | 31 |
| $82 \cdot 3$ | 59.6 | 80.0 | 58.7 | $73 \cdot 8$ | 51.6 | 58.4 | $38 \cdot 6$ | $38 \cdot 4$ | $22 \cdot 3$ | $25 \cdot 8$ | 15.1 |  |

TABLE XXXIV.—Stratford, Ont. Maximum

| $\stackrel{\dot{C}}{\dot{A}}$ | January. |  | February. |  | March. |  | Aprll. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | M1n. | Max. | Min. | Max, | Min. | Max. | Min. | Max. | Mia. | Max. | M1n. |
|  | $\bigcirc$ | $\bigcirc$ | - | - | - | $\bigcirc$ | 0 | - | 9 | - | 8 | - |
| 1 | 82•8 | $20 \cdot 1$ | 268 | 47 | $26 \cdot 4$ | 20.4 | 487 | 31.4 | 537 | 25.2 | $62 \cdot 3$ | 43.8 |
| 2 | 887 | 25.0 | 200 | 4-9 | 38.8 | $23 \cdot 1$ | 440 | 23.5 | 69.0 | 44.0 | 65.8 | 41.5 |
| 8 | $44 \cdot 4$ | 17.0 | 177 | 87 | 42.6 | $29 \cdot 3$ | 63.2 | 41.0 | 773 | 52.5 | 66.0 | 48.6 |
| 4 | $45 \cdot 3$ | $30-0$ | $24 \cdot 8$ | $11 \cdot 3$ | 48.2 | $39 \cdot 9$ | 550 | 42.2 | 80.0 | 53.5 | 72:3 | 47.0 |
| 5 | $35 \cdot 3$ | 26.2 | $25 \cdot 1$ | 9.7 | 48.5 | $30 \cdot 4$ | 43.6 | $30 \cdot 4$ | 79.0 | 47.8 | 727 | 58.0 |
| 6 | $41 \cdot 4$ | 30.8 | 22.3 | 9.7 | 35.0 | 27.3 | 36.3 | 27.0 | 71.3 | 420 | 740 | 57.0 |
| 7 | $36 \cdot 2$ | 31.4 | 25.8 | 7.7 | 459 | 19.1 | $31 \cdot 6$ | 20.3 | $70 \cdot 5$ | 47.0 | 63.5 | 48.0 |
| 8 | $39-2$ | 31.4 | 31.9 | 53 | 23.9 | 6.9 | 37.3 | 21.4 | 81.5 | 473 | 70.5 | 43.3 |
| $\theta$ | 51.0 | 34.6 | $32 \cdot 2$ | $3 \cdot 9$ | 30.5 | $12 \cdot 1$ | $51-2$ | 27.8 | $81 \cdot 3$ | 630 | 78.3 | 49.0 |
| 10 | 43.6 | 26.2 | $32 \cdot 4$ | 3.8 | 29.8 | $12 \cdot 7$ | 53.5 | 25.2 | 72.3 | 59.0 | 77.2 | 58.4 |
| 11 | 54.5 | 28.3 | $39 \cdot 4$ | 3.1 | 33.2 | 12.6 | 28.9 | 18.7 | 71.5 | 50.0 | 85.2 | 63.0 |
| 12 | 35.8 | 20.1 | $47 \cdot 4$ | 33.0 | 29.2 | 8.7 | 38.0 | $19 \cdot 1$ | 63.5 | 39.0 | 80.0 | 68.2 |
| 13 | 29.2 | $12 \cdot 9$ | 35-1 | 27.8 | 27.9 | 11.9 | 63.0 | 327 | 54:3 | 36.7 | 76.0 | 55.6 |
| 14 | $33 \cdot 3$ | 12.9 | 29.2 | 21.3 | 29.9 | 21.1 | $69 \cdot 7$ | 470 | 61.5 | $32 \cdot 5$ | 64.0 | $50 \cdot 2$ |
| 15 | $33 \cdot 3$ | 21.5 | 32.5 | 32.7 | 32.8 | $19 \cdot 5$ | $62 \cdot 5$ | 43.8 | 68.5 | 336 | $72 \cdot 5$ | $55 \cdot 6$ |
| 16 | 38.2 | $24 \cdot 7$ | 43.8 | 25.2 | 30.5 | 23.1 | 44.0 | 32.8 | 76.5 | 46.2 | 76.5 | $47 \cdot 6$ |
| 17 | 43.8 | $34 \cdot 4$ | 50.9 | $34 \cdot 9$ | $27 \cdot 5$ | 16.8 | 41.9 | 29.9 | 820 | 51.0 | 80.2 | 46.0 |
| 18 | 38.7 | 31.0 | - $49 \cdot 1$ | 219 | 36.4 | 14.4 | 47.3 | 29.4 | $84 \cdot 5$ | 58.5 | 830 | 49.0 |
| 19 | 44.0 | 29.9 | 21.9 | $8 \cdot 9$ | 36.0 | 21.1 | 68.8 | 38.9 | 84.0 | $55 \cdot 4$ | 81.5 | 50.0 |
| 20 | $35 \cdot 1$ | 21.4 | 25.8 | 10.8 | 340 | 19.0 | 55.3 | $34 \cdot 7$ | 73.6 | $54 \cdot 1$ | 78.5 | $58 \cdot 4$ |
| 21 | 30.7 | 15.7 | $32 \cdot 6$ | 18.0 | 40.2 | 8.7 | 66.5 | $43 \cdot 3$ | $61 \cdot 5$ | 51.8 | $79 \cdot 5$ | 60.0 |
| 22 | 38.0 | 24.0 | 36.5 | 18.0 | 41.6 | $30 \cdot 6$ | $61 \cdot 1$ | $41 \cdot 3$ | 637 | $54 \cdot 0$ | 83.0 | 60.0 |
| 23 | 35.0 | 21.8 | 33.6 | 16.0 | 475 | 225 | 42•1 | $30 \cdot 4$ | 76.8 | $48 \cdot 2$ | 85.5 | 57.2 |
| 24 | 29.7 | $23 \cdot 1$ | $39 \cdot 7$ | 15.0 | 215 | 97 | 47.0 | 34.0 | $80 \cdot 5$ | 59.8 | 84.5 | 64.0 |
| 25 | 39.1 | $23 \cdot 1$ | 46.0 | $37 \cdot 8$ | 345 | 5.9 | $44 \cdot 6$ | $37 \cdot 4$ | $87 \cdot 7$ | $54 \cdot 0$ | 76.5 | 65.8 |
| 26 | 40.5 | $31 \cdot 4$ | 48.8 | 35.0 | 456 | 24.4 | 600 | 41.8 | 847 | 60.0 | 81.8 | 61.5 |
| 27 | 44.6 | 333 | 54.0 | 35.0 | 38.5 | 31.2 | 48.0 | 357 | 83.2 | 60.0 | 78.5 | 57.8 |
| 28 | 34.3 | 22.8 | 54.0 | 33.9 | 35.0 | $21 ; 4$ | 63.2 | $34 \cdot 9$ | 65.8 | 48.0 | 78.5 | 61.0 |
| 29 | 26.0 | 129 | 52.8 | 23.7 | 36.5 | 21.4 | 55.7 | $45 \cdot 0$ | $72 \cdot 5$ | 41.0 | 73.5 | $57 \cdot 5$ |
| 30 | 44.8 | 16.7 | .... | .... | $45^{\circ} 0$ | 245 | 48.5 | 28.3 | 68.0 | 50.8 | $73 \cdot 7$ | 54.5 |
| 81 | 35.0 | 193 | -•• | $\ldots$ | 54.0 | 20.2 | ... | . | $73 \cdot 5$ | 51.7 | $\ldots$ | $\ldots$ |
|  | $38 \cdot 4$ | $24 \cdot 3$ | 35.0 | 17.7 | 36.3 | 20.0 | $50 \cdot 3$ | $33 \cdot 1$ | $73 \cdot 3$ | $49 \cdot 1$ | $75 \cdot 8$ | $54 \cdot 3$ |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | MIn. | Max. | Min. | Max. | Min. | 呙 |
| - | $\bigcirc$ | - | - | $\because$ | - | - | ? | 2 | $\bigcirc$ | 9 | - |  |
| -... | .... | 85.3 | 57.0 | 87.0 | 61.5 | 55.2 | $35 \%$ | 46.3 | 32.3 | 31.5 | 12.9 | 1 |
| .... | .... | 72.0 | 549 | 817 | 68.5 | 723 | 47.0 | 43.8 | 26.2 | 317 | 21.8 | 2 |
| $77 \cdot 0$ | 57.8 | 69.0 | 47.0 | 78.0 | $65^{\circ} 0$ | 63.5 | $49 \cdot 8$ | 557 | $30 \cdot 9$ | 31.2 | 11.9 | 3 |
| $80 \cdot 5$ | 46.0 | 73.7 | 42.0 | 80.2 | 62.0 | 57.0 | 39.9 | 55.5 | 41.0 | 35.8 | $8 \cdot 3$ | 4 |
| 73.5 | 57.0 | 74.5 | 48.0 | 81.2 | 55.0 | 60.8 | 37.5 | 58.0 | 46.0 | $47 \cdot 0$ | 19.5 | 5 |
| 76.8 | 49.5 | 77.5 | 43.3 | 72.8 | 51.9 | 50.8 | 37.0 | $46 \cdot 1$ | 37.8 | $22 \cdot 4$ | 14.2 | 6 |
| $80 \cdot 5$ | 490 | 83.5 | 48.2 | 62.8 | 45.0 | 54.2 | $29 \cdot 1$ | 40.7 | 29.3 | 14.2 | 87 | 7 |
| 835 | 54.0 | 85.7 | 51.0 | $60 \cdot 8$ | $40 \cdot 8$ | $62 \cdot 5$ | 33.6 | $40 \cdot 3$ | 29.0 | 15.0 | 6.0 | 8 |
| $88 \cdot 3$ | 63.7 | .... | - | 62.0 | $40 \cdot 0$ | 72.0 | 35.7 | 53.5 | 32.2 | 17.7 | 42 | 8 |
| 82.5 | 62.2 | .... | $\ldots$ | 67.3 | $31 \cdot 3$ | 72.2 | 41.0 | $50-5$ | 36.2 | 17.0 | $3 \cdot 1$ | 10 |
| 85.8 | 67.0 | .... | .... | 73.0 | 40.0 | 75.7 | 51.0 | 50.5 | 34.0 | $2 \overline{7} \cdot 9$ | 12.1 | 11 |
| $82 \cdot 5$ | $66^{\circ} 0$ | - | . | 76.0 | 46.0 | 64.5 | 372 | 37.9 | $29 \cdot 1$ | 348 | 27.2 | 12 |
| 83.0 | 66.0 | .... | .... | 63.0 | 46.6 | 57.2 | $28 \cdot 3$ | 348 | 16.4 | $35 \cdot 3$ | 268 | 16 |
| 84.5 | 65.8 | .... | $\cdots$ | $60 \cdot 7$ | 41.0 | 63.3 | $33 \cdot 6$ | 33.5 | $20 \cdot 6$ | $37 \cdot 3$ | 26.8 | 14 |
| 84.0 | 62.0 | 65.2 | 47.0 | 67.5 | 33.0 | $70 \cdot 0$ | 51.0 | 29.9 | 16.0 | 33.8 | $25 \cdot 2$ | 15 |
| $72 \cdot 1$ | 59.0 | 70.8 | $37 \cdot 0$ | 723 | $52 \cdot 5$ | 65.0 | $47 \cdot 0$ | 34.8 | 14.0 | 27.9 | 15.0 | 16 |
| 68.8 | 55.4 | 787 | $41 \cdot 7$ | 80.3 | 56.0 | $47 \%$ | 3:1 | 26.8 | 16.0 | 21.4 | 10.8 | 17 |
| $73 \cdot 3$ | 55.0 | 822 | 62.2 | 82.2 | 65.0 | $37 \cdot 4$ | $30 \cdot 4$ | $23 \cdot 1$ | 13.3 | 187 | $8 \cdot 6$ | 18 |
| 67.5 | 52.0 | 75.8 | 61.4 | 70.5 | 60.0 | 38.8 | $28 \cdot 5$ | 24.0 | $7 \cdot 5$ | 245 | 12.6 | 18 |
| 65.8 | 517 | 790 | 61.4 | $67 \cdot 8$ | 53.5 | 49.5 | $29 \cdot 1$ | 23.0 | 97 | 23.8 | 18.0 | 20 |
| 69.7 | 44.7 | 72.8 | 55.7 | 57.5 | 46.5 | 51.0 | 31.5 | 140 | 4.0 | 21.2 | 150 | 21 |
| $74 \cdot 5$ | 46.7 | 80.7 | 507 | 54.0 | 35.0 | $42 \cdot 4$ | 32.0 | 117 | 2.2 | 22:3 | 9.0 | 22 |
| 71.5 | 55.8 | 87.0 | 58.0 | 635 | 33.5 | 38.0 | $32 \cdot 4$ | 20.4 | - 6.6 | 25.1 | 18.2 | 23 |
| 797 | 53.0 | 84.5 | 58.0 | 73.0 | 357 | 87.4 | 293 | $22 \cdot 4$ | 8.7 | 25.8 | 21-1 | 24 |
| 82.5 | $60^{\circ} 0$ | $70 \cdot 8$ | 54.5 | 75.0 | $48 \cdot 0$ | $45 \cdot 1$ | 29.3 | 23.3 | 11.2 | 25.2 | $22 \cdot 8$ | 25 |
| $75 \cdot 5$ | 60.0 | 72.7 | $48 \cdot 5$ | 74.0 | 61.0 | 49.5 | $39 \cdot 1$ | 22.7 | 10.8 | $33 \cdot 1$ | 24.4 | 26 |
| 72:8 | 56.5 | 88\% | $59 \cdot 4$ | 67.5 | 493 | $41 \cdot 4$ | 28.0 | 26.8 | 3.0 | 305 | 10.1 | 27 |
| 72:3 | 47.0 | $80 \cdot 5$ | 69.4 | 56.5 | $46 \cdot 4$ | 37.9 | 2289 | 32.8 | 20.3 | $10-5$ | - 4.2 | 28 |
| 74.5 | 47.7 | 69.0 | 63.0 | 48.5 | $42 \cdot 3$ | $49 \cdot 5$ | 29\% | 80.9 | 18.4 | 1.8 | 12.9 | 29 |
| 78:3 | 46.5 | $72 \cdot 2$ | 590 | 46.2 | 357 | 48.8 | $35 \cdot 9$ | 245 | 127 | $4 \cdot 9$ | 14.9 | 30 |
| $83 \cdot 5$ | 54.0 | 73-1 | 59.0 | $\ldots$ | .... | $45 \cdot 6$ | $32 \cdot 5$ | $\cdots$ | $\ldots$ | $3 \cdot 2$ | 11.8 | 31 |
| 77:4 | [65.5 | 778 | 53.5 | 69.5 | 48.3 | 512 | $35 \cdot 4$ | $34 \cdot 6$ | 18.5 | 24.1 | 118 |  |

TABLE XXXV.-Granton, Ont. Maximu'in

| $\begin{aligned} & \dot{B} \\ & \dot{A} \end{aligned}$ | January. |  | Februars. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Mas. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | - | - | - | - | - | - | - | - | - | - |
| 1 | 35.0 | 20.0 | 28.2 | 70 | 28.4 | 21.0 | 50.2 | 33.0 | 47.0 | 24.0 | $61 * 8$ | 44.0 |
| 2 | 39.0 | 30.0 | 20.0 | 1.0 | 40.2 | 21.0 | 4.0 | 25.0 | 71.8 | 45.0 | 65.8 | 44.0 |
| 3 | 450 | 22.0 | 20.0 | 13.0 | 41.0 | $3 \mu 0$ | 55.0 | 48.0 | 79.8 | 54.0 | $66 \cdot 4$ | 49.0 |
| 4 | 48.0 | 22.0 | 250 | 12.0 | 48.6 | 40.0 | 55.2 | 43.0 | 82.8 | 53.0 | 73.8 | 51.0 |
| 5 | 400 | 29.0 | 26.2 | 9.8 | 50-2 | 31.0 | 44.0 | 32.0 | $82 \cdot 8$ | 53.0 | 65.8 | 58.0 |
| 6 | $45 \cdot 2$ | $32 \cdot 2$ | 23.0 | 7.5 | 40.0 | 28.0 | 370 | 27.0 | $69-8$ | 42.0 | $74 \cdot 8$ | $61 \cdot 4$ |
| 7 | 40.0 | 30.0 | 28.6 | $7 \cdot 0$ | 500 | 210 | 340 | 22.0 | $75 \cdot 8$ | 47.0 | 64.8 | 60.0 |
| 8 | 42.2 | 33.0 | 31.0 | 6.0 | 19.0 | $9-9$ | 40.0 | 21.0 | 778 | 54.0 | 71.8 | $45^{\circ} 0$ |
| , 9 | 51.9 | 37.0 | 34.2 | 5.0 | 82.0 | 9.0 | 53.0 | 28.0 | 78.8 | 63.0 | 78.8 | 50.0 |
| 10 | 48.2 | 30.0 | 35.0 | $5 \cdot 0$ | 17.0 | $9 \cdot 4$ | 59.0 | 27.0 | 72.8 | 58.0 | 78.8 | 58.0 |
| 11 | 54.3 | 30.0 | 41.2 | $12 \cdot 1$ | $35 \cdot 4$ | 13.0 | 30.0 | 190 | $65 \cdot 8$ | 47.0 | 848 | 61.0 |
| 12 | 40.0 | 23.0 | 49.0 | 34.0 | 32.0 | 120 | 39.0 | 25.0 | $65 \cdot 8$ | 39.0 | 81.8 | $66^{\circ} 0$ |
| 13 | 30.0 | 19.0 | $35 \cdot 4$ | 29.0 | 31.5 | 14.6 | 63.8 | 32.0 | 61.8 | 37.0 | 77.8 | 570 |
| 14 | 37.0 | 220 | $30 \cdot 2$ | 23.0 | 32.0 | 22.0 | 72.4 | 500 | 640 | 33.0 | 64.8 | 50.0 |
| 15 | 36.0 | 26.0 | 33.6 | 236 | 35.0 | 20.0 | 64.8 | 440 | 67.8 | 340 | 75.2 | 55.0 |
| 18 | $30-2$ | 260 | $47 \cdot 6$ | 26.0 | $82 \cdot 2$ | 240 | 45.0 | 33.0 | 728 | $47^{\circ} 0$ | 79.8 | 480 |
| 17 | 47.0 | 37.0 | 54.0 | 350 | 20.0 | 18.4 | 44.0 | 30.0 | 798 | 52.0 | 79.8 | $48 \cdot 4$ |
| 18 | 42.0 | 35.0 | $50 \cdot 2$ | 22.0 | 37.0 | 172 | 51.2 | 32.0 | 85.8 | 60.0 | 82.8 | 48.0 |
| 19 | 460 | 84.0 | 24.0 | 98 | 37.3 | 24.6 | 69.8 | 35.0 | 68.0 | 59.0 | 80.8 | 510 |
| 20 | 40.0 | 26.0 | 28.2 | 170 | 35.4 | 22.0 | 58.0 | 35.0 | 760 | 59.0 | 80.8 | 58.0 |
| 21 | 32.0 | 250 | 32.0 | 23.0 | 45.0 | 12.0 | 68.8 | 42.0 | $63 \cdot 8$ | 55.0 | 82.0 | 69.6 |
| 22 | $30 \cdot 2$ | 28.0 | 30.0 | 19.2 | 45.2 | 320 | 62.8 | 420 | 63.8 | 52.0 | 840 | 610 |
| 23 | $35^{\circ} 0$ | 24.0 | 350 | $17 \cdot 6$ | 49.0 | 240 | 44.5 | $31 \cdot 4$ | 73.0 | 49.0 | 85.8 | 63.0 |
| 24 | 33.6 | 23.0 | 41.2 | 18.0 | 24.6 | 13.0 | 48.6 | 35.0 | 838 | 61.0 | 88.1 | 87.0 |
| 25 | $45 \cdot 4$ | 23.0 | 48.2 | 38.0 | 86.0 | $6 \cdot 5$ | 47.0 | 35.0 | 88.8 | 56.0 | $75-8$ | 67.0 |
| 28 | 42.0 | 81.0 | 53.4 | $34 \cdot 0$ | 476 | 25.0 | 61.2 | 42.0 | $87 \cdot 4$ | 61.0 | 82.0 | 62-2 |
| 27 | $49 \cdot 0$ | 32.0 | 57.0 | 85.0 | 37.0 | 330 | $50 \cdot 8$ | 350 | $82 \cdot 8$ | 64.0 | 80.8 | 61.4 |
| 28 | 41.0 | 24.0 | 57.2 | 376 | 390 | 28.0 | $65 \cdot 8$ | 38.0 | 67.8 | 48.0 | 77.8 | 60.4 |
| 29 | 27.0 | 18.0 | 54.0 | 250 | 380 | 240 | 56.1 | 44.0 | 71.8 | 48.0 | 72.8 | 55.0 |
| 80 | 48.0 | 170 | $\cdots$ | -••' | $42 \cdot 6$ | 24.0 | $46^{\circ} 0$ | 300 | 69.2 | 53.0 | 740 | 55.0 |
| 81 | $85^{\circ} 0$ | 24.0 | $\cdots$ | $\cdots$ | 57.0 | 25.0 | $\cdots$ | $\cdots$ | $74.8{ }^{\circ}$ | 510 | ' $\cdot \cdot$ | -** |
|  | 41.4 | 20.8 | 874 | $18 \cdot 3$ | 877 | 21.1 | 52.0 | $88 \cdot 9$ | 73.8 | $50 \cdot 1$ | 76.5 | $55 \%$ |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | 免 |
| - | $\bigcirc$ | - | - | - | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | 0 | $\sim$ |  |
| 77.8 | 56.0 | 87.8 | 65.0 | 87.8 | 63.0 | 56.0 | 38.0 | $48 \cdot 6$ | 33.0 | 31.0 | $20 \cdot 0$ | 1 |
| 74.0 | 59.0 | 72.8 | 53.0 | 84.8 | 65.0 | $70 \cdot 8$ | 30.0 | $46 \cdot 6$ | 27.0 | 31.4 | 25.5 | 2 |
| 78.0 | $49 \cdot 0$ | 70.8 | 49.0 | 83.8 | 67.0 | 63.4 | 50.0 | $59 \cdot 6$ | 32.0 | 31.5 | 17.0 | 3 |
| $81 \cdot 8$ | $48 \cdot 0$ | 75.0 | 47.5 | $80 \cdot 8$ | 66.0 | 54.0 | 31.0 | 57.2 | 45.0 | 38.5 | 98 | 4 |
| $73 \cdot 4$ | 59.6 | 72.8 | 53.0 | $82 \cdot 0$ | 58.0 | 60.0 | 24.0 | $60 \cdot 2$ | 46.0 | 40.0 | $2 \% 0$ | 5 |
| 78.8 | $51 \cdot 1$ | 77.8 | 49.0 | 74.3 | 53.0 | 52.0 | 22.0 | 47.0 | 38.0 | 21.0 | 110 | 6 |
| $84 \cdot 1$ | $52 \cdot 0$ | $85 \cdot 4$ | 56.0 | 63.3 | 47.0 | 54.0 | $32 \cdot 6$ | 38.5 | 29.0 | 16.0 | 90 | 7 |
| 86.8 | 60.0 | 87.0 | 56.4 | 61.8 | 41.0 | 62.8 | $32 \cdot 5$ | 42.0 | 24.0 | 16.0 | 7 | 8 |
| $88 \cdot 8$ | 64.0 | 85.8 | 63.0 | 63.8 | 40.6 | $73 \cdot 8$ | 45.0 | 57.2 | 36.0 | 16.0 | $5 \cdot 0$ | 9 |
| 84.8 | 62.0 | 77.8 | 58.0 | 62.8 | 38.0 | 73.8 | 49.0 | $52 \cdot 4$ | 36.0 | 14.0 | 3.5 | 10 |
| 85.8 | 67.0 | 82.8 | 58.0 | 738 | 47.6 | 76.8 | 55.0 | 53.0 | $\because 10$ | 29.2 | 12.5 | 11 |
| 83.8 | 66.0 | 83.2 | 51.6 | 77.8 | 51.0 | $65 \cdot 8$ | $3 \cdot 5$ | 32.0 | 230 | $36 \%$ | 27.0 | 1: |
| $82 \cdot 8$ | 68.0 | 79.2 | 59.0 | 62.0 | 46.0 | 60.2 | $30 \cdot 6$ | $3+0$ | 240 | ' $\ddagger$ ' $\ddagger$ | $\bigcirc{ }^{-1}$ | 13 |
| 85.8 | 67.0 | 733 | 57.0 | 61.8 | $43 \cdot 4$ | $64 \cdot 8$ | 350 | 34.6 | 19.0 | 38.0 | 27.4 | 14 |
| $85 \cdot 8$ | 65.8 | 66.8 | 47.0 | 68.0 | 35.2 | 728 | 39.0 | 20.0 | 150 | 33.0 | 28.0 | 15 |
| 72.8 | 62.0 | 74.0 | $39 \cdot 0$ | $72 \cdot 8$ | $53 \cdot 6$ | 67.0 | 47.0 | 35.0 | 150 | 23.5 | 18.0 | 16 |
| 71.8 | 59.0 | 78.8 | 45.0 | 79.8 | 58.6 | 48.2 | 32.0 | 26.0 | 16.0 | 236 | $15^{\circ} 0$ | 17 |
| $78 \cdot 1$ | $54 \cdot 0$ | 82.8 | 62.6 | 81.8 | 54.0 | 37.2 | 31.0 | 18.0 | 14.0 | $20 \cdot 3$ | 12.5 | 18 |
| 68.8 | 57.7 | 75.8 | 65.0 | 72.4 | 620 | 41.0 | 24.0 | 21.2 | 70 | 27.0 | 17.0 | 19 |
| 65.8 | 57.7 | 78.8 | 61.9 | 62.4 | 54.0 | 52.0 | 30.0 | 25.2 | $9 \cdot 2$ | 250 | $20 \cdot 0$ | 30 |
| $71 \cdot 1$ | 52.0 | 74.8 | 60.0 | 59.0 | 47.0 | 51.4 | 35.0 | 12.0 | $4 \cdot 0$ | 21.5 | 16.0 | 21 |
| 75.8 | $52 \cdot 6$ | 81.8 | 53.0 | $54 \cdot 5$ | 4.0 | 43.2 | 330 | 12.0 | 1.0 | 24.0 | 12.0 | 2 |
| 74.0 | 59.0 | 88.8 | 62.0 | 64.8 | 35.0 | 41.0 | 32.2 | 22.2 | - 20 | 27.0 | 19.0 | 23 |
| 80.8 | 58.6 | $85 \cdot 8$ | 61.0 | 75.0 | 43.0 | 37.0 | 32.0 | 24.2 | - 2.0 | 270 | 22.0 | 21 |
| 84.8 | 64.0 | 71.8 | 57.0 | 77.8 | $55 \cdot 6$ | 47.5 | $29 \cdot 6$ | 25.3 | 12.0 | 27.0 | 21.0 | 25 |
| 71.8 | 64.0 | $74 \cdot 8$ | 51.0 | $73 \cdot 2$ | 61.0 | 50.0 | 37.0 | 27.0 | -5.0 | 33.6 | 21.0 | 26 |
| 758 | $59 \cdot 6$ | $\mathbf{8 9} \cdot 8$ | 605 | 68.0 | $49 \cdot 3$ | 39.0 | 24.0 | 29.0 | 8.1 | 31.0 | 7.0 | 27 |
| 72.8 | $50 \cdot 0$ | $81 \cdot 4$ | 69.0 | 55.0 | 31.0 | 42.2 | 27.0 | 34.0 | 11.5 | 9.0 | - 40 | 28 |
| $76 \cdot 0$ | 59.0 | 718 | 64.0 | 49.0 | 330 | 53.0 | 30.0 | 32.2 | 18.0 | $-10$ | - 12.6 | 29 |
| 81.0 | 53.0 | 74.0 | 60.0 | 49.6 | 38.0 | 49.0 | 39.0 | 26.4 | 11.6 | 4.0 | 14.8 | 30 |
| 85.8 | 58*) | 76.8 | $59 \cdot 3$ | $\ldots$ | $\ldots$ | 47.0 | 36.0 |  |  | $7 \cdot 0$ | -86 | 31 |
| 78.6 | 58.5 | 75*4 | 56.5 | 60.5 | $48 \cdot 1$ | $55^{\circ} 0$ | 31.0 | $35 \cdot 4$ | 19.0 | 24.5 | 18.5 |  |

TABLE XXXVI.—Goderich, Ont. Maximum

| $\begin{aligned} & \dot{\Delta} \\ & \hat{4} \end{aligned}$ | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | MIn. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | - | - | - | - | - | - | - | - | - | - |
| 1 | 36.5 | 24.5 | 29.2 | 8.5 | 28.0 | 23.4 | $45 \cdot 1$ | $33 \cdot 4$ | 52-9 | $3 \mathrm{~S} \cdot 4$ | $59 \cdot 3$ | $44 \cdot 9$ |
| 2 | 37.8 | 28.3 | 20.8 | 12.4 | 34.4 | 24.0 | 44.5 | 35.0 | $69 \cdot 4$ | 45.9 | 65.5 | $43 \cdot 8$ |
| 3 | 47.0 | $24 \cdot 4$ | 20.0 | 12.9 | 46.8 | 34.4 | $55 \cdot 1$ | 48.8 | 70.2 | 57.0 | 60.3 | $44 \cdot 3$ |
| 4 | 47.0 | 29.7 | $24 \cdot 2$ | 140 | 46.2 | 36.7 | $55 \cdot 1$ | 38.7 | 76.4 | 53.0 | 73.2 | 53.5 |
| 5 | 40.5 | 28.7 | 25.2 | 16.8 | $51 \cdot 2$ | 31.7 | $44 \cdot 1$ | 31.6 | $77 \cdot 5$ | 550 | 70.0 | -60.0 |
| 6 | $45 \cdot 1$ | $34 \cdot 9$ | $23 \cdot 4$ | $15 \cdot 3$ | $35 \cdot 4$ | 30.0 | 34.5 | 30.0 | 57.3 | 40.6 | 76.4 | 62.5 |
| 7 | 37.2 | 29.7 | 27.5 | 18.3 | 45.3 | 18.3 | 32.0 | 26.6 | $64 \cdot 2$ | 50.9 | 624 | 52.0 |
| 8 | $45 \cdot 1$ | $35 \cdot 6$ | 37.2 | 128 | 18.5 | 4.8 | 37.2 | 25.8 | 73.2 | 44.5 | 68.4 | 42.8 |
| 9 | 54.4 | 377 | 23.0 | $7 \cdot \pm$ | 32.2 | $14 \cdot 1$ | 48.0 | 34.5 | $73 \cdot 4$ | 58.3 | $75 \cdot 2$ | 527 |
| 10 | 38.8 | $28 \cdot 1$ | $34 \cdot 3$ | 87 | 250 | 11.5 | $50 \cdot 1$ | 31.3 | 68.8 | 54.0 | 78.1 | 60.1 |
| 11 | $57 \cdot 3$ | 34.2 | $44 \cdot 1$ | 17.5 | 33.3 | 14.0 | 32.0 | 21.4 | 67.5 | 46.9 | $81 \cdot 3$ | 57.3 |
| 12 | 35.2 | 20.4 | 45.3 | 32.7 | $25 \cdot 4$ | 10.0 | 39.5 | 28.6 | $60 \cdot 1$ | 42.7 | $80 \cdot 5$ | 60.0 |
| 13 | 28.0 | 19.2 | 34.0 | 24.3 | 32.2 | 13.0 | 59.3 | 37.8 | 57.4 | $39 \cdot 6$ | 70.2 | $54 \cdot 9$ |
| 14 | 38.4 | 23.8 | 31.2 | 24.5 | 32.0 | 25.3 | 70.0 | 45.7 | $54 \cdot 4$ | $35 \cdot 4$ | $60 \cdot 9$ | $48 \cdot 8$ |
| 15 | 35.8 | 24.2 | $34 \cdot 2$ | 27.6 | 31.6 | $24 \cdot 3$ | 65.5 | $37 \cdot 2$ | $60 \cdot 1$ | 377 | 71.8 | 537 |
| 18 | $39 \cdot 1$ | 30.2 | $42 \cdot 1$ | $28 \cdot 9$ | 31.5 | 25.0 | 416 | $34 \cdot 5$ | $74 \cdot 6$ | $46 \cdot 1$ | 69.0 | 50.9 |
| 17 | $44 \cdot 9$ | 84.7 | 52.5 | 38.2 | $29 \cdot 6$ | 21.4 | $40 \cdot 5$ | 32.2 | 79.3 | $54 \cdot 1$ | 73.2 | $44 \cdot 5$ |
| 18 | $39 \cdot 1$ | 32.7 | 51.9 | 17.9 | 38.0 | 24.6 | $54 \cdot 4$ | $34 \cdot 7$ | 83.3 | 57.0 | 79.1 | $48 \cdot 9$ |
| 19 | $41 \cdot \theta$ | 31.5 | 22.2 | $12 \cdot 4$ | $34 \cdot 6$ | $28 \cdot 1$ | 70-2 | 38.8 | 73.4 | 58.3 | $77 \cdot 9$ | 55.0 |
| 20 | 37.0 | 25.2 | 28.0 | 139 | $33 \cdot 4$ | $24 \cdot 3$ | 52.4 | 39-0 | 70.0 | $56 \cdot 1$ | $80 \cdot 1$ | 59.1 |
| 21 | 32.2 | 24.0 | 32.0 | 27.6 | 39.5 | 185 | $64 \cdot 3$ | $42 \cdot 7$ | 67.2 | 54.0 | 78.4 | 60.0 |
| 22 | $39 \cdot 3$ | $28 \cdot 9$ | 37.0 | $23 \cdot 4$ | 39.8 | 28.5 | 59.4 | 39.7 | $65 \cdot 3$ | 52.9 | $82 \cdot 5$ | 61.0 |
| 23 | $33 \cdot 3$ | 23.6 | $34 \cdot 8$ | 21.9 | $41 \cdot 1$ | $24 \cdot 8$ | $49 \cdot 4$ | $32 \cdot 2$ | $72 \cdot 8$ | 53.5 | 84.9 | $65-9$ |
| 24 | 32.0 | $26 \cdot 4$ | $43 \cdot 1$ | 21.4 | 25.2 | $12 \cdot 4$ | 53.9 | 38.8 | 79.9 | 60.1 | 88.7 | 68.2 |
| 25 | $38 \cdot 1$ | 33.7 | 49.4 | 42.2 | 28.2 | 8.7 | $49 \cdot 3$ | 397 | 85.5 | 61.9 | 77.8 | 68.2 |
| 28 | $45 \cdot 1$ | 34.8 | $49 \cdot 8$ | 33.7 | 48.0 | 28.9 | 50.3 | 397 | $83 \cdot 9$ | $63 \cdot 9$ | $80 \cdot 5$ | 610 |
| 27 | 45.7 | 36.6 | $48 \cdot 1$ | 38.0 | 41.6 | 33.5 | 48.3 | 34.7 | 74.8 | 68.9 | $78 \cdot 1$ | $67 \cdot 1$ |
| 28 | 38.1 | 24.5 | $55 \cdot 1$ | 88.7 | 34.6 | 29.8 | 61.1 | $40 \cdot 2$ | 66.3 | 48.9 | $72 \cdot 4$ | $64 \cdot 1$ |
| 29 | 25.2 | 13.3 | $54 \cdot 4$ | 24.3 | 33.2 | 24.5 | $59 \cdot 4$ | 42.6 | 71.8 | 44.8 | 78.5 | $61 \cdot 1$ |
| 30 | 47.8 | 23.5 | .... | $\ldots$ | $37 \cdot 4$ | 26.6 | $43 \cdot 1$ | 31.7 | $72 \cdot 4$ | 52.5 | 720 | $59 \cdot 1$ |
| 81 | 34.0 | 18.8 | . $\cdot$. | .... | 47.2 | 24.0 | . $\cdot$. | .... | 70.2 | 51.0 | .... | $\ldots$ |
|  | 89.8 | 27.9 | $37 \cdot 4$ | 21.9 | 135.5 | $22 \cdot 5$ | 50.4 | $35 \cdot 4$ | $70 \cdot 3$ | 50.5 | 789 | 5611 |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | M1n. | A |
| $\bigcirc$ | - | $\bigcirc$ | - | $\bigcirc$ | - | $\bigcirc$ | - | - | - | - | - |  |
| 72.8 | $59 \cdot 9$ | 83.3 | 66.2 | $85 \cdot 6$ | $66 \cdot 1$ | 57.9 | 437 | 47.0 | $38 \cdot 1$ | 31:5 | 22.5 | 1 |
| $69 \cdot 4$ | 58.1 | 73.2 | 58.0 | 793 | 71.4 | $68 \cdot 4$ | 53.0 | 46.6 | 33.7 | $3 \pm 2$ | 312 | 2 |
| $74 \cdot 2$ | 55.0 | 66.8 | 47.8 | 76.0 | $65 \cdot 1$ | $62 \cdot 1$ | 48.6 | 58.7 | 37.6 | $34 \cdot 0$ | 29\% | 3 |
| $79 \cdot 1$ | 53.9 | 72:4 | 44.9 | 77.2 | 62.5 | $52 \cdot 4$ | $45 \cdot 3$ | $59 \cdot 1$ | 48.2 | $35 \cdot 4$ | 21.4 | 1 |
| $73 \cdot 4$ | $61 \cdot 3$ | 66.8 | 53.0 | 78.9 | 62.9 | 61.5 | 49.9 | 58.5 | 417 | 45.5 | 25.0 | 5 |
| 74.5 | 55.0 | 70.8 | 49.0 | $71 \cdot 2$ | 57.9 | 52.3 | 46.8 | 45.6 | 36.8 | 25.0 | $19 \cdot 1$ | 6 |
| 81.9 | $53 \cdot 1$ | $81 \cdot 1$ | 59.0 | 60.9 | 48.2 | $52 \cdot 9$ | 40.6 | 37.5 | 33.2 | $20 \cdot 5$ | 14.0 | 7 |
| $86 \cdot 1$ | 62.0 | 82-1 | 63.0 | $59 \cdot 1$ | 43.8 | 62.3 | $42 \cdot 3$ | 43.3 | 33.0 | 17.4 | $13 \cdot 5$ | 8 |
| 86.9 | 66.1 | $79 \cdot 4$ | 60.5 | $59 \cdot 9$ | 433 | 70.6 | 48.9 | $51 \cdot 9$ | 39.5 | 21.0 | 6.5 | 9 |
| $82 \cdot 3$ | $63 \cdot 1$ | 78.9 | 57.5 | 64.4 | 42.8 | 73.2 | 52.7 | $52 \cdot 3$ | 42.6 | 18.0 | 6.0 | 10 |
| 78.9 | 68.9 | 784 | 53.5 | 69.8 | 54.0 | 71.8 | 61.6 | 37.0 | $35 \cdot 8$ | 31.8 | 17.5 | 11 |
| $81 \cdot 1$ | $69 \cdot 1$ | 73.2 | 52.5 | 74.8 | 591 | 63.7 | 39.7 | 36.5 | 32.7 | 37.0 | 31.7 | 12 |
| 74.5 | 66.0 | 77.9 | 52.5 | $61 \cdot 1$ | 51.7 | 54.9 | 36.6 | 37.6 | 31.6 | 33.2 | 29.7 | 13 |
| 81.7 | 68.3 | 70.6 | 53.0 | 56.5 | 44.3 | $63 \cdot 3$ | 41.4 | 37.6 | 28.6 | 37.0 | 30.2 | 14 |
| 82.9 | 657 | 61.9 | 43.8 | $64 \cdot 4$ | 42:2 | $66 \cdot 1$ | 56.0 | 30.2 | 26.7 | $35 \cdot 2$ | 27.5 | 15 |
| 72.2 | 63.0 | 67.5 | $39 \cdot 2$ | 69.8 | 580 | 66.7 | 48.6 | 35.0 | $25 \cdot 3$ | 23.0 | 21.5 | 16 |
| 72.5 | 61.0 | 78-1 | $45 \cdot 3$ | 76.5 | 59.0 | 48.2 | 36.2 | 27.5 | $21 \cdot 1$ | 28.0 | $19 \cdot 3$ | 17 |
| 67.0 | 59.0 | 82.5 | 41.3 | 76.8 | 676 | 41.5 | 34.7 | 21.8 | 17.2 | 23.8 | 17.2 | 18 |
| 68.6 | 53.8 | 77.7 | 61.0 | $71 \cdot 6$ | $65.6{ }^{\circ}$ | $41 \cdot 1$ | 34.0 | 24.6 | 14.5 | 25.2 | 20.2 | 19 |
| 67.2 | $54 \cdot 9$ | 73.0 | 54.5 | 68.5 | 59.2 | 51.9 | 37.3 | 27.6 | 14.5 | 26.5 | $20 \cdot 9$ | $\bigcirc 0$ |
| 70.0 | 50.0 | 72.2 | 59.0 | 59.3 | 52.1 | 50.7 | 39.0 | 17.5 | 8.7 | 23.0 | 19.3 | 21 |
| 72.0 | $52 \cdot 3$ | 78.9 | 64.0 | 55.1 | $44 \cdot 8$ | 43.5 | 36.8 | 17.3 | $7 \cdot 6$ | $26 \cdot 4$ | 16.2 | 24 |
| $70 \cdot 6$ | 58.9 | 81.9 | 60.0 | $60 \cdot 4$ | 43.3 | 42.5 | 35.8 | 21.0 | 9.5 | 26.8 | 21.9 | 23 |
| 787 | 58.0 | 81.9 | 61.5 | $70 \cdot 2$ | 489 | $41 \cdot 3$ | 362 | 24.6 | 10.8 | 28.0 | 27.5 | 24 |
| 82.5 | $65 \cdot 1$ | $70 \cdot 5$ | 51.5 | $75 \cdot 4$ | 57.9 | 457 | 38.2 | 25.0 | 113 | 288 | 26.0 | 25 |
| 67.8 | 59.0 | 73.2 | $45 \cdot 3$ | $75 \cdot 2$ | 61.5 | 50.2 | 368 | 24.5 | 8.5 | 33.0 | 26.1 | $\because 6$ |
| $70 \cdot 6$ | 56.3 | 84.4 | 59.0 | $62 \cdot 1$ | 51.0 | 38.3 | $29 \cdot 8$ | 29.8 | 21.4 | $30 \cdot 2$ | 10.2 | 27 |
| 68.4 | 52.9 | 807 | $66 \cdot 1$ | 57.9 | $51 \cdot 1$ | $39 \cdot 1$ | 28.3 | 31.0 | 21.9 | 115 | $1 \cdot 3$ | 28 |
| $70 \cdot 5$ | 52.0 | 72.0 | 62.5 | 53.1 | 45.3 | 48.2 | $32 \cdot 2$ | 33.0 | 23.1 | 0.5 | $5 \cdot 2$ | 29 |
| 79.3 | 58.9 | $79 \cdot 3$ | 59.0 | 497 | $42 \cdot 4$ | 48.6 | 38.6 | $24 \cdot 8$ | 19.5 | 8.0 | $4 \cdot 1$ | 30 |
| 81.5 | 64.0 | 777 | 60.0 | . $\cdot$. | ... | $46 \cdot 3$ | 38.7 |  | .... | $10 \cdot 3$ | 0.2 | 31 |
| 75\% | 59.5 | 75•8 | $54 \cdot 6$ | 67.4 | $54 \cdot 1$ | $54 \cdot 1$ | 41.5 | 35.5 | 25.9 | 264 | 18.5 |  |

TABLE XXXVII.-Saugeen, Ont. Maximuin

| $\dot{\dot{A}}$ | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | MIn. |
|  | - | - | - | - | 0 | - | - | 0 | - | - | - | 0 |
| 1 | 36.0' | 26.6 | 27.0 | 16 | 260 | 14.1 | $45 \%$ | 31.6 | $51 \cdot 1$ | 2856 | 57.0 | $43 \cdot 6$ |
| 2 | 39.0 | 23.0 | 20.0 | $4 \cdot 1$ | 36.0 | $19 \cdot 1$ | 47.0 | $33 \cdot 1$ | 62.0 | 43.6 | 65.0 | 45.2 |
| 3 | 46.3 | 14.8 | 21.0 | 8.1 | 47.0 | 30.5 | 58.0 | 437 | 77.0 | 517 | 56.0 | 41.3 |
| 4 | 47.0 | 25.1 | 23.0 | $12 \cdot 8$ | 43.0 | $34 \cdot 1$ | 47.0 | 35.6 | Til | 1; -1 | 70 | 47•1 |
| 5 | 39.0 | 19.8 | 26.0 | $15 \cdot 1$ | 41.2 | $26 \cdot 1$ | 39.0 | 27.6 | 76.0 | $46 \cdot 1$ | 68.0 | 59.8 |
| 6 | 41.1 | $30 \cdot 5$ | 22.0 | 13.6 | 36.0 | 26.1 | 32.0 | $25 \cdot 9$ | $48 \cdot 5$ | 57.6 | 73.6 | 58:3 |
| 7 | 37.0 | $24 \cdot 4$ | 23.0 | $10 \cdot 1$ | 44.0 | 14-9 | 320 | $20 \cdot 6$ | 62.0 | $43 \cdot 6$ | 62.0 | $39 \cdot 6$ |
| 8 | 43.0 | $33 \cdot 1$ | $35^{\circ} 0$ | 10.6 | 16.0 | 0.4 | 37.0 | 26.6 | 72.0 | $46 \cdot 4$ | 63.0 | $35 \cdot 1$ |
| 9 | 58.0 | $35 \cdot 1$ | 20.1 | $3 \cdot 1$ | 31.0 | 07 | 52.0 | 28.2 | 77.0 | 54.8 | 79.0 | 48.2 |
| 10 | 38.5 | 25.1 | 32.0 | $5 \cdot 1$ | 22.0 | $4 \cdot 1$ | 57.0 | 26.6 | 69.2 | $49 \cdot 1$ | 78.0 | $56 \cdot 1$ |
| 11 | 58.0 | 30.2 | 40.0 | $12 \cdot 1$ | 32.0 | $6 \cdot 1$ | 30.0 | 19.1 | 58.0 | 39.9 | 79.0 | $56 \cdot 1$ |
| 12 | 31.0 | 20.1 | 48.0 | 31.6 | 210 | 6.6 | 410 | $35 \cdot 4$ | 52.0 | 41.1 | 77.0 | $53 \cdot 3$ |
| 13 | 27.9 | 15.6 | 32.0 | ${ }^{23} 1$ | 30.5 | 63 | 60.0 | $40 \cdot 1$ | 49.5 | $36 \cdot 1$ | $66^{\circ} 0$ | 49.2 |
| 14 | 36.0 | 18.1 | 28.5 | 22.2 | 32.0 | $23 \cdot 1$ | 70.0 | 35.6 | 58.0 | $30 \cdot 3$ | 58.0 | 48.2 |
| 15 | 32.0 | 18.8 | 33.0 | $26 \cdot 1$ | 28.6 | 19.5 | 67.0 | $33 \cdot 1$ | 56.0 | 31.6 | 73.0 | 51.0 |
| 16 | 41.0 | 28.1 | 39.5 | $27 \cdot 1$ | 30.0 | 21.1 | 36.0 | 29.9 | 69.0 | 43.9 | 71.0 | 47-1 |
| 17 | 44.5 | 34.0 | 54.0 | $32 \cdot 1$ | 26.0 | 16.5 | 40.0 | 30.1 | 64.0 | 45.2 | 66.0 | 43.3 |
| 18 | 38.0 | 33.6 | 56.0 | $12 \cdot 6$ | 36.0 | 18.1 | 54.0 | 304 | 78.0 | 55.5 | 76.0 | $44 \cdot 6$ |
| 19 | 40.0 | 31.8 | 20.0 | $11 \cdot 1$ | 41.0 | 25.6 | $\ldots$ | $\cdots$ | 74.0 | $54 \cdot 3$ | 75.0 | $50 \cdot 3$ |
| 20 | 33.0 | 15.0 | 27.0 | 7.6 | 37.0 | 18.6 | $\ldots$ | $\ldots$ | 65.0 | 497 | 74.0 | $54 \cdot 3$ |
| 21 | 28.9 | $8 \cdot 6$ | 31.0 | $24 \cdot 1$ | 43.0 | 117 | 67.0 | $34 \cdot 6$ | 640 | 45.2 | $70 \cdot 0$ | 57.4 |
| 22 | 38.0 | 25.1 | 37.0 | $19 \cdot 3$ | 370 | 29.6 | $62 \cdot 0$ | 33.6 | 63.2 | 487 | 7 c 0 | 55.8 |
| 23 | 34.0 | 22.2 | 31.0 | $15 \cdot 1$ | 42.0 | 18.6 | 45.0 | 27.6 | 68.0 | $50 \cdot 3$ | 88.0 | 57.8 |
| 24 | 33.0 | 24.1 | $42^{\circ} 0$ | 17.1 | 20.0 | $7 \cdot 6$ | 52.0 | 32-1 | 80.0 | 54.7 | 85.0 | $67 \cdot 3$ |
| 25 | $34 \cdot 8$ | 25.1 | 48.1 | $37 \cdot 1$ | 30.2 | 699 | 48.0 | 31.6 | 82.0 | 59.8 | 73.0 | $65 \cdot 3$ |
| 26 | $43 \cdot 1$ | 25.6 | 41.9 | $32 \cdot 5$ | 44.0 | 23.1 | 520 | 32.6 | 84.0 | 59.7 | 78.0 | 58.3 |
| 27 | 450 | $30 \cdot 6$ | 41.0 | $33 \cdot 1$ | 48.0 | $31-9$ | 52.0 | $33 \cdot 1$ | 75.0 | 471 | 79.0 | 63.5 |
| 28 | 36.0 | 17.0 | $51 \cdot 1$ | $32 \cdot 3$ | 34.0 | 28.1 | 58.0 | $32 \cdot 6$ | 58.0 | 41.5 | 77.0 | $57 \cdot 1$ |
| 29 | 20.2 | 92 | 58.0 | $21 \cdot 1$ | 35.0 | 21.8 | 580 | $33 \cdot 1$ | 74.5 | 48.2 | 72.0 | $55 \cdot 8$ |
| 30 | 500 | $19 \cdot 1$ | $\cdots$ | ... | 37.0 | 259 | 38.0 | $26 \cdot 1$ | 75.0 | $42 \cdot 9$ | 70.0 | $55 \cdot 3$ |
| 31 | 350 | $20 \cdot 1$ | $\cdots$ | $\cdots$ | 44.0 | 21.5 | $\cdots$ | $\cdots$ | 75.0 | $45 \cdot 1$ | $\cdots$ | $\cdots$ |
|  | 38-9 | $23 \cdot 5$ | 34.7 | 18.0 | 34.5 | 18.0 | $49^{1}$ | 307 | $67 \times 4$ | 45.4 | 71.9 | ${ }^{1} 52 \cdot 2$ |

. and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | 0ctober. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | 号 |
| $\bigcirc$ | - | - | - | - | - | - | - | - | - | - | - |  |
| 71.0 | 55.5 | $84 \cdot 5$ | 67.3 | $85 \cdot 0$ | 638 | 60.0 | $39 \cdot 6$ | 46.0 | $35 \cdot 6$ | 32.0 | 20.0 | 1 |
| $74 \cdot 1$ | 58.3 | 74.0 | 52.1 | 76.0 | 69.3 | 67.5 | 45.7 | $44 \cdot 1$ | $30 \cdot 1$ | 33.0 | $26 \cdot 1$ | 2 |
| $73 \cdot 0$ | 48.7 | 73.0 | $43 \cdot 1$ | 78.0 | 64.7 | ¢2.0 | 48.7 | 59.9 | 32.0 | 33.0 | 26.1 | 3 |
| $79 \cdot 0$ | $51 \cdot 3$ | 73.0 | $44 \cdot 4$ | 73.0 | 59.3 | 51.0 | 30.8 | 58.0 | $43 \cdot 1$ | 37.0 | 19.0 | 4 |
| 74.0 | $56 \cdot 3$ | 68.0 | 47.2 | $81 \cdot 1$ | 58.3 | 61.3 | 39.6 | $54 \cdot 1$ | 44.0 | 47.0 | $22 \cdot 1$ | 5 |
| 72.0 | $55 \cdot 3$ | 73.0 | 43.8 | 69.0 | $53 \cdot 3$ | 51.2 | $44 \cdot 2$ | 45.0 | $32 \cdot 1$ | 26.5 | 19.6 | 6 |
| 78.0 | 44:2 | 79.0 | $52 \cdot 3$ | 59.0 | $48 \cdot 1$ | $57 \cdot 1$ | 36-9 | 39.0 | $31 \cdot 3$ | 21.0 | 14.3 | 7 |
| 83.0 | 58.3 | 82.0 | 62.2 | 56.0 | $40 \cdot 2$ | 65.0 | 37.0 | 39.0 | 28.1 | 17.2 | 11.9 | 8 |
| 840 | $66 \cdot 8$ | 78.0 | 59.1 | 60.0 | 39.9 | 70.0 | 42.0 | 52.0 | $36 \cdot 0$ | 21.0 | 4.3 | 9 |
| 79.0 | $65 \cdot 3$ | 73.0 | $55 \cdot 1$ | 650 | 34.1 | $75 \cdot 0$ | 47.7 | 52.0 | $38 \cdot 1$ | 16.0 | $5 \cdot 1$ | 10 |
| 77.0 | $61 \cdot 9$ | 78.0 | 51.3 | $70 \cdot 6$ | 48.2 | 72.0 | 51.6 | 52.0 | 35.0 | 31.0 | $15 \cdot 1$ | 11 |
| 82.0 | $62 \cdot 3$ | 74.0 | $49 \cdot 1$ | 77.0 | $53 \cdot 1$ | 53.0 | $45 \cdot 1$ | 38.0 | 33.0 | 35.0 | 30-1 | 12 |
| $73 \cdot 1$ | 64.2 | 72.0 | 56.3 | 61.0 | 51.8 | $53 \cdot 1$ | 317 | 36.0 | 29.0 | 33.0 | 27.6 | 13 |
| $82 \cdot 0$ | 58.3 | $69 \cdot 0$ | 53.3 | 57.0 | $38 \cdot 4$ | 65.9 | $34 \cdot 9$ | 350 | $23 \cdot 1$ | 35.0 | $27 \cdot 1$ | 14 |
| 82.0 | $62 \cdot 1$ | 58.0 | $41 \cdot 1$ | 64.0 | 371 | 62.0 | 48.2 | 29.0 | 22.6 | 340 | $21 \cdot 1$ | 15 |
| 67.0 | 59.3 | 65.0 | $39 \cdot 1$ | 668 | $50 \cdot 2$ | 67.5 | $45 \cdot 7$ | 35.0 | $21 \cdot 1$ | 23.0 | 11.6 | 16 |
| 69.0 | 53.8 | 78.0 | 462 | 74.0 | 48.2 | 48.0 | $35 \cdot 1$ | 31.0 | 19.6 | 23.0 | $8 \cdot 1$ | 17 |
| 72.0 | $50 \cdot 1$ | 87.0 | 61.8 | 72.6 | 61.8 | 43.0 | 33.5 | 22.0 | $16 \cdot 1$ | 20.2 | $10 \cdot 1$ | 18 |
| 63.0 | 49.7 | 77.0 | 55.3 | 71.0 | 61.7 | 39.0 | 31.1 | 25.0 | 12.6 | 25.0 | $19 \cdot 1$ | 19 |
| 70.0 | $54 \cdot 1$ | 72.0 | 497 | 69.0 | 58.3 | $52^{\circ} 0$ | 34.5 | 27.0 | $11 \cdot 1$ | 25.0 | 19.6 | 20 |
| 67.5 | 51.8 | $72 \cdot 9$ | 60.7 | 200 | $48 \cdot 4$ | 48.0 | $35 \cdot 1$ | 16.0 | $9 \cdot 1$ | $22 \cdot 1$ | $17 \cdot 1$ | 21 |
| $74 \cdot 1$ | $52 \cdot 3$ | 32.0 | $51 \cdot 3$ | 54.0 | 48.0 | $41 \cdot 1$ | $33 \cdot 3$ | 17.5 | 10.6 | 28.0 | $19 \cdot 1$ | 22 |
| $67 \cdot 5$ | $53 \cdot 1$ | 850 | 53.3 | 1;1-2 | 36.5 | 39.0 | $31 \cdot 1$ | 18.0 | 10.6 | 26.0 | $20 \cdot 1$ | 23 |
| $75 \cdot 0$ | $51 \cdot 3$ | $80 \cdot 0$ | 628 | 71.0 | 42.6 | 39.0 | $32 \cdot 2$ | 28.3 | 10.6 | 28.0 | $24 \cdot 1$ | 24 |
| 84.0 | 62.5 | 64.0 | 48.2 | 77.0 | 52.8 | $44 \cdot 1$ | $33 \cdot 1$ | 24.0 | $5 \cdot 6$ | 29.0 | 23.1 | 25 |
| 69.0 | 58.1 | 76.0 | $45 \cdot 4$ | 71.0 | 56.8 | 48.0 | 36.0 | 23.0 | 1.9 | 33.0 | $25 \cdot 1$ | 26 |
| 680 | $49 \cdot 1$ | $\mathbf{8 9 \cdot 0}$ | $60 \cdot 3$ | 58.0 | 47.7 | 38.0 | $22^{\circ} 0$ | 31.0 | $17 \cdot 1$ | 30.0 | $8 \cdot 6$ | 27 |
| 88.2 | 45.2 | 71.1 | 61.8 | 56.9 | 47.2 | $42 \cdot 4$ | $20 \cdot 3$ | 33.0 | 24.6 | 11.5 | 0.6 | 28 |
| 73.0 | 53.6 | 74.0 | 59.1 | 1340 | 44.6 | 50.5 | 27.7 | 33.0 | $20 \cdot 1$ | 5.2 | $2 \cdot 1$ | 29 |
| $71 \%$ | 513 | 79.0 | $49 \cdot 2$ | 50.2 | 39.8 | 47.5 | 33.5 | 33.0 | 17-1 | 10.2 | 1.6 | 30 |
| 81.0 | $60 \cdot 8$ | 80.0 | 513 |  | $\ldots$ | 47.0 | 35.6 | $\ldots$ | - $\cdot$ | 12.0 | 4.6 | 31 |
| $74 \cdot 3$ | 55.6 | $75 \cdot 5$ | 527 | 56.6 | $50 \cdot 1$ | 53.5 | 37.2 | $35 \cdot 9$ | 23.3 | $25 \cdot 9$ | 16.0 |  |

TABLE XXXVIII.-Kincardine, Ont. Maximum

| $\underset{\sim}{x}$ | January, |  | Tebruary. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | M1n. | Max. | Min. | Max. | Min. | Max. | M1n. | Max. | Min. |
|  | $\bullet$ | $?$ | 0 | - | - | - | - | - | - | - | - | - |
| 1 | 38.3 | 25.5 | $47 \cdot 6$ | $6 \cdot 0$ | 29.5 | 24.0 | 537 | 34.9 | 54.0 | 29.0 | 63.3 | $45 \cdot 4$ |
| 2 | 37.7 | 25.0 | $22 \cdot 5$ | $8 \cdot 9$ | 38.4 | 23.2 | 45.6 | 337 | 71.6 | $45 \cdot 4$ | 70.0 | 43.7 |
| 3 | 44.6 | 18.3 | 24.8 | 1222 | 47.6 | 33.0 | 57.7 | $42 \cdot 8$ | $78 \cdot 8$ | 54.4 | $61 \cdot 9$ | 43.9 |
| 4 | 48.3 | 29.5 | 24.6 | 17.0 | 44.2 | $35 \cdot 9$ | 57•1 | 377 | $82 \cdot 9$ | $50 \cdot 4$ | $76 \cdot 1$ | 52.5 |
| 5 | $39 \cdot 1$ | 25.0 | 27.7 | 18.0 | $50 \cdot 6$ | 28.0 | 416 | 31.0 | 82.6 | 50.2 | 74.8 | 60.0 |
| 6 | 42.6 | 33.8 | $28 \cdot 3$ | 16.0 | $39 \cdot 9$ | 28.0 | $36 \cdot 1$ | 25.5 | 51.6 | 33.0 | 78.0 | 60.5 |
| 7 | $39 \cdot 3$ | $32 \cdot 3$ | 23.5 | $14 \cdot 5$ | $44 \cdot 1$ | 16.0 | 33.3 | 24.9 | $68 \cdot 4$ | 43.9 | 617 | 489 |
| 8 | 45.6 | 34.5 | 38.0 | 17.2 | $22 \cdot 1$ | 5.0 | 44.6 | 26.8 | $70 \cdot 6$ | $47 \cdot 4$ | 67.1 | $40 \cdot 7$ |
| 9 | $52 \cdot 4$ | 38.9 | 25.2 | 7.9 | 32.7 | $12 \cdot 4$ | 51.3 | 32.0 | 78.6 | 55.5 | 84.4 | 51.9 |
| 10 | $39 \cdot 2$ | 27.8 | $33 \cdot 1$ | 8.0 | 24.7 | 100 | $50 \cdot 4$ | 27.0 | $78 \cdot 6$ | 50.4 | 78.3 | 58.0 |
| 11 | 56.5 | 32.0 | 41.6 | 17.9 | 35.6 | 9.2 | 31.5 | 19.8 | 65.5 | 47.5 | 79.1 | 58.6 |
| 12 | $34 \cdot 1$ | 23.0 | $45 \cdot 6$ | 32.0 | 27.2 | 10.7 | $42 \cdot 4$ | 267 | 55.6 | $42 \cdot 4$ | $67 \cdot 1$ | 56.5 |
| 13 | 29.5 | $15 \cdot 4$ | $85 \cdot 2$ | 25.0 | 313 | 110 | $49 \cdot 4$ | 36.9 | $52 \cdot 1$ | $88 \cdot 4$ | 66.8 | $49 \cdot 4$ |
| 14 | $37 \cdot 1$ | 21.5 | 33.6 | 24.6 | 32.4 | 24.0 | 71.2 | $30 \cdot 4$ | $50 \cdot 1$ | 34.6 | 57.9 | 48.9 |
| 15 | 36.8 | 25.0 | 37.1 | 28.4 | $33 \cdot 5$ | 23.0 | $66 \cdot 1$ | 34.3 | 57.6 | 35.9 | .... | . $\cdot$ |
| 18 | $40 \cdot 6$ | 28.5 | $44 \cdot 7$ | $30 \cdot 8$ | $30 \cdot 1$ | 24.5 | $43 \cdot 4$ | 815 | $79 \cdot 2$ | 46.9 | $\cdots$ | -••• |
| 17 | 44.5 | 34.0 | 54.4 | 38.1 | 32.6 | $20 \cdot 5$ | $43 \cdot 4$ | $31 \cdot 4$ | 67.8 | $48 \cdot 4$ | .... | .... |
| 18 | 39.5 | $33 \cdot 9$ | 53.9 | 14.5 | 35-9 | $24 \cdot 5$ | $49 \cdot 1$ | 83.3 | $79 \cdot 4$ | 56.5 | .... | $\ldots$ |
| 19 | $40 \cdot 9$ | 38.0 | 22.2 | 11.5 | 41.9 | 305 | $72 \cdot 6$ | 39.1 | 72.0 | 55.0 | $79 \cdot 8$ | 48.9 |
| 20 | 38.0 | 23.0 | 80.7 | 11.5 | 38.1 | $22 \cdot 0$ | 57.9 | 87.9 | $65 \cdot 1$ | 51.8 | 83.6 | 58.8 |
| 21 | 32.6 | 17.8 | $32 \cdot 4$ | $24 \cdot 5$ | $44 \cdot 1$ | 18.0 | 66.8 | $40 \cdot 4$ | 63.4 | 44.6 | 74•1 | 69.6 |
| 22 | 38.4 | 26.8 | 37.8 | 22.9 | $40 \cdot 6$ | 31.0 | 60.1 | $35 \cdot 5$ | 64.6 | 49.8 | $82 \cdot 8$ | 60.5 |
| 23 | $37 \cdot 1$ | 23.0 | $40 \cdot 6$ | 19.8 | 67.0 | 21.5 | 589 | 30.9 | $74 \cdot 4$ | 53.5 | 92.5 | 65.5 |
| 24 | $33 \cdot 1$ | 25.3 | $42 \cdot 4$ | 21.5 | $39 \cdot 3$ | 12.8 | 56.6 | $37 \cdot 7$ | 84.3 | 58.3 | 887 | 70.0 |
| 25 | 36.5 | 30.8 | $49 \cdot 3$ | 41.4 | 29.2 | 10.0 | $50 \cdot 4$ | 37.9 | 90-3 | 64.0 | 77.5 | 65.6 |
| 26 | $44 \cdot 4$ | 38.0 | $45 \cdot 9$ | $34 \cdot 9$ | 51.6 | 25.0 | $52 \cdot 6$ | 36.9 | 88.8 | 65.5 | $89 \cdot 3$ | 61.5 |
| 27 | $47 \cdot 5$ | $34 \cdot 9$ | 44.8 | $33 \cdot 9$ | $43 \cdot 4$ | 33.0 | $51 \cdot 1$ | 34.4 | $78 \cdot 6$ | 48.4 | 80.9 | 68.0 |
| 28 | $37 \cdot 6$ | 21.0 | 54.8 | 33.9 | $35 \cdot 2$ | 27.5 | $63 \cdot 4$ | $38 \cdot 4$ | 66.0 | 49.9 | 81.2 | 61.0 |
| 29 | $25 \cdot 4$ | 13.0 | 55.5 | 22.8 | $35 \cdot 6$ | 22.8 | $59 \cdot 1$ | $39 \cdot 9$ | 76.6 | 477 | 77.0 | 58.5 |
| 30 | 48.8 | 22.0 | ... | $\ldots$ | $38 \cdot 2$ | 27.0 | 42.8 | 28.0 | 72.7 | 47.9 | 78.6 | 58.0 |
| 31 | 35.2 | 197 | .... | $\cdots$ | 47•1 | $25 \cdot 5$ | $\cdots$ | . $\cdot$. | 74.4 | 44.9 | .... | $\cdots$ |
|  | $39 \cdot 9$ | $26 \cdot 6$ | $87 \cdot 5$ | 21.2 | 87.9 | 21.6 | 52.0 | 83.6 | $70 \cdot 8$ | 47.9 | 75.9 | 65.8 |

and Minimum Temperature, 1880.

| July, |  | August. |  | September. |  | October. |  | November. |  | December: |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | 会 |
| - | - | - | - | - | - | - | - | - | - | $\bigcirc$ | - |  |
| $70 \cdot 1$ | 61.3 | 90.0 | 69.0 | $90 \cdot 2$ | 65.6 | $60 \cdot 9$ | 42.7 | 53.4 | $35 \cdot 9$ | $33 \cdot 2$ | 18:3 | 1 |
| $70 \cdot 2$ | 60.0 | 75.8 | 65.5 | 79.0 | 69.7 | $72 \cdot 2$ | $50 \cdot 4$ | 49.0 | 327 | 34.8 | 29.8 | 2 |
| 741 | $50 \cdot 3$ | 617 | 49-2 | $75 \cdot 3$ | 65.8 | 62.6 | 48.4 | $59 \cdot 6$ | 33.9 | $33 \cdot 8$ | 27.5 | 3 |
| 81.0 | 54.9 | 69.8 | 47.5 | 75.0 | 62.5 | 53.6 | $44 \cdot 9$ | 60.8 | 44.8 | 37.7 | $20 \cdot 9$ | 4 |
| 76.3 | 59.6 | $68 \cdot 1$ | 51.0 | 84.2 | 61.2 | 61.6 | 44.9 | 59.2 | $42 \cdot 9$ | 45.6 | 245 | 5 |
| $71 \cdot 8$ | 57.5 | 73.9 | 47.4 | $72 \cdot 8$ | 56.5 | 53.1 | $47 \cdot 1$ | 45.6 | $34 \cdot 9$ | 27.5 | 19.5 | 6 |
| 88.5 | 47.8 | 86.6 | 54.0 | $60 \cdot 5$ | 49.8 | 54.6 | $42 \cdot 4$ | 51.5 | 32.0 | $24 \cdot 1$ | 14:5 | 7 |
| $91 \cdot 2$ | 62.6 | 88.9 | $62 \cdot 9$ | 58.1 | 44.5 | 67.9 | $42 \cdot 4$ | $44 \cdot 2$ | 29.6 | 18.7 | 13.0 | 8 |
| $91 \cdot 1$ | 69.0 | 77.6 | 63.5 | $61 \cdot 1$ | $43 \cdot 4$ | $75 \cdot 4$ | 49.5 | 54.6 | 41.9 | 21.7 | 70 | 9 |
| 83.6 | 66.0 | 726 | 59.3 | 70.9 | 377 | 777 | 49.9 | $54 \cdot 4$ | 39.7 | 18.7 | 7.3 | 10 |
| 80.8 | $66^{\circ}$ | $78 \cdot 3$ | 56.0 | 75.6 | 52.0 | 75.8 | 32.0 | 53.9 | 35.5 | $32 \cdot 3$ | 18.0 | 11 |
| $85 \cdot 9$ | 65.5 | 73.8 | 55.5 | 76.5 | 56.8 | 53.9 | 46.9 | $52 \cdot 9$ | 33.2 | 36.5 | 30.2 | 12 |
| 737 | 66.5 | 73.9 | 58.6 | $60 \cdot 6$ | $50 \cdot 5$ | 57.2 | $35 \cdot 4$ | 53.2 | 31.3 | $39 \cdot 9$ | 27.6 | 13 |
| 88.1 | 65.6 | $70 \cdot 1$ | 55.5 | 58.4 | $39 \cdot 9$ | $65 \cdot 4$ | 39.4 | 38.2 | 27.0 | 36.2 | 29.0 | 14 |
| $80 \cdot 4$ | 63.0 | $62 \cdot 4$ | 47.9 | $63 \cdot 1$ | $39 \cdot 4$ | $71 \cdot 5$ | 55.8 | $31 \cdot 5$ | 25.5 | 35.6 | 25.0 | 15 |
| 71.6 | 60.8 | 69.9 | $42 \cdot 1$ | 72-1 | 52.5 | 68.9 | $45 \cdot 5$ | $35 \cdot 4$ | $25 \cdot 5$ | 27.8 | 21.3 | 16 |
| 75.5 | 58.7 | $80 \cdot 4$ | 487 | $78 \cdot 5$ | 54.5 | 49.0 | $36 \cdot 9$ | 29.9 | 21.0 | 27.0 | 12.5 | 17 |
| 88.2 | 55.6 | 865 | 63.6 | 74.0 | 64.8 | 416 | 35.9 | $24 \cdot 7$ | 19.5 | 227 | 12.0 | 18 |
| 66-9 | 51.8 | $79 \cdot 4$ | 61.9 | 717 | 64.0 | $40 \cdot 4$ | $32 \cdot 9$ | $26 \cdot 2$ | 17.0 | 277 | 18.8 | 19 |
| $65 \cdot 6$ | 53.3 | $73 \cdot 6$ | 54.5 | $69 \cdot 4$ | 58.0 | 52.5 | 37.6 | 35.6 | $16 \cdot 5$ | 277 | 20.9 | 20 |
| $70 \cdot 6$ | 53.3 | $78 \cdot 1$ | 623 | $60^{\circ} 6$ | 50.6 | $57 \cdot 4$ | 37.8 | 19.8 | 10.0 | 24.5 | 19:9 | 21 |
| $76 \cdot 6$ | 55.0 | 84.4 | 55.6 | $56 \cdot 4$ | $43 \cdot 9$ | $43 \cdot 9$ | $37 \cdot 1$ | 193 | 115 | 29.9 | 20.0 | 22 |
| $72 \cdot 5$ | 56.5 | 85.5 | $59 \cdot 9$ | 65.5 | $40 \cdot 6$ | 41.5 | $35 \cdot 4$ | $19 \cdot 4$ | 14.0 | 24.5 | 22.9 | 23 |
| $78 \cdot 9$ | 55.3 | $80 \cdot 1$ | 66.9 | 75.8 | 44.2 | $54 \cdot 1$ | $34 \cdot 1$ | 27.3 | $14 \cdot 3$ | 30.6 | 25.0 | 24 |
| 88.0 | $65 \cdot 3$ | 70.4 | 52.0 | $79 \cdot 6$ | 577 | $47 \cdot 2$ | $36 \cdot 4$ | 283 | 120 | $35 \cdot 2$ | 25.0 | 25 |
| $69 \cdot 6$ | 58.5 | 74.6 | 46.9 | 74.5 | 57.5 | 48.5 | $35 \cdot 9$ | $26 \cdot 1$ | $2 \cdot 0$ | 32-8 | 25.0 | 26 |
| 71-2 | 55.5 | 89.6 | 61.0 | 59.8 | $50 \cdot 3$ | $40 \cdot 5$ | 29.0 | 31.1 | 19.5 | 32.6 | $10 \cdot 0$ | 27 |
| 71*3 | 50.8 | 82.6 | 64.0 | 59.0 | 500 | $42 \cdot 8$ | $24 \cdot 6$ | 33.6 | 23.8 | 98 | 0.0 | 28 |
| 73.5 | 54.0 | $76 \cdot 8$ | 63.4 | 54.2 | $43 \cdot 4$ | 48.5 | 31.0 | $35 \cdot 3$ | 21.0 | 7.8 | 15 | 29 |
| $84 \cdot 6$ | $55 \%$ | $82 \cdot 3$ | 56.5 | $52 \cdot 2$ | 407 | 47.6 | 374 | 34.2 | 17.5 | $10 \cdot 8$ | 2.5 | 30 |
| $88 \cdot 8$ | 63.7 | 79.8 | 58.6 | ... | .... | $59 \cdot 1$ | 37.7 | $\ldots$ | $\cdots$ | $12 \cdot 4$ | 70 | 31 |
| 773 | 587 | 77.4 | 56.5 | 69.0 | $52 \cdot 3$ | 564 | $40 \cdot 6$ | 393 | 25.5 | 27.9 | 17.9 |  |

TABLE XXXIX.-Woodstock, Ont. Maximum

|  | January. |  | February. |  | March. |  | April. |  | May. |  | Junt. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | $\bigcirc$ | - | $\bigcirc$ | - | $\bigcirc$ | - | - | - | - | 0 |
| 1 | $35 \cdot 4$ | 20.6 | $27 \cdot 6$ | $2 \cdot 3$ | $32 \cdot 3$ | 20.5 | 51.7 | 29.0 | $52 \cdot \beta$ | 24.1 | $63 \cdot 9$ | $42 \cdot 8$ |
| 2 | 397 | 23.6 | $19 \cdot 4$ | 1.6 | 40.9 | 23.3 | 40 | $27 \cdot 3$ | 71.2 | 437 | $67 \cdot 4$ | 39-4 |
| 3 | 48.7 | 16.8 | $19 \cdot 3$ | 10.9 | $45 \cdot 8$ | 28.3 | 55.8 | 41.0 | 76.0 | 51.3 | 687 | 47.0 |
| 4 | $40^{\circ} 0$ | 28.2 | 27.0 | 12.0 | 50.7 | $40 \cdot 1$ | 57.5 | 41.0 | 80.6 | 51.8 . | $75 \cdot 4$ | 46.0 |
| 5 | 37.6 | 23.7 | 28.9 | $8 \cdot 9$ | 48.5 | 23.8 | $44 \cdot 9$ | 31.6 | 80.4 | 47.5 | 65.7 | 55.6 |
| 6 | $43 \cdot 4$ | 30.3 | 23.4 | $5 \cdot 4$ | 48.4 | 27.2 | 38.5 | 26.0 | 65.4 | 45.0 | 75.8 | 60.8 |
| 7 | $36 \cdot 3$ | $29 \cdot 2$ | 28.6 | 4.5 | 46.5 | 16.0 | 345 | 205 | $7 \pm 4$ | 44.6 | 66.0 | 46.5 |
| 8 | 38.9 | 31.5 | 34.6 | 3.5 | 277 | 9.0 | 40.0 | 19.0 | 83.8 | 41.8 | $74 \cdot 3$ | 44.5 |
| 9 | 51.0 | 34.0 | 27.5 | 0.6 | 330 | 10.9 | 51.0 | 275 | 78.0 | 60.6 | 78.6 | $45 \cdot 1$ |
| 10 | $38 \cdot 5$ | 27.5 | 35.9 | $2 \cdot 1$ | 355 | 18.5 | 56.9 | 25.5 | $74 \cdot 2$ | 55.0 | $77 \cdot 4$ | $52 \cdot 3$ |
| 11 | 57.4 | $28 \cdot 1$ | 42.0 | 7.8 | $37 \cdot 4$ | 12.0 | $34 \cdot 2$ | 18.4 | 66.7 | 49.0 | 86.9 | 61.8 |
| 12 | $35 \cdot 1$ | 15.9 | 50.2 | 32-3 | 36.7 | $10 \cdot 6$ | $40 \cdot 1$ | 15.8 | $65 \cdot 8$ | 38.3 | 83.0 | 66.5 |
| 13 | $32 \cdot 9$ | 13*1 | $37 \cdot 4$ | 26.6 | 38.9 | 12.4 | 639 | 33.6 | 57.9 | 36.4 | 79.6 | 53.3 |
| 14 | $35 \cdot 8$ | 21.4 | $31 \cdot 4$ | 20.0 | 33.6 | 20.0 | 710 | 327 | 55.6 | 326 | 66.5 | 49.8 |
| 15 | 35.5 | 23.2 | $35 \cdot 8$ | 24.2 | 34-3 | 19.3 | $65 \cdot 1$ | 37.5 | 69.7 | $32 \cdot 3$ | $69 \cdot 2$ | 53.2 |
| 16 | $40 \cdot 5$ | $29-9$ | $46 \cdot 4$ | $25 \cdot 9$ | 31.8 | 23.0 | $41 \cdot 4$ | $31 \cdot 1$ | 76.0 | 48.8 | 78.2 | 493 |
| 17 | 46.6 | 30.5 | 51.8 | 34.2 | $31-2$ | 17.0 | 45.0 | 28.2 | 80.7 | 51.3 | 81.8 | $49 \cdot 2$ |
| 18 | 40.6 | 30.0 | $50 \cdot 8$ | 17.5 | 38.5 | 16.4 | 46.0 | 25.0 | 82.4 | 57.6 | 84.5 | 49.0 |
| 19 | 46.2 | 28.7 | $36 \cdot 1$ | 8.9 | 36.2 | 21.8 | 71.4 | $35 \cdot 4$ | $80 \cdot 1$ | 506 | 837 | 48.0 |
| 20 | $37 \cdot 1$ | $20 \cdot 4$ | 28.6 | 10.3 | $39 \cdot 9$ | 19.6 | 54.0 | 35.2 | $79 \cdot 3$ | 56.6 | $80 \cdot 4$ | 51.0 |
| 21 | $32 \cdot 6$ | 14-1 | 34*6 | 21.8 | 40.5 | 14.3 | $66^{\circ} 8$ | 40.9 | 62.8 | 55.6 | $82 \cdot 4$ | 59.3 |
| 22 | 40.5 | 25.5 | $40 \cdot 8$ | 19.8 | 46.0 | 30.4 | $64 \cdot 4$ | $37 \cdot 6$ | 64.9 | 51.0 | 84.5 | 61.4 |
| 23 | 36.3 | $22 \cdot 9$ | 36.2 | 16.8 | $49 \cdot 1$ | 20.2 | 41.8 | 29.8 | 75.8 | 48.5 | 86.8 | 57.0 |
| 24 | 34.0 | 22.7 | 42.5 | 16.2 | $28 \cdot 2$ | 107 | $45 \cdot 8$ | 30.6 | $80 \cdot 4$ | 59.0 | 88:2 | 63.0 |
| 25 | $48 \cdot 1$ | $25 \cdot 4$ | $47 \cdot 9$ | 39.0 | 36.8 | $5 \cdot 9$ | 47.5 | 35.2 | 84.1 | $52 \cdot 9$ | 78.5 | 64.8 |
| 26 | $42 \cdot 9$ | 31.8 | $50 \cdot 9$ | 33.0 | 487 | 23.2 | 62.0 | 387 | 84.4 | 61.6 | 83.8 | 64.2 |
| 27 | $46 \cdot 2$ | $30 \cdot 4$ | 54.2 | 33.9 | $37 \cdot 6$ | 29.4 | $49 \cdot 9$ | $35 \cdot 7$ | $82 \cdot 8$ | $60 \%$ | $81 \cdot 9$ | 57.8 |
| 28 | $40 \cdot 9$ | 22.5 | 54.4 | 34.0 | 89.1 | 28.2 | 63.7 | 36.0 | 67.5 | 443 | 78.9 | 50.5 |
| 29 | 44.0 | $14 \cdot 4$ | 53.6 | 25.0 | 37.6 | 23.5 | 60.5 | 4:3 | 68.2 | 39.8 | $75 \cdot 4$ | $58 \%$ |
| 30 | 47.8 | $17 \cdot 4$ | $\ldots$ | $\cdots \cdot$ | 46.8 | 85.0 | $45^{\prime}+$ | 27.6 | $70 \cdot 7$ | 50.2 | 752 | 56.0 |
| 31 | 84.0 | $21 \cdot 1$ | - $\cdot \cdot$ | . $\cdot$ | 56.7 | 28.0 | $\cdots$ | $\ldots$. | 75.0 | 52.2 | $\ldots$ | 5 |
|  | $40 \cdot 9$ | 243 | $37 \cdot 9$ | 17.2 | $38 \cdot 8$ | $23 \cdot 5$ | 51.8 | 31.2 | $78 \cdot 1$ | $48 \cdot 1$ | 774 | 53.7 |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | 0ctober. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | 㵄 |
| - | - | ? | 9 | 9 | - | - | 0 | - | - | - | - |  |
| $79 \cdot 4$ | 55.0 | $85 \cdot 4$ | 59.0 | $86 \cdot 7$ | 60.0 | $56 \cdot 1$ | 32.5 | 48.5 | $30 \%$ | 31.5 | $10 \cdot 0$ | 11 |
| $75 \cdot 1$ | 56.0 | $73 \cdot 4$ | 52.0 | $85 \cdot 4$ | 67.0 | 68.8 | 42.9 | 44.3 | 25.0 | 33.8 | 24.3 | 2 |
| $78 \cdot 4$ | 49.0 | 66.4 | 46.0 | $81 \cdot 4$ | 650 | 69.2 | 49.7 | 57.3 | 26.0 | $34 \cdot 2$ | 10.5 | 3 |
| 78.9 | 47.0 | $74 \cdot 4$ | 410 | $81 \cdot 4$ | 02.5 | 53.8 | 39.6 | 56.6 | 36.8 | 36.4 | $2 \cdot 8$ | 4 |
| 74.9 | 63.6 | $74 \cdot 9$ | 49.0 | 83.4 | 58.0 | 60.2 | 38.2 | 58.6 | 45.5 | $48 \cdot 6$ | $13 \cdot 3$ | 5 |
| $79 \cdot 4$ | 51.0 | 777 | 440 | 70.9 | 51.5 | 57.6 | 31.0 | $48 \cdot 3$ | 37.5 | $22 \cdot 4$ | 11.3 | 6 |
| 81-8 | 52.0 | 83.8 | $48 \cdot 9$ | $65 \cdot 4$ | 45.0 | 65.8 | $27 \cdot 8$ | $10 \cdot 8$ | $28 \cdot 1$ | 15.6 | 6.7 | 7 |
| $86 \cdot 8$ | 51.6 | $84 \cdot 4$ | 50.9 | $59 \cdot 4$ | 41.0 | $64 \cdot 0$ | 20.6 | 44.3 | 21.8 | 15.8 | 4.5 | 8 |
| $88 \cdot 9$ | $63 \cdot 4$ | $83 \cdot 4$ | 59.0 | $64 \cdot 4$ | 40.0 | $72 \cdot 7$ | $33 \cdot 8$ | 57.2 | 31.7 | $15 \cdot 6$ | 2.0 | 9 |
| $85 \cdot 4$ | 68.0 | 81.5 | 55.0 | 68.4 | 360 | $72 \cdot 2$ | $37 \cdot 1$ | 52.7 | 32.2 | 16.7 | 10 | 10 |
| 887 | 66.0 | 81.0 | 55.0 | 72.4 | 30.0 | 773 | 49.8 | 52.0 ${ }^{\prime}$ | 32.0 | 31.8 | 11.9 | 11 |
| $83 \cdot 4$ | $6{ }^{6} 4$ | 81.0 | 51.0 | 75.6 | 34.0 | $65 \cdot 1$ | 35.8 | 34.2 | 28.8 | $36 \cdot 3$ | 29.0 | 12 |
| $84 \cdot 4$ | 65.9 | 78.4 | 50.0 | $67 \cdot 4$ | 42.0 | 57.3 | 28.4 | 37.7 | 23.0 | $35 \cdot 9$ | 27.0 | 13 |
| $84 \cdot 6$ | 60.0 | $73 \cdot 4$ | 57.5 | 61.4 | 39.0 | 66.3 | 313 | 36.6 | 17.9 | 38.8 | $27 \cdot 4$ | 14 |
| 85-4 | 59\%) | 65.4 | 440 | 68.4 | 340 | 71.2 | 49.9 | 31.2 | 137 | 33.5 | $25 \cdot 5$ | 15 |
| 73.4 | 67.6 | $67 \cdot 4$ | 36.0 | 72.2 | $52 \cdot 3$ | 663 | 45.0 | 36.6 | 11.5 | $29 \cdot 1$ | 13.7 | 16 |
| 71.5 | 55.0 | 76.4 | 40.0 | 79.5 | 507 | 47.3 | 32.7 | 26.7 | 153 | 25.7 | 10.5 | 17 |
| 75-2 | 54.8 | $80 \cdot 4$ | 61.0 | 82.1 | 60.9 | $40 \cdot 1$ | 30.8 | 28.5 | 11.8 | 20.8 | 11.8 | 18 |
| 73-2 | 55.0 | 78.0 | 65.0 | $75 \cdot 3$ | 58.1 | $40 \cdot 6$ | 27.2 | 26.9 | 6.2 | 28.7 | $12 \cdot 5$ | 19 |
| $67 \cdot 3$ | 52.0 | 78.4 | 62.0 | 71.6 | 50.8 | $50 \cdot 7$ | 25.8 | 27.6 | 78 | 23.4 | 16.6 | 20 |
| 713 | 46.5 | 744 | 550 | 59.5 | 46.6 | $51 \cdot 4$ | 31.5 | 15.7 | 20 | 223 | 13.5 | 21. |
| $75 \cdot 7$ | 46.6 | 80.0 | 49.0 | 55.2 | $36 \cdot 1$ | 43.0 | 31.6 | 149 | $3 \cdot 0$ | $23 \cdot 3$ | $9 \cdot 8$ | 22 |
| $73 \cdot 6$ | 55.8 | 86.4 | 59.0 | 636 | $30 \cdot 6$ | 41.1 | 315 | 21.7 | 6.0 | 25.2 | 180 | 23 |
| $82 \cdot 4$ | 54.0 | 82.1 | 58.0 | $73 \cdot 2$ | $33 \cdot 6$ | 38.3 | 29.7 | 25.8 | 5.2 | 28.0 | 20.0 | 24 |
| $88 \cdot 4$ | 60.0 | 71-4 | 49.0 | $75 \cdot 7$ | $46^{\circ}$ | 48.6 | $27 \cdot 8$ | 28.3 | 70 | $28 \cdot 4$ | 22.0 | 25 |
| $84 \cdot 6$ | 60.0 | $71 \cdot 4$ | 50.0 | 71.8 | 60.3 | 51.6 | 36.8 | 20.4 | $5 \cdot 6$ | $29 \cdot 6$ | 25.0 | 26 |
| 739 | 55.0 | $87 \cdot 4$ | 55.0 | 68.2 | 48.5 | 30.8 | 23.8 | $30 \cdot 5$ | $2 \cdot 0$ | 30.6 | 1.0 | 27 |
| $73 \cdot 4$ | 46.0 | 814 | 69.0 | 59.2 | 41.4 | $38 \cdot 8$ | 21.0 | 350 | 20.5 | 5.0 | 6.0 | 28 |
| $78 \cdot 4$ | $48 \cdot 4$ | 714 | 61.0 | 51.2 | 39.0 | $50 \cdot 3$ | 29.1 | $32 \cdot 3$ | 11.2 | 0.2 | 16.0 | -29 |
| $85 \cdot 1$ | 470 | 68.4 | 60.0 | 49.7 | 32.7 | $51 \cdot 1$ | 382 | 23.8 | 78 | $5 \cdot 5$ | 16.0 | 30 |
| 83-9 | 56.0 | 74.2 | 596 | ... | .... | 47.1 | 32-8 | .... | . $\cdot$. | $7 \cdot 9$ | 85 | 31 |
| $79 \cdot 3$ | 552 | 77\% | 53.3 | $70 \cdot 0$ | 47.0 | 55.3 | $34 \cdot 3$ | $36 \cdot 4$ | $17 \cdot 1$ | 35.1 | 11.1 |  |

Table XL．－Hamilton，Ont．Maximun

| $\underset{A}{\dot{4}}$ | Janairy． |  | Febraary． |  | March． |  | April． |  | Hay． |  | June． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max． | Min． | Max． | Min． | Max． | Min． | Max． | Min． | Max． | Min． | Max． | Min． |
|  | － | $\bigcirc$ | － | － | － | 0 | － | $\bigcirc$ | － | 0 | 0 | － |
| 1 | $37 \cdot 8$ | $\cdots$ | $10 \cdot 1$ | $4 \cdot 7$ | $32 \cdot 8$ | 21.8 | $57 \cdot \mathrm{~s}$ | 335 | 53.8 | $33 \cdot 1$ | 67.6 | 48.4 |
| 2 | $44 \cdot 6$ | $21 \%$ | 225 | 10： | 43 S | 21.9 | 458 | 29.2 | $72 \cdot 8$ | 53.0 | $68 \cdot 1$ | 473 |
| 3 | $33 \cdot 6$ | 1こ： | 90\％ | 11.2 | ． 0.8 | $34 \cdot 1$ | $54 * 8$ | 38.7 | 79.4 | 55.9 | 71.8 | 50.0 |
| 4 | 51.2 | 29.6 | $33 \cdot 8$ | 14.4 | － | 36.5 | $6{ }^{6} 4$ | 12－ | 704 | $4+3$ | 05.8 | 49.0 |
| 5 | 38.4 | 22.7 | 60\％ | $1 \cdots 2$ | $51 \%$ | 31.6 | 33.0 | 200 | sw | $45 \%$ | 63.6 | 524 |
| 6 | $44 \cdot 8$ | $29 \cdot 3$ | 250 | 98 | ＋2ツ | 250 | 40.8 | 26.0 | 714 | 46.3 | $79 \cdot 8$ | $6 \cdot 7$ |
| 7 | 38.6 | $30 \cdot 0$ | 27.8 | 10.2 | 468 | $2 \cdot 0$ | 39.8 | 210 | $5 \% 2$ | 37.8 | 65 | 51.4 |
| 8 | 398 | $30 \cdot 8$ | $3!3$ | 17.5 | $21 \cdot 1$ | 8：2 | $41 \cdot 4$ | $2 う .6$ | 69.8 | 4122 | 70.8 | 48.1 |
| 9 | 53.2 | 31：4 | 217 | 57 | 12 | 1.9 | $54 \%$ | 31.0 | 854 | 50.8 | $110 \cdot 8$ | 529 |
| 10 | $40 \cdot 6$ | $26 \cdot 6$ | 35：30 | 10.2 | Lss | $1: 3$ | 6： 8 | 2 m | $79 \%$ | $58 \cdot 1$ | $71 \times$ | 51.9 |
| 11 | $50 \cdot 8$ | $30 \cdot 0$ | 35.2 | $15 \cdots$ | $25 \cdot 1$ | 14.8 | 378 | 20.5 | 748 | $52 \cdot 4$ | $8 \mathrm{c} \cdot \mathrm{s}$ | 60．2 |
| 12 | 32.2 | 215 | 54.8 | 330 | $21 \%$ | 10.8 | 12 s | $21 \times 1$ | 220 | 419 | $81 \cdot 2$ | 63．2 |
| 13 | $37 \cdot 2$ | $16: 1$ | $36 \cdot 4$ | 260 | 31.8 | 12 s | 10\％ | $38 \cdot 2$ | is 8 | 4143 | $\mathrm{x} 2 \cdot \mathrm{~S}$ | 50\％\％ |
| 14 | $40 \%$ | $22 \cdot 5$ | $34 \cdot 8$ | $15 \% 1$ | 36.0 | 28 | 47－8 |  | $\overline{-1} \cdot 4$ | $41 \cdot 2$ | 69－6 | 52．0 |
| 15 | 31.2 | $20 \%$ | $30 \cdot 1$ | 20） | セン | 26.7 | $71 \times$ | 4－3 | － | $42 \cdot 6$ | 67.8 | $52 \cdot 8$ |
| 16 | $43 \cdot 8$ | 30.0 | 492 | $2 \bar{\circ} 0$ | 31.8 | 15\％ 5 | $39 \cdot 8$ | $: 1 \cdot 1$ | $84 \cdot 4$ | 53.5 | 80.8 | 58．2 |
| 17 | \％1\％ | ：304 | 56.8 | $35 \cdot 1$ | \％ 3 | 168 | $46 \%$ | ：3 | 86.8 | 51：3 | 81.8 | 57 |
| 18 | 39 | 30.0 |  | 210 | 40.8 | 11.3 | $41 \cdot 1$ | 305 | 69.8 | 18.0 | $84 \cdot 8$ | 59.0 |
| 19 | 41\％ | 29.4 | 278 | 11： | 37.8 | 17.2 | 75：3 | $34 \%$ | 87 | 22.0 | $85 \%$ | 60.4 |
| 20 | 33.8 | 19.7 | $30 \cdot 1$ | 9.8 | 42.8 | 20.5 | $60 \%$ | 39\％ | 82\％ | 57.5 | 86.0 | $\mathrm{fir}^{6} 7$ |
| 21 | $32 \cdot 4$ | 12．8 | 39.8 | 230 | $43 \cdot 6$ | 415 | 71： | 457 | 0.11 | 19.8 | 80.8 | $66 \cdot 1$ |
| 22 | 43.7 | 430 | $4{ }^{4} 2$ | $21: 9$ | $51 \because$ | $30 \%$ | $71 \because$ | 40.6 | 67－8 | 55.1 | $81 \times$ | 57.7 |
| 23 | 34.6 | 23.0 | 34.6 | 17.9 | 53 | 23.0 | 47\％ | $30 \cdot 1$ | $81 \%$ | $53 \%$ | $90 \cdot 2$ | $64 \cdot 7$ |
| $\because 1$ | 33．4 | 19\％ | 42 s | 17.9 | 28.4 | $10 \cdot 2$ | $46 \%$ | 34\％ | 87.8 | 81.6 | 82.6 | 70.8 |
| 25 | 45 | 28.8 | $51 \%$ | 38\％ | 13：3 | 98 | 41.6 | 3j－1 | 91.8 | （6） 8 | 84\％ | $65 \cdot 3$ |
| 26 | $45 \%$ | 290 | $14 \cdot 4$ | 31.7 | 428 | 24.6 | 64＇8 | 41.2 | $91 \times$ | 70\％4 | 86.8 | 6.7 |
| 27 | 44.8 | 26.6 | 54.8 | 357 | $30 \cdot 8$ | $29 \%$ | 50 | 38.2 | 87.8 | 65.3 | 70.8 | $02 \cdot 6$ |
| 28 | 30.8 | 21.9 | 41.1 | $32 \cdot 4$ | 418 | $20 \cdot 4$ | 66.4 | $41 \%$ | 73.8 | 61.4 | $81 \cdot 2$ | 65 |
| 21 | 2.0 | $12 \cdot 8$ | 354 | 24.4 | 41.2 | 240 | 63：2 | 43.0 | 64．6 | $4 \mathrm{~S} \cdot 4$ | 79.0 | 80.4 |
| 30 | 51.8 | 20：3 | $\cdots$ | ．．．＇ | $50 \cdot 8$ | 27.4 | 38．8 | $27 \cdot 0$ | $76 \times$ | $50 \cdot 2$ | 77＊8 | 63.0 |
| 31 | 32.6 | $22 \cdot 3$ | $\cdots \cdot$ | ．．．． | 58．8 | 30.6 | ．．．． | $\cdots$ | $78 \cdot 6$ | 55.0 | $\cdots$ | $\ldots$ |
|  | 40.9 | $24 \cdot 3$ | 375 | 197 | $40 \cdot 3$ | $21 \cdot 3$ | ． 54.0 | $3 \% 9$ | Tu 8 | $51 \cdot 1$ | $78 \cdot 3$ | 58.4 |

and Minimum Temperature, 1880.

| July, |  | August. |  | September. |  | October. |  | Norember. |  | Decomber. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mex, | Min, | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | 立 |
| - | - | - | - | - | - | - | - | - | - | - | - |  |
| 81.8 | 83.0 | 91.7 | 67.7 | $79 \cdot 4$ | 58.6 | 61.0 | $4 \cdot 3$ | 547 | 32.4 | $32 \cdot 4$ | 22.5 | 1 |
| 72.8 | $55 \cdot 1$ | $77 \cdot 3$ | 575 | 88.0 | 70.4 | $72 \cdot 1$ | 41.7 | 46.0 | 26.2 | 38.8 | 254 | 2 |
| 79.0 | 56.5 | $70 \cdot 8$ | 53.0 | $85 \cdot 4$ | 68.8 | $72 \cdot 8$ | 58.6 | 51.2 | $25 \cdot 4$ | $37 \cdot 4$ | 19.9 | 3 |
| $82 \cdot 2$ | $59 \cdot 4$ | 77.3 | 51.8 | $87 \times$ | 66.3 | 54 | 38.2 | $50 \% 6$ | 3.5 | 36.2 | 10.4 | 4 |
| 778 | 61.0 | 79.6 | 56.5 | 86.2 | 63.0 | 63.2 | 38.0 | 62.8 | 42.2 | 54.6 | 2.7 | 5 |
| 84.8 | 59.2 | 81.2 | 531 | 82.8 | 55.1 | 58\% | 350 | 49.5 | 36.7 | $25 \cdot 6$ | 15.8 | 6 |
| 84.6 | $53 \cdot 1$ | $86 \cdot 3$ | 56.7 | $64 \cdot 4$ | 49.2 | $58 \cdot 1$ | $33 \cdot 1$ | 420 | 29.6 | $21 \cdot 3$ | $10 \cdot 4$ | 7 |
| 878 | 83.0 | 888 | 61.6 | 68.0 | 440 | $59 \cdot 8$ | 320 | 41.0 | $27 \cdot 6$ | 22.7 | 8.4 | 8 |
| 90.8 | 657 | 89.9 | 637 | 67.8 | 45.9 | 7278 | 41.5 | $10 \cdot 1$ | 34.5 | 217 | 57 | 9 |
| 87.8 | 66.3 | $80 \cdot 1$ | 63.8 | 72.0 | 443 | $69 \cdot 8$ | 419 | $50 \cdot 6$ | 37.7 | 17.7 | 0.0 | 10 |
| 874 | 68.3 | $78 \cdot 8$ | 60.6 | $76 \cdot 2$ | 48.0 | 81.8 | 51.8 | 49.8 | 36.1 | 34.8 | 19.9 | 11 |
| 86.6 | 69.1 | 84.3 | $59 \cdot 1$ | 79.8 | 61.2 | 62.2 | 38.2 | 378 | 30.0 | 30.0 | 31.6 | 12 |
| 85.8 | 89.6 | 81.5 | 60.6 | $65 \cdot 3$ | 45.8 | 608 | 30.0 | 37.8 | 20.9 | 37.5 | 27.6 | 13 |
| 848 | 67.1 | 79.2 | 596 | $67 \%$ | 459 | 588 | 300 | 40.8 | 254 | 41.8 | 26.6 | 14 |
| 83.8 | 040 | $72 \cdot 6$ | 53.5 | 71.4 | $30 \cdot 2$ | 75\%8 | 51.4 | 46.6 | 19.5 | 35.8 | 26.0 | 15 |
| $81 \cdot 8$ | 80.8 | 69.9 | 46.8 | $77 \cdot 1$ | 54.3 | $70 \cdot 2$ | 50.0 | 392 | 20.9 | 27.8 | 16.2 | 16 |
| $77 \cdot 2$ | $60 \cdot 1$ | 756 | $49 \cdot 6$ | 81.5 | 570 | 40.i | $33 \cdot 1$ | 26.6 | 17.5 | 28.8 | 12.2 | 17 |
| $82 \cdot 3$ | 5:5 | 82.0 | 65.2 | 85.8 | 62 | 458 | 30.0 | 23.2 | $12 \cdot 4$ | 23.2 | $12 \cdot 8$ | 18 |
| $77 \cdot 8$ | 61.0 | $78 \cdot 6$ | 67.6 | 75.6 | $54 \cdot 5$ | 46.8 | 290 | 26.6 | 126 | 30.8 | 18.9 | 19 |
| $64 \cdot 8$ | 55.5 | 76.8 | 63.0 | 763 | 53.9 | 50-1 | 34.2 | 30\% | 16.2 | 24.6 | $17 \cdot 5$ | 20 |
| $75 \cdot 6$ | $53 \cdot 8$ | 79.8 | 62.6 | 64.2 | 49.0 | $63 \cdot \%$ | $35 \cdot 1$ | $15 \cdot 1$ | 3.7 | 25.6 | 14.4 | 21 |
| $80 \cdot 1$ | 56.1 | 88.8 | 535 | 60.6 | $43 \cdot 9$ | $45 \cdot 8$ | 31.0 | $20 \cdot 3$ | 0.8 | $\therefore 1.2$ | 11.4 | 22 |
| 87.8 | $69 \cdot 5$ | 828 | 57.5 | 68.8 | 37.5 | 42.6 | 310 | $27 \cdot 1$ | 39 | 22.7 | 19.7 | 23 |
| 853 | 61.1 | 89.6 | 54.0 | 74.8 | 37.1 | $42 \cdot 4$ | 29.0 | $28 \cdot 2$ | 15.4 | 31.2 | 20.7 | 24 |
| $88 \cdot 4$ | 67.0 | 69.8 | 56.5 | 78.2 | 49.2 | 52.0 | 33.7 | 34.8 | 15-2 | $35 \cdot 3$ | 23.0 | 25 |
| 86.6 | 85.9 | $89 \cdot 8$ | 54.5 | 78.4 | 63.4 | 554 | 88.8 | 28.6 | $5 \cdot 3$ | 35.0 | 25.8 | 26 |
| $80 \cdot 6$ | 60.0 | $89 \cdot 3$ | 58.5 | 67-8 | $51 \cdot 4$ | 36.8 | 28.6 | 328 | 103 | $33 \%$ | 10.6 | 27 |
| :9•1 | 550 | 898 | 65.7 | 63.4 | 46.9 | 41.2 | 27.6 | $33 \cdot 8$ | $20 \cdot 9$ | 7.7 | 18 | 23 |
| 81.0 | 57.1 | 763 | 59.6 | 58.4 | 41.0 | 48.8 | 32.7 | 35.8 | $20 \cdot 3$ | 4.8 | 9.9 | 29 |
| 84:3 | 5; 0 | 69.8 | 59.6 | 53.3 | 412 | 48.8 | 29.2 | 288 | 11.6 | 10.5 | $6 \cdot 5$ | 30 |
| 89.2 | 63.7 | 09.8 | 56.6 | $\ldots$ | ... | 51.2 | 35.7 | . | $\ldots$ | 11.5 | $2 \cdot 8$ | 31 |
| 82.6 | 61.2 | $79 \cdot 8$ | 58.4 | 73.5 | 51.6 | 567 | 37.0 | 38.4 | 21.6 | $28 \cdot 4$ | 14.8 |  |

TABLE XLI.-Toronto, Ont. Maximum

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | MIn. | Max. | MIn. | Max. | MIn. | Max. | MIn. | Max. | Min. | $\stackrel{\dot{\Delta}}{\dot{\Delta}}$ |
| 0 | - | - | - | - | - | - | $\bullet$ | $\bigcirc$ | - | - | - |  |
| $77 \cdot 2$ |  | 837 | 58.5 | 78.0 | 627 | 56.0 | $38 \cdot 3$ | $49 \cdot 1$ | 34.0 | 32-2 | $25 \cdot 1$ | 1 |
| 69.1 | 58.3 | $74 \cdot 9$ | 55.9 | 83.4 | 85.3 | 63.2 | $45 \cdot 7$ | $38 \cdot 2$ | 30.0 | 36.8 | 22.6 | 2 |
| 78.6 | 673 | 67.0 | 52.5 | 80.5 | 70.5 | 64.2 | 50.5 | $49 \cdot 2$ | 31.6 | 34.2 | 22.0 | 3 |
| 78.8 | 58.9 | 72.1 | 53.5 | *) 0 | $65 \%$ | 52.6 | 370 | 52.9 | $42 \%$ | 38.7 | $14 \cdot 7$ | 4 |
| 75.6 | 68.5 | 710 | 81.5 | 79•4 | 60.5 | 58.5 | $35 \cdot 7$ | 57.0 | 44.5 | 48.5 | 24.6 | 5 |
| $76 \cdot 4$ | 87.5 | $75 \cdot 6$ | 81.5 | 78.0 | 65.5 | 55.0 | $40 \cdot 3$ | $49 \cdot 3$ | 40.5 | $27 \cdot 2$ | $20 \cdot 6$ | 6 |
| 77.0 | 56.0 | $70 \cdot 5$ | 81.5 | 62.8 | 50.3 | $53 \cdot 1$ | 35.8 | $47 \cdot 1$ | 347 | 22.0 | 138 | 7 |
| $82 \cdot 6$ | $64 \%$ | 83.1 | 58.5 | 817 | 44.0 | 65.0 | $38 \cdot 7$ | 387 | 28.2 | 21.8 | 108 | 8 |
| $88 \cdot 5$ | 670 | 83.2 | $60 \cdot 3$ | 63.0 | 450 | 647 | 37.5 | 50.9 | $31 \%$ | 20.0 | 1.4 | 9 |
| 81.9 | 668 | 769 | 01.5 | 872 | 49.0 | 65.0 | 41.1 | 48.4 | 385 | 14.3 | 1.7 | 10 |
| $81 \cdot 4$ | $65 \cdot 3$ | 73.5 | 60.3 | $71 \cdot 1$ | 48.5 | $75 \cdot 4$ | 46.3 | $50 \cdot 1$ | 3.3 | 31.2 | 12.3 | 11 |
| 84.3 | 08.1 | 780 | 62.3 | 75.5 | $49 \cdot 5$ | 61.5 | 41.0 | 40.5 | 33.5 | 38.6 | $30 \cdot 8$ | 12 |
| 79.0 | 87.0 | 79.8 | 60.0 | 64.8 | $49 \cdot 5$ | $51 \cdot 3$ | 31.9 | 38.9 | $24 \cdot 3$ | $37 \cdot 7$ | 29.6 | 13 |
| 78.6 | 65.5 | 723 | 57.3 | 61.5 | 47.5 | 57.8 | $38 \cdot 3$ | 37.2 | 250 | 38.7 | 30.2 | 14 |
| 79.3 | 63.5 | 65.2 | $46 \cdot 3$ | 65.0 | 45.0 | 68.5 | 48.0 | 33.2 | $20 \cdot 5$ | $30 \cdot 2$ | 27.7 | 15 |
| 76.3 | 61.3 | $65^{\circ}$ | 440 | 735 | $54 \cdot 1$ | $61 \cdot 4$ | 51.5 | 36.0 | 260 | 28.8 | 14.1 | 18 |
| $73 \cdot 1$ | 50.4 | 7\%-5 | 50.0 | 74.9 | 52.7 | 54 | 37: | 3112 | 21.4 | 27.2 | 18.8 | 17 |
| $73 \cdot 1$ | 52.5 | 77.0 | 640 | 78.6 | 81.5 | 411 | 33.5 | -4.0) | 17.7 | 20.7 | $9 \cdot 4$ | 18 |
| 71.4 | $56 \cdot 3$ | 76-1 | 64.7 | 68.4 | 81.5 | 1:1 | 31.7 | 268 | 157 | $26 \cdot 6$ | 187 | 19 |
| 69.0 | 85.5 | $73 \cdot 3$ | 63.3 | $75 \cdot 3$ | 56.7 | 46.7 | 29.0 | 29 | 17.8 | 22.5 | 15.7 | 4 |
| $72 \cdot 3$ | 48.3 | 79.8 | 58.3 | 62.0 | 48.5 | 58.0 | 37.7 | 160 | 78 | $\underline{2} \cdot 3$ | 123 | 91 |
| $72 \cdot 3$ | 50.7 | 7 RG | $52 \cdot 3$ | 69.0 | 41.5 | 43.5 | 33-3 | 143 | 4. | 21.5 | 11.8 | 20 |
| 74.5 | 54:3 | 79.9 | 60.3 | 57.6 | 40.7 | 37.2 | 32-4 | 183 | $3 \cdot 9$ | $20 \cdot 3$ | 20.6 | 23 |
| $77 \cdot 1$ | 550 | 819 | 63.6 | 67.0 | 40.3 | 38.2 | $30 \cdot 6$ | 263 | 8.7 | $27 \%$ | 219 | 24 |
| 82.7 | 59.0 | $70 \cdot 9$ | 35 | $71 \cdot 1$ | 50.0 | 43.7 | $34 \cdot 1$ | 259 | $0 \cdot 6$ | :100 | $23 \cdot 1$ | 5 |
| 778 | 00.8 | 67.9 | 48.9 | 721 | 57.0 | 50: | 37\% | 23\% | 69 | 33: | $20 \times 4$ | 26 |
| 71\% | 58.1 | 78:5 | $64 \cdot 5$ | 65.0 | 553 | $39 \cdot 2$ |  | $2 \times 4$ | 11-2 | 212 | 1- | 27 |
| 737 | 527 | 86.9 | 67.9 | $6 \cdot 2$ | 48.5 | 37.6 | 26.3 | :2\% | $\pm 10$ | 13.7 | $1: 1$ | 23 |
| $73 \cdot 1$ | 550 | 690 | 62-5 | 55.2 | 45.5 | $40 \cdot 1$ | 81.1 | $3 \div$ | 23 U | $3: 3$ | $6 \cdot 9$ | 29 |
| 780 | 50.5 | 711 | 60.0 | $50 \cdot 1$ | 35.5 | 481 | 40.5 | 4 | $19 \cdot 1$ | $5 \pm$ | * 3 | 30 |
| $81 \cdot 9$ | 61.5 | 71.1 | 64.0 | . $\cdot$. | $\ldots$ | $47 \cdot 1$ | $3{ }^{4} 5$ | $\ldots$ |  | $9 \because 2$ | $0 \cdot 0$ | 31 |
| $\begin{array}{r}76 \cdot 8 \\ \hline\end{array}$ | 58.1 | 75•4 | 57.6 | $63 \cdot 7$ | 51.8 | 529 | $37 \cdot 2$ | 35.9 | 238 | 20.7 | 154 |  |

TABLE XLII.-Lindsay, Ont. Maximum

| $\dot{\Delta i}$ | January. |  | Febraary, |  | March. |  | April. |  | Mas. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | MID. | Max. | Min. | Max. | Mln. | Max. | Min. | Mnx. | Min. | Max. | Min. |
|  | - | - | $\bullet$ | - | - | - | - | - | - | $\bigcirc$ | - | - |
| 1 | . $\cdot$. | .... | $24 \cdot 1$ | 40 | 24.5 | $17 \cdot 4$ | $48 \cdot 6$ | 23.0 | $42 \cdot 6$ | 28.5 | 61.1 | 427 |
| 2 | . $\cdot \cdot$ | .... | 15.2 | $5 \cdot 0$ | $87 \cdot 6$ | 18.0 | $48 \cdot 4$ | 23.7 | 61.1 | 38.3 | 68.7 | $32 \cdot 7$ |
| 8 | .... | - | 12.2 | 1.0 | $52 \cdot 9$ | $32 \cdot 3$ | 58.6 | 30.1 | 78.6 | 43.8 | 65.0 | 42.4 |
| 4 | -'•• | .... | 22.7 | $4 \cdot 5$ | 51.6 | 383 | 58.6 | 30.8 | 71.2 | 42.0 | 63.9 | 40.2 |
| 5 | .... | . ... | 25.7 | 7.0 | $43 \cdot 6$ | 35.5 | 42.6 | 31.9 | $82 \cdot 1$ | 45 | 69.7 | 58.6 |
| 6 | .... | . $\cdot$. | 22.2 | $2 \cdot 0$ | $33 \cdot 1$ | 23.5 | 38.9 | 30.0 | 63.6 | 422 | 71.8 | 58.4 |
| 7 | - | .... | 19.2 | $9 \cdot 0$ | 41.1 | 222 | 29.2 | $17 \cdot 4$ | 55.8 | $42 \cdot 1$ | 85.2 | 43.2 |
| 8 | . $\cdot$ | .... | $32 \cdot 6$ | $2 \cdot 5$ | 23.7 | $2 \cdot 0$ | 37.6 | $18 \cdot 4$ | 78.9 | 49.7 | 70.6 | 37.3 |
| 9 | -••• | .... | $32 \cdot 6$ | 107 | 24.5 | 4:5 | 50.9 | 18.6 | 81.2 | $54 \cdot 1$ | 76.0 | 44.5 |
| 10 | .... | . $\cdot$. | 27.2 | 11.9 | 25.2 | 87 | 48.6 | 27.2 | 72.6 | 55.1 | 80.1 | 53.6 |
| 11 | . $\cdot$ | .... | $32 \cdot 1$ | 2.0 | 25.7 | 5.2 | $29 \cdot 5$ | 16.4 | 63.8 | 45.7 | 83.6 | $0 \mathrm{O} \cdot 1$ |
| 12 | .... | .... | $49 \cdot 6$ | $32 \cdot 3$ | 21.7 | 6.2 | 33.6 | $9 \cdot 6$ | 61.2 | 43.6 | 686 | $62 \cdot 1$ |
| 13 | $\cdots$ | ... | 31.2 | 26.7 | 26.8 | 8.2 | 53.2 | 28.9 | 55.9 | $37 \cdot 4$ | $73 \cdot 8$ | 55.1 |
| 14 | ... | ...' | 227 | 14.9 | 81.6 | 10.0 | 40.0 | $34 \cdot 3$ | 59-9 | $34 \cdot 3$ | $69 \cdot 3$ | $45 \cdot 1$ |
| 15 | .... | .... | 32.1 | 20.4 | $39 \cdot 1$ | 12.0 | $64 \cdot 1$ | 33.5 | $6 \div \cdot 4$ | 31.4 | $72 \cdot 4$ | 52.5 |
| 16 | . $\cdot$. | .... | 40.8 | $22 \cdot 5$ | 25.0 | 23.5 | $41 \cdot 1$ | 297 | 79.0 | 43.7 | $78 \cdot 2$ | $4 \theta-2$ |
| 17 | $\ldots$ | . $\cdot$ | 47.8 | 30.2 | 25.5 | $9 \cdot 7$ | $37 \cdot 1$ | $32 \cdot 3$ | $80 \cdot 4$ | $50 \cdot 1$ | 81.6 | 41.8 |
| 18 | ... | . $\cdot$. | $33 \cdot 1$ | 17.2 | $33 \cdot 1$ | 11.6 | $43 \cdot 6$ | 27.3 | 71.8 | 50.5 | $82 \cdot 8$ | 447 |
| 18 | . $\cdot$. | .... | 21.7 | 11.2 | 42.6 | 13.4 | $68 \cdot 1$ | 38.5 | $78 \cdot 6$ | 53.9 | $81 \cdot 6$ | 46.8 |
| 20 | $\ldots$ | . | $22 \cdot 3$ | 0.4 | $32 \cdot 4$ | 214 | $55 \cdot 6$ | 86.8 | 76.6 | $53 \cdot 8$ | $78 \cdot 6$ | 53.3 |
| 21 | .... | -' | $33 \cdot 6$ | $20 \cdot 4$ | $34 \cdot 8$ | $7 \times$ | $86 \cdot 1$ | $38 \cdot 1$ | 67.8 | $50 \cdot 8$ | 77.9 | 58.7 |
| 22 | .... | . $\cdot$ | $33 \cdot 1$ | $13 \cdot 3$ | 42.6 | $26 \cdot 1$ | 59.6 | 388 | 642 | $54 \cdot 1$ | $78 \cdot 6$ | 58.0 |
| 23 | . $\cdot \cdot$ | -• | 29.5 | $12 \cdot 4$ | 44.6 | 20.9 | $46 \cdot 6$ | 27.4 | 72-9 | $48 \cdot 7$ | 88.4 | 55.1 |
| 24 | . $\cdot$. | .... | $27 \cdot 4$ | 143 | $22 \cdot 2$ | 35 | 53.6 | 31.9 | 80.6 | 54.6 | 90.8 | 62.6 |
| 23 | .... | -• | +26 | $28 \cdot 1$ | 29.2 | 30 | 47.8 | $30 \cdot 1$ | $87 \cdot 6$ | 54.0 | 79.6 | 635 |
| 20 | $\cdots$ | .... | 44.8 | 249 | 29.5 | 139 | 59.6 | 40.8 | 845 | 59.0 | 83.4 | 62-1 |
| 27 | .... | .... | 450 | $2 \times 3$ | $43 \cdot 1$ | $27 \%$ | 41.6 | 32.8 | 81.6 | 63.8 | $82 \cdot 4$ | 58.5 |
| 28 | .... | $\ldots$ | $46^{\circ} 8$ | 29.8 | 41.8 | $30 \cdot 4$ | $57 \%$ | 31.2 | 65.6 | 4.4 | $76 \cdot 6$ | 60.6 |
| 29 | . | $\ldots$ | 506 | 21.1 | 43.8 | 20\%3 | 59.4 | 40.0 | 68.8 | 377 | $73 \cdot 4$ | 56.1 |
| 30 | . $\cdot$ | $\cdots$ | . | $\cdots$ | $50 \cdot 1$ | 24.5 | $40 \cdot 6$ | 288 | 69.5 | $52 \cdot 4$ | 75'9 | 536 |
| 31 | .... | .... |  | .... | 53.4 | 20.5 | $\cdots$ | $\ldots$ | $73 \cdot 2$ | $53 \cdot 5$ | $\cdots$ | $\cdots$ |
|  | $\cdots$ | . $\cdot$. | $31 \cdot 9$ | 12.7 | 35.2 | 17.2 | 49.0 | $29 \cdot 9$ | 71.0 | 47.2 | 75*6 | 51-8 |

and Minimum Temperature, 1880.

| Jnly. |  | Angust. |  | Septenber. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | M1n. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | - |
| - | - | 0 | - | $\bigcirc$ | - | - | - | 9 | - | $\bigcirc$ | - |  |
| 72-1 | 51.7 | 89.5 | $46 \cdot 7$ | $79 \cdot 5$ | 60.5 | 52.6 | 38.2 | $44 \cdot 8$ | 30.9 | $25 \cdot 2$ | 148 | 1 |
| 720 | $51 \cdot 6$ | 76 | 53.6 | $\mathbf{8 6 \cdot 9}$ | 639 | $64 \cdot 8$ | 32-9 | 38.6 | 29.9 | $26 \cdot 7$ | 16.4 | 2 |
| $78 \cdot 5$ | $49 \cdot 8$ | $69 \cdot 2$ | $48 \cdot 5$ | 766 | 690 | $63 \cdot 6$ | 53.0 | $50 \cdot 1$ | 27.4 | 307 | $18 \cdot 4$ | 3 |
| $80 \cdot 7$ | 46.7 | $75 \cdot 6$ | 417 | 801 | $65 \cdot 3$ | 637 | $43 \cdot 3$ | $52 \cdot 1$ | 37.5 | $34 \cdot 1$ | $17 \cdot 9$ | 4 |
| 79.7 | $56 \cdot 6$ | $69 \cdot 1$ | 472 | $82 \cdot 9$ | 58.7 | $57 \cdot 5$ | $35 \cdot 8$ | $58 \cdot 6$ | 47.5 | 420 | 29.4 | 5 |
| $80 \cdot 7$ | 52-1 | 78.1 | $36 \cdot 1$ | 74.4 | $55 \cdot 1$ | $60 \cdot 1$ | 40.4 | 51.1 | $40 \cdot 3$ | 28.7 | 17.9 | 6 |
| 777 | $44 \cdot 2$ | $86 \cdot 1$ | $45 \cdot 9$ | 61.2 | 41-0 | $53 \cdot 1$ | $30 \cdot 8$ | $45 \cdot 6$ | 29.9 | $18 \cdot 0$ | 8.2 | 7 |
| 80.7 | $49 \cdot 8$ | $80^{\circ} 0$ | 62.4 | 59.6 | 291 | 60.6 | 309 | $37 \cdot 1$ | 25.0 | 16.8 | 3.5 | 8 |
| . 91.7 | 670 | $88 \cdot 2$ | $57 \cdot 4$ | 63.5 | $39 \cdot 7$ | 714 | $35 \cdot 6$ | 49.6 | 31.4 | $11 \cdot 1$ | - 5\% | 9 |
| 868 | 66.0 | $86 \cdot 1$ | $65 \cdot 1$ | 68.1 | 38.2 | $73 \cdot 5$ | $37 \cdot 2$ | $50 \cdot 6$ | $32 \cdot 5$ | 37 | -16.0 | 10 |
| 88.2 | 60.5 | 86.6 | $50 \cdot 1$ | 71.7 | 37.3 | $79 \cdot 0$ | 4.5 | 49.8 | $38 \cdot 3$ | $36 \cdot 1$ | - 10 | 11 |
| 790 | $61 \%$ | 810 | 52.0 | 77.0 | 443 | 63.6 | $41 \cdot 4$ | 38.6 | 32.6 | 33.6 | 15.4 | 12 |
| 79.5 | 650 | 81.5 | $52 \cdot 5$ | $63 \cdot 1$ | $49 \cdot 2$ | 65.6 | $25 \cdot 9$ | $34 \cdot 2$ | 21.8 | 338 | $27 \cdot 1$ | 13 |
| $82 \cdot 1$ | 62.0 | 74.1 | 57.7 | 586 | 41.7 | $63 \cdot 1$ | $30 \cdot 7$ | $35 \cdot 6$ | 16.4 | 318 | $25 \cdot 1$ | 14 |
| $84 \cdot 7$ | 59.5 | 66.6 | $46^{\circ} 7$ | $68 \cdot 1$ | 32.0 | $71 \cdot 1$ | 45'1 | $32 \cdot 6$ | 12.4 | 302 | 23-9 | 15 |
| 7-1 | $50 \cdot 1$ | $71 \cdot 4$ | 3.45 | $71 \cdot 1$ | 44.8 | 627 | $46 \cdot 4$ | 31.6 | 20.5 | 24-1 | $5 \cdot 2$ | 16 |
| 74.2 | $55 \cdot 1$ | 80.6 | 37.8 | $75 \cdot 3$ | 47.7 | in ${ }^{\text {o }}$ | 41•t | $20 \%$ | 20.0 | $18 \cdot 7$ | 15 | 17 |
| $76 \cdot 1$ | 46.7 | 74.4 | 62.5 | 63.6 | 57.9 | 4:1 | 3.) 8 | $23 \cdot 7$ | 14.4 | 127 | 0.0 | 18 |
| $73: 2$ | $48^{\circ} 0$ | 77.8 | 58.5 | $60 \cdot 8$ | 55.3 | 41.6 | 28.8 | 23.7 | $10 \cdot 7$ | $20 \cdot \theta$ | 8.8 | 19 |
| 70.6 | $52 \cdot 6$ | 82.0 | $53 \cdot 8$ | 71.6 | 52.0 | $44 \cdot 6$ | 27.5 | $25 \cdot 2$ | 1299 | $18 \cdot 7$ | $10 \cdot 1$ | 20 |
| 73.2 | 42.4 | $78 \cdot 1$ | $57 \cdot 1$ | 60.9 | 472 | $58 \cdot 6$ | 40.3 | $20 \cdot 7$ | 7.2 | 19.8 | 70 | 21 |
| 76.6 | 17"3 | $83 \cdot 6$ | $49 \cdot 3$ | $55 \cdot 8$ | 36.8 | $59 \cdot 9$ | 26.6 | $13 \cdot 3$ | 0.0 | 19.5 | -6.4 | 22 |
| 74.2 | 50.8 | 88.1 | $55 \cdot 1$ | 60.6 | 358 | $33 \cdot 5$ | $20 \%$ | 10.7 | - 6.2 | 22.7 | 14'4 | 23 |
| 805 | 47.2 | 11'7 | 57.8 | 71/1 | $35 \cdot 2$ | 31.2 | 23.8 | 21.2 | - $0 \cdot 9$ | 222 | 105 | 24 |
| $84 \cdot 1$ | 62.0 | $73 \cdot 1$ | $53 \cdot 1$ | $77 \cdot 1$ | 437 | 306 | $25 \cdot 8$ | $20 \cdot 1$ | $0 \cdot 3$ | $22 \cdot 2$ | 18.2 | 25 |
| 78:9 | $58 \cdot 6$ | $73 \cdot 0$ | 40.5 | $72 \cdot 0$ | $58 \cdot 1$ | $38 \%$ | $33 \cdot 2$ | 14.7 | -14.9 | 26.7 | $10 \cdot 4$ | 28 |
| 72.2 | 53.6 | 83.8 | $60 \%$ | $65 \cdot 4$ | 50.8 | -34* | 27.8 | $28 \cdot 6$ | -1.9 | $27 \cdot 2$ | 13.6 | 27 |
| 74.4 | 42.7 | $83 \cdot 1$ | 68.1 | 57.0 | $44 \cdot 4$ | $35 \cdot 9$ | 17.4 | $30 \%$ | 10.8 | 5:4 | - 3.0 | 28 |
| 73.2 | $45 \cdot 2$ | $60 \cdot 3$ | $55 \cdot 1$ | $55 \cdot 4$ | 432 | $47 \cdot 6$ | 20:2 | $31 \cdot 3$ | 26.8 | 1.2 | - 10.2 | 29 |
| 82.7 | 42.4 | 76.7 | 50.2 | $48 \cdot 6$ | 40.9 | $43 \cdot 1$ | $35 \cdot 0$ | $22 \cdot 2$ | $0 \cdot 7$ | $4 \cdot 3$ | -11.3 | 30 |
| $89 \cdot 1$ | 52.6 | 72.0 | 53.3 | $\cdots$ | $\cdots$ | $44 \cdot 6$ | $35 \cdot 2$ | $\cdots$ | * $\cdot$. | $2 \cdot 9$ | - 22 | 31 |
| 790 | $53 \cdot 2$ | 79.3 | 51.9 | 683 | 47.6 | $53 \cdot 7$ | 341 | 83.8 | 18.5 | 21.6 | $9 \cdot 1$ |  |

TABLE XLIII.—Beatrice, Ont. Maximum

| $\stackrel{\dot{N}}{\dot{A}}$ | January. |  | February. |  | March. |  | April. |  | Maj. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | $\cdots$ | - | - | - | - | " | - | - | - | - |
| 1 | 33.0 | 10.0 | 22.0 | 21.5 | 23.0 | 11.0 | $4 \cdot 0$ | 22.0 | 39.3 | 18.8 | 54.7 | $37 \cdot 4$ |
| 2 | 37.0 | 17.0 | 140 | 27.6 | 31.0 | 13.0 | 415 | 24.5 | 66.3 | 32.0 | $66 \cdot 6$ | 280 |
| 3 | 31.0 | 7.5 | 12.0 | $3 \cdot 5$ | 46.0 | 19.0 | 51.0 | 37.5 | 72.6 | 41.8 | $62 \cdot 7$ | 450 |
| 4 | 470 | 24.0 | 18.0 | 0.0 | 41.0 | 34.0 | 53.0 | 36.0 | 76.6 | 43.0 | 817 | 85.0 |
| 5 | 35.0 | 7.0 | 24.0 | $7 \cdot 5$ | 36.0 | 20.0 | 380 | 28.0 | 77.6 | 41.5 | 69.7 | 52.0 |
| . 6 | 38.0 | 22.5 | 16.0 | 5.4 | 30.0 | 160 | $35 \cdot 5$ | 220 | 56.7 | 35.0 | 70.6 | 57.2 |
| 7 | 36.0 | 21.0 | 13.0 | 3.0 | 40.0 | 14.0 | 28.6 | 12.6 | 53.7 | $42 \cdot 4$ | 62.7 | 450 |
| 8 | 37.0 | 27.0 | 37.5 | 6.5 | 18.0 | 11.6 | 34.0 | $12 \cdot 6$ | $76 \cdot 1$ | $4{ }^{4} 6$ | 627 | 38.3 |
| 9 | 43.0 | 32.5 | 26.0 | 137 | 24.0 | 3.1 | 47.2 | 20.4 | $70 \cdot 1$ | 52.5 | $75 \cdot 6$ | $37 \cdot 0$ |
| 10 | 43.5 | 16.8 | 20.0 | 16.2 | 240 | 4.4 | 43.0 | 23.0 | $67 \cdot 8$ | 50.0 | $78 \cdot 8$ | 498 |
| 11 | $46 \cdot 2$ | $20 \cdot 2$ | 37.0 | 3.4 | $24 \cdot 3$ | - 76 | 31.0 | 11.0 | 59.6 | 80.0 | 74.6 | 81.0 |
| 12 | 84.8 | 11.6 | 45.5 | 200 | 22.0 | - 1.2 | 35.0 | $2 \times$ | 609 | $37 \cdot 2$ | 67.8 | 69.0 |
| 13 | 230 | 4.4 | 31.5 | $15 \cdot 4$ | 29.0 | 8.4 | 54.5 | 23.0 | 557 | 34.0 | 65.6 | 60.0 |
| 14 | 350 | 40 | 28.0 | $5 \cdot 0$ | 28.0 | 14.7 | 40.0 | 31.0 | 81.7 | 28.0 | 68.8 | 48-2 |
| 15 | 31.0 | $8 \cdot 2$ | 81.0 | 11.0 | 29.6 | 8.9 | 65.8 | 31.6 | 68.6 | 28.0 | $74 \cdot 8$ | 48.0 |
| 16 | 38.0 | 16.0 | 37.0 | 18.4 | 28.0 | -6.6 | 39.0 | 26.0 | 72.8 | $44^{\circ}$ | $78 \cdot 1$ | 440 |
| 17 | 40.0 | $32 \cdot 6$ | 51.0 | 22.0 | 24.5 | - 18 | 36.0 | 28.4 | 77.6 | 43.4 | $81 \cdot 1$ | 41.4 |
| 18 | 35.6 | 31.6 | 45.0 | $12 \cdot 2$ | 3.0 | 2.7 | 49.0 | 21.0 | 65.7 | 53.0 | 80.6 | 41.6 |
| 10 | 36.0 | 30.0 | 14.0 | 1.0 | 41.8 | 8.0 | 69.8 | 37.3 | 75.1 | 51.0 | 80.2 | 42.4 |
| 20 | 32.2 | 11.2 | 22.0 | $10 \cdot 3$ | 37.0 | 15-4 | 490 | 36.0 | $72 \cdot 6$ | 45.0 | 76.8 | $52 \cdot 6$ |
| 21 | 23.0 | $3 \cdot 4$ | 30.0 | 17.0 | 37.5 | 6.4 | 62.0 | 30.0 | 67.6 | 53.0 | $7 \cdot 1$ | 52.0 |
| 22 | 35.6 | 15.0 | 35.0 | 12.6 | 38.0 | 22.0 | 55.0 | 33.4 | $62 \cdot 7$ | 50.0 | 76.6 | 54.8 |
| 23 | 35.6 | 12.4 | $29^{\circ} 0$ | $10 \cdot 4$ | 42.0 | 140 | 48.2 | 23.2 | 70.4 | $40 \cdot 4$ | 840 | 54.4 |
| 24 | 21.0 | 1.2 | 29.0 | 10.2 | 16.8 | $5 \cdot 4$ | 55.0 | 26.5 | 78.8 | 46.0 | 83.6 | 57.0 |
| 25 | 34.0 | 17.2 | 42.0 | 26.0 | 30.0 | 10.6 | $50 \cdot 8$ | 25.4 | $84 \cdot 2$ | 55.0 | 73.6 | 61\% |
| 20 | 42.0 | 14.0 | 42.6 | 27.3 | 42.0 | $2 \cdot 6$ | $45 \cdot 8$ | 36.8 | 82.6 | 560 | $77 \cdot 6$ | 59.2 |
| 27 | $43 \cdot 0$ | 250 | 39.0 | 270 | 48.0 | 26.0 | 4.0 | 31.0 | 82.1 | 550 | 80.2 | $50 \cdot 2$ |
| 28 | 31.0 | 14.4 | 42.5 | 29.2 | 39.5 | 25.5 | 51.6 | 28.0 | 56.7 | $40 \cdot 6$ | 74'8 | 63.0 |
| 20 | 12.0 | $8 \cdot 5$ | $49 \cdot 0$ | 11.0 | 42.0 | 190 | 60.0 | 38.0 | 70.4 | $31 \cdot 2$ | 69.1 | 54.0 |
| 30 | 41.0 | 8.0 | $\cdots$ | .... | 48.8 | 22.5 | 47.0 | 24.6 | 637 | $50 \cdot 4$ | 71.6 | 48.0 |
| 31 | 38.0 | 17.6 | $\cdots$ | . ${ }^{\text {a }}$ | 54.5 | 18.0 | . $\cdot$. | . $\cdot$. | ${ }^{60 \cdot 1}$ | 47.8 | . $\cdot$. | - $\cdot$. |
|  | 35.1 | $15 \cdot 1$ | $30 \cdot 4$ | 7.2 | $33 \cdot 8$ | $8 \cdot 2$ | 45.4 | 267 | 67.9 | 42.8 | 70.6 | 48.9 |

and Minimum Temperature, 1880.


TABLE XLIV．－Barrie，Ont．Maximum

| $\dot{A}$ | January， |  | Feloruary． |  | March． |  | April． |  | May． |  | Junc． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max． | Min． | Max． | Miv． | Max． | Min． | Max． | Mir． | Max． | Min． | Mex． | Min． |
| ， | － |  | $\bigcirc$ | － | － | $\bigcirc$ | － | $\bigcirc$ | － | － | － | － |
| 1 | 34.0 | 1193 | $24 \cdot 6$ | 711 | 243 | 15.1 | 468 | 2.4 | $47 \cdot 1$ | 23.9 | 58.6 | 420 |
| 2 | 42.6 | 29 | 18.8 | 39 | 33.9 | 14.6 | 44.6 | $24 \cdot 9$ | 61.2 | 39.8 | 65.6 | 36．0） |
| 3 | 33.0 | 90 | 14.7 | $(\because)$ | $10: 5$ | 23.9 | $54 \%$ | 10.5 | $81 \cdot 9$ | 460 | 60.9 | 410 |
| 4 | $46 \cdot 6$ | 380 | 86 | $\bigcirc$ | 45.1 | 345 | 57.6 | 10.0 | $81 \%$ | 120 | 61.6 | 450 |
| 5 | $46^{6} 6$ | 17.8 | $2 \times 0$ | 8：5 | 436 | 23.4 | 41.6 | 30.0 | － 0 | $45 \%$ | 67－1 | 545 |
| 6 | ：3\％ | 3： $1:$ | $21 \%$ | $2 \cdot 5$ | 成 | 21.0 | 25－1 | 23.4 | 65.6 | ： 0 | 74.6 | 570 |
| 7 | $10 \%$ | $21: 3$ | 17.8 | $7{ }^{\circ}$ | 42.6 | 17.3 | ：5 1 | 16＊ | 17.6 | 10.8 | 12.1 | 110 |
| 8 | 2） 4 | 29 | 3.51 | $1: 3$ | $2 \mathrm{H} \cdot 6$ | 44 | 碞； | $1: \%$ | 7.56 | 120 | $15 \%$ | 34.0 |
| 4 | ： 1 | $32^{\circ} 0$ | 20 | 83 | $\pm 6$ | $\because \square$ | 53\％ | $17 \%$ | 7106 | 490 | 70， | 450 |
| 10 | $44 \cdot 0$ | 23.9 | 236 | 8．7 | 258 | $\because 7$ | $53 \%$ | 21.7 | 7.6 | 500 | 73.1 | 51.0 |
| 11 | 45.6 | 23.9 | 37.6 | 13 | 98.1 | 2.8 | 29 | 1319 | 82.6 | 149 | －8．6 | 02 |
| 12 | 35. | 15\％ | $40 \cdot 6$ | $31-2$ | 93 | 1\％ | $38 \cdot 4$ | 116 | （i） O | 43.0 | $73 \cdot 4$ | 3i |
| 13 | ：0，1 | 10.0 | $31 \cdot 1$ | 2－9 | 26.6 | 0.7 | $50 \cdot 4$ | 300 | 50.1 | 31.5 | 71.6 | 5\％0 |
| 1 | 37.8 | 11.5 | $31 \cdot 1$ | 13.1 | 32 1 | $10 \cdot 3$ | 50.6 | 80 | 50．1 | $31 \%$ | 12\％${ }^{\text {\％}}$ | 470 |
| 15 | 350 | 15.6 | $31 \cdot 1$ | 23.1 | 376 | 16\％ | 62.6 | 31.0 | （ij） 1 | 33.0 | 72 | 490 |
| 16 | $: 30$ | $21 \cdot 1$ | ［－1 | 21.1 | 80.4 | 16.8 | 3： 6 | $26 \cdot 1$ | $7 \%$ | 4.3 | $71 \%$ | 320 |
| 17 | 427 | 33.0 | $50 \%$ | 21.0 | \％$\%$ | $6 \cdot 5$ | 39.6 | 300 | 7.76 | 53\％ | $80 \cdot 6$ | 51.0 |
| 18 | 38.0 | ：2\％ | 1.9 | 16.8 | 3.15 | 23 | $11 \cdot 1$ | 210 | 69.1 | $50 \cdot 1$ | 5 sm | 419） |
| 19 | 30.6 | 812 | 193 | $7 \cdot 0$ | $41 \cdot 1$ | 14.6 | 70.6 | ：145 | 76．1 | $4 \mathrm{~S} \cdot 0$ | S1\％ | $5 \times 1$ |
| 20 | 31.6 | 150 | $\because 6$ | $1 \cdot 1$ | 38.6 | $16 \%$ | 56.1 | 26．0 | 68.6 | 515 | \％ 81 | 8 S |
| 21 | $2 \%$ | $8 \cdot$ | ：3\％ | 19.6 | 41.6 | 6.0 | 86.6 | 80 | 6.46 | 51.8 | $75 \%$ | 析 |
| 22 | $38 \cdot 1$ | 18.8 | ： $3 \times$ | $17 \%$ | 40.6 | 24.9 | $57 \cdot 1$ | 37.0 | 12.6 | 350 | $72 \%$ | 50 |
| $\xrightarrow{3}$ | $8 \overline{0} \%$ | $111 \%$ | $31 \cdot 1$ | 9.0 | $46 \cdot 1$ | 14.6 | $4 \cdot 6$ | 41 | $71 \% 6$ | 460 | $85 \%$ | 560 |
| 24 | $29 \%$ | $14 \%$ | ：20 | 90 | 16．8 | $0 \cdot 3$ | $51 \cdot 4$ | 31.0 | 79.1 | 520 | $\mathbf{5 7}$ ¢ | 6.17 |
| 25 | 41.8 | 146 | 46.1 | 30.0 | \％ 06 | 0.8 | $\cdots$ | ．．． | 85.6 | 57.0 | 74.6 | $60 \cdot 9$ |
| 26 | 4－1 | 14．3 | 46.6 | 30.0 | 30.6 | 18.8 | 57.6 | 40.5 | 836 | 61.7 | $80 \cdot 8$ | 59\％ |
| 27 | 41.6 | 28.0 | 41.6 | 31.0 | 41.6 | － $2 \mathrm{z} \cdot 0$ | 45.6 | 33.0 | $85 \cdot 4$ | 55.0 | 79.6 | 59.0 |
| 28 | $83 \cdot 1$ | 17.8 | 47.6 | 32－4 | 40.6 | 20.0 | 57.6 | $33 \cdot 3$ | 41.6 | 45.0 | 77.6 | 63¢ |
| 29 | 20：3 | $0 \cdot 3$ | 50：4 | 20.3 | 36.6 | $20 \cdot 8$ | 56.6 | 40.5 | 1.6 .6 | 38.0 | 71．6 | 54.5 |
| 30 | 46.6 | 9.8 | $\ldots$ | ．$\cdot$ | 42.1 | 22.4 | $46 \cdot 1$ | 250 | $69 \cdot 6$ | 52.0 | $73 \cdot 1$ | 550 |
| 31 | 35.1 | $20 \cdot 3$ | $\cdots$ | ． | $52 \cdot 6$ | $22 \cdot 9$ | ＇．． | $\cdots$ | 73.6 | 51.0 | ．．．． | ．．．． |
|  | $3 \%$ | $10 \cdot 3$ | $34 \cdot 1$ | 12\％ 4 | 35.2 | 13.9 | 44.4 | $20 \cdot 3$ | 70＇2 | 45.8 | 73\％ | 52\％3 |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | 0ctober. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | MIn. | Max. | Min. | Max. | Min. | 会 |
| - | - | - | - | 0 | $\bigcirc$ | - | - | - | $\bigcirc$ | - | - |  |
| 754 | 54.5 | $87 \cdot 1$ | 60.2 | $78 \cdot 4$ | 639 | 5511 | 37.0 | 41.6 | 345 | 25\% | 17.3 | 1 |
| $72 \cdot 1$ | 53.8 | 76.8 | 55.0 | 83.6 | 66.2 | $67 \%$ | 48.0 | $3 \cdot 6$ | 30.0 | $31 \cdot 4$ | 1s.5 | 2 |
| 74.6 | 51.0 | 65.6 | $46^{\circ} 0$ | 77.6 | 67.2 | 624 | 51.0 | $53 \%$ | 31.0 | 34\% | 22.9 | 3 |
| 78.6 | 49•8 | $74 \cdot 4$ | 48.0 | $76 \cdot 4$ | 63.0 | 51.8 | 11.0 | $54 \cdot 6$ | 42.0 | $35 \cdot 6$ | $18 \cdot 6$ | 4 |
| 71.6 | 60.2 | 68.6 | $47 \times 5$ | 821 | 57.5 | 59.1 | 575 | 68.6 | 47.5 | $47 \cdot 1$ | $\pm 9.1$ | 5 |
| $85 \%$ | 53.0 | $72 \cdot 6$ | 545 | $71 \cdot 1$ | 65.0 | 50.6 | 40.0 | $51 \cdot 1$ | 38.0 | 218 | 16.2 | 6 |
| 87.6 | 470 | 81.1 | 58.0 | $50 \cdot 6$ | 48.0 | 51.6 | $34 \cdot 5$ | $45 \cdot 9$ | 29.5 | 998 | 8.0 | 7 |
| $87 \cdot 6$ | 55.0 | 81.3 | 56.0 | 59.6 | 39.5 | 57.6 | 37.5 | 37.5 | 270 | 19.8 | 6.0 | 8 |
| $\mathbf{8 7 \cdot 6}$ | 68.2 | $88 \cdot 8$ | 63.4 | $61 \cdot 1$ | 41.0 | 68.6 | 39.5 | 51.6 | 340 | 147 | 12.8 | 9 |
| 83.6 | 68.2 | 77.6 | 56.2 | 62.5 | 42.0 | 68.6 | 43.0 | 51.2 | $35 \cdot 1$ | 6.7 | $23 \cdot 4$ | 10 |
| $84 \cdot 0$ | 62.2 | $75 \cdot 1$ | 59.7 | 71.5 | $44 \cdot 5$ | 76.6 | 50.5 | 49.9 | $36 \cdot 5$ | 28.9 | 33 | 11 |
| $82 \cdot 1$ | 65.2 | 78.6 | 52.5 | $76 \cdot 1$ | 49.5 | 65.8 | 41.0 | 38.6 | 31.0 | $34 \cdot 7$ | 15.9 | 12 |
| $76 \cdot 1$ | 65.2 | $70^{6} 6$ | 58.5 | 67.4 | 47.2 | $54 \cdot 8$ | 30.5 | 39.6 | $23 \cdot 9$ | $34 \cdot 6$ | $25 \cdot 3$ | 13 |
| 71 | 64.7 | 70.6 | 51.5 | $57 \cdot 1$ | 41.0 | 59.8 | 360 | $33 \cdot 8$ | 18.9 | 35.9 | 22.9 | 14 |
| $81 \%$ | 61.2 | $60 \cdot 1$ | 46.0 | $62 \cdot 6$ | $37 \cdot 0$ | 70.9 | $48 \%$ | 33.6 | 19•3 | $35 \cdot 6$ | $22 \cdot 9$ | 15 |
| 781 | 602 | $66 \cdot 1$ | $39 \cdot 6$ | $69 \cdot 6$ | 52.0 | 64.6 | 49\% | 33.6 | 234 | 24: | 8.0 | 16 |
| $69 \%$ | 56.0 | 74.5 | 450 | 78.6 | 54.3 | 51.6 | 36.0 | 29.9 | 17.8 | 24.0 | $4 \cdot 8$ | 17 |
| $72 \cdot 1$ | 53.0 | $76 \%$ | 62.7 | $69 \cdot 1$ | 60.2 | 44.1 | 33.0 | 24.0 | 17.3 | 204 | $2 \cdot 3$ | 18 |
| 69.6 | 52\% | 78.6 | 412 | 68.6 | 58.2 | 49.1 | 29\% | $25 \cdot 8$ | 168 | 2-\% | 9.1 | 19 |
| 1534 | 52\% | 74.6 | 53 | $71 \cdot 6$ | 53.0 | $47 \%$ | 330 | $28 \cdot 1$ | 15\% | 109 | 10.0 | 20 |
| 691 | 47.5 | 73.6 | 59.0 | $57 \%$ | 47.0 | $54 \cdot 1$ | 32.0 | 17.7 | 43 | 22.8 | 88 | 21 |
| $70 \cdot 4$ | $50 \sim 3$ | 82.6 | 58.0 | $54 \cdot 4$ | 42.5 | 41.6 | 31.0 | 19.0 | 43 | 24.0 | $1{ }^{\prime \prime}$ | 22 |
| $70 \cdot 1$ | $55 \cdot 4$ | $70 \cdot 3$ | 58.2 | 57.1 | $40 \cdot 0$ | 31.1 | 300 | 16.0 | $2 \cdot 3$ | 23.8 | $17 \cdot 1$ | 33 |
| $78 \cdot 4$ | $50 \cdot 2$ | $84 \cdot 9$ | 60.2 | 68.6 | $40 \cdot 6$ | $\ldots$ | $\ldots$ | $22 \cdot 8$ | $4 \cdot 3$ | 28.6 | $19 \cdot 8$ | 24 |
| $83 \cdot 1$ | 58.5 | $70 \cdot 1$ | 5\% 0 | 75.0 | 52.0 | $30 \cdot 6$ | 29.0 | 21.8 | $2 \cdot 3$ | 25.8 | 19.8 | 25 |
| 73.4 | 59.2 | $70 \cdot 6$ | 51.0 | $70 \cdot 6$ | 60.2 | $42 \cdot 6$ | 34.0 | $18 \cdot 8$ | 1.4 | 29.6 | 20.8 | 26 |
| 69.8 | 52.0 | $84 \cdot 6$ | $44^{\circ}$ | 66.6 | 50.0 | $36 \cdot 1$ | 24.9 | $32 \cdot 1$ | $8 \cdot 8$ | $30 \cdot 4$ | 13.6 | 27 |
| 69.6 | 49.0 | 77.6 | 53,0 | 56.6 | 49.0 | 36.6 | 244 | 33* | 23.4 | $15 \cdot 1$ | $4 \cdot 4$ | 28 |
| 72 | 52.0 | $81 \cdot 1$ | 50.0 | 57.6 | 42.0 | 48.1 | $30 \cdot 5$ | $31 \%$ | 156 | 1\% | 13:3 | 29 |
| $79 \cdot 1$ | 49.0 | 766 | 53.0 | 40.6 | 37.0 | $46 \cdot 1$ | 38:5 | $24 \cdot 1$ | 14.6 | 119 | 7.5 | 30 |
| $83 \cdot 8$ | 57.0 | 75*4 | 58.5 | ...' | $\ldots$ | 44.6 | $34 \cdot 0$ | - | $\ldots$ | 11.9 | $5 \cdot 4$ | 31 |
| 76.5 | 559 | $76 \cdot 4$ | $58 \cdot 4$ | 67.2 | 50.0 | 53.0 | 36.8 | $35 \cdot 4$ | 215 | 247 | 9.4 |  |

TABLE XLV.-Gravenhurst, Muskoka, Ont. Maximum

| $\underset{\Xi}{\dot{E}}$ | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | M1n. | Max. | Min. | Max. | Min. | Max. | Min |
|  | $\checkmark$ | $\boldsymbol{8}$ | - | - | - | - | $\bigcirc$ | $\bigcirc$ | $\because$ | $\bigcirc$ | - | - |
| 1 | 32.0 | 12\% | 23.0 | $10 \cdot 8$ | 29.0 | 138 | 43.0 | 23.0 | 48.0 | 23.0 | 57.0 | 39.0 |
| $\underline{\square}$ | 370 | 18.0 | 1301 | 15\% | 33.0 | 158 | 494) | 25.0 | $66^{\circ} 0$ | 360 | 650 | $32 \cdot 0$ |
| 3 | 32.0 | $9 \cdot 1$ | 120 | 54 | 4.0 | 21-0 | $55 \%$ | 38.0 | $74 \%$ | 460 | 63.0 | 44.0 |
| 4 | $46^{\circ} 0$ | 25.0 | 210 | $\because 4$ | $12 \cdot 0$ | 34.0 | $5 \%$ | 38.0 | $\pi$ | 460 | 65.0 | 38.0 |
| 5 | 320 | 11 ; | 250 | $10 \cdot 6$ | 38.0 | 940 | 3811 | 31.1 | 70 | $45^{\circ} 0$ | 69.0 | $55 \%$ |
| 6 | $39 \%$ | 210 | 19.0 | 1.0 | 31.0 | 21.0 | 35.0 | 4 | 66.0 | 37.0 | 75.0 | 000 |
| 7 | 310 | 21* | 18.0 | $8 \cdot 6$ | $30 \%$ | $17 \cdot 8$ | 23.0 | 164) | 55.0 | 430 | 65.0 | . 470 |
| * | 38.0 | $3(10)$ | :30 | $8 \cdot 6$ | 190 | $7 \cdot 4$ | $30^{\circ} 0$ | 150 | 76.0 | 46.0 | 090 | 42.0 |
| 9 | 44.0 | 340 | 36.0 | -12-8 | 230 | $3 \cdot 4$ | 48.0 | 22.0 | 78.0 | 56.0 | 75.0 | $40 \%$ |
| 111 | 43.0 | 190 | 20.10 | 150 | 24.0 | 00 | $44^{\circ} 0$ | 20.0 | 710 | 520 | 79.0 | 53.0 |
| 11 | 47.0 | 210 | 370 | : | 230 | 10 | 30.0 | $14 \cdot 0$ | $60^{\circ} 0$ | 48.0 | 77.0 | 63.0 |
| 12 | $39 \%$ | $1 \div 7$ | 47.0 | 31.0 | 240 | 20 | 350 | 2.5 | 60.0 | 44.0 | 72.0 | 60.0 |
| 13 | 210 | 54 | $40 \%$ | 22.0 | 20.0 | $1 \%$ | 54.0 | 294 | 56.0 | 37.0 | $70 \cdot 0$ | 55.0 |
| 14 | $35 \%$ | 5.1 | 25.0 | 9.6 | 30.0 | 14.8 | 470 | 30 | 62.0 | 30.0 | (i) 0 | $50 \%$ |
| 1.7 | 32.0 | $12 \%$ | 30 | 21.0 | 300 | 22 | 57.0 | 35.0 | 680 | 30.0 | 76.0 | 49.0 |
| 16 | : 8.0 | 17.8 | 38.1 | 100 | 2 | 0.6 | 41.0 | 24.0 | 740 | 46.0 | 79.0 | 48.0 |
| 17 | 40.0 | 可 | 50.0 | 80.0 | 210 | $0 \cdot 4$ | 37.0 | 31.0 | $7 \%$ | 46.0 | 31.0 | 48.0 |
| 18 | 310 | : 4 | 450 | 148 | 3 m 0 | $1 \%$ | 18.0 | 26.0 | 70.0 | isio | 82.0 | 460 |
| 1 | 310 | :30\% | 1tio | $8 \cdot 6$ | $30 \cdot 0$ | 8.6 | $68 \cdot 0$ | 104) | $70 \%$ | 53.0 | 81.0 | 470 |
| 2) | 330 | $14 \cdot 8$ | $\because 0.0$ | $10 \cdot 5$ | 33.0 | 20.0 | 10 |  | $72 \cdot 0$ | 810 | $7 \%$ | 550 |
| $\because 1$ | 410 | $3 \cdot 1$ | 310 | 30.0 | 86.0 | 10 | 620 | 31.0 | 67.0 | 540 | 72.0 | 57.0 |
| 2 | $3(0)$ | 190 | 310 | 20.0 | 37.0 | 250 | '6io | 86.0 | 65.0 | 55.0 |  |  |
| 2 | $30 \%$ | - - | 290 | $11 \%$ | 40.0 |  | $47 \%$ |  |  |  | 78 | 57. |
|  |  |  |  |  |  | 168 | 470 | 240 | 720 | 45.0 | 864 | W0.0 |
| 21 | 290 | 09 | $\cdots$ | $10 \%$ | 170 | $2 \%$ | $54 \%$ | 30.0 | 81.0 | 50.0 | 87.0 | $6{ }^{6} 0$ |
| 25 | 350 | $23 \cdot 0$ | 120 | 29.0 | 97.0 | $4 \cdot 2$ | 58.1 |  |  |  |  |  |
| 26 |  |  |  |  |  |  | is) | 28.0 | 85.0 | 510 | 77.0 | 67.0 |
|  | 110 | 16\% | +20 | 2 N | $40 \%$ | 18.0 | 50.0 | $40 \cdot 0$ | 81.0 | 58.0 | 80.0 | 620 |
| 27 | 400 | 3 | 9 | 380 | 4.0 | 23.0 | $44^{\circ} 0$ | 330 | 830 | 58.0 | 85.0 | 58.0 |
| 2 | $31 \%$ | 16iN | Sow | :1:0 | 39010 | 29.0 | 53.0 | 30.0 |  |  |  |  |
|  | 17* | - . 00 |  |  |  |  |  |  | 0 | 43.0 | 75.0 | 50.0 |
| 20 |  |  |  | $19 \%$ | 42.0 | 24.0 | 80.0 | 40.0 | 70.0 | 35.0 | 72.0 | 57.0 |
| $: 1$ | 410 | $9 \%$ |  | $\ldots$ | 490 | 24.0 | 47.0 | $27 \%$ | 88.0 | 52.0 | 74.0 | 49.0 |
|  | : | 210 |  | $\cdots$ | 52.0 | 24.1 | $\cdots$ | $\cdots$ | 70.0 | 52.0 |  | $\cdots$ |
|  | : $2 \cdot 4$ | $18 \cdot 1$ | $31 \cdot 1$ | 11.1 | $33 \cdot 4$ | 12.3 | $47 \cdot 1$ | 285 | 70•1 | $46 \cdot 2$ | 74.3 | 52.0 |

and Minmum Temperature, 1880.

|  |  | Angust. |  | September. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | MIn. | Max. | Min. | Max. | Min. | Max. | Min. | 会 |
| $\because$ | - | - | - | - | - | $\bigcirc$ | 0 | - | $\bullet$ | $\bigcirc$ | - |  |
| 740 | 53.0 | $88 \cdot 0$ | 570 | 78.0 | 62.0 | 540 | 37.0 | 44*0 | 33.0 | 250 | 15.8 | 1 |
| $75 \cdot 0$ | 52.0 | $75 \cdot 0$ | 55.0 | $80^{\circ} 0$ | 58.0 | 650 | 47.0 | 35.0 | 25.0 | 27.0 | 16.8 | 2 |
| 78.0 | $47 \cdot 0$ | $69 \cdot 0$ | 44.0 | 76 | $66^{\circ} 0$ | 59.0 | 49.0 | $47 \cdot 0$ | $35 \cdot 0$ | 29.0 | 20.0 | 3 |
| 81.0 | $46^{\circ} 0$ | 76.0 | $44 * 0$ | 76.0 | 64.0 | 510 | 40.0 | 54.0 | 39.0 | $37 \cdot 0$ | 280 | 4 |
| 750 | $11^{\prime} 0$ | 700 | 45.0 | 83.0 | 57.0 | 580 | 37.0 | $\mathbf{5 8 . 0}$ | $37 \%$ | $48 \cdot 0$ | 200 | 5 |
| 770 | 52.0 | 75.0 | $40 \%$ | 70.0 | 58.0 | $50 \cdot 0$ | 42.0 | 47*0 | 380 | $28 \%$ | 21.0 | 6 |
| 76 | 40 | $83 \cdot 0$ | 50.0 | 60.0 | 47.0 | 50.0 | 33.0 | $44 * 0$ | 29.0 | 21.2 | $5 \cdot 4$ | 7 |
| 86.0 | 57.0 | 86.0 | 550 | 59.0 | 41.0 | $57 \cdot 0$ | 32.0 | $39 * 5$ | 26.11 | 17:3 | $3 \cdot 2$ | 8 |
| 89.0 | $66^{\circ} 0$ | 80.0 | 56.0 | $65 \cdot 0$ | 330 | 710 | 38.0 | $48 \cdot 3$ | 33.0 | 16.3 | $3 \cdot 2$ | 4 |
| $86^{\circ} 0$ | $56^{\circ} 0$ | $77 \cdot 0$ | $57 \cdot 0$ | 69.0 | 38.0 | 72.0 | 40.0 | 52*0 | 41.0 | 5.6 | 0.6 | 10 |
| 86.0 | 62.0 | 80.0 | 52.0 | 74.0 | 42.0 | $74 \cdot 0$ | 53.0 | 440 | 38.0 | $27 \cdot 0$ | $3 \cdot 2$ | 11 |
| $\cdots \cdot$ | $\cdots$ | 80.0 | 83*0 | $77 \cdot 0$ | $47^{\circ} 0$ | 660 | $42 \cdot 0$ | $39 \cdot 0$ | $32 \cdot 0$ | 330 | $13 \cdot 8$ | 12 |
| 81.0 | 62.0 | 81.0 | 57.0 | 64.0 | 47.0 | 54.0 | 28.0 | 31.0 | 24.0 | 39.0 | 24.0 | 13 |
| 81.0 | 50.0 | 70.0 | 59.0 | 6.2.0 | $41 \cdot 0$ | 63.0 | $30 \cdot 0$ | $29 \cdot 0$ | 16.8 | 33.0 | 24.0 | 14 |
| 86.0 | $53 \cdot 0$ | 62.0 | $46 \cdot 0$ | 68.0 | 33.0 | 66.0 | 44.0 | 29.0 | $16 \cdot 8$ | 33.0 | 20.0 | 15 |
| 77.0 | 61.0 | $70 \cdot 0$ | 37.0 | 68.0 | 48.0 | 64*0 | 42.0 | 31.0 | 230 | 31.0 | $5 \cdot 4$ | 16 |
| 80 | 55.0 | $78 \cdot 0$ | 41.0 | $73 \cdot 0$ | $47 \cdot 0$ | 64.0 | 38.0 | 31.0 | 21.0 | $17 \cdot 2$ | $4 \cdot 4$ | 17 |
| 75.0 | 50) 0 | 76.0 | 59.0 | $6+0$ | 55.0 | 40.0 | $33 \%$ | 240 | 20.0 | 15:3 | 6.4 | 18 |
| 70\% | 48.0 | $7 \pi 0$ | 57.0 | 71.0 | $55 \%$ | 40.0 | 29.0 | 240 | 16.8 | 21.0 | 11 '6 | 19 |
| $60 \cdot 0$ | 55.0 | . $80 \cdot 1$ | 48.0 | 68.0 | 56.0 | $45 \cdot 0$ | 26.0 | 28.0 | 14.8 | 20.0 | 13.7 | 20 |
| 70.0 | 51.0 | 76.0 | 53.0 | 58.0 | $48 \cdot 0$ | $52 \cdot 0$ | 39.0 | 200 | 8.6 | 17-2 | 1.0 | 21 |
| 750 | $48 \cdot 0$ | 7.0 | 51.0 | 540 | 41.0 | 57.0 | $28 \cdot 0$ | 140 | 65 | 153 | $11 \cdot 8$ | 22 |
| 70.0 | 54.0 | 82.0 | 530 | 60.0 | 36.0 | 34.0 | 300 | 12.0 | 3.2 | 20.2 | 3.4 | 23 |
| 79.0 | +8\% | 87.10 | 60.0 | 71.0 | 40.0 | 3200 | 26.0 | 22.0 | 1.0 | 24.0 | 14.8 | 24 |
| 84.0 | 5\%0 | $70 \cdot 0$ | 43.0 | 77.0 | 49.0 | 370 | 30.0 | 22.0 | 0.0 | 24.0 | 21.0 | 25 |
| 700 | 61.0 | 74.0 | 36.0 | 71.0 | 61.0 | 39.0 | 33.0 | 150 | $33 \cdot 3$ | 300 | 240 | 26 |
| 69.0 | 51.0 | 79*0 | 56.0 | 6.0 | $49 \cdot 0$ | 30.0 | 22.0 | 28.0 | 9.6 | 2 S 0 | $11 \cdot 6$ | 27 |
| $72 \cdot 0$ | 44.0 | $78 \cdot 0$ | 66.0 | 56.0 | 46.0 | 30.0 | 15.8 | 28.0 | 28.0 | 18.5 | 0.0 | 28 |
| 78.0 | 46.0 | 720 | 51.0 | 52.0 | 49.0 | 43.0 | 24.0 | 30.0 | 14.8 | 56.0 | 64 | 29 |
| 82.0 | 47.0 | 78.0 | 57.0 | 450 | 250 | 45.0 | 38.0 | 23.0 | 18.8 | 1.8 | 3.2 | 30 |
| $89 \cdot 0$ | $4 \cdot 0$ | 710 | 50.0 | . $\cdot \cdots$ | -'•• | 44.0 | 34.0 | -•* | -*' | $7 \cdot 5$ | 8.4 | 31 |
| 78.2 | 52.9 | $79 \cdot 2$ | 506 | 67.3 | $48 \cdot 1$ | $52 \cdot 2$ | 347 | $38 \cdot 1$ | 20.0 | $22 \cdot 9$ | $9 \cdot 3$ |  |

TABLE XLVI.-Norwood, Ont. Maximum

| $\begin{aligned} & \dot{4} \\ & A \end{aligned}$ | Jannary. |  | February, |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | MIn. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | - | c | - | - | $\checkmark$ | $\bigcirc$ | 0 | $\checkmark$ | - | - |
| 1 | 315 | $9 \cdot 9$ | .... | ... | 27.2 | 19.0 | 49\% | 24.2 | fie-5 | $33^{\prime} 6$ | 66.9 | $48 \cdot 1$ |
| 2 | 34.3 | 45 | 95 | 01 | 34.0 | -10) | $4 \times 5$ | 20.0 | $71 \cdot 9$ | 38.2 | 663 | 34*2 |
| : | 27.5 | 75 | $10 \cdot 6$ | $4 \cdot 6$ | $41 \times$ | 278 | $60 \cdot 3$ | 145 | 740 | 40.9 | (15\% | 46.0 |
| 4 | 448 | 20 | 20.2 | $x ;$ | 15\% | 343 | 620 | $10 \%$ | $80 \cdot 1$ | 435 | 60.0 | $30 \cdot 1$ |
| 5 | 310 | 11.9 | 25.0 | $1 \because \%$ | (1) 0 | 30, 0 | 42 | \% 3 | 610 | 11.6 | 70 | 519 |
| 6 | 37.8 | 158 | $2 \mathrm{H} \cdot 9$ | 00 | 40.0 | $3 \cdots$ | 39.6 | 24.8 | 540 | 42.5 | $7 \pm 1$ | 58.7 |
| 7 | $38 \times 3$ | 2:34 | 21.7 | $8 \cdot 7$ | 39.9 | 242 | 31\% | 18.0 | 750 | 44.2 | $\ldots$ | .... |
| 8 | 36.8 | $32 \%$ | $32 \cdot 3$ | $2 \cdot 0$ | $30 \cdot 4$ | $0 \cdot 0$ | 37.0 | 21.0 | 80.9 | 53.2 | .... | .... |
| 9 | 41.7 | 32.2 | $32 \cdot 2$ | 58 | $25 \%$ | 30 | 40\% | 245 | 74.5 | $56 \%$ | $\ldots$ | $\cdots$ |
| 10 | 43.4 | 24.7 | 18.8 | $9 \cdot 2$ | 26.9 | $12 \%$ | 47.2 | $30 \cdot 2$ | 65.9 | 49.0 | .... | .... |
| 11 | 42.8 | 18.3 | $32 \cdot 5$ | 0.0 | 92.9 | 54 | $31 \cdot 3$ | 18.5 | 61.1 | 42.0 | $82 \cdot 6$ | 41.0 |
| 12 | 41.9 | $19 \cdot 4$ | 48.8 | 31.8 | $22 \cdot 2$ | 8.6 | 3 B | 176 | 56.9 | 38.7 | 77.0 | 61.5 |
| 13 | 24.8 | 11.3 | 35.8 | 28.9 | 21.0 | 9.7 | 57.8 | $30 \cdot 5$ | 59.4 | 32.9 | $74 \cdot 4$ | $57 \cdot 5$ |
| 14 | 34.8 | 19.9 | 33.2 | 150 | 33.0 | $19 \%$ | $43 \cdot 2$ | 32\% | 71.5 | $30 \cdot 0$ | $72 \cdot 0$ | $48 \cdot 1$ |
| 15 | 33.8 | 18.0 | 33.2 | 150 | 329 | 146 | 64:2 | $30 \%$ | $80 \cdot 1$ | 51.0 | 74.3 | 53\% |
| 16 | 37.3 | 17.7 | 36.2 | 20.4 | $27 \cdot 3$ | 20\% | 43 | 30.0 | $82 \cdot 5$ | 50.9 | 79.2 | $48 \cdot 7$ |
| 17 | 41.0 | 34.0 | $46 \cdot 3$ | 27.0 | 25.8 | 135 | : | 38\% | 67.0 | 53.5 | $82 \cdot 0$ | H4.8 |
| 18 | 393 | $33 \cdot 5$ | 457 | 27.0 | 31.1 | + ${ }^{-1}$ | 49 | $33 \cdot 4$ | 81.0 | 51.2 | 84.4 | 465 |
| 19 | 3103 | $30 \cdot 2$ | 27:3 | 104 |  | 17.5 | 62.2 | $30 \cdot 5$ | 78.4 | 56.2 | $82 \cdot 9$ | $4 \mathrm{~S} \cdot 5$ |
| 20 | 32.0 | $11 \%$ | 20.8 | 44 | 38.0 | 215 | 518 | 39.0 | 71.3 | $55 \cdot 1$ | 181.0 | 515 |
| 21 | $18 \cdot 9$ | 10.0 | :129 | 18.6 | 325 | $10 \cdot 3$ | $64 \%$ | $36-2$ | 653 | 56.9 | 77.9 | $60 \cdot 8$ |
| 22 | 36.0 | 135 | $32 \cdot 3$ | 11.2 | 420 | 29.0 | 545 | 37.0 | $73 \cdot 8$ | $510 \cdot 1$ | 70.5 | $57 \times$ |
| 23 | 37.7 | $22 \cdot 4$ |  | 152 | $42 \%$ | $31 \%$ | $45 \cdot 3$ | 27.5 | 81.7 | 550 | 81.2 | 59.6 |
| 24 | $25 \cdot 1$ | 11.8 | 26.4 | $0 \cdot 6$ | 31.8 | 5.0 | $52 \cdot 3$ | 31\% | S\% 5 | 91.0 | 90:5 | 59.5 |
| 25 | 37.0 | 13.6 | 393 | 25.9 | 31.9 | 4.0 | 50.0 | $210 \cdot 5$ | 86.2 | 60.0 | 81.0 | 62.5 |
| 26 | 41.0 | 212 | $\cdots$ | .... | 3.5 | 13.8 | - 62 |  | 83.6 | $60^{\circ} 0$ | \$35 | $62 \cdot 8$ |
| 27 | 415 | 312 | 43.8 | $34 \%$ | $44 \cdot 1$ | 204 | 49.8 | 36.7 | 685 | 52.0 | $85 \%$ | 56:5 |
| 28 | 38.9 | $22 \cdot 1$ | 4.8 | $29 \%$ | 40.0 | 31.0 | 59.0 | 30.7 | 69.0 | 50.0 | 79 | 07.0 |
| 29 | 23.1 | 4.0 | 4.4 | 22.2 | 430 | 280 | 588 | 405 | 69.0 | 37.0 | 73.0 | 1001 |
| 30 | 43.3 | 45 | $\ldots$ | .... | 47:3 | 272 | 49:2 | 30.0 | 70.8 | $55 \%$ | 770 | 56.2 |
| 31 | $4: 3$ | 224 | $\cdots$ | . | 53.0 | $\underline{-9} 4$ | -• | . | -• | .... | : .. | . |
|  | $38 \cdot 4$ | $20 \cdot 2$ | $31 \cdot 4$ | 13'0 | $35 \cdot 2$ | 18.2 | $49 \%$ | 31.0 | 72.6 | $49 \cdot 3$ | 78.1 | 53.0 |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | 0ctober. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | $\stackrel{\dot{\alpha}}{\substack{\text { ¢ }}}$ |
| - | - | 9 | - | - | $\bigcirc$ | - | - | - | - | $\bigcirc$ | c |  |
| $72 \cdot 3$ | 592 | 85.0 | $55 \cdot 6$ | 80.1 | 514:9 | 57.1 | $33 \cdot 5$ | 4.0) | 31.5 | 25: | 10.7 | 1 |
| 7.) ${ }^{2}$ | 18.8 | 79.2 | 55.5 | 84.3 |  | 63.0 | 43.8 | 39.0 | $34 \cdot 5$ | 2.6 | 11.9 | 2 |
| -... | $\cdots$ | 67.3 | 50.0 | 76\% | $68 \cdot 1$ | 64.0 | 48.0 | 47\% | $30 \cdot 2$ | 28.7 | 149 | 3 |
| 79.0 | 49.0 | 720 | 48.6 | 81\% | 68.0 | 56.5 | $43 \cdot 3$ | 50.0 | 292 | 32.6 | 187 | 4 |
| 796 | 56.2 | 72.0 | $47 \cdot 4$ | 80.9 | $60 \cdot 4$ | 56.0 | 35.8 | 59.0 | 8s:\% | 42.9 | 256 | 5 |
| 79.0 | 54.0 | 750 | 41.9 | $7{ }^{7}$ | $59 \cdot 5$ | 51.0 | 40.5 | 57.9 | 47.5 | iis | 20.0 | 6 |
| $\pi \cdot 0$ | 48.2 | 81.0 | $48 \cdot 3$ | 62.0 | 43.8 | 52.2 | 35.2 | 465 | 30.8 | 20.8 | 112 | 7 |
| 84.0 | 48.0 | 82 | 5;3 | 80.0 | 35 | 56\% | $30 \cdot 1$ | 40.0 | 30.0 | 17.7 | 53 | 8 |
| 88.9 | 616 | 83 | 58.0 | 63.8 | 45.0 | 678 | 335 | $48 \cdot 1$ | 32\% | $15 \cdot 2$ | $3 \cdot 1$ | 8 |
| 86.2 | $66 \%$ | 78.0 | 55\% | 682 | 34.0 | $70 \cdot 2$ | 36.0 | 910 | 24.2 | $4 \cdot 1$ | 9.7 | $11)$ |
| 82.8 | 59.6 | 74 | 57.0 | 78.3 | 42.0 | 73.9 | $42 \%$ | 502 | 30 ธั | 27.2 | $1 \cdot 9$ | 11 |
| 765 | 60.0 | 790 | $52 \cdot 8$ | 74.8 | 40.8 | $64 \cdot 2$ | $43 \cdot 0$ | 40.2 | $32 \cdot 5$ | 318 | $10 \cdot 2$ | 12 |
| $79 \cdot 5$ | 64:5 | 790 | 51.0 | 67.0 | 485 | $53 \cdot 9$ | 27.8 | 34.0 | 25.6 | 35.0 | 28.2 | 18 |
| $70 \cdot 6$ | $61 \cdot 3$ | 72.2 | 57.5 | $50 \cdot 4$ | 42.0 | $\ldots$ | .... | 350 | 21.0 | 35.0 | 28.1 | 14 |
| 813 | 59.8 | 64.0 | 50.5 | 67.0 | 31-5 | . $\cdot$. | .... | 32.0 | $19 \%$ | 35.0 | 24.5 | 15 |
| 78.0 | 59.8 | $60 \cdot 2$ | 35.6 | 69.5 | 42.0 | $\ldots$ | .... | $31 \cdot 5$ | 27.0 | 25.2 | 77 | 16 |
| 74.5 | 58.5 | 74.0 | 50.0 | 74 | 45.5 | 69.7 | 285 | 30.0 | 21.8 | 18.5 | 40 | 17 |
| $74 \cdot 2$ | 58.5 | 770 | $62 \cdot 2$ | 640 | 54.8 | 45.0 | 31.8 | 250 | 15.0 | 18.6 | 63 | 18 |
| 74.2 | 50.2 | 77.2 | 53.5 | 69.0 | 59.2 | 41.8 | $30 \cdot 4$ | 25.9 | 72 | $20 \cdot 3$ | $8 \cdot 5$ | 19 |
| 74.7 | 50.5 | 78.3 | 47.8 | 73.0 | $58 \cdot 9$ | 44.2 | 27.0 | 27.0 | $19 \cdot 2$ | 20.8 | 0.3 | 20 |
| 71.0 | 51.9 | 76.0 | 59.5 | 60.0 | 483 | 67.0 | 35.5 | 21.2 | $8 \cdot 2$ | 243 | 13.8 | 21 |
| 74.2 | 478 | 78.3 | $47 \cdot 8$ | 55.2 | $39 \cdot 2$ | 44.8 | 28.0 | 17.0 | 2.0 | 18.8 | $2 \cdot 2$ | 22 |
| $73 \cdot 4$ | 51.2 | $82 \cdot 2$ | 54.0 | 58.6 | $34 \cdot 3$ | 36.0 | 29.5 | $15 \%$ | $3 \cdot 0$ | 217 | $5 \cdot 9$ | 23 |
| 772 | 49.5 | .... | .... | $69 \cdot 1$ | 34.9 | 31.3 | 24.0 | 22.0 | 4.5 | 21.8 | 16.9 | 24 |
| $81 \cdot \theta$ | 55.5 | .... | .... | 65.5 | 41.8 | 36.8 | 21.0 | 22.0 | 15 | $22 \cdot 1$ | $18 \cdot 1$ | 25 |
| 77.2 | 63.2 | - | - 0 | 74.4 | $57 \cdot 5$ | $38 \cdot 1$ | 32.8 | 13.8 | $12 \cdot 2$ | $\ldots$ | . $\cdot$. | 26 |
| 70.0 | 56.0 | 85.5 | 43.0 | .... | . $\cdot$. | 34.9 | 25.0 | 30.0 | 0.5 | .... | .... | 27 |
| 71-8 | $43 \cdot 8$ | 82.0 | $67 \cdot 8$ | .... | .... | 35.0 | 17.5 | 30.0 | 77 | . $\cdot$ | - | 28 |
| 70.0 | $44^{\prime} \cdot 8$ | 69.5 | 537 | .... | $\cdots$ | 43.2 | $25 \cdot 5$ | 31.0 | 19.1 | .... | - | 29 |
| 78.0 | 44.0 | .... | . $\cdot$. | 66.2 | 367 | 42.6 | 35.0 | 23.0 | 7.9 | . | -• | 30 |
| $82 \cdot 5$ | 51.0 | . | -••• | .... | . $\cdot$. | 45.0 | 34.5 | - | . $\cdot$. | -••• | *... | 31 |
| $77 \cdot 1$ | 57.8 | 76.7 | $52 \sim$ | 69:3 | 47.8 | $51 \cdot 1$ | 32.8 | 34.6 | 20-4 | -24'9 | 114 |  |

TABLE XLVII．－Peterboro＇Ont．Maximum

| $\underset{\sim}{\stackrel{1}{2}}$ | January． |  | February． |  | March． |  | April． |  | May． |  | June． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max． | Min． | Max． | Min． | Max． | M1n． | Max． | Min． | Max． | Min． | Max． | Min． |
|  | 0 | － | － | － | $\bigcirc$ | － | $\bigcirc$ | － | － | $\bigcirc$ | $\bigcirc$ | $\cdots$ |
| 1 | 33.4 | 15.0 |  | ．．． | 34.4 | 19：3 | 11.7 | 25.0 | 46.7 | 26.0 | 667 | 14.2 |
| 2 | 40.8 | 24.0 | 26.4 | 6.0 | 36.1 | 170 | 91） 3 | 23.0 | －． | $\cdots$ | 67.2 | $34 \cdot 1$ |
| 8 | $31 \%$ | 5 | 107 | $6 \cdot 3$ | 15． 8 | $\stackrel{\text { が，}}{ }$ | げ\％ | $40 \cdot 2$ | 75\％ | $39 \cdot 1$ | 66.7 | $44^{2}$ |
| 4 | ．$\cdot$. | $\ldots$ | 209 | 6.5 | $46 \cdot 8$ | $3 \mathrm{~F} \cdot 1$ | $\ldots$ | $\ldots$ | 747 | $47-2$ | 63．7 | 40：3 |
| 5 | $\cdots$ | $\ldots$ | 29.9 | 11.5 | 428 | 900 | 61.7 | $34 \cdot 1$ | 80.6 | 44.2 | 73.7 | $53 \cdot 1$ |
| ${ }_{6}$ | 38.0 | 29.0 | 25.9 | 40 | ：32．9 | 23.0 | 38.9 | 24.0 | 62.9 | 41.2 | $\cdots$ | $\ldots$ |
| 7 | 37.0 | 22.0 | 20.9 | 10.0 | $\ldots$ | $\ldots$ | 29.9 | 18.0 | 56.7 | $43 \cdots$ | 765 | 17.3 |
| 8 | 370 | 31.0 | $\ldots$ |  | 以1 | 3.0 | 357 | 18.0 | 78．7 | 43＂ | 71.7 | $10 \times 1$ |
| 9 | 1：＇r | 31.0 | \％ | $5 \%$ | 25.9 | ．．．． | 47• | 22.0 | $\ldots$ | $\ldots$ | 76.7 | 1.72 |
| 10 | 44．8 | 230 | $3 \cdot 9$ | 8.0 | $35 \%$ | － | 49.7 | 280 | 81.6 | 220 | $80 \cdot 7$ | $52 \cdot 6$ |
| 11 | $\ldots$ | ．．．． | 36.0 | 58 | $\underline{29}$ | $\ldots$ | $\cdots$ | $\ldots$ | 66.7 | 48.5 | 83.1 | 68.1 |
| 12 | 43.8 | 18.0 | 51.7 | $32 \cdot 0$ | 27.5 | 8.0 | 350 | 16.0 | 62.7 | 45\％ | 76.7 | $62 \cdot 6$ |
| 13 | 28.0 | 12.0 | 36.0 | 27.0 | 27.9 | 100 | 58.7 | 31.0 | 587 | 37.1 | ．$\cdot$. | $\cdots$ |
| 14 | 369 | 150 | 31.9 | 1．7 | ．$\cdot$ | $\ldots$ | 47.8 | $3+1$ | 617 | $34 \cdot 1$ | $75 \%$ | $17 \%$ |
| 15 | 340 | 170 | $\cdots$ | ．．．． | ．．．． | ．．．． | 60.7 | 31.6 | 717 | 82 | 74.7 | 53.1 |
| 16 | 38.7 | 170 | 30.8 | 20.0 | ：39 | 100 | $43 \times$ | 31.6 | $\ldots$ | $\ldots$ | $82 \cdot 1$ | 53.2 |
| 17 | $12 \times 6$ | 33.1 | 49.7 | $26-9$ | 27.5 | 12.0 | 38.8 | 31.1 | 836 | $50 \cdot 1$ | $83 \cdot 6$ | 49.3 |
| 18 | ．．．． | ． | 17\％ | $23 \cdot 3$ | 37.8 | 3.0 | ．．．． | $\cdots$ | 70.8 | $55 \cdot 1$ | $85 \cdot 1$ | $50 \cdot 1$ |
| 13 | $40 \cdot 8$ | $32 \cdot 1$ | 23－9 | 10.5 | $41 \%$ | 16.0 | 647 | $30 \cdot 1$ | 81.7 | $50 \cdot 1$ | 83.2 | $50 \cdot 1$ |
| 20 | 32.9 | 150 | 23.0 | 4.0 | 347 | 20.0 | 517 | 37.9 | $80 \cdot 6$ | 56.1 | ．．．． | $\cdots$ |
| 21 | 21.0 | $8 \cdot 5$ | 33：9 | 29.4 | －$\cdot$ ． | ．．．． | 63.7 | 376 | 69.2 | 58.1 | 82－1 | 57.1 |
| 22 | 38.7 | $15 \%$ | ．．． | $\cdots$ | 43.8 | 90 | 59.7 | 40.2 | 65.7 | 54.1 | $77 \cdot 7$ | 59.1 |
| 23 | 38.7 | 22.0 | 35.9 | 130 | 44.8 | 25.6 | 47.8 | 27.0 | $\ldots$ | ．．．． | $88 \cdot 1$ | $57 \%$ |
| 21 | 26.9 | $12 \cdot 5$ | 27.2 | 13.0 | 30.9 | 50 | $54 \cdot 7$ | $30 \cdot 1$ | 83.7 | 47\％ | 91．7 | H4．1 |
| 25 | ．．．． | ．．．． | 41.2 | $23^{\prime} 5$ | $31 \cdot 4$ | 4.0 | $\cdots$ | ．$\cdot$ | $89 \cdot 0$ | $57 \%$ | $81 \cdot 6$ | 6.1 |
| 26 | 437 | 12.5 | 45.8 | 31.1 | $39 \cdot 8$ | 14.8 | 617 | $31 \cdot 1$ | $87 \cdot 6$ | 87.1 | 84.7 | 63．1 |
| 27 | 44.8 | 20.0 | $45 \cdot 8$ | 28.0 | $45 \cdot 8$ | 55.5 | 48.7 | 356 | $83 \cdot 6$ | $63 \cdot 1$ | $\ldots$ | $\cdots$ |
| 28 | 38.8 | $20^{\circ} 0$ | 45.8 | 29.0 | ．．．． | $\cdots$ | 58.7 | $30 \cdot 1$ | 87.2 | 477 | 85.6 | 58.3 |
| 29 | $21 \cdot 4$ | 5.8 | ．$\cdot$ ． | ．．．． | 43.8 | 27.0 | 58.7 | $40 \cdot 1$ | $69 \cdot 7$ | $39-2$ | 75.7 | $58 \cdot 1$ |
| 30 | 457 | 70 | －•• | ．．．． | 507 | 28.5 | $50 \cdot 5$ | $30 \cdot 1$ | $\cdots$ | ．．．． | 777 | $54 \cdot 1$ |
| 81 | 457 | 22.5 | $\cdots$ | ．．${ }^{\text {．}}$ | 54.9 | 29.0 | ＊${ }^{\circ}$ | $\cdots \cdot$ | 737 | $52 \cdot 1$ | $\cdots$ | $\ldots$ |
|  | $37 \cdot 4$ | ．1888 | 33：8 | 14：3 | $37 \cdot 5$ | 17.0 | 51.4 | $29-9$ | $72 \cdot 5$ | 47＇3 | $78 \cdot 1$ | 52\％ |

and Minimum Temperature, 1880.

| Juls. |  | August. |  | September. |  | October. |  | - November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | M1 ${ }^{\text {. }}$ | Max. | Min. | Max. | Min. | Max. | ' Min. | 0 |
| - | - | - | - | - | - | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - |  |
| 797 | $52 \cdot 1$ | .... | .... | 80.5 | .... | 587 | 29.0 | 46.8 | 29\% | 269 | 14.0 | 1 |
| 757 | 59.9 | 87.6 | 57.7 | 88.6 | $\ldots$ | $61 \cdot 7$ | 432 | :92 | 29.0 | $25 \cdot 3$ | 18.0 | 2 |
| 79.9 | $53 \cdot 1$ | 69.7 | 56.5 | 767 | $\cdots$ | -• | .... | 50\% | $\because$ | :227 | 13.6 | 3 |
| $\cdots$ | .... | $75 \%$ | 517 | 836 | -... | $18 \%$ | 43.7 | 51.5 | :101 | 36.7 | 18.0 | 4 |
| 81.7 | $50 \cdot 1$ | 717 | $60 \cdot 1$ | ...' | .... | 537 | 410 | 60.7 | $15 \cdot 2$ | $\ldots$ | $\ldots$ | 5 |
| 81.8 | $57 \%$ | 78.7 | 58.7 | $82 \%$ | .... | .22\% | $41 \times$ | $5 \%$ | 16.2 | $44 \cdot 8$ | 19.0 | 6 |
| 79.7 | 50.1 | $84 \cdot 6$ | 62.7 | 647 | .... | .... | $\ldots$ |  | -•.. | $20 \cdot 4$ | 10.0 | 7 |
| 88.6 | $50 \cdot 1$ | $\cdots$ | .... | 61.7 | 39.7 | $60 \cdot 3$ | 29 | 453 | 27.0 | 17.5 | $7 \cdot 0$ | 8 |
| 91.6 | 63.6 | 87.6 | 68.7 | 66.7 | 4.2 | 717 | $34 \cdot 1$ | 48.8 | 31.6 | $15 \cdot 1$ | 39 | 9 |
| 87.6 | $69 \cdot 1$ | $82 \cdot 1$ | 61.1 | .... | $\cdots$ | .... | .... | 52.7 | 31.6 | $4 \cdot 1$ | 10.0 | 10 |
| .... | .... | 78.8 | $62 \cdot 2$ | $76 \%$ | \% | 78.7 | $3 \mathrm{~s} \cdot 1$ | .317 | 38.1 | 97 | 0.0 | 11 |
| $86 \cdot 6$ | $62 \cdot 1$ | 81.6 | (4)2 | .... | .... | 67.7 | 4 m | 38 | $3 \div 1$ | .... | ... | 12 |
| $80 \cdot 6$ | 62.1 | 81.6 | 61.7 | 767 | $4{ }^{4} 2$ | די\% | 30.0 | .... | $\ldots$ | 31.9 | 140 | 13 |
| 82.0 | 62.6 | $74 \%$ | 58.9 | 617 | $42 \times$ | 63.7 | 28.0 | .... | $\cdots$ | 32.9 | 27.0 | 11 |
| 837 | 61.1 | .... | $\ldots$ | 65.2 | $37 \cdot 1$ | 73\%2 | 4.2 | 350 | 150 | 31.9 | 18.5 | 15 |
| 777 | 60.1 | 72.5 | 50.7 | 717 | 46.2 | 62:7 | 1:\% | 320 | 240 | 25.9 | 70 | 16 |
| 757 | 57.6 | 78.5 | 52.5 | 76.7 | 47.2 | $\cdots$ | $\ldots$ | $30 \cdot 7$ | 21) 0 | $\cdots$ | .... | 17 |
| -• | .... | 747 | 63.2 | 637 | $56 \cdot 1$ | 51.7 | $31 \cdot 1$ | 24 | 150 | $18 \cdot 1$ | 35 | 18 |
| $75 \cdot 7$ | 50.1 | 78.7 | 64.7 | .... | $\cdots$ | 41.8 | 240 | 230 | 130 | $\cdots$ | $\ldots$ | 19 |
| 72.7 | 55.1 | 80.7 | 60.9 | 717 | 56.1 | 15.8 | 260 | 269 | 17.0 | 29 | 4.0 | (1) |
| 687 | 45:3 | 797 | $60 \cdot 1$ | 60.7 | $10^{2}$ | $5!\cdot 7$ | $36 \cdot 1$ | $\cdots$ |  | 215 | 10:5 | -1 |
| 76.2 | 48.2 | $\ldots$ | . $\cdot$. | 56.7 | : 66 | 44.8 | $2 \cdot 2$ | 20.9 | 50 | $19 \%$ | $7 \cdot 0$ | 22 |
| $75 \%$ | 49.1 | 86.6 | $61 \cdot 1$ | 61.2 | 32.6 | 12\% | $: 2 \cdot 1$ | $16 \%$ | 0.4 | 23.9 | 11.0 | 23 |
| $80 \cdot 1$ | $50 \cdot 1$ | $87 \cdot 6$ | 65 | 74.5 | $0 \cdot 1$ | .... | ... | 23.0 | - 40 | 219 | 18.0 | 24 |
| -••• | .... | 69.7 | ... | 77.7 | 43.7 | 38.0 | 20.0 | 22.0 | $7 \cdot 0$ | $23 \cdot 4$ | 18.0 | 25 |
| 88.0 | $54 \cdot 1$ | $3 \%$ | -••• | -•• | .... | 38.9 | $33 \cdot 1$ | 15.2 | $8 \cdot 5$ | .... | $\cdots$ | 25 |
| 740 | $5 \cdot \mathrm{~F}$ | 84.6 | .... | 757 | 50.6 | $36 \%$ | 230 | 30.9 | 1.0 | 27.0 | 1.0 | 27 |
| 710 | 48.2 | 85.7 | .... | 55.7 | 46.2 | $36 \cdot 9$ | 19.0 | .... | $\cdots$ | 20.0 | $0 \cdot 0$ | 28 |
| 73.7 | $5 \div 1$ | .... | .... | 514 | 45.2 | 43.8 | 25 | 33:2 | 120 | $2 \%$ | 10.0 | 20 |
| 81.6 | 57.2 | $77 \cdot 4$ | $\cdots$ | 49.7 | $33 \cdot 1$ | 44.2 | $34 \cdot 1$ | 29 | 10.0 | $4 \cdot 8$ | 95 | 30 |
| 87.2 | 70.1 | 737 | . $\cdot$. | $\cdots$ | .... | $\cdots$ | $\cdots$ | $\cdots$ | -• | 94 | $0 \cdot 8$ | 31 |
| $78 \cdot 9$ | 55.8 | 793 | 60.4 | 69.7 | - | 54.4 | $32 \cdot 9$ | 363 | $19 \cdot 9$ | 22.9 | 8.4 |  |

TABLE XLVIII.—Kingston, Ont. Maximum

| $\stackrel{\dot{\Delta}}{\dot{\Delta}}$ | Jannary. |  | February, |  | March. |  | April. |  | May, |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | M1n. | Max. | Min. |
|  | $\underline{\square}$ | - | - | - | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $?$ | - | 3 | $\bigcirc$ |
| 1 | 37.5 | 51 | $30 \cdot 1$ | $5 \cdot 8$ | $3 \cdot 1$ | 22.0 | 50.6 | 28.7 | $40 \cdot 6$ | 28.3 | 59.6 | 47.8 |
| 2 | $41 \cdot 0$ | $\because$ | $10 \cdot 3$ | 8.1 | 37.0 | 20.6 | $52 \cdot 4$ | $28 \cdot 4$ | $55 \cdot 1$ | 39.5 | $65 \cdot 4$ | $43 \cdot 4$ |
| 3 | $34 \cdot 8$ | 47 | 19.1 | 32 | 449 | $95 \%$ | 5143 | 41.7 | 67.5 | 44.2 | 62.0 | $46 \cdot 6$ |
| 4 | 46.0 | 33.7 | $20 \cdot 3$ | 9.7 | $44^{\circ}$ | :34 | 576 | $42 \cdot 3$ | $71 \cdot 1$ | 47.8 | $62 \cdot 3$ | 41.8 |
| 5 | 34.4 | 17.7 | 8: 0 | 13.7 | H.6 | 20.7 | 40.0 | 33.7 | 67.8 | 50.8 | 72.0 | 548 |
| 6 | 4.7 | 16.7 | 32.8 | 13.7 | 33.5 | 20 | 433 | 29.7 | 58.6 | 447 | 75.2 | $60 \cdot 1$ |
| 7 | 390 | 23.6 | 23 | 73 | 39.9 | 25.3 | 4.0 | 15.7 | $60 \cdot 4$ | $47 \cdot 4$ | 74.7 | 53.4 |
| 8 | 43.0 | 29.1 | $41 \cdot 4$ | 83 | 391 | 2.6 | $40 \cdot 1$ | 21.7 | 70.0 | $50 \%$ | 77.0 | 50.8 |
| 9 | $43 \cdot 9$ | 29 | $36 \cdot 1$ | $2 \cdot 9$ | 31.7 | 18 | 430 | 29.3 | $\mathbf{7 9 0}$ | 53.9 | 76.7 | 52.0 |
| 10 | 413 | 19.6 | 22:3 | $2 \cdot 9$ | $32 \cdot 8$ | $9 \cdot 4$ | $45 \cdot 3$ | 343 | $69 \cdot 2$ | 529 | $79 \cdot 1$ | 60.0 |
| 11 | $43 \cdot 6$ | 17.7 | 37.4 | 48 | 20.8 | $7 \cdot 0$ | 390 | 197 | 6.54 | 52.0 | $72 \cdot 1$ | 64.0 |
| 12 | 4.11 | 16.7 | 46.0 | 33.5 | 2 j 7 | 11.0 | 424 | 17.0 | 67.0 | $43 \cdot 8$ | 71.0 | 58.4 |
| 13 | $26 \cdot 1$ | 107 | $42 \cdot 4$ | $27 \cdot 1$ | 23.7 | 10.0 | $5 \%$ | 33.7 | 66.8 | 408 | 72.0 | 53.9 |
| 14 | $41 \cdot 1$ | $2 \cdot 11$ | 39.0 | $13 \%$ | 39.0 | 13.3 | 451 | $30 \cdot 8$ | 58.7 | 35.7 | 67.3 | $50 \cdot 3$ |
| 15 | 44.0 | 23.1 | $36 \cdot 1$ | 11.7 | \% 3 | 12.0 | 54.0 | $30 \cdot 8$ | 61.0 | 37\% | 77.0 | 55.2 |
| 16 | 46\% | 20.2 | 41.0 | 17.7 | 31.9 | $19 \cdot 6$ | 45.0 | $23 \%$ | 65.1 | 47.8 | $80 \cdot 1$ | 57.3 |
| 17 | $44 \cdot 5$ | 34.7 | $43 \cdot 1$ | 236 | 357 | 16.7 | $46 \%$ | 34.9 | $72 \cdot 0$ | $54 \cdot 4$ | 79.0 | 60.0 |
| 18 | 42.0 | 32.0 | 55.7 | $20 \cdot 9$ | 37.8 | 12.8 | 15\%1 | 3.0 | 63.0 | 53.8 | 74.5 | 56.9 |
| 19 | 38.9 | 31.6 | 25.3 | 11.2 | 42.7 | 16.1 | $60 \%$ | 42.9 | 73.6 | 55.6 | 79.0 | $50 \cdot 4$ |
| 20 | $32 \cdot 5$ | $12 \cdot 0$ | 274 | 48 | $40 \cdot 0$ | 197 | 51.7 | 374 | 74• | 51.9 | 72.6 | 58.1 |
| 21 | $25 \cdot 3$ | 67 | 35.0 | $20 \cdot 3$ | 3.3 | 133 | 58.4 | 39.7 | 68.4 | 54.4 | 78.4 | 610 |
| 22 | 36.4 | 6.5 | 378 | 16.7 | 45.6 | 127 | $52 \cdot 7$ | 373 | 67.0 | 51.6 | 71.0 | 57.7 |
| 23 | $43 \cdot 1$ | 25.7 | $37 \cdot 4$ | 11.3 | 43.7 | $22 \cdot 7$ | 46.6 | 28.7 | $70 \cdot 1$ | $40 \cdot 4$ | 77.8 | $60 \cdot 0$ |
| 24 | $32 \cdot 1$ | 16.4 | 230 | 0.4 | $31 \%$ | $5 \cdot 5$ | 53.1 | $33 \cdot 1$ | 73.0 | 54.9 | 83.6 | 59.7 |
| 25 | 37.0 | 23.7 | $42 \cdot 1$ | 21.9 | 37 | 5.5 | 52.7 | $33 \cdot 4$ | $75 \cdot 4$ | 57.9 | $79 \cdot 4$ | $66 \cdot 3$ |
| 26 | 42.5 | 31.7 | 41.6 | 31.2 | $42 \cdot 4$ | $16 \cdot 1$ | 53.1 | 40.8 | $77 \cdot 0$ | 60.0 | 78.5 | 669 |
| 27 | $45 \cdot 0$ | $34 \cdot 7$ | 47.7 | 27.7 | 41.6 | 18.0 | 51.9 | 37.5 | 73.0 | 58.4 | $78 \cdot 5$ | 65.0 |
| 28 | $43 \cdot 6$ | 297 | 480 | 30.7 | 37.6 | 5 | 54. 0 | 34.7 | $70 \cdot 3$ | 51.9 | 77.0 | $65^{\circ} 0$ |
| 20 | $30 \cdot 1$ | $3 \cdot 3$ | 48.8 | 338 | $4 \cdot 6$ | $23: 1$ | 54.2 | $30 \cdot 5$ | $70 \%$ | 447 | $73 \%$ | 58.9 |
| 30 | $42 \cdot 9$ | 5.4 | . $\cdot$. | .... | 457 | 28.4 | 47 | 31.7 | 660 | 54.9 | 74.6 | 61.8 |
| 31 | $4 \pm .0$ | $24 \cdot 7$ | . $\cdot$. | $\cdots$ | 52.6 | 307 | $\cdots$ | $\ldots$ | 84.2 | 54.9 | $\cdots$ | . $\cdot$. |
|  | 38.0 | 20\% | $35 \cdot 1$ | 11.0 | 37.8 | 173 | $48 \cdot 8$ | $32 \cdot 4$ | 67.2 | 49.2 | 74.0 | $57 \cdot 1$ |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | 0ctober. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | M1n. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | M1n. | 菏 |
| $\bigcirc$ | - | - | - | - | $\bigcirc$ | - | $\bigcirc$ | - | - | - | - |  |
| 77.0 | 81.0 | $81 \cdot 4$ | 610 | $81 \cdot 2$ | 66.9 | $58 \cdot 6$ | $36 \cdot 4$ | $47 \cdot 6$ | $34 \cdot 8$ | $38 \cdot 1$ | 16.1 | 1 |
| $72 \cdot 3$ | 59.0 | 79.0 | $57 \cdot 1$ | 87-1 | 68.\% | 64.0 | 47.8 | $30 \cdot 3$ | 28.2 | 277 | $13 \cdot 1$ | 2 |
| $78 \cdot 1$ | 57.3 | 77.2 | 53.9 | 89.2 | 708 | 58.9 | $59 \cdot 1$ | 49.0 | $27 \cdot 4$ | 28.7 | 11.7 | 3 |
| 77.0 | 58.7 | $76 \cdot 4$ | 54.9 | 84.2 | 70.8 | 64.5 | $41 \cdot 1$ | $50 \cdot 3$ | 45.0 | $44 \cdot 6$ | 24.5 | 4 |
| 79.0 | 58.4 | $75 \cdot 2$ | 56.0 | 83.8 | 62.0 | 59.9 | 36.7 | 56.5 | 44.5 | 43.6 | 27.7 | 5 |
| 79.6 | 58.7 | 74.5 | 517 | 84.7 | 60.9 | 56.7 | 41.6 | 59.9 | 48.8 | 334 | 20.6 | 6 |
| 779 | 56.9 | 78.2 | 51.0 | 83-2 | 503 | $54 \cdot 1$ | 34.0 | 592 | $34 \cdot 1$ | 290 | 11.7 | 7 |
| $81 \cdot 9$ | 61.5 | $80 \cdot 4$ | 560 | $82 \cdot 6$ | $44 \cdot 7$ | 61.2 | 37.2 | 47.5 | 317 | 19.0 | 6.8 | 8 |
| 825 | 70.1 | 81.5 | $65 \cdot 9$ | $65 \cdot 6$ | 48.3 | 64.5 | 511 | $49 \cdot 4$ | 377 | $22 \cdot 5$ | 62 | 9 |
| $83 \cdot 1$ | 69.3 | 81.1 | 64.0 | $75 \cdot 2$ | 50.9 | 63.3 | $50 \cdot 1$ | 55•t | 34.7 | 3.7 | 120 | 10 |
| 84.5 | 68.4 | 79.9 | 60.0 | 73.4 | 47.7 | 70.0 | 51-9 | 51.5 | 34.7 | 31.7 | $2 \cdot 8$ | 11 |
| 78.0 | 65.0 | 82.9 | $60 \cdot 1$ | 77\%0 | 53.8 | 610 | 41.6 | 480 | 31.7 | 35.8 | 27.6 | 12 |
| $78 \cdot 4$ | 64.4 | 81.6 | 58.4 | $76 \cdot 1$ | 51.6 | 55•4 | $31 \cdot 9$ | 45.0 | 29.7 | 37.2 | 30.7 | 13 |
| $70 \cdot 1$ | $65 \cdot 4$ | $80 \cdot 1$ | 60.2 | $64 \cdot 6$ | 46.8 | 63.0 | $35 \cdot 9$ | 35.7 | 24.8 | 41.7 | $27 \cdot 6$ | 14 |
| 83.6 | 63.0 | 79.0 | 509 | 727 | 42.7 | 048 | $54 \cdot 0$ | 340 | $20 \cdot 6$ | 38.0 | 26.6 | 15 |
| 78.6 | 63.0 | 77-9 | 44.6 | 720 | 47.9 | 64.0 | 54.0 | 42.6 | $27 \cdot 6$ | $30 \cdot 1$ | 8.8 | 16 |
| 72.7 | $60 \cdot 4$ | 78.0 | $51 \cdot 1$ | 80.0 | 59.3 | 59.9 | 41.6 | 39.7 | $26 \cdot 1$ | 21.7 | 4.8 | 17 |
| $75 \cdot 4$ | 58.0 | $77 \cdot 0$ | $64 \cdot 1$ | 68.8 | 57.5 | 46.9 | $32 \cdot 7$ | 33.5 | 15.2 | 22.7 | $5 \cdot 1$ | 18 |
| $80 \cdot 9$ | 62.0 | $78 \cdot 8$ | $64 \cdot 1$ | $70 \cdot 9$ | $6 \cdot 0$ | 403 | 33.7 | $\underline{29} 7$ | 12.2 | 24.0 | 11.7 | 19 |
| $79 \cdot 8$ | 58.8 | $81 \cdot 1$ | $59 \cdot 8$ | 68.9 | $50 \cdot 9$ | 501 | $30 \cdot 7$ | $31 \cdot 4$ | $21 \cdot 6$ | $22 \cdot 3$ | 17.7 | 20 |
| $77 \cdot 4$ | $53 \cdot 4$ | $80 \cdot 9$ | 60.0 | 65.2 | 593 | $57 \%$ | 12 s | $26 \cdot 5$ | 9.6 | 22.4 | $11 \cdot 3$ | 21 |
| 76.4 | 60.9 | $80 \cdot 1$ | $55-9$ | ${ }^{60} \cdot 3$ | $42 \cdot 4$ | $45 \cdot 3$ | 32 | 22.1 | 4.5 | 24.5 | $5 \cdot 7$ | 22 |
| 76.9 | 61.8 | 84.3 | 59.8 | $62 \cdot 6$ | 39.7 | 43.5 | 3) | $23 \%$ | 2.6 | 21.1 | 7\% | 23 |
| $76 \cdot 3$ | 59.9 | 815 | 622 | $67 \cdot 6$ | 47.5 | $35 \cdot 4$ | 221 | 27.3 | 3.1 | $22 \cdot 8$ | 117 | 24 |
| 813 | 64.3 | 819 | 52.9 | $75 \cdot 2$ | 53.5 | 42.6 | 18.6 | $23 \pm$ | 4.6 | 21.8 | 11.7 | 25 |
| $79 \cdot 7$ | $65 \%$ | 82.2 | 457 | 745 | 59.8 | $46 \cdot 1$ | 33.7 | 162 | 0.8 | 26.6 | 183 | 26 |
| 78.0 | 533 | 81.6 | $61 \cdot 1$ | $68 \cdot 9$ | 52.9 | 38.3 | 296 | 32.2 | 18 | 222 | 18.5 | 47 |
| 76.8 | 50.4 | 828 | $64^{\circ} 0$ | 55.9 | 435 | $41 \cdot 6$ | $2 \cdot 6$ | $35 \cdot 1$ | 25.5 | 26.8 | - 18 | 23 |
| $75 \cdot 8$ | 50.9 | 81.5 | $59 \%$ | 595 | 4.8 | $44 \cdot 6$ | 267 | 37.6 | 20.6 | 10.3 | - 3.2 | 29 |
| 76.0 | 52.9 | 80.2 | 54.9 | 54.0 | 37.7 | 57 | 397 | 277 | 1.7 | 6.9 | $7 \%$ | 311 |
| $79 \cdot 8$ | 60.0 | $79 \cdot 3$ | 58.6 | $\cdots$ | $\cdots$ | $50 \cdot 2$ | 317 | $\cdots$ | .... | 129 | 0.2 | 31 |
| 78.5 | $60 \cdot 4$ | $80 \cdot 0$ | 57.5 | 72.6 | 53.2 | 54.8 | $38 \cdot 1$ | 393 | 232 | 20.5 | 11.4 |  |

; TABLE XIIX.-Pembroke, Ont. Maximum

| 荷 | January. |  | February. |  | March. |  | April. |  | May. |  | June。 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | - | - | - | - | $\bullet$ | - | $\bigcirc$ | - | - | - |
| 1 | 28.8 | 10.8 | 21.8 | 12.7 | $21 \cdot 8$ | $9 \cdot 8$ | $51 \cdot 3$ | 22.8 | $49 \cdot 4$ | $27 \cdot 0$ | 68.5 | $47 \cdot 6$ |
| 2 | 41.1 | 13.1 | $7 \cdot 4$ | $28 \cdot 3$ | 29.5 | 3.7 | 51.9 | 30.0 | 60.6 | 31.9 | 68.4 | 37-9 |
| 3 | 15.6 | 9.0 | 118 | $0 \cdot 3$ | 51.3 | 19.0 | 517 | 371 | 82.2 | 47.0 | 58.5 | 49.7 |
| 4 | 34.0 | 178 | 189 | $9 \cdot 9$ | 43.5 | $32 \cdot 0$ | $40 \cdot 4$ | 22.0 | 89.2 | 38.3 | 648 | $39 \cdot 4$ |
| 5 | 27.5 | 6.8 | $27 \%$ | 11.2 | 33.3 | $21 \cdot 3$ | 44.0 | 27.5 | 82.9 | 37.2 | $75 \cdot 1$ | 51.9 |
| 6 | $30 \cdot 4$ | $8 \cdot 5$ | 27.7 | 2.0 | 32-9 | 8.5 | 34-9 | 20.0 | 60.4 | 97.9 | 79.6 | 49.6 |
| 7 | $30 \cdot 1$ | $1 \%$ | 17\% | 27 | 421 | 220 | 28.9 | 12.3 | 58.8 | 387 | 69.4 | 50.0 |
| 8 | 329 | 8.7 | 38.1 | 2.0 | 37.9 | -11-2 | $40 \cdot 3$ | 14.4 | 79.6 | 45.9 | 729 | $43 \cdot 3$ |
| 9 | 41.6 | 24.0 | 275 | $12 \cdot 3$ | 159 | $9 \cdot 4$ | 49.5 | 28.9 | $81 \cdot 1$ | 53.3 | $76 \cdot 6$ | 40-9 |
| 10 | $45 \cdot 1$ | $3 \cdot 7$ | 57 | 127 | 12-9 | 0.0 | $42 \cdot 6$ | 27.2 | 730 | $52 \cdot 8$ | 84.0 | 56.8 |
| 11 | 27 | 022 | 26.1 | 140 | 14.9 | 13.6 | 287 | 119 | 71.6 | 510 | 81.8 | 60.0 |
| 12 | 37.8 | 2.0 | 51.0 | 23.0 | 18.1 | 2.0 | 36.6 | $27 \cdot 3$ | 58.1 | 43.0 | $70 \cdot 3$ | $50 \cdot 4$ |
| 13 | $21 \cdot 1$ | 7.5 | $35 \cdot 1$ | 19.0 | $20-2$ | 11.8 | 56.4 | $30 \cdot 0$ | 63.5 | 38.8 | 64.5 | 51.9 |
| 14 | 36.6 | $8 \cdot 9$ | 26.5 | 6.9 | 28.3 | 2.2 | 47.9 | 28.0 | 61.6 | 36.8 | $72 \cdot 6$ | $47 \cdot 5$ |
| 15 | 34.6 | 0.2 | 25 | 58 | $33 \cdot 6$ | $9 \cdot 4$ | 60.0 | 24.8 | $69 \cdot 6$ | 38.2 | 799 | 48.5 |
| 16 | $37 \cdot 1$ | 2.0 | 36.2 | 7-2 | $28 \cdot 5$ | - 34 | 410 | 29.5 | $84 \cdot 6$ | 53.1 | $79 \cdot 8$ | $51-2$ |
| 17 | $39 \cdot 9$ | 38.1 | 48.6 | 22.2 | 30:3 | 13 | 38.9 | 32.4 | 70.5 | 53.8 | 84.4 | 48.0 |
| 18 | 441 | $32 \cdot 4$ | 4.9 | 28.3 | 35.4 | $3 \cdot 8$ | 52.6 | 30.7 | 63.6 | 510 | 88.6 | 49.7 |
| 19 | $39 \cdot 6$ | $20 \cdot 2$ | 29.0 | $2 \cdot 5$ | 380 | 4.5 | 68.8 | 33.9 | 83.2 | 52.2 | $88 \cdot 4$ | 58.8 |
| 20 | 28.6 | 7.9 | 22.9 | 0.7 | 42.8 | 120 | 62.5 | 39.8 | $77 \cdot 6$ | 513 | 79-9 | 57.8 |
| 21 | 11.7 | 0.2 | 326 | $15 \%$ | 297 | 0.6 | 66.2 | 35.9 | $71 \cdot 3$ | 51.4 | $71 \cdot 6$ | 56.7 |
| 22 | 21.8 | 0.0 | 31.7 | 4.0 | 40.9 | 246 | 575 | 33.9 | 69.6 | 51.2 | $79 \cdot 4$ | 51.4 |
| 23 | 346 | 193 | 288 | 2.7 | 35.3 | 211 | 48.6 | $25 \cdot 1$ | $74 \cdot 8$ | 51.2 | 76-9 | 59.3 |
| 24 | $2 \cdot 5$ |  | 18 ! | $12 \cdot 0$ | 3108 | 3.2 | $51 \cdot 4$ | 270 | $80 \cdot 6$ | 51.2 | 91.0 | 58.2 |
| 25 | $34 \cdot 1$ | 8.7 | 8 F | 16.0 | 27 | 5\%3 | 54.0 | 25.0 | 82.5 | 51.4 | 81.2 | 59.8 |
| 26 | 423 | 170 | $47 \%$ | 320 | $310 \%$ | :3:3 | 64:3 | 31.7 | 91.3 | 50.8 | 82.6 | 65.2 |
| 27 | 42.1 | 22.2 | 34.8 | 29.0 | +1.1 | 10.0 | 476 | 30.5 | 87.0 | $63^{9} 9$ | 89.6 | 67.2 |
| 28 | $: 317$ | 79 | 3:3 | 24.6 | 396 | 20.5 | 57.6 | $2 \mathrm{~F} \cdot 6$ | $65^{\circ} 8$ | 43.8 | $80 \cdot 2$ | $66 \cdot 5$ |
| 29 | 9.0 | - 9.4 | +3.1 | $1: 3$ | 440 | 2 O | 5896 | 27.3 | $72 \cdot 2$ | 38.9 | 80.7 | 63.0 |
| 30 | 44.0 | 4.4 | -• | .... | 469 | 24:3 | $4 \cdot 6$ | $30 \cdot 5$ | 61.4 | 51.8 | 76.9 | $55 \cdot 8$ |
| 31 | 451 | 20.0 | $\cdots$ | $\cdots$ | - $\mathbf{S}^{\prime}$ | 20.0 | ...' | $\cdots$ | 737 | 5in | -• | - |
|  | 326 | $8 \cdot 1$ | $28 \%$ | 8.0 | 33.3 | 70 | $48 \cdot 6$ | 27.4 | $72 \cdot 2$ | 46.7 | 77.2 | 53.2 |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | MIn. | Max. | Min. | Max. | Min. | Max. | Min. | $\stackrel{\Delta}{4}$ |
| - | - | - | - | $\bigcirc$ | - | - | $?$ | 9 | - | 9 | - |  |
| 76.1 | 54.2 | 89.6 | $00 \cdot 1$ | 81.0 | 61-4 | 81.8 | 31.0 | $46 \cdot 9$ | 32.1 | 280 | $15 \cdot 7$ | 1 |
| 76.5 | 57.8 | 807 | 55.8 | $87 \cdot 9$ | 657 | $8 \mathrm{~B} \cdot 1$ | 4.8 | $42 \cdot 4$ | 23.8 | 24.8 | $12 \cdot 4$ | 2 |
| 81.8 | 52.0 | $71 \cdot 1$ | 51.8 | 78.5 | 68.9 | 8.0 | $48 \cdot 8$ | 41.5 | 22.0 | 287 | 16.5 | 3 |
| $82 \cdot 3$ | 51.0 | $75 \cdot 9$ | 42.0 | 80.8 | 66.9 | $49 \cdot 8$ | 48.2 | 47.8 | 32.0 | 35.4 | 19.6 | 4 |
| 71.9 | 61.3 | 71.2 | 51.6 | 848 | 58.3 | $55 \cdot 3$ | 36.5 | 58.7 | 43.7 | 48.1 | 28.6 | 5 |
| 81.4 | 57.8 | 80.4 | 42.0 | 74.9 | 57.5 | 52.7 | 41.6 | 51.7 | $40 \cdot 6$ | 35.6 | $21 \cdot 1$ | 6 |
| 78.6 | 49.9 | $82 \cdot 8$ | 566 | 63.9 | 47.5 | 52.5 | $34 \cdot 8$ | $43 \cdot 1$ | 31.6 | 22.7 | $4 \cdot 4$ | 7 |
| 83.5 | 54.8 | $86 \cdot 5$ | $56 \cdot 1$ | 61.3 | 45\% | 56.0 | 35-9 | $39 \cdot 5$ | $27 \cdot 4$ | 18.3 | $4 \cdot 4$ | 8 |
| 90.3 | 64.5 | $79 \cdot 3$ | 63.9 | 66.0 | $36-2$ | $75 \cdot 5$ | $37 \cdot 4$ | $42 \cdot 3$ | $30 \cdot 4$ | $9 \cdot 0$ | $5 \cdot 6$ | 9 |
| 81.6 | 62-2 | 77.5 | $56 \cdot 1$ | 69.8 | 39.8 | 75.9 | $37 \cdot 3$ | $47 \cdot 4$ | 31.9 | 4.0 | $11 \cdot 6$ | 10 |
| 83.4 | 61.3 | 81.6 | 52.6 | 79.6 | $39 \cdot 6$ | $80 \cdot 5$ | 38.9 | $46 \cdot 6$ | 37.3 | 18.3 | $3 \cdot 3$ | 11 |
| 767 | 56.8 | 81.0 | 53.7 | $77 \cdot 6$ | $43 \cdot 3$ | 67.8 | 40.9 | $42 \cdot 6$ | 31.9 | 26.5 | $12 \cdot 5$ | 12 |
| 82.6 | 63.9 | 78.6 | $54 \cdot 4$ | $67 \cdot 4$ | 54.8 | $56 \cdot 3$ | 38.2 | $36 \%$ | 26.0 | 31.7 | 23.0 | 13 |
| 80.6 | 52.2 | 88.4 | 63.0 | 61.7 | 44.0 | 63.4 | $29 \cdot 2$ | 27.0 | $22 \%$ | $30 \cdot 1$ | 17.8 | 14 |
| $87 \cdot 4$ | $52 \cdot 9$ | 67.6 | 47.0 | 69.8 | 36.3 | 71.8 | 39.8 | $32 \cdot 6$ | 19.6 | 32.2 | 17.8 | 15 |
| $79 \cdot 3$ | 61.1 | 71.5 | 41.7 | 67.8 | 47.4 | $60 \cdot 6$ | $38 \cdot 4$ | $33 \cdot 4$ | 27.0 | 22.2 | $9 \cdot 0$ | 16 |
| 76.6 | 58.3 | $79 \cdot 6$ | 40.9 | 71.0 | $46 \cdot 4$ | $57 \%$ | $31 \cdot 9$ | 31.8 | 23.0 | 16.9 | $8 \cdot 3$ | 17 |
| 77.0 | 51.5 | 78.6 | 47.3 | $70 \cdot 6$ | 54.2 | $49 \cdot 8$ | $34 \cdot 5$ | 20.8 | 150 | 16.0 | 4.7 | 18 |
| 74.9 | 55.3 | $80 \cdot 9$ | 59.4 | 64.3 | 49.9 | 46.5 | $33 \cdot 8$ | $2 \bigcirc 5$ | 187 | 228 | 12.5 | 19 |
| 78.5 | 59.7 | 752 | 52.0 | 74:3 | 53.0 | 46.8 | 30.5 | 29.0 | $15 \cdot 4$ | 21.6 | 5.8 | 20 |
| 73.2 | 52.0 | 78.3 | 55.7 | 61.9 | 49.0 | 56.6 | 36.3 | 22.2 | 6.3 | 16.9 | 4.8 | 21 |
| $76 \cdot 9$ | 51.4 | 79.5 | 52.8 | 57.0 | 41.6 | 40.6 | 25.0 | 16.3 | - 07 | 16.8 | - 40 | 22 |
| 74.8 | 559 | 80.8 | 54.5 | 60.9 | 430 | 456 | 293 | 17.2 | $4 \cdot 3$ | $15 \cdot 3$ | - 80 | 23 |
| 80.6 | 510 | 82.5 | 55.8 | 706 | 50.2 | 33.9 | $27 \cdot 8$ | 114 | $7 \cdot 8$ | 19.3 | 11.2 | 24 |
| 85.0 | 54.5 | 649 | 472 | 81.0 | $49 \cdot 4$ | 40.6 | 29.0 | 18.3 | 9.0 | 210 | 8.0 | 25 |
| $77 \cdot 4$ | 58.2 | 69.0 | $35 \cdot 2$ | 76.6 | 58.6 | 36.6 | 30.9 | 16.9 | 80 | 275 | 11.9 | 26 |
| 68.6 | 518 | 74:3 | 40.7 | $68 \cdot 3$ | 48.5 | 36.9 | 28.6 | $31 \cdot 1$ | $7 \cdot 1$ | $26:$ | 14.7 | 97 |
| 70.8 | 470 | 84.6 | $67 \cdot 4$ | 53.9 | 45.0 | $35 \cdot 5$ | $20 \cdot 6$ | $2 \times 4$ | 15:\% | 23.0 | 50 | 28 |
| 72-9 | 49.5 | 73.7 | 58.1 | $55 \cdot 1$ | $47 \cdot 1$ | $40 \cdot 1$ | 20.9 | $31 \cdot 3$ | 8.7 | 6.0 | 210 | 29 |
| 819 | 48-2 | 77.6 | 56.9 | 49.5 | $30 \cdot 9$ | 39.8 | 32.9 | 20 | 90 | 07 | 100 | 30 |
| 89.6 | 53.1 | 77.7 | 48.8 | .... | . $\cdot$. | $44 \cdot 6$ | 36.5 | $\cdots$ | -•• | 14.6 | 16.6 | 31 |
| 79.1 | 55-2 | $77 \cdot 4$ | 51.9 | 69.6 | $49 \cdot 3$ | 63.5 | 34.3 | 33.9 | $20 \cdot 3$ | 21.6 | $5 \cdot 1$ |  |

Table L.-Ottawa, Ont. Maximum

| $\stackrel{\dot{L}}{\dot{Q}}$ | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max.' | MIn. | Max. | Min. | Max. | Min. |
|  | - | - | - | - | - | - | - | - | - | - | - | - |
| 1 | 29.5 | $13 \cdot 9$ | 24.5 | 8.7 | 21.9 | 13.0 | 507 | $25 \cdot 4$ | 49.7 | 27.8 | 68.0 | 51.1 |
| 2 | 427 | 17.8 | 13.6 | 20.7 | 287 | 6.7 | 51.7 | 26.4 | 629 | 347 | 69.7 | 43.3 |
| 3 | $19 \cdot 1$ | 0.0 | 12:8 | 6.2 | 412 | 20.7 | 47.7 | $36 \cdot 2$ | 787 | 45.8 | 64.2 | $52 \cdot 1$ |
| 4 | 41.5 | 78 | $19 \cdot 1$ | 57 | 4.7 | 25 | $65 \cdot 4$ | 39.2 | $70 \cdot 7$ | 417 | 66.7 | 45.8 |
| 5 | 327 | 13.9 | 257 | 4.7 | 36.4 | $24 \cdot 4$ | 49.9 | 31.1 | 826 | 47.3 | 759 | 54.0 |
| 8 | 2977 | 78 | 25.2 | 8.2 | 32-1 | $19 \cdot 2$ | $87 \cdot 7$ | 19.0 | 87.7 | 41.7 | 80.2 | 61.0 |
| 7 | 30.7 | 168 | 22.7 | 29 | 39.7 | 8.9 | 29.2 | 165 | 60.0 | 36.7 | 807 | 56.4 |
| 8 | 31.5 | 20.7 | 307 | 1.0 | 33.7 | 77 | $41 \%$ | 19.2 | $77 \cdot 7$ | 37.7 | 727 | 49.3 |
| 9 | 40.7 | 21.2 | 327 | 8.8 | 14.6 | 4.7 | 4.7 | 27.9 | 90.0 | $50 \cdot 3$ | $77 \cdot 7$ | $49 \cdot 4$ |
| 10 | 42.5 | $10 \cdot 4$ | $2 \cdot 5$ | $16 \cdot 4$ | 16.1 | $3 \cdot 1$ | 41.7 | $32 \cdot 7$ | 76.7 | 63.0 | 84.8 | 50.8 |
| 11 | 257 | 4.7 | 20.6 | $7 \cdot 2$ | 11.6 | 5.7 | $33 \cdot 3$ | 20.5 | 73.7 | 53.0 | 80.8 | 63.0 |
| 12 | 39.5 | 119 | 50.9 | 16.0 | 20.7 | $5 \cdot 7$ | 37.0 | 14.5 | $56 \cdot 1$ | $43 \cdot 8$ | $71 \cdot 7$ | 589 |
| 13 | 17.4 | 1.6 | 38.2 | 25.4 | $21 \times 2$ | 5.2 | 38.2 | 11.5 | 53.7 | 39.7 | 737 | 55.0 |
| 14 | 287 | 1.4 | 31.2 | 14.0 | 81.7 | 10.9 | $\ldots$ | .... | 60.5 | 367 | $74 \cdot 7$ | 50.8 |
| 15 | 297 | 6.2 | 21.7 | 3.0 | 32.2 | $8 \cdot 9$ | $65 \cdot 1$ | 29.2 | 70-9 | 377 | 89.8 | 56.0 |
| 16 | 27.2 | 1.0 | 35.7 | $9 \cdot 9$ | 27.7 | 145 | 447 | 31.7 | 81.8 | 57.5 | 84.0 | 56.0 |
| 17 | 377 | 25.4 | 44.7 | 23.5 | 317 | 14.0 | 41.7 | 33.7 | 71.7 | 55.0 | 838 | 56.0 |
| 18 | 37.7 | 25.9 | 46.7 | 38.7 | 33.7 | $5 \cdot 8$ | 497 | 31.7 | 67.9 | 53.5 | 88.8 | 60.0 |
| 19 | 37.7 | 33.2 | 35.2 | $5 \cdot 7$ | 38.7 | 16.0 | -9.1 | 34.7 | $81 \cdot 8$ | 51.5 | $89 \cdot 2$ | 60.0 |
| 20 | 34.5 | $10 \cdot 4$ | 21.7 | $2 \cdot 4$ | 40.7 | $22 \%$ | 58.1 | 41.7 | $79 \cdot 2$ | $60 \cdot 5$ | 8.4 | 84.0 |
| 21 | 15.8 | 1.0 | 32.7 | 11.9 | $40 \cdot 7$ | 11.4 | 67\% 5 | 38.7 | 67.7 | 55.2 | $75 \cdot 1$ | 59.5 |
| 22 | 24.7 | 21 | 31.7 | $8 \cdot \theta$ | 42.7 | 21.9 | 54.3 | 363 | 67.7 | 49.8 | 75.7 | 51.5 |
| 23 | 87.2 | 23.2 | 32.0 | $3 \%$ | $31 \% 3$ | $2 \%$ | 17.7 | 277 | $76 \%$ | 63.5 | $80 \cdot 3$ | 59.0 |
| 24 | 58.7 | $5 \cdot 7$ | 156 | -7 | 97 | 1.6 | 51.2 | 29.0 | $80 \cdot 5$ | 58.5 | 90.8 | 59.0 |
| 25 | $20 \cdot 4$ | 10 | 32.7 | 72 | 21.7 | 0.5 | 57.7 | 24.9 | $87 \cdot 8$ | 63.6 | $90 \cdot 8$ | 59.0 |
| 26 | 28.2 | 15.5 | 48.7 | 31.7 | 33.7 | $5 \because$ | 63.4 | $43 \cdot 3$ | 90'4 | 67.0 | 83.8 | 67.0 |
| 27 | 38.7 | $22^{2}$ | $39 \cdot 1$ | 274 | 4107 | $8 \cdot 9$ | 49.6 | 30.7 | $88 \cdot 3$ | 63.0 | 913 | 61.0 |
| 28 | 392 | 20.0 | $3+7$ | $2 \cdot 4$ | $40 \cdot 7$ | 23: | 58.6 | 30.7 | 71.7 | $52 \cdot 5$ | 83.8 | $70 \cdot 0$ |
| 29 | $21 \cdot 1$ | 4.7 | 45.7 | 17\% | 429 | $20 \cdot 7$ | 59.7 | 38.7 | 72•1 | $41 \cdot 2$ | $82 \cdot 1$ | 65.5 |
| 30 | 409 | 6.7 | $\cdots$ | $\cdots$ | 47.9 | 20.4 | $50 \cdot 7$ | $31 \cdot 1$ | $58 \cdot 7$ | 52.5 | 75.8 | 61.2 |
| 31 | $40 \cdot 9$ | $22 \cdot 2$ | $\ldots$ | .... | $50 \cdot 7$ | $24 \cdot 4$ |  |  | 75.7 | 563 | . $\cdot$. | . $\cdot \cdot$ |
|  | 32\% | 10•1 | 30.0 | 6.9 | $33 \cdot 2$ | $12 \cdot 1$ | 50.6 | 29.9 | $72 \cdot 6$ | $49 \cdot 4$ | $80^{\circ} 0$ | 56.8 |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max | MIn. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | 家 |
| - | $\bullet$ | $\bigcirc$ | - | $\square$ | $\bigcirc$ | - | $\bigcirc$ | - | - | - | - |  |
| 76.8 | 55.5 | $79 \cdot{ }^{\prime}$ | 61.0 | 84.8 | 6.0 | 607 | 32.7 | 497 | 32.2 | 22.7 | 15.0 | 1 |
| 75.8 | 61.5 | 81.8 | 61.0 | 91.0 | 69.0 | 64.0 | 44.3 | 38.2 | 26.4 | 22.7 | 11.8 | 2 |
| $79 \cdot 3$ | 59.0 | 73.7 | 60.0 | 78.9 | 71.0 | 60.7 | 48.8 | 44.7 | 22.7 | 25.7 | 13.0 | 3 |
| 85.5 | 58.0 | 83.8 | 61.0 | 88.2 | 70.8 | 57.7 | 44.8 | $49 \cdot 1$ | 32.7 | 317 | 15.0 | 4 |
| 81.8 | 63.0 | 83.8 | 56.0 | $85 \cdot 8$ | $65 \%$ | 57.7 | 397 | 53.2 | 47.0 | $41 \cdot 7$ | 23.4 | 5 |
| 84.2 | 61.0 | 79.8 | 61.0 | 78.7 | 60.5 | 56.7 | 44.8 | 61.7 | 47.2 | 407 | 24.4 | 6 |
| 82.8 | 55.0 | $79 \cdot 8$ | 61.0 | 627 | 488 | 53.0 | $40 \cdot 2$ | 59.2 | 83.2 | 25.7 | 3.3 | 7 |
| 87.0 | $59 \cdot 1$ | 83.8 | 56.0 | 67.5 | 44.8 | 577 | 33.2 | $39 \cdot 1$ | 28.5 | 13.6 | $1 \cdot 1$ | 8 |
| 93.0 | 61.5 | 83.8 | 58.0 | 68.9 | $4 \pm 8$ | 71.7 | 40.8 | 40.0 | 30.7 | 16.1 | 3.6 | 8 |
| 92.8 | 66.0 | 84.8 | 61.0 | 717 | $4{ }^{1} 8$ | 757 | 42.3 | 49.7 | 31.5 | $8 \cdot 6$ | $9 \cdot 3$ | 10 |
| 84.8 | $64 \cdot 9$ | 84.8 | 62.0 | 79.2 | 57.8 | 767 | 47.8 | 51.2 | 35.7 | 12.6 | 6.6 | 11 |
| 81.8 | 61.0 | 84.8 | 49.8 | 79.8 | 50.3 | 67.7 | 41.8 | 43.2 | 34.6 | 22.7 | 11.4 | 12 |
| 838 | 65.0 | 77.7 | $45 \cdot 8$ | 71.7 | 57.0 | 667 | $3 \pm .2$ | 36.7 | 27.2 | 32.2 | 21.2 | 13 |
| 82.8 | 59.0 | 74.7 | $45 \cdot 8$ | 60.9 | 45.8 | 61.7 | 31.7 | 29.7 | 23.7 | 31.7 | 22.1 | 14 |
| 89.8 | 56.0 | 82.8 | 47.8 | 73.7 | 43:3 | 707 | $45 \% 3$ | 33.7 | $24 \cdot 3$ | 36.7 | 24.9 | 15 |
| 85.8 | 61.0 | 82-8 | 46.8 | 70.7 | 52.0 | 52.7 | 42.8 | 33.7 | 24.4 | 26.7 | 10.9 | 16 |
| 757 | 56.0 | 83.8 | 59.0 | 74.2 | 54.0 | 54.7 | +3.0 | 32.7 | 22.2 | 18.6 | $9 \cdot 4$ | 17 |
| $82 \cdot 8$ | 59.0 | - | $\therefore$ | 73.7 | 57.0 | 487 | $36 \cdot 1$ | 28.7 | 18.2 | $15 \cdot 4$ | 5.2 | 18 |
| 828 | 59.9 | $\cdots$ | .... | 69.7 | 50.8 | 437 | $34 \cdot 4$ | 29.7 | 15.0 | 26.7 | 13.3 | 18 |
| $78 \cdot 8$ | 56.0 | .... | .... | 737 | 57.0 | 477 | 28.6 | 30.7 | 182 | $25 \cdot 7$ | 175 | 20 |
| 84.8 | 56.0 | .... | ... | $73 \cdot 7$ | 43.8 | 55.2 | 40.2 | 20.2 | 11.9 | $20-2$ | 68 | 21 |
| 77.7 | 57.0 | 84.8 | 55.0 | 56.2 | 44.8 | 447 | 31.2 | 14.6 | 37 | 16.6 | $0 \cdot 6$ | 22 |
| 717 | 58.0 | 83.8 | 61.0 | $60 \cdot 7$ | 42.8 | 43.7 | $30 \cdot 8$ | 14.6 | 05 | $14 \cdot 1$ | 3.6 | 23 |
| 89.8 | 56.0 | .... | .... | 73.9 | 47.3 | 367 | 307 | 15.6 | 0.6 | 28.7 | 37 | 24 |
| 78.7 | 560 | $83 \cdot 3$ | 61.0 | 777 | 47.8 | 40.7 | 20-1 | 20.7 | 9.9 | . 307 | 0.9 | 25 |
| 737 | 54.0 | 717 | 44.2 | 77.2 | 635 | 35.1 | $20 \cdot 0$ | 15.6 | 1.6 | 277 | 19.2 | 26 |
| 717 | 56.0 | 72.9 | 50.9 | $71 \cdot 1$ | $40 \cdot 8$ | 35.9 | 29.7 | 21.7 | $2 \cdot 6$ | 277 | 22.2 | 27 |
| 83.7 | 61.0 | 888 | 67.3 | 70.9 | $46 \cdot 8$ | 38.7 | 24.4 | 31.2 | $9 \cdot 9$ | 23.7 | 1.2 | 28 |
| 89.8 | 61.0 | 727 | 59.0 | 66.7 | 48.8 | 38.0 | $25 \cdot 4$ | 35.7 | $15 \cdot 5$ | $5 \cdot 6$ | $8 \cdot 1$ | 29 |
| 89.8 | 61.0 | 78.9 | 53.0 | 51.7 | $35 \cdot 7$ | 41.7 | 33.2 | $21 \cdot \theta$ | 11.4 | 3.6 | 10.6 | 30 |
| $83 \cdot 8$ | 50.8 | 78.7 | 58.0 | ... | $\cdots$ | $43 \cdot 4$ | 35.2 | $\cdots$ | $\cdots$ | 12.6 | 102 | 31 |
| 827 | 58.9 | 81.3 | : 56.2 | $70 \cdot 6$ | 51.2 | 53.9 | 36.0 | $84 \cdot 9$ | 21.4 | $22 \cdot 9$ | $8 \cdot 1$ |  |

TABLE LI.-Rockliffe, Ont. Naximum

| $\begin{aligned} & \dot{8} \\ & \hline \end{aligned}$ | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | 0 | $\bigcirc$ | $\bigcirc$ | - | - | - | 0 | 0 | - | - |
| 1 | $29-9$ | $6 \cdot 6$ | $20 \cdot 3$ | 25.8 | $10 \cdot 4$ | 3.0 | 47.8 | 11.1 | 47.3 | 24.6 | $59 \cdot 8$ | 42.7 |
| 2 | 39.8 | 3.9 | 79 | 30.8 | 28.9 | 9.0 | 47.2 | 21.5 | 68.8 | 28.0 | 67.4 | 33.2 |
| 8 | 10:9 | 14.6 | 12.9 | 0.4 | 463 | 12.1 | 478 | 34.0 | 817 | 43.4 | 578 | 41.0 |
| 4 | 413 | 82 | 18.4 | 9.2 | 46-2 | 27.0 | 478 | 35.2 | 66.8 | 36.2 | 62.8 | 34.4 |
| 5 | 21.3 | 0.6 | 26.9 | 7.2 | 299 | $7 \%$ | 47.4 | 20.4 | 82.7 | 36.2 | 69.0 | 48.9 |
| 6 | $22 \cdot 9$ | 9.4 | 15.5 | 8.8 | 21.4 | 7.0 | $33!$ | 16.0 | 55.0 | 340 | 74.2 | 55.2 |
| 7 | 27.9 | 3.0 | 14.7 | 28 | 43.7 | 10.6 | $30 \cdot 4$ | 78 | 54.8 | 28.5 | 63.3 | 48.1 |
| 8 | $33 \cdot 4$ | 3.0 | $37 \cdot 4$ | 4.8 | 6.9 | $19 \cdot 4$ | $38 \cdot 3$ | $7 \cdot 0$ | 718 | $44 \cdot 1$ | 65.8 | 38.2 |
| 9 | 38.8 | $24 \cdot 1$ | $10 \cdot 1$ | $15 \%$ | $12 \cdot 5$ | 24.4 | $46 \cdot 2$ | 24.4 | 84.7 | 48.6 | 74.7 | 1:2 |
| 10 | 41.8 | 0.6 | 55 | $19 \cdot 4$ | 139 | $19 \cdot 9$ | 39.2 | $24 \cdot 5$ | 73.7 | +5\% | 78.3 | $46 \cdot 6$ |
| 11 | $30 \cdot 1$ | 0.6 |  | 15.1 | $9 \cdot 9$ | 23.6 | $30 \cdot 3$ | 21.6 | 68.8 | 44.7 | 86 | $54 \cdot 4$ |
| 12 | 34.8 | 12 | $4{ }^{4}$ | 20.1 | $15 \cdot 4$ | $9 \cdot 6$ | $36 \cdot 3$ | 73 | 53.3 | 38.8 | 660 | 52.2 |
| 13 | $15 \cdot 9$ | 0.6 | 20.8 | 11.1 | 18.9 | $22 \cdot 4$ | $54 \cdot 8$ | 26.6 | 53.6 | 36.2 | 61.6 | $48 \cdot 8$ |
| 14 | 343 | 4.6 | $24 \cdot 9$ | 07 | $27 \cdot 9$ | 82 | $33 \cdot 1$ | $23 \cdot 5$ | 59.8 | 31.6 | $70 \cdot 8$ | 41.6 |
| 15 | $31 \cdot 4$ | $9 \cdot 8$ | 22.9 | 29 | 29.9 | 92 | 50.1 | 28.0 | 722 | 30.0 | 78.7 | 46.0 |
| 16 | $27 \cdot 1$ | $9 \cdot 2$ | $30 \cdot \theta$ | 00 | 233 | $14 \cdot 1$ | 38.8 | $22 \cdot 3$ | $8: 7$ | 49.2 | $79 \%$ | 4.) 3 |
| 17 | 85.8 | 250 | $42 \cdot 1$ | $22 \cdot 0$ | $30 \cdot 9$ | 6.6 | $39 \cdot 8$ | $31 \cdot 0$ | 687 | ${ }_{5} 8$ | 83.2 | 425 |
| 18 | 36.8 | 32.0 | 45.4 | $15 \cdot 1$ | 319 | 81 | 46.8 | 27.0 | 60.8 | $47 \cdot 1$ | 86.7 | 44.l |
| 19 | 37.8 | 18.5 | $17 \cdot 1$ | 10 | $35 \cdot 8$ | 13\% | 47.7 | 33.0 | 82.2 | 45.7 | $86 \cdot 7$ | $49 \cdot 1$ |
| 20 | 20.9 | 22 | $21 \cdot 1$ | $8 \cdot 6$ | :14 | 13.1 | 50.0 | 38.5 | $73 \cdot 2$ | $4 \pm .6$ | $82 \cdot 7$ | 55.0 |
| 21 | 13.9 | 1.6 | 31.9 | 6.2 | $24 \cdot 9$ | $7 \cdot 1$ | 65.4 | 28.6 | $69 \cdot 6$ | $48 \cdot 1$ | 74.8 | $48 \cdot 1$ |
| 22 | 20-9 | 32 | $2 \cdot 9$ | 62 | $39 \cdot 8$ | $15 \cdot 1$ | 478 | 27.5 | 63.8 | $48 \cdot 1$ | 80.7 | $49 \cdot 1$ |
| 23 | 29.9 | $12 \cdot 1$ | 24.9 | $5 \cdot 6$ | $32 \cdot 9$ | 92 | 44.8 | 18.1 | $74 \cdot 1$ | 457 | 72.7 | 56.2 |
| 24 | $21 \cdot 4$ | 1.2 | $17 \cdot 1$ | $18 \cdot 1$ | 15.2 | 78 | 51.8 | $25 \cdot 4$ | 827 | 42.7 | 87.5 | $55 \cdot 5$ |
| 25 | 31.8 | 10.5 | $35 \cdot 4$ | $14 \cdot 7$ | 26.3 | 18.6 | 51.8 | 22.0 | $83 \cdot 7$ | $49 \cdot 3$ | $74 \cdot 7$ | 65-2 |
| 26 | 37.8 | 9.8 | $42 \cdot 4$ | 31.5 | $33 \cdot 8$ | 12.1 | 58.4 | $35 \cdot 2$ | 887 | 45.1 | 797 | 57.2 |
| 27 | $39 \cdot 2$ | $12 \cdot 1$ | 35.8 | 20.7 | 41.8 | 5.0 | 45.8 | 26.5 | 843 | 51.6 | 80\%2 | 51.7 |
| 28 | 27\% | $1 \cdot 6$ | 823 | 24.2 | 37.4 | 18.6 | 50.3 | 24.0 | 63.3 | 44.2 | 77 | 81.2 |
| 29 | 39 | 17.8 | $38 \cdot 4$ | 2.2 | $43 \cdot 8$ | $10 \cdot 1$ | 60.8 | 320 | 678 | 33.0 | 76.7 | 50.5 |
| 30 | 44.8 | 4.8 |  | .... | $48 \cdot 1$ | 18.6 | 17.8 | 270 | 57.0 | $50 \cdot 1$ | 757 | $49 \cdot 1$ |
| 31 | 380 | 16.8 | -• | $\cdots$ | 51.8 | 13•1 | .... | .... | 78.7 | $51 \cdot 1$ | $\cdots$ | -•.. |
|  | 297 | 8.6 | 283 | 0.8 | 20.8 | 1.7 | $46 \cdot 8$ | 287 | 707 | $42 \cdot 1$ | 724 | 489 |

and Minimum Temperature, 1880.

| Juls. |  | Ausust. |  | September. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mnx. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | MIn. | $\stackrel{\dot{C}}{\text { A }}$ |
| $\checkmark$ | - | 0 | - | $\bullet$ | - | $\bigcirc$ | $\bigcirc$ | - | - | - | - |  |
| 720 | 51.9 | 87'7 | 60.7 | 82.0 | 59.0 | 61.4 | 28.8 | $41 \cdot 3$ | 31.0 | $28 \cdot 1$ | 14.1 | 1 |
| $79 \cdot 7$ | $52 \cdot 1$ | 70.7 | 52.7 | 80.7 | 63.0 | 58.2 | 45.1 | $32 \cdot 1$ | 20.1 | 28.2 | 97 | 2 |
| 797 | 48.1 | 697 | $44 \cdot 6$ | 787 | 67.0 | 58.8 | 44-1 | 39-8 | $19 \cdot 6$ | 31.7 | 10.2 | 3 |
| 80.7 | 46.6 | 74.7 | 422 | 70.7 | 620 | $46 \cdot 8$ | 39.2 | 46.8 | 33.0 | 34.8 | 21.9 | 4 |
| 70.1 | 58.6 | 817 | $45 \cdot 6$ | $83 \cdot 1$ | 80.8 | $51 \cdot 8$ | 36.2 | $53 \cdot 8$ | 427 | 32-9 | 20.0 | 5 |
| $78 \cdot 1$ | 52.1 | 78.2 | 42.0 | 723 | 50.9 | 43.2 | $40 \cdot 8$ | 51.8 | 3 K 0 | $32 \cdot 9$ | $16 \cdot 1$ | 6 |
| $7 \mathrm{7} \cdot 1$ | 4:36 | 82.7 | 55.0 | 55.8 | 415 | 508 | 36.0 | $40 \cdot 9$ | 29.0 | 189 | 8.8 | 7 |
| 78.7 | $54 \cdot 1$ | 86.9 | 53.0 | 59 | 37.2 | 55.3 | 31.0 | 309 | 24.5 | $13 \cdot 9$ | 8.8 | 8 |
| 87.0 | 812 | 73.7 | 58.0 | 63.0 | 367 | 69.2 | 37.2 | $39 \cdot 8$ | 27.0 | 0.9 | $9 \cdot 1$ | 9 |
| 88.7 | 61.0 | 7.2 | 51.2 | 68.1 | 37.2 | $75 \cdot 4$ | $37 \cdot 2$ | 46.3 | 31.0 | 64 | 13.6 | 10 |
| 82.0 | 54.2 | 81.0 | 54.5 | 757 | 41.0 | $79 \cdot 7$ | 41.1 | $46 \cdot 4$ | $35 \cdot 2$ | 18.9 | $0 \cdot 6$ | 11 |
| 08.8 | $54 \cdot 2$ | 80.7 | $50 \cdot 4$ | 787 | 43.2 | 64.0 | 33.0 | 40.0 | 270 | 20.6 | 16.1 | 12 |
| 81.7 | 60.0 | $76 \cdot 1$ | 55.2 | 628 | $45 \cdot 6$ | 54.8 | $26 \cdot 5$ | 298 | 23.5 | 31.6 | 18.6 | 18 |
| 797 | $47 \cdot 1$ | $65 \cdot 8$ | $47 \cdot 1$ | 61.0 | $36^{\circ} 2$ | $62 \cdot 8$ | 29.0 | 27.7 | 18.1 | 27.5 | 14.1 | 14 |
| 83.7 | $50 \cdot 1$ | $60 \cdot 4$ | $40 \cdot 2$ | 67.8 | 34.7 | $71 \cdot 2$ | 42.0 | 30.8 | 10.6 | 27.9 | 16.1 | 15 |
| 75.0 | 60.0 | 717 | 38.2 | 67.8 | 43.0 | 56.8 | 37.2 | 31.8 | 24.5 | $10 \cdot 9$ | 72 | 16 |
| 75.7 | 560 | $80 \cdot 3$ | 420 | 69.4 | $45 \cdot 2$ | $50 \cdot 3$ | 38.7 | 309 | 21.1 | 159 | 7.2 | 17 |
| 75.7 | 50.8 | 757 | 56.2 | 687 | 52.1 | $46 \cdot 4$ | 28.0 | 24'5 | 97 | 159 | 4.2 | 18 |
| 70.2 | 49-1 | 77.2 | 60.2 | $62 \cdot 4$ | 46.1 | $42 \cdot 4$ | $20 \cdot 0$ | 27.1 | $12 \cdot 1$ | 22.7 | 11.6 | 19 |
| $79 \cdot 7$ | $58 \cdot 8$ | 727 | 50.6 | 72.7 | 56.5 | $43 \cdot 8$ | 28.0 | 27.8 | 19.1 | 21.5 | 8.2 | 20 |
| 70.3 | $49 \cdot 6$ | 75.7 | 52.1 | 57.8 | 45.9 | 49.6 | $29 \cdot 8$ | $23 \cdot 5$ | 22 | 21.9 | $4 \cdot 1$ | 21 |
| 74 | $48 \cdot 1$ | 75.7 | $47 \cdot 1$ | $54 \cdot 1$ | 39.9 | $39 \cdot 8$ | 22.5 | 145 | 46 | 18.2 | 6.6 | 22 |
| 837 | 53.8 | 817 | 50.8 | 694 | 35.7 | $33 \cdot 8$ | 27.0 | 14.9 | 0.7 | 18.9 | 5.6 | 23 |
| 777 | 50.5 | $73 \cdot 3$ | 54.0 | 69.5 | $48 \cdot 1$ | 31.8 | 27.0 | $13 \cdot 9$ | 8.9 | 16.6 | 3.6 | 24 |
| $8 \mathrm{8} \cdot 7$ | $50 \cdot 6$ | 00.8 | 38.2 | 807 | $48 \cdot 1$ | 39.8 | 23.5 | $15 \cdot 9$ | 7.2 | $10 \cdot 4$ | 42 | 25 |
| 70.5 | 59.2 | 65.7 | $34 \cdot 2$ | $74 \cdot 9$ | 55.8 | $35 \cdot 8$ | 29.6 | $13 \cdot 9$ | 4:2 | 273 | 12.1 | 20 |
| 69.6 | $47 \cdot 1$ | $71 \cdot 7$ | 48.5 | 86.8 | $46 \cdot 1$ | 33.8 | 25.0 | $32 \cdot 3$ | $8 \cdot 2$ | $23 \cdot 1$ | 13.1 | 27 |
| 71.5 | $44 \cdot 6$ | 75.7 | 65.2 | $49 \cdot 8$ | 44-1 | $35 \cdot 4$ | 23.0 | 31.9 | 24.0 | 15-9 | 11.6 | 23 |
| 71.3 | $44 \cdot 1$ | 72.7 | 54.2 | 52.1 | 44•1 | 86.8 | 21.0 | 29.9 | 8.8 | $5 \cdot 9$ | 18.6 | 29 |
| 70.7 | $44 \cdot 8$ | 737 | 52.7 | $45 \cdot 8$ | 29.0 | $47 \cdot 1$ | 31.5 | 23.5 | 1.2 | $4 \cdot 3$ | 11.7 | 30 |
| 87.7 | 52•1 | 71-9 | 527 | ... | $\cdots$ | 448 | $34 \cdot 6$ | $\cdots$ | -•• | 11.9 | 19.0 | 31 |
| 778 | 52.1 | $74 \cdot 8$ | $50 \cdot 1$ | 66.6 | 466 | 509 | $32 \cdot 4$ | 32.0 | 18.0 | $20 \cdot 3$ | 3.8 |  |

TABLE LII.-Cornwall, Ont. Maximum

| $\dot{\ddot{H}}$ | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | SIn. | Max. | Min. | Max. | Mn. | Max. | Min. | Max. | Min. |
|  | - | - | - | - | - | - | - | - | - | - | - | - |
| 1 | 29.0 | 6.3 | 4;31 | 120 | 27.0 | 15.0 | 48.1 | 23.6 | 46.0 | 28:2 | 67.6 | 53.4 |
| 2 | 40.0 | 24.9 | $15 \cdot 3$ | 14.3 | 290 | 150 | 52.5 | 29.7 | 12.6 | 42.5 | 68.6 | 40\% |
| 3 | 20.0 | 13 | 120 | $3 \cdot 3$ | 53.6 | $20 \cdot 3$ | 61.0 | $38 \%$ | 75.7 | 43.5 | 690 | 437 |
| 4 | $4 \cdot 1$ | 11.0 | 240 | 8.7 | 48.1 | 36.7 | 68.1 | $43 \%$ | $64 \cdot 1$ | $45 \cdot 1$ | 67.6 | 43.7 |
| 5 | 33\% | 13.5 | $24 \cdot 0$ | $9 \cdot 3$ | 37.0 | 24.8 | 52.6 | 33.0 | 80.2 | 43.2 | 79.2 | 50.8 |
| 6 | 350 | $5 \cdot 5$ | 23.5 | 12.3 | 300 | 19.7 | 37.0 | 20.6 | 6.51 | 43.7 | 81.2 | 01.8 |
| 7 | 31.5 | 15.3 | 20.0 | $4 \cdot 0$ | 39.0 | 6.6 | 325 | 20.0 | 586 | 32.7 | 75.2 | 476 |
| K | 31\% | 145 | 312 | 4.5 | 35.0 | 1.0 | $38^{\circ} 0$ | 20.3 | 71.5 | 46.1 | 381 | 51.0 |
| $\stackrel{H}{ }$ | . 1.11 | 18.2 | 33.0 | $9 \cdot 3$ | 15.0 | 18 | 45.1 | 2 | 85.8 | 47.2 | 79.4 | 530 |
| 10 | 456 | 12.1 | $2 \cdot 9$ | 120 | 220 | 6.6 | 406 | 38.2 | $80 \%$ | 62-3 | $81 \%$ | 49.9 |
| 11 | 22.5 | 0.7 | 216 | 12.0 | 9.0 | 10 | 37.0 | 21.9 | 71.1 | -5.8 | 82.5 | (10) 1 |
| 12 | $41 \cdot 1$ | 16.4 | 623 | 17.0 | 20.0 | $5 \cdot 6$ | 34.0 | 15.9 | 60.9 | 43.7 | $69 \cdot 4$ | 心5 |
| 13 | 15.0 | 3.5 | 40\% | 29.5 | 19.5 | 27 | $52 \cdot 1$ | 26.0 | $50 \cdot 1$ | 40.2 | 70\%3 | 64" |
| 1 | 215 | 5.0 | 20.0 | 14.0 | 37.0 | $10 \cdot 8$ | 42.1 | $29 \cdot 3$ | 58.1 | 38.2 | 71.3 | 61.3 |
| 15 | 32:5 | $11 \cdot 3$ | 28.5 | 4.7 | 31.0 | 192 | 62.6 | 30-4 | 68.7 | $30 \cdot 4$ | 76.1 | 48.7 |
| 18 | 37.0 | 6.6 | $34 \cdot 1$ | 5.0 | 2 | $15 \cdot 4$ | 49.1 | $33 \cdot 5$ | 72.9 | 51.1 | $81 \cdot 1$ | 519 |
| 17 | $43 \cdot 1$ | 33.7 | 43.8 | 20.8 | 32.0 | $16 \cdot 1$ | 42.1 | 357 | $75 \%$ | 50.5 | 81.4 | 17.0 |
| . 18 | 40'5 | 33.8 | $51 \cdot 1$ | 33.7 | 395 | 157 | $46: 3$ | 327 | 65.0 | 40.2 | 87.5 | 55.3 |
| 19 | 40:3 | 33.0 | 33.8 | 8.8 | 39.0 | 87 | $67 \cdot 1$ | 07 | $83 \cdot 4$ | 52.0 | 85.7 | 58.5 |
| 30 | $34^{\circ} 0$ | 10.8 | 10.8 | 4.0 | 40.0 | 26.0 | 61.1 | 497 | $81-2$ | $62 \cdot 1$ | 77.4 | 58.5 |
| 21 | 14.5 | 7.0 | 31.0 | 180 | :25 | 10.0 | 65.1 | $40 \%$ | 69.6 | 55.5 | 74.0 | 58.5 |
| 22 | 28.0 | $8 \cdot 3$ | 33.0 | 13.0 | $4 ; \cdot 1$ | $23 \cdot 1$ | 577 | 36.5 | 70.3 | 49.6 | 75.5 | 49.1 |
| 28 | 37.0 | 250 | 32:3 | $11 \cdot 4$ | $35 \%$ | 23.0 | $40 \%$ | 28.4 | 77.9 | 52:3 | 73.2 | 500 |
| 21 | 30.0 | 70 | 16.0 | 73 | 250 | $8 \cdot 9$ | $49 \cdot 6$ | $27 \%$ | 79.0 | 60.1 | 88.7 | \%-4 |
| 25 | 38.0 | 23 | 315 | 53 | 21.5 | 15 | 57.3 | 25.2 | $87 \cdot 4$ | 642 | 88.0 | 68.0 |
| 20 | 46.1 | 250 | $47 \cdot 1$ | 27.6 | 33.0 | 3.0 | 52.6 | $37 \%$ | 88.0 | 70.0 | 81.7 | 68.0 |
| 27 | $46 \cdot 1$ | 22.5 | 46.5 | 27.6 | 38.0 | $4 \cdot 0$ | 487 | 357 | $85 \cdot 1$ | $70 \cdot 1$ | 88.4 | 59.0 |
| 28 | $42 \cdot 1$ | $24 \cdot 1$ | 37.0 | 30.0 | $35 \cdot 3$ | $21 \cdot 4$ | 55.1 | $27 \cdot 1$ | 75.7 | 56.5 | 82.0 | 67\% |
| 29 | 24.5 | 0.5 | $50 \cdot 1$ | 24.0 | 40.0 | $27 \cdot 1$ | 60.2 | 88.6 | 72.3 | $40 \%$ | $78 \cdot 1$ | 87.0 |
| 30 | 44.0 | 1.5 | .... | .. | 42.6 | 22.0 | 53.6 | 317 | 63.6 | 53.0 | 78.0 | 01.2 |
| 31 | $44 \cdot 3$ | 24.9 | - | .... | $40 \cdot 4$ | 28.1 | $\cdots$ | . $\cdot$ | 60.6 | 59.3 | .... | $\ldots$ |
|  | 85.2 | 22.4 | 31.2 | 8.2 | 33.0 | 13.9 | 60.7 | 31.1 | 71.6 | $49 \cdot 9$ | $78 \cdot 0$ | 55.4 |

and Minimum Temperature, 1880.

| Juls. |  | August. |  | September. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | [Max. | Min. | Max. | Min. | - |
| - | - | - | - | - | $\checkmark$ | $\checkmark$ | $\bigcirc$ | - | - | - | 0 |  |
| 78.9 | 58.5 | 87.2 | 65.6 | 85; | 66.5 | 80.8 | $3 \mathrm{~m}-2$ | $45 \cdot 1$ | 33.2 | 215 | 14.5 | 1 |
| 73.7 | 65.0 | 83.2 | $00 \cdot 1$ | $88 \cdot 3$ | 660 | 68.6 | 41.3 | 36.0 | 21.6 | 18.5 | 6.7 | 2 |
| 78.2 | $57 \cdot 4$ | $70 \cdot 3$ | 55.4 | 835 | 70.0 | $74 \cdot 4$ | 53.8 | $44 \cdot 3$ | 19-2 | 23.4 | 10.8 | 3 |
| $82 \cdot 8$ | 568 | $67 \times 2$ | $30 \cdot 1$ | $88^{8.1}$ | $72 \cdot 4$ | 61.1 | ¢): | 49'4 | 31.5 | 32.5 | 10.8 | 4 |
| 8.8 | 60.5 | 74.5 | 54.4 | . 81.8 | 67.9 | -9.7 | 41.6 | $49 \cdot 1$ | 44.7 | $45 \cdot 1$ | 20.8 | 5 |
| 54.8 | 65.4 | 813 | $46^{7} 7$ | 80.4 | 60.1 | 56.1 | 46.5 | 60.2 | +7\% | 45.6 | 20.8 | 6 |
| 81.7 | 57.4 | 86.4 | $56 \cdot 1$ | 66.1 | 46.7 | $52 \cdot 1$ | 39.9 | 61.6 | 34.2 | $35 \cdot 3$ | 5.0 | 7 |
| $80 \cdot 3$ | 58.5 | 88.8 | 60.7 | 63.1 | 397 | $58 \cdot 1$ | 300 | 42.1 | $27 \cdot 6$ | 180 | 3.6 | 8 |
| 90.5 | 59.6 | $89 \cdot 3$ | 63.7 | $69 \cdot 4$ | 403 | 693 | $39 \cdot 6$ | 46.6 | 27.1. | 17.5 | 37 | 9 |
| 80.3 | 712 | 81.5 | 61.5 | 742 | 51.5 | 73.6 | 44.9 | $49 \cdot 3$ | 32.7 | $0 \cdot 6$ | 11.3 | 10 |
| 820 | 56.4 | 88.5 | 52.0 | 75.6 | 46.5 | 766 | 420 | $50 \cdot 1$ | 38.7 | 240 | 73 | 11 |
| 81.7 | 57.6 | 86.3 | 510 | 81.0 | 47 | 78\% | 42.2 | 45.1 | 36.7 | 24.0 | 150. | 12 |
| 88.4 | 81.9 | $85 \cdot 3$ | 56.3 | 83.6 | 44.7 | 52: | 33.2 | 380 | 28.2 | 345 | $22 \cdot 4$ | 13 |
| $81 \%$ | 577 | 75.0 | 57.6 | $65 \cdot 3$ | 47.0 | 63.6 | $36 \%$ | 31.0 | 20.8 | 34.5 | 239 | 14 |
| 87•1 | 47.2 | 68.2 | 47.4 | 66.4 | 38.6 | 68.8 | 387 | 31.0 | 18.1 | 35.5 | $30 \cdot 4$ | 15 |
| 86.3 | 544 | 731 | 42.7 | 67.8 | 55.4 | 61.1 | 43.2 | 355 | 19.2 | 35.2 | 11.9 | 16 |
| $73 \cdot 4$ | 65.5 | $84 \cdot 4$ | 48.9 | 75.6 | $50 \cdot 5$ | 64.0 | 41.7 | 33.5 | 279 | 13.9 | 103 | 17 |
| $82 \cdot 8$ | 57.6 | 70.4 | 51.0 | 78.2 | 56.5 | 45.1 | 25 | $33 \cdot 4$ | $20 \cdot 3$ | 14.5 | 6.6 | 18 |
| \$4.8 | 58.5 | 82.0 | 64.5 | 70.7 | 47\% | $45 \cdot 6$ | 315 | 27.8 | 14.0 | 21.8 | 13.7 | 19 |
| 76.2 | 65.0 | 78.5 | 51.0 | 20:3080 | .6:3 | $4 \cdot 1$ | $36 \cdot 2$ | 305 | 19.2 | 22.0 | 18\%2 | 20 |
| 76.5 | 55.2 | 812 | 365 | 67 | 53.7 | $60 \cdot 2$ | $35 \cdot 1$ | 30.0 | 12.4 | 20.0 | 50 | 31 |
| 73.0 | 50.7 | $81 \cdot 4$ | 568 | 51.9 | 48.7 | $61 \cdot 2$ | $38 \cdot 5$ | 15.9 | 7.7 | 105 | $3 \cdot 1$ | 22 |
| 80.2 | 57.7 | 8.3 | 63.0 | .9\% | 39\% | $46 \cdot 1$ | 30.4 | 14.0 | $0 \cdot 0$ | 20.6 | 78 | 23 |
| 81.0 | 61.8 | 88:5 | :1\%; | 72 | +2.2 | 385 | 28.2 | 19.5 | 8.6 | 20.5 | $13 \cdot 1$ | 94 |
| 87.8 | 50.0 | $6 \cdot 1$ | H:-1 | -5" | 497 | 370 | 4.2 | 23.0 | $12 \cdot 1$ | $20 \cdot 3$ | 9.8 | 25 |
| 80.2 | 50.6 | 703 | 38.7 | \% 0 | 131.2 | 38.0 | $30 \%$ | 165 | 4.0 | 230 | 144 | 26 |
| 727 | $60 \cdot 1$ | 7.10 | 41.7 | T20 | 486 | 335 | 18.7 | 29 | $3 \cdot 7$ | 26.0 | 14.0 | 97 |
| $71 \cdot 1$ | $49 \cdot 1$ | 87\% | Til 1 | 40.7 | +6:3 | 340 | 21.9 | 20 | 145 | 23.8 | 25 | 28 |
| $70 \cdot 1$ | $46 \%$ | 736 | -70 | 810 | 48.5 | 38.0 | $36 \cdot 1$ | 30.0 | 16.0 | 6.3 | 0.0 | 210 |
| 78.2 | $50 \cdot 1$ | 770 | $4 \cdot 6$ | 51.2 | H1*2 | 12.0 | 317 | 25 | 10.8 | $5 \cdot 3$ | 42 | :010 |
| 87.8 | $50 \cdot 5$ | 79.8 | 51\% | $\cdots$ | . | $42 \cdot 6$ | $\ldots$ | $\ldots$ | .... | 122 | 63 | 31 |
| $81 \cdot 1$ | 58.2 | 790 |  | 68.8 | 49.7 | 55.2 | 36.7 | 35.9 | 21.0 | $23 \cdot 3$ | 8.7 |  |

TABLE LIII.-Huntingdon, Que. Maximum

and Minimum ${ }^{2}$ emperature, 1880.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Mex. | Min. | 令 |
| " | - | - | - | $\checkmark$ | - | - | - | - | - ${ }^{\text {, }}$ | 0 | - |  |
| 72.5 | 57.5 | 87.5 | $60 \cdot 7$ | 81.5 | 65.5 | 59.5 | 30.7 | 4,3 | 29.7 | 17.0 | 127 | 1 |
| $72 \cdot 5$ | 59.5 | $83 \cdot 5$ | 57.7 | 875 | 65.7 | 68.5 | 417 | 33.3 | 277 | 22.2 | 67 | 2 |
| $7 \%$ | 57.5 | 67.5 | 53.7 | 80.5 | 697 | 74.5 | 54.7 | H3 | 20.7 | 22 | 6.7 | 3 |
| 80.5 | 51'7 | $66 \cdot 5$ | 49.7 | $8 \pm 5$ | 700 | 51.5 | 51.7 | $49 \cdot 1$ | 26.7 | 31.2 | 8.7 | 4 |
| $8: 5$ | 567 | 71.5 | $50 \cdot 7$ | 83.5 | 6:7 | 59.5 | 41.7 | $54 \%$ | 4: 7 | $10 \cdot 3$ | 14.7 | 5 |
| 815 | 5977 | $77 \cdot 5$ | 457 | $78 \cdot 5$ | 60.0 | $56 \cdot 5$ | 45.7 | 593 | 12.7 | 29.0 | 23.7 | 6 |
| $75 \%$ | 567 | 825 | 51.7 | 62.5 | 47.7 | 49-1 | 41.7 | 420 | 36.7 | 20.0 | 1.7 | 7 |
| 82.5 | 54.7 | 845 | 56.7 | 59.5 | 39.7 | 54.5 | 26.7 | :3\% | $2: 7$ | 13.0 | 23 | 8 |
| 89.5 | 507 | 84.5 | 60.7 | 66.5 | 39.7 | 67.5 | 37.7 | 43.0 | 26.7 | 16.0 | $3 \cdot 3$ | 9 |
| 80.5 | 71.7 | 78.0 | 60.7 | 71.5 | 507 | 70.5 | $30 \cdot 5$ | 41.3 | 29.7 | $\because 6$ | 11.3 | 10 |
| 81.5 | 58.7 | 77.0 | 52.7 | $72 \cdot 5$ | 43.7 | 73.5 | 39.7 | 474 | 34.7 | 15.0 | $8 \cdot 3$ | 11 |
| 79.0 | 527 | 81.0 | 51.7 | 79.6 | 16.7 | $62 \cdot 5$ | 69.7 | 423 | 34.7 | 223 | 15.7 | 12 |
| 84.5 | 68.7 | 82.0 | $54 \cdot 7$ | $63 \cdot 5$ | 52.7 | $48 \cdot 4$ | $30 \cdot 7$ | 36.0 | 26.7 | 33.2 | 207 | 13 |
| 78.5 | 52.7 | $67 \cdot 5$ | 57.7 | 61.5 | 46.7 | $59 \cdot 5$ | 317 | 205 | 19.7 | 31.0 | 21.7 | 14 |
| 83.5 | $46 \cdot 7$ | 61.5 | $5^{\prime} \cdot 7$ | 61.5 | 387 | 64.5 | 337 | 20.5 | 167 | 330 | 28.7 | 15 |
| 84.5 | 55.7 | $68 \cdot 5$ | 387 | $66 \cdot 5$ | 537 | 56.5 | 39.7 | 32.0 | 157 | 17.3 | 3.7 | 16 |
| 72.5 | 59.7 | $80 \cdot 5$ | 46.7 | 72.5 | 497 | 49.6 | 39.7 | 32.0 | 957 | 133 | 8.7 | 17 |
| 83.5 | 53.7 | $78 \cdot 5$ | 51.7 | 71.5 | 53.7 | 44.6 | 347 | 25.0 | 14.9 | 10.0 | 5.7 | 18 |
| 795 | 52.7 | $80 \cdot 5$ | $63 \cdot 7$ | $60 \cdot 5$ | 43.7 | 43.3 | 33.7 | 26.2 | 97 | 19.0 | 13.7 | 10 |
| 74.5 | 63.7 | $77 \cdot 5$ | 56.7 | $70 \cdot 5$ | 55.7 | 46.4 | 25.7 | 31.0 | 107 | 21.0 | 197 | 20 |
| 78.5 | 527 | $80 \cdot 5$ | 56.7 | $6{ }^{6} \cdot 5$ | 50.7 | 57.5 | 37.7 | 173 | $9 \cdot 7$ | 19.0 | 47 | 21 |
| 77.5 | 52.7 | $80 \cdot 5$ | 54.7 | 52-5 | 43.7 | 413 | 35.7 | 13.0 | 0.3 | 113 | 0.7 | :21 |
| $77 \cdot 5$ | 52.7 | $82 \cdot 5$ | $59 \cdot 7$ | 59.5 | 36.7 | 433 | 37.7 | 12.0 | 23 | 19.0 | 9.7 | 2; |
| 78.5 | 59.7 | $87 \cdot 5$ | 49.7 | 70.5 | 387 | 35.0 | 27.7 | 16.0 | $1 \%$ | 11.0 | 9.7 | 24 |
| $87 \cdot 5$ | 50.7 | 64.5 | 53.7 | 745 | 45.7 | $31 \%$ | 24.7 | 20.0 | 11.7 | $17 \cdot 3$ | 97 | 35 |
| 75.5 | 61.7 | $63 \cdot 5$ | 38.7 | 80.5 | 54.7 | 36.2 | 23.7 | 150 | 23 | 20.0 | 12.7 | 26 |
| 70.5 | 50.7 | 70.5 | 42.0 | 69.5 | 61.7 | 31.2 | 27.7 | 26.0 | $5 \cdot 3$ | 24.0 | 197 | 27 |
| 675 | 51.7 | 87.5 | 65.7 | 57.5 | 5.7 | 34.2 | $20 \% 7$ | $31 \cdot 3$ | 147 | 14.0 | $5 \cdot 3$ | 28 |
| 61.5 | 44.7 | 04.5 | 55.7 | 58.5 | 44.7 | 55.0 | 20.7 | 3.2 | 15.7 | 6.0 | 2.3 | 29 |
| 740 | 46.7 | 72-5 | $45 \cdot 7$ | 5 | 39.7 | 42.0 | $33 \cdot 7$ | 30.0 | 97 | 3.0 | 6.3 | 30 |
| 83.5 | 56.7 | 785 | 44.7 | .... | $\cdots$ | $30 \%$ | 3077 | $\ldots$ | .... | 10.0 | 10.3 | 31 |
| $78 \cdot 1$ | $56 \cdot 1$ | $76 \cdot 6$ | $32 \cdot 8$ | 695 | 50.5 | $51 \cdot 3$ | 85 | $32 \cdot 9$ | 187 | 18.7 | 77 |  |

TABLE LIV.-Montreal. Maximum

and Nintmum Temperature, 1880.

| Juls. |  | August. |  | September. |  | October. |  | Norember. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Mın. | Max. | MIn. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| - | - | - | - | - | - | - | - | - | - | 0 | - |  |
| 70.9 | $58 \cdot 5$ | $82 \cdot 3$ | 66.5 | $79 \cdot 3$ | 62.8 | $60 \cdot 3$ | 36.3 | 48.0 | 31.0 | 21.0 | 82 | 1 |
| 70-5 | $62 \cdot 9$ | 84.0 | 58.6 | 85.0 | 63.4 | 67.0 | 48\% | 390 | 27.4 | 190 | 8.0 | 2 |
| 76.9 | 59.8 | 67.0 | 55.0 | 80.0 | $88 \cdot 9$ | 68.0 | 63.3 | $44^{\circ} 6$ | $26 \cdot 1$ | 22.3 | 11.5 | 3 |
| 80.7 | 60-4 | 63.5 | 55.3 | 83.9 | 71.3 | 61.0 | 46.0 | 54.0 | $30 \cdot 2$ | 27.0 | 15.1 | 4 |
| 79.3 | 85.4 | 72.0 | 55.5 | 84.0 | 67.5 | 60.0 | 41.6 | 510 | 43.5 | 406 | 15.2 | 5 |
| 79.8 | 6.8 | 73.0 | 56.5 | 83.0 | 62.4 | 57.3 | $43 \cdot 5$ | 58.0 | 43.6 | 40.0 | $\because 4.2$ | 6 |
| 76.9 | 80.7 | $78 \cdot \mathrm{~N}$ | (i) 0 | - 670 | $50 \cdot 9$ | 55.9 | 415 | 59.0 | $33 \cdot 4$ | 27.0 | 65 | 7 |
| $78 \cdot 1$ | 61.7 | $80 \cdot 5$ | $50 \cdot 6$ | 64.3 | 45.7 | $5 \cdot 5$ | 37.7 | 40.0 | $30 \cdot 3$ | 150 | 23 | 8 |
| $84 \cdot 8$ | $64 \cdot 1$ | 83.8 | 656 | 707 | $4 \% 3$ | 64.5 | 487 | 39.0 | 2100 | 19.4 | 1.8 | 9 |
| 80.2 | 67.5 | $\pi \%$ | 63.6 | 732 | 533 | 72.0 | 47-2 | 42.5 | 32.1 | 2.0 | $8 \cdot 4$ | 10 |
| 80.9 | 63.9 | 80.8 | 59.8 | 73.0 | 54.4 | $77 \cdot 1$ | $50 \cdot 2$ | 47.0 | 36.4 | 16.7 | $3 \cdot 2$ | 11 |
| 80.0 | $50 \cdot 4$ | 83.2 | 617 | 70.0 | 57.8 | 86.0 | 400 | 44.0 | 33.4 | 24.6 | 10.8 | 12 |
| 84.3 | 65'3 | $81 \cdot 3$ | 61.6 | 64.1 | 53.9 | 57.0 | $35 \cdot 3$ | 39.0 | 20.5 | 329 | 200 | 13 |
| 76.1 | 57.4 | $72 \cdot 4$ | 55.6 | 66.8 | 50-3 | 65.0 | 41.5 | 337 | $22 \cdot 4$ | 31.9 | 254 | 14 |
| 82.8 | 55.7 | 02.7 | 50.4 | 68.0 | 407 | $5 \cdot 7$ | 45.6 | 31.9 | 21.4 | 31.0 | 29.2 | 1. |
| 81.6 | 61.6 | 68.8 | 477 | 087 | $54 \cdot 1$ | 50.9 | 42.8 | 3 S 2 | 20.0 | $30 \cdot 8$ | 12.0 | 16 |
| 737 | 63.5 | 77.2 | 55.4 | 74.2 | 55.6 | 61.0 | 40.7 | $3 \cdot 9$ | 27.8 | 18.0 | 112 | 17 |
| 78.9 | 61.4 | 75.9 | 58.9 | 73.9 | 57.6 | $47 \cdot 1$ | 36.5 | $30 \cdot 1$ | 18.3 | 1.0 | 48 | 18 |
| 83.0 | 61.4 | 73.2 | 60.6 | $71 \cdot 1$ | 51.5 | 43.7 | 347 | 20.5 | 15.5 | 23.7 | 12-5 | 19 |
| $73 \cdot 6$ | 64.3 | $74 \cdot 9$ | 59.6 | 68.0 | 55.7 | 49.9 | $31 \cdot 3$ | 31.1 | 193 | 23.8 | $19 \cdot 2$ | 21 |
| 73.0 | 56.6 | $77 \cdot 9$ | 56.5 | 67.6 | 51.3 | 55.4 | 40.1 | $26 \cdot 1$ | 100 | 21.9 | $14 \cdot 1$ | 21 |
| 753 | 59.6 | 79.0 | 60.6 | 56.2 | 46.0 | 51.2 | $40 \cdot 3$ | 17.0 | 6.2 | 19.6 | 10.0 | 21 |
| $79 \cdot 1$ | $62 \cdot 4$ | $82 \cdot 2$ | 65.4 | 59.0 | $43 \cdot 1$ | $47 \cdot 1$ | 38. | 19.0 | $3 \cdot 3$ | 18.0 | 74 | 2 |
| 70.8 | 61.6 | 86.2 | 60.6 | 697 | 45.3 | $40 \cdot 7$ | $29 \cdot 3$ | 20.0 | 4.4 | $13 \cdot 1$ | 83 | 94 |
| $83 \cdot 4$ | 643 | 64.6 | 50.4 | 74.2 | $49 \cdot 4$ | 42.5 | $2 \cdot 1$ | $27 \cdot 4$ | 12\% | $23 \cdot 4$ | 8:3 | 95 |
| 79.1 | 65.1 | 06.8 | $44 \cdot 8$ | 70.2 | $51 \cdot 3$ | 37.3 | 23 | $18 \cdot 1$ | 65 | 24.6 | $1: 39$ | 34 |
| 720 | 61.4 | 69.0 | 49.1 | 72.0 | 50.5 | 35.0 | 28.3 | 28.6 | 2.2 | $23 \cdot 1$ | 20.4 | 2 |
| 69.0 | $50 \cdot 1$ | 82.0 | 63.4 | 52.0 | 45.5 | 39.0 | 25.3 | 330 | 19.9 | 25.9 | 15 | -s |
| $70 \cdot 3$ | 52.7 | 68.8 | 58.0 | $01 \cdot 3$ | $47 \cdot 2$ | $38 \cdot 7$ | 24.3 | $39 \cdot 1$ | 11.3 | 8.9 | 0.8 | 29 |
| $75 \cdot 2$ | 65.7 | 770 | 532 | $51 \cdot 1$ | 403 | -41.0 | 33.3 | 217 | B't, | 8.5 | 70 | 30 |
| 820 | 62.0 | 77.7 | $52 \cdot 5$ | $\ldots$ | .... | 41.8 | 31.9 | $\cdots$ | $\ldots$ | 11.9 | $8 \cdot 6$ | 31 |
| 78.0 | 61.2 | 757 | 57.5 | 706 | 53.4 | $54 \cdot 1$ | 98.3 | 360 | 21.7 | 22.1 | $9 \cdot 3$ |  |

TABLE LV.-Quebec Observatory. Naximum

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | A |
| - | $\bigcirc$ | $\underline{\square}$ | 9 | 9 | - | - | 0 | - | - | - | - |  |
| 79.5 | 58.5 | 86.0 | 65.5 | 76.0 | 51.0 | 51.5 | 34.0 | 50.0 | 29.0 | 14.5 | - 1.5 | 1 |
| 70.0 | 53.0 | 87.0 | 59.0 | $77 \cdot 0$ | 61.0 | 57.0 | 48.0 | 40.0 | 3) ${ }^{1}$ | 20.0 | 0.5 | 2 |
| 74.0 | 53.0 | 69.0 | 53.0 | 77.0 | 67.0 | 57.0 | 46.0 | 34.0 | 20.0 | 19.5 | 9.5 | 3 |
| 87.0 | 58.0 | 63.0 | 50.0 | 78.5 | 66.0 | 57.0 | 41.0 | 41.0 | 275 | 20.0 | 6.5 | 4 |
| 79.0 | 61.0 | $73 \cdot 0$ | 51.5 | 77.5 | 63.0 | 53.0 | 39.0 | $40^{\circ} 0$ | 33.5 | 30.5 | 9.0 | 5 |
| 88.0 | 62.0 | $71 \cdot 0$ | 48.0 | 80.0 | 57.0 | 57.0 | 39.0 | 54.5 | 41.0 | 34.5 | 20.0 | 6 |
| 80.0 | 50.0 | 73.0 | 52.0 | 67.0 | 41.0 | 53.0 | 38.0 | 560 | 31.0 | 22.5 | 4.0 | 7 |
| 70.0 | 53.0 | 64.0 | 53.0 | 63.0 | 46.0 | 56.0 | 32.0 | $40 \cdot 0$ | 28.0 | $9 \cdot 0$ | - 25 | 8 |
| 83.0 | 57.0 | $77 \cdot 0$ | 55.0 | 61.0 | 40.0 | 56.0 | 41.5 | 38.0 | 26.5 | 14.5 | - 15 | 9 |
| 86.0 | 56.0 | 66.0 | 55.0 | 69.0 | 46.5 | 64.0 | 41.0 | 420 | 29.0 | 14.0 | 4.0 | 10 |
| 77.0 | 53.0 | 76.0 | 49.5 | 69.0 | 42.5 | 65.0 | 45.0 | 38.0 | 30.0 | 15.0 | 4.5 | 11 |
| 78.0 | 52.0 | 80.0 | 52.5 | 71.0 | 49.0 | 65.0 | 37.0 | 40.0 | 31.0 | 24.0 | 3.5 | 12 |
| $85 \cdot 0$ | 58.0 | $79 \cdot 5$ | 53.5 | 61.0 | $52 \cdot$ | 52.0 | 32.0 | 37.0 | 26.0 | 275 | 18.0 | 13 |
| 80.0 | 51.0 | 69.0 | 50.0 | 62.0 | 48.0 | 53.0 | 31.0 | 31.0 | 22.0 | 30.5 | 23.5 | 14 |
| 82.0 | 50.0 | 65.0 | 42.0 | 61.0 | 48.0 | 51.5 | 36.0 | 31.0 | 19.0 | 33.0 | 23.0 | 15 |
| 78.0 | 55.0 | 69.0 | 440 | 56.0 | 50.5 | 68.0 | 41.5 | 34.0 | 25.0 | 31.0 | 13.5 | 16 |
| 88.0 | 62.0 | 74.0 | 52.0 | 70.0 | 48.0 | 57.0 | $40 \cdot 0$ | 35.0 | 255 | 23.0 | 9.5 | 17 |
| 79.0 | 59.5 | 78.0 | 51.0 | 68.0 | 47.0 | 45.5 | 34.0 | 32.0 | 16.0 | 15.0 | 5.0 | 18 |
| 83.0 | 57.0 | 69.5 | 57.0 | 65.0 | 44.5 | 40.5 | 31.0 | 230 | 11.0 | $29 \cdot 5$ | 11.0 | 19 |
| 79.0 | 62.0 | 71.0 | 54.5 | 64.0 | 48.5 | 42.0 | 30.0 | 29.0 | 150 | 24.0 | 10.0 | 20 |
| 80.0 | 60.0 | 71.5 | 49.0 | $63 \cdot 0$ | 50.0 | 57.0 | 34.0 | 29:0 | 7.0 | 23.5 | 14.0 | 21 |
| 77.0 | 53.0 | 750 | 56.0 | 56.0 | 40.0 | 49.0 | 430 | 18.0 | 3.0 | 20.0 | $7 \cdot 5$ | 22 |
| 78.0 | 61.5 | 79.0 | 59.0 | 57.0 | 36.0 | 57.0 | 40.0 | 16.0 | 3.0 | 140 | 4.0 | 23 |
| 80.0 | 59.5 | 75.0 | 56.0 | 57.0 | 37.0 | 44.0 | 30.0 | 12.0 | 2.0 | 21.0 | 4.0 | 24 |
| 82.0 | 59.5 | 62.0 | 44.0 | 58.0 | 40.0 | 41.0 | 28.5 | 15.0 | 3.0 | 23.0 | 16.0 | 25 |
| 850 | 62.0 | 64.0 | 39.0 | 58.0 | 44.0 | 37.0 | 23.5 | 12.5 | 1.0 | 23.5 | 15.0 | 26 |
| 77.0 | 60.0 | 68.0 | 43.0 | 69.0 | 46.0 | 40.0 | 23.0 | 16.0 | 0.0 | 27.0 | 21.0 | 27 |
| 69.0 | 50.0 | 76.5 | 59.0 | 52.0 | 42.0 | 38.0 | 23.0 | 25.0 | $10 \%$ | 30.0 | 2.0 | 28 |
| 67.0 | 53.0 | 70.5 | 53.0 | 53.0 | 42.0 | 38.0 | 24.0 | 31.0 | 7.0 | 7.0 | 3.0 | 29 |
| 740 | 53.0 | $67 \cdot 0$ | 47.0 | 55.0 | 42.0 | 40.0 | 30.0 | 12.0 | 4.0 | 8.0 | 75 | 30 |
| 83.0 | 59.5 | 72.0 | 45.0 | $\cdots$ | *..' | 45.0 | 30.0 | $\cdots$ | ** | 14.0 | 10.0 | 31 |
| $79 \times 3$ | 567 | 723 | 51.6 | 65.0 | 482 | 512 | 35.2 | 31-9 | 18.6 | 21.4 | 6.9 |  |

TABLE LVI.-Quebec Citadel. Maximuin

| 药 | Jannary. |  | February. |  | March. |  | April. |  | Mas. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | - | - | - | - | - | - | - | - | - | - |
| 1 | 10.0 | 3.0 | $10 \cdot 0$ | 12.2 | 23.0 | 2.9 | 36.0 | 20.0 | 41.0 | 20.0 | 69.0 | 467 |
| 2 | 37.0 | $5 \cdot 3$ | 4.0 | 19.2 | 18.0 | 2.0 | 48.0 | 180 | 52.0 | 30.0 | $65^{\circ} 0$ | $43 \cdot 2$ |
| 3 | $22 \cdot 0$ | 3.0 | 11.0 | 13.2 | 290 | 93 | 44.0 | 31.0 | 62.0 | 390 | 650 | 46.2 |
| 4 | $20 \cdot 0$ | 83 | $16^{\circ} 0$ | $11 \cdot 3$ | 36.0 | 21.0 | 48.0 | 31.5 | 56.0 | 35.0 | 66.0 | $49 \cdot 2$ |
| 5 | 30.0 | $7 \cdot 3$ | $19 \cdot 2$ | $6 \cdot 3$ | 30.0 | 19.0 | 46.0 | 33.0 | 54.0 | 36.0 | 730 | 46.2 |
| 6 | 24.0 | $0 \cdot 0$ | 20.0 | $8 \cdot 3$ | 19.0 | $1+0$ | 35.0 | 28.0 | 40.0 | 330 | 720 | 58.2 |
| 7 | 20.0 | 103 | 1.0 | 3.0 | 31.0 | $11 \cdot 3$ | 35.0 | 18.5 | 56.5 | 31.5 | 69.0 | 57.2 |
| 8 | 20.2 | 10.3 | 26.0 | 13 | 33.0 | 2.0 | 33.0 | 113 | 47.0 | 36.0 | 650 | 52.7 |
| 9 | 81.0 | 18.0 | 24.2 | 12.4 | $7 \cdot 0$ | 120 | 40.0 | 88 | 54.0 | 37.0 | 750 | 53.2 |
| 10 | 38.0 | 73 | 50 | 18.2 | 220 | $4 \cdot 3$ | 42.0 | 31.0 | 69.0 | 38.0 | 790 | 53.2 |
| 11 | 19.0 | 15 | 140 | 4.0 | 6.0 | 11.2 | 35.0 | 205 | 69.0 | 40.0 | 81.5 | 57.7 |
| 12 | 35.0 | 17.0 | 300 | 11.0 | 19.0 | $0 \cdot 0$ | 270 | 6.8 | 59.0 | 43.0 | 75.0 | 60.2 |
| 13 | 21.0 | $3 \cdot 3$ | 37.5 | 26.0 | 14.0 | 70 | 37.0 | 16.8 | 45.0 | 38.0 | $72 \cdot 0$ | 51.2 |
| 14 | 12.0 | 7.0 | 27.0) | 17.0 | 14.0 | $5 \cdot 3$ | 37.0 | 18.0 | 49.0 | 34.0 | 65.0 | 52.2 |
| 15 | 25.0 | 0.8 | 22.0 | 17.0 | 24.0 | 0.0 | 45.0 | 24.5 | 60.0 | 35.5 | 74.0 | $50 \cdot 2$ |
| 16 | 23.0 | (6:3 | 250 | 150 | 24.0 | 6.3 | 40.0 | 290 | 62.0 | 42.0 | 74.0 | 55.2 |
| 17 | 30.0 | 20.0 | 25.0 | 63 | 29.0 | 13.0 | 360 | 25.0 | 62.0 | 480 | 76.5 | 51.2 |
| 18 | $35 \cdot 0$ | $26 \cdot 1$ | 44.0 | 22.5 | 220 | 4.0 | 370 | 24.0 | 55.0 | 41.0 | 84.0 | 53.2 |
| 19 | $33 \cdot 0$ | 25.1 | $1: 0$ | 18 | 350 | 20.0 | 52.0 | 25.0 | 70.0 | 43.0 | 835 | 60.2 |
| 20 | $30 \cdot 0$ | 3.3 | 14.0 | $2: 5$ | 360 | 21.0 | 49.0 | $39 \cdot 5$ | 780 | 55.0 | 76.0 | 60.2 |
| 21 | 12.0 | 3.3 | 21.0 | 43 | 86.0 | 21.0 | 53.5 | $30 \cdot 5$ | 66.0 | 450 | 67.0 | 47.2 |
| 22 | 19.0 | $2 \cdot 8$ | 21.0 | $8 \cdot 3$ | 350 | 13.0 | 52.0 | 34.0 | 50.0 | 43.0 | 650 | $50 \cdot 2$ |
| 23 | 23.0 | 16.0 | 250 | 16.0 | 32.0 | 150 | 40.0 | 24.0 | 75.0 | 45.5 | 70.0 | 52.2 |
| 24 | 20.0 | 14.0 | 23.0 | $3 \cdot 0$ | 270 | 16.0 | 44.0 | 24.0 | 75.0 | 47.0 | 65-0 | 54.7 |
| 25 | 20.0 | 3.3 | $\underline{29}$ | 2.0 | 26.0 | 6.3 | 50.0 | 26.0 | 81.5 | 44.0 | 80.0 | 56.7 |
| 26 | 29.0 | 18.0 | 41.0 | 28.0 | 310 | 6.3 | 43.0 | 33.5 | 77.0 | 47.0 | 82.0 | $50 \cdot 2$ |
| 27 | $39 \cdot 0$ | $24 \cdot 1$ | 38.0 | 20.0 | $30 \cdot 5$ | 3.8 | 46.0 | 31.0 | 85.0 | 61.0 | 85.0 | 58.2 |
| 28 | 37.0 | 17.0 | 27.0 | 14.0 | 250 | 16.0 | 17.0 | 22.0 | 75.0 | 57.0 | 77.0 | 67.0 |
| 20 | 18.0 | $0 \cdot 1$ | 36.5 | 190 | 30.0 | 24.0 | 53.0 | 30.0 | 67.0 | 42.0 | 81.0 | 67.0 |
| 30 | 26.0 | 9.0 | . $\cdot \cdot$ | .... | 39.0 | $17 \cdot 0$ | 570 | 83.0 | 64.0 | 46.5 | 73.0 | 60.2 |
| -1 | 34.0 | 16.0 | .... | .... | 340 | $12 \cdot 3$ | . $\cdot$. | $\ldots$ | 81.0 | 48.0 | -••• | . $\cdot$. |
|  | 26.5 | $8 \cdot 6$ | 24.2 | 5.8 | $20 \cdot 1$ | $8 \cdot 4$ | 43.1 | 24.9 | 81.8 | 41.3 | $73 \cdot 5$ | 54:3 |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | October. ${ }^{\text {' }}$ |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| - | - | - | $\checkmark$ | - | $\bigcirc$ | - | 0 | 9 | - | - | 0 |  |
| 76.0 | 59.0 | 80.0 | 57.0 | 75.0 | $50 \cdot 5$ | 55.0 | 38.0 | 42.0 | 35.0 | 141 | 1.5 | 1 |
| 67.0 | 56.0 | 78.0 | 55.5 | 77.0 | 60.0 | 63.0 | 42.0 | 39.0 | 30.0 | 17.9 | 1.8 | 2 |
| 73.0 | 51.5 | 79.0 | 54.0 | 74.0 | 61.5 | 55.0 | 46.0 | 38.0 | 29.0 | 18.5 | 9.7 | 3 |
| 750 | 560 | 83.0 | 56.7 | 73.0 | 59.0 | 60.0 | 49.0 | 40.0 | 30.0 | 20.2 | 7.6 | 4 |
| 78.0 | 02.8 | 77.0 | 51.5 | $78 \cdot 0$ | 57.5 | 56.0 | 39.0 | 43.0 | 35.0 | 28.9 | 10.0 | 5 |
| 79.0 | 6000 | 81.0 | 57.0 | 775 | 56.0 | 55.0 | 40.0 | 53.0 | 43.0 | 34-2 | 20.4 | 6 |
| 76.0 | 59.0 | 74.0 | 51.8 | 6;0 | $5 \%$ | 6) 5 | 40.0 | 53.0 | 32.0 | 23.5 | 50 | 7 |
| 77.0 | 60.0 | 54.5 | 550 | 59.5 | 46.2 | $59 \cdot 3$ | 34.0 | 350 | 28.0 | $10 \cdot 0$ | 2.4 | 8 |
| 74.0 | 530 | 56.0 | 53.8 | 620 | 51.0 | 55.5 | 410 | 38.0 | 25.0 | 14.8 | 1.0 | 9. |
| 78.0 | 54.0 | 70.0 | 51.5 | 64.0 | 52.0 | 6;0 | 435 | 40.0 | 28.0 | 14.7 | 14 | 10 |
| $80 \cdot 0$ | 58.3 | 750 | 52.0 | 70.0 | 450 | 68.0 | 45.0 | 36.0 | 30.0 | 78 | 43 | 11 |
| 74.0 | 61.0 | $79 \cdot 3$ | 565 | $71 \cdot 5$ | 47.0 | 83.5 | 38.5 | 37.0 | 31.0 | 199 | $3 \cdot 6$ | 12 |
| 81.0 | 62.0 | 76.0 | 55.0 | $6 \pm 0$ | 50.0 | 55.0 | 33.0 | 37.0 | 28.0 | 27.0 | 17.6 | 13 |
| 83.0 | 55.7 | 59.5 | 50.0 | 61.0 | 50.5 | $5 \pm 5$ | 32.8 | 30.0 | 22.0 | 29.5 | 23.5 | 14 |
| $82 \cdot 0$ | 59.0 | 65.0 | 51.0 | 07.5 | 490 | 60.0 | 38.0 | 28.0 | 17.0 | $32 \cdot 3$ | 25.7 | 15 |
| 78.0 | 50.0 | 66.5 | 56.0 | 76.0 | 52.0 | 59.0 | 39.0 | 32.0 | 240 | 30.0 | 13.3. | 16 |
| 750 | 54.0 | 74.0 | 54.5 | $76 \cdot 5$ | 50.0 | 59.5 | 40.0 | 35.0 | 24.0 | $17 \cdot 4$ | $9 \cdot 8$ | 17 |
| 79.0 | 50.7 | $77 \cdot 0$ | 58.0 | 69.0 | 54.5 | 54.5 | 36.0 | 32.0 | 16.0 | 14.6 | 6.8 | 18 |
| 81.0 | 55.0 | 73.0 | 51.0 | 74.0 | 48.0 | 54.0 | 32.0 | 27.0 | 8.0 | 306 | $10 \cdot 0$ | 19 |
| 83.0 | $50 \cdot 4$ | 67.0 | 48.5 | 59.0 | 50.8 | 48.0 | 31.0 | 29.5 | $15 \cdot 6$ | $22 \cdot 9$ | 11.3 | 20 |
| 79.0 | 61.0 | $70 \cdot 4$ | 550 | 61.0 | $44 \cdot 2$ | 68.0 | 34.0 | 18.2 | $8 \cdot 5$ | 21.6 | 15.1 | 21 |
| 79.0 | 55.0 | 76.5 | 57.5 | 53.0 | 44.0 | 63.0 | 37.0 | 12.4 | $3 \cdot 8$ | $20 \cdot 4$ | 8.2 | 22 |
| 80.0 | 52.0 | 77.0 | 587 | 59.8 | 41.0 | 650 | 34.0 | 11.5 | $2 \cdot 2$ | 13.6 | 6.2 | 23 |
| 82.0 | 57.0 | 74.0 | 50.7 | 69.0 | 57.5 | $89 \cdot 0$ | $32 \cdot 8$ | 113 | 1.5 | 21)9 | $5 \cdot 4$ | 24 |
| 83.0 | 59.5 | 70.0 | 49.0 | 730 | 52.0 | 58.0 | 41.0 | 20.6 | $5 \cdot 7$ | 21.4 | 157 | 25 |
| $84.0{ }^{\circ}$ | 502 | 64.5 | 43.0 | 70.0 | 48.0 | 38.0 | 26.0 | $12 \cdot 5$ | 233 | 27.0 | 158 | 26 |
| 75.0 | 51.0 | 65.0 | $49^{\circ} 0$ | 69.0 | 44.5 | 39.5 | 270 | 16.5 | 0.3 | 28.5 | 7.7 | 27 |
| 75.0 | 59.0 | 67.5 | 46.0 | 74.5 | 500 | 35.0 | 250 | 26.0 | 9.8 | 26.5 | - 3.0 | 28 |
| 80.0 | 61.0 | $68^{\circ} 0$ | 45.0 | 550 | 41.0 | 360 | $23 \cdot 5$ | $30 \cdot 6$ | $0 \cdot 5$ | 8.0 | - 36 | 29 |
| 75.0 | 57.0 | 69.2 | 50.0 | 59.0 | 460 | 39.0 | :3.0 | $12 \cdot 3$ | 4.7 | $5 \cdot 0$ | 8.5 | 30 |
| 81.0 | $59 \cdot 4$ | 73.0 | 47.5 | $\cdots$ | $\cdots$ | 450 | $27 \cdot 8$ | .... | $\cdots$ | 20 | $10 \cdot 7$ | 31. |
| 78.8 | 59.5 | 72.6 | $52 \cdot 6$ | $68 \cdot 1$ | 50.3 | $52 \cdot 3$ | 35.9 | $30 \cdot 4$ | 19.0 | $20 \cdot 1$ | - 6.8 |  |

TABLE LVII.-Cranbourne, Que. Maximum

| $\stackrel{\dot{A}}{\Delta}$ | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | M1n. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | $\bullet$ | - | - | - | $\bigcirc$ | - | - | - | - | - |
| 1 | 8.0 | $3 \cdot 5$ | 18.0 | 17.9 | 22.0 | 0.6 | 42.0 | 24-2 | $35 \cdot 0$ | 16.0 | $65 \cdot 8$ | $49 \cdot 8$ |
| 2 | 34.0 | 8.8 | 60 | 25.6 | 16.1 | $2 \cdot 4$ | 53.8 | 10.0 | $45 \cdot 8$ | 33.0 | 62.8 | $38 \cdot 9$ |
| 3 | 21.0 | 5.0 | 4.0 | $25 \cdot 6$ | 419 | 6.8 | 40.0 | 39.0 | $59 \cdot 8$ | $35^{\circ} 0$ | 66.8 | $37 \cdot 9$ |
| 4 | 350 | 78 | 14.0 | 1.6 | 38.9 | 34.0 | 55.8 | 38.0 | 56.8 | 34.0 | 63.8 | 45.9 |
| 5 | 31.0 | $2 \cdot 4$ | 19.0 | 1.8 | 35-9 | 14.8 | 49.8 | 30.0 | 768 | 39.0 | 73.8 | $37 \cdot 9$ |
| 6 | 30.0 | $4 \cdot 5$ | 19.0 | 6.7 | 24.0 | 1.6 | 35.0 | 17.0 | 59.8 | 31.0 | 72.8 | 53.7 |
| 7 | 32.0 | 10.8 | 14.0 | $5 \cdot 5$ | 30.0 | 4.6 | 26.0 | 5.8 | 53.8 | 29.0 | 68.8 | 547 |
| 8 | 33.0 | 15.9 | 22.0 | 3.5 | 28.0 | 6.6 | 28.0 | $5 \cdot 8$ | 61.8 | 29.0 | 61.8 | 49.7 |
| 9 | 37.0 | 14.9 | 23.0 | $14 \cdot 9$ | 19.0 | 18.2 | 36.0 | 37 | 76.8 | $30^{\circ} 0$ | $75 \cdot 8$ | $43 \cdot 9$ |
| 10 | 37.0 | 7.8 | 8.0 | 25.6 | 18.0 | 1.6 | 380 | 32.0 | $78 \cdot 8$ | 48.8 | 77.8 | 497 |
| 11 | 25.0 | 6.4 | 24.0 | 2.4 | 11.8 | $20 \cdot 2$ | 84.0 | 12.8 | 66.8 | $49 \cdot 7$ | 79.8 | 517 |
| 12 | 38.0 | 17.2 | 40.0 | 12.9 | 138 | $5 \cdot 5$ | 21.0 | $0 \cdot 6$ | $54 \cdot 8$ | 40.9 | $70 \cdot 8$ | 56.7 |
| 13 | $17 \cdot 1$ | 6.4 | 40.0 | 29.0 | 118 | 9.6 | 33.0 | 18.0 | 43.9 | 32.0 | 65.8 | 468 |
| 14 | $16 \cdot 1$ | 12.7 | 31.0 | 19.0 | 23.0 | 0.4 | 38.0 | 11.8 | 46.9 | 29.0 | 66.8 | 497 |
| 15 | $15 \cdot 1$ | $8 \cdot 8$ | 25.0 | 14.0 | 21.0 | 2.4 | 52.8 | 27.0 | 57.8 | 30.0 | 71.8 | 44.8 |
| 16 | 27.0 | 1.6 | 25.0 | 14.0 | 25.0 | 0.4 | 47.8 | 26.0 | 61.8 | 41.9 | 70.8 | 44.8 |
| 17 | 37.0 | 27.0 | 330 | 2.7 | 25.0 | 8.8 | 35.0 | 25.0 | $55 \cdot 8$ | 41.9 | 75.8 | 41.0 |
| 18 | 35.0 | 30.0 | 57.8 | 29.0 | $24 \cdot 0$ | 7.6 | 40.0 | 20.0 | 64.8 | 32.0 | 84.8 | 430 |
| 19 | 31.0 | 25.0 | 41.9 | 2.4 | $36 \cdot 9$ | 20.0 | 52.8 | 22.0 | 63.8 | 47.8 | 85.8 | 55.8 |
| 20 | 29.0 | 47 | 13.0 | 5.5 | $38 \cdot 9$ | 12.8 | 46.8 | 37.0 | 77.8 | 53.7 | 76.8 | 65.7 |
| 21 | 10.0 | 37 | 21.0 | $3 \cdot 7$ | 34.0 | 14.9 | 548 | 33.0 | 77.8 | 46.8 | 59.8 | 46.8 |
| 22 | 21.0 | 3.7 | 24.0 | 7.8 | 310 | 8.8 | 66.8 | 34.0 | 59.8 | 44.9 | 58.8 | 43.9 |
| 23 | 29.0 | 6.7 | 315 | 78 | 35.0 | 9.8 | 56.8 | 22.0 | 71.8 | 537 | 88.8 | 47.8 |
| 24 | 29.0 | 11.8 | 23.0 | 0.4 | 28.0 | 12.9 | 42.9 | 18.0 | 72.8 | 53.7 | 77.8 | $44 \cdot 8$ |
| 25 | 22.0 | 0.4 | $35 \cdot 0$ | 0.4 | 24.0 | 4:7 | 51.8 | 32.0 | 82.8 | 46.7 | $89 \cdot 8$ | 56.8 |
| 26 | 23.0 | 21.0 | 38.0 | 31.0 | 28.0 | 65 | 45.9 | 36.0 | 86.8 | 53.7 | 798 | 62.7 |
| 27 | 38.0 | 22.0 | 39.0 | 24.0 | 38.0 | 0.6 | 43.9 | 30.0 | 84.8 | $64 \cdot 8$ | 81.8 | 517 |
| 28 | 38.0 | 15.0 | 40.8 | 22.0 | 32.0 | 11.8 | $43 \cdot 9$ | 17.0 | 72.8 | $52 \cdot 7$ | 798 | $60 \cdot 8$ |
| 29 | 15.0 | 10.6 | 45.9 | 21.0 | 37.0 | 23.0 | $55 \cdot 8$ | 27.0 | 62.8 | 36.0 | 79.8 | 61.8 |
| 30 | 33.0 | 18.9 | -•• | $\cdots$ | 33.0 | 10.8 | 53.8 | 29.0 | 63.8 | 33.0 | 67.8 | 657 |
| 31 | 34.0 | 17.0 | .... | . $\cdot$. | 40.0 | 18.0 | $\cdots$ | . $\cdot$. | 60.8 | 448 | .... | - . ${ }^{\text {c }}$ |
|  | 28.1 | 68 | 26.6 | 29 | 28.0 | 4.0 | 437 | $23 \cdot 1$ | 650 | $40 \cdot 9$ | $72 \cdot 8$ | $49 \cdot 2$ |

and Minimum Temperature, 1880. '

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | A |
| - | - | - | - | $\mathcal{E}$ | - | $\bigcirc$ | 8 | 2 | $\bigcirc$ | $\underline{9}$ | - |  |
| $74 \cdot 8$ | 55.7 | $83 \cdot 3$ | $63 \cdot 8$ | $75 \cdot 8$ | 49.7 | 48.8 | 34.0 | 39.9 | 28.0 | 12.1 | 4.5 | 1 |
| $69 \cdot 8$ | 55.7 | 83.8 | 63.8 | 83.8 | 61.8 | 59.8 | 41.9 | 34.0 | 28.0 | $13 \cdot 1$ | $4 \cdot 5$ | 2 |
| $75 \cdot 8$ | $49 \cdot 7$ | 63.8 | 507 | $74 \cdot 3$ | 650 | 59.8 | 41.9 | $37 \cdot 9$ | 26.0 | 14.9 | 67 | 3 |
| $82 \cdot 8$ | 487 | 58.8 | 43.9 | 78.8 | 65.8 | 58.3 | 55.7 | $50 \cdot 8$ | 24.0 | $17 \cdot 4$ | 4.7 | 4 |
| $79 \cdot 8$ | 577 | 66.8 | 469 | $76 \cdot 8$ | $62 \cdot 8$ | 54.8 | 37.0 | 42.9 | 33.0 | 27.0 | $8 \cdot 8$ | 5 |
| 81-8 | 617 | 71.8 | $44 \cdot 9$ | 77.8 | $55 \cdot 8$ | 52.8 | 34.0 | 55.8 | 42.9 | 29.0 | 22.0 | 6 |
| $78 \cdot 8$ | 52.7 | $70 \cdot 8$ | 54.7 | 60.3 | $44 \cdot 9$ | 46.3 | 37.0 | 56.8 | $32 \cdot 0$ | 22.0 | 4.7 | 7 |
| 69.8 | 467 | 66.8 | 51.7 | 61.8 | 41.9 | 48.8 | 32.0 | 32.0 | 26.0 | 10.1 | - 0.4 | 8 |
| $67 \cdot 8$ | 51.7 | 79.8 | 54.7 | 66.8 | $44 \cdot 9$ | 59.8 | 39.9 | 340 | 220 | $14 \cdot 1$ | 45 | 9 |
| 79.8 | 61.8 | 77.8 | 537 | $58 \cdot 3$ | $45 \cdot 9$ | $69 \cdot 8$ | 39.9 | 39.9 | 28.0 | $14 \cdot 1$ | 3.5 | 10 |
| 72.8 | 497 | 77.8 | 42.9 | 68.8 | 37.0 | 59.8 | 557 | $36 \cdot 9$ | 27.0 | $8 \cdot 1$ | 4.5 | 11 |
| 76.8 | 43.9 | 78.8 | 497 | 74.8 | 43.9 | 61.8 | 359 | 35.0 | 32.0 | $19 \cdot 1$ | 78 | 12 |
| $80 \cdot 8$ | $54 \cdot 7$ | 75.8 | 497 | 64.8 | 497 | 41.8 | 30.0 | 33.0 | 24.0 | 29.0 | 18.0 |  |
| $73 \cdot 8$ | 41.9 | 65.8 | 51.7 | 57.8 | 49.7 | 53.8 | 30.0 | 27.0 | 19.0 | 30.0 | 26.0 | 14 |
| 77.8 | 42.9 | 56.8 | 39.9 | 59.8 | 468 | 51.8 | 33.0 | 28.0 | 16.0 | $32 \cdot 0$ | 28.0 | 15 |
| 81.8 | 49.7 | 62.8 | 41.9 | 54.3 | 497 | 62.8 | 46.9 | 31.0 | 18.0 | 28.0 | 13.9 | 18 |
| 71.8 | 56.7 | 74.8 | 47.8 | 66.8 | 47.8 | 585 | 45.8 | 32.0 | 16.0 | $14 \cdot 1$ | 9.8 | 17 |
| 76.8 | 57.8 | 76.8 | 459 | 64.8 | 46.8 | 46.8 | 33.0 | 30.0 | 15.0 | $13 \cdot 1$ | 3.7 | 18 |
| 82.8 | 517 | 67.8 | 547 | 63.8 | 39.9 | 36.9 | 30.0 | 22.0 | $2 \cdot 7$ | 27.0 | 6.7 | 19 |
| $82 \cdot 8$ | 58.8 | 69.8 | 527 | 60.8 | 45.8 | - 40.9 | 29.0 | 28.0 | 78 | 250 | 18.0 | 20 |
| 74.8 | 557 | $75 \cdot 8$ | $45 \cdot 9$ | 61.8 | 507 | 51.8 | 32.0 | 26.0 | 68 | 25.0 | 0.4 | 21 |
| 778 | 478 | 728 | 53.7 | 51.8 | $40 \cdot 9$ | 48.8 | $42 \cdot 9$ | $8 \cdot 1$ | 0.6 | 22.0 | $2 \cdot 6$ | 22 |
| $75 \cdot 8$ | 58.8 | 778 | 56.8 | 48.8 | 35.0 | $48 \cdot 8$ | 43.9 | $6 \cdot 1$ | - 1.4 | $15 \cdot 1$ | 6.7 | 23 |
| 71.8 | 57.8 | 79.8 | 52.8 | 48.3 | 29\% | $43 \cdot 9$ | 27.0 | 10.0 | - 1.4 | 26.0 | 5.7 | 24 |
| $83 \cdot 3$ | 517 | $61 \cdot 3$ | 40.9 | 55.8 | 44.9 | 32.0 | 24.0 | $18 \cdot 1$ | - 4.9 | 20.0 | 97 | 25 |
| 82.8 | $58 \cdot 8$ | 64.8 | $34 \cdot 0$ | $69 \cdot 8$ | 46.8 | 33.0 | 27.0 | $12 \cdot 1$ | - 6.4 | 25.0 | 14.7 | 26 |
| 72.8 | 58.8 | 69.8 | 39.9 | $67 \cdot 8$ | 537 | 34.0 | $25^{\circ} 0$ | $17 \cdot 1$ | $5 \cdot 4$ | 24.0 | 19.0 | 27 |
| 65.8 | $50 \cdot 7$ | 72.8 | $60 \cdot 8$ | $54 \cdot 3$ | $43 \cdot 9$ | 31.5 | 19.0 | 250 | 12.0 | 23.0 | $-3.5$ | 28 |
| $62 \cdot 3$ | 43.9 | $67 \cdot 8$ | 517 | 65.3 | 43.9 | 37.0 | 15.0 | 30.0 | 128 | $6 \cdot 1$ | - 65 | 29 |
| 71.8 | $42 \cdot 9$ | 67.8 | 41.9 | $49 \cdot 8$ | 39.9 | $39 \cdot 0$ | 31.0 | $13 \cdot 1$ | 76 | $3 \cdot 1$ | $-10.6$ | 30 |
| 83.3 | 657 | 75.8 | 38.9 | .... | .... | 42-9 | 31.0 | .... | . $\cdot$. | $3 \cdot 1$ | $12 \cdot 7$ | 31 |
| $76 \cdot 1$ | 527 | 71.5 | $49 \cdot 1$ | 63.5 | 47•5 | $48 \cdot 9$ | 34.8 | 29.8 | 16-1 | $19 \cdot 1$ | $5 \cdot 9$ |  |

TABLE LVIII.-Father Point, que. Maximum

| $\dot{\dot{x}}$ | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | 0 | - | - | - | - | $\bigcirc$ | - | ! | - | 8 | - |
| 1 | $9 \cdot 6$ | 12.4 | 12.6 | 11.8 | 189 | $5 \cdot 4$ | 30.4 | 10.0 | 35.0 | 120 | 63.1 | 41.4 |
| 2 | 35.0 | 8.1 | 0.2 | $14 \cdot 4$ | 193 | 0.8 | $39 \cdot 9$ | 11.8 | 41.9 | $20 \cdot 6$ | 582 | 38.6 |
| 3 | 10.9 | $0 \cdot 4$ | 11.8 | $19 \cdot 4$ | 275 | 11.5 | 41.9 | $22 \cdot 1$ | 61.6 | 37.8 | 498 | 38.6 |
| 4 | $33 \cdot 5$ | 1.5 | $16 \%$ | 89 | 28.0 | 15.9 | $45 \cdot 9$ | 33.0 | 48.7 | $34 \cdot 4$ | 54.8 | 38.6 |
| 5 | 31.3 | 8.8 | 16.3 | $7 \cdot 9$ | 25.9 | 125 | 437 | 30.0 | 40.0 | 35.0 | 597 | 38.6 |
| 6 | 30.0 | $9 \cdot 3$ | 18.3 | 54 | 2i-9 | $9 \cdot 0$ | 36.0 | 21.1 | 41.0 | 29.5 | 56.7 | $46 \cdot 1$ |
| 7 | $30 \cdot 0$ | $15 \cdot 5$ | 11.3 | $8 \cdot 3$ | 30.0 | $4 \cdot 9$ | 26.9 | 10.0 | 46.3 | 287 | 63.0 | 45.1 |
| 8 | $28 \cdot 1$ | $10 \cdot 3$ | 18.8 | $3 \cdot 8$ | 28.0 | $9 \cdot 4$ | 23.0 | 11.5 | 45.10 | 31.5 | 86.9 | $45 \cdot 2$ |
| 9 | 28.2 | 8.0 | 19.3 | 4.6 | 6:1 | 175 | 347 | $4 \cdot 9$ | 44.8 | 35.0 | 55.0 | $43 \cdot 1$ |
| 10 | 35.5 | 9.5 | 1.0 | $20 \cdot 5$ | 18.5 | 0.8 | 38.9 | 32.0 | 48.6 | 36.] | 61.9 | 41.4 |
| 11 | 11.2 | 1.2 | 16.9 | 11.9 | $3 \cdot 4$ | $15 \cdot 5$ | 35.0 | 14.6 | 56.8 | $35 \cdot 5$ | 62.7 | $51 \cdot 6$ |
| 12 | 25.9 | $9 \cdot 8$ | 28.0 | 10.0 | $10 \cdot 3$ | $15 \cdot 9$ | 1979 | 7.6 | $49 \cdot 8$ | $32 \cdot 4$ | 66.7 | 51.2 |
| 13 | $1 \because 3$ | $2 \cdot 5$ | 28.0 | 135 | 11.3 | $2 \cdot 0$ | 28.9 | 79 | $44 \cdot 9$ | 36.0 | 62.7 | 48.5 |
| 14 | 77 | 14.9 | $19 \cdot 4$ | 3.0 | 7.9 | $9 \cdot 9$ | 30.0 | $7 \cdot 4$ | 48.8 | 36.4 | 63.7 | 49.5 |
| 15 | 22.8 | $4 \cdot 9$ | $17 \cdot 4$ | $5 \cdot 9$ | 16.3 | 10.4 | $39 \cdot 4$ | 2011 | 52.8 | 32.5 | 67.7 | $43 \cdot 1$ |
| 10 | $22 \cdot 4$ | $8 \cdot 4$ | $24 \cdot 9$ | 10.0 | 23.9 | 0.9 | 35.5 | 23.9 | 60.7 | 32.5 | $65 \cdot 4$ | $37 \cdot 1$ |
| 17 | 31.8 | $18 \cdot 5$ | 21.9 | $5 \cdot 4$ | 25.9 | 6.1. | 30.0 | $22 \cdot 1$ | $5 \cdot 8$ | 406 | 72.7 | 44.5 |
| 18 | 31.2 | 22.0 | $43 \cdot 1$ | $15 \cdot 5$ | 23.9 | $7 \cdot 9$ | 35.2 | $23 \cdot 1$ | 53.8 | 34.5 | 72.7 | $50 \cdot 1$ |
| 19 | $20 \cdot 1$ | $22 \cdot 3$ | $43 \cdot 1$ | $1 \cdot 3$ | $33^{\circ} 0$ | 18.1 | $49 \cdot 8$ | $22 \cdot 1$ | 61.7 | 30.1 | 73.7 | $50 \cdot 1$ |
| 20 | 28.9 | $7 \cdot 6$ | 17.0 | 1.0 | 29.0 | 11.0 | 46.9 | 35.0 | 61.7 | $40 \cdot 1$ | $67 \cdot 7$ | 57.0 |
| 21 | 99 | $0 \cdot 1$ | $2 \cdot 1$ | 65 | 380.4 | 18.1 | $47 \cdot 1$ | 30.0 | $45 \cdot 5$ | 36.7 | 63.7 | $45 \cdot 3$ |
| 22 | 12.6 | 134 | 29 | 3.9 | 35.0 | $9 \%$ | $47 \cdot 8$ | 320 | 429 | $36 \cdot 3$ | 57.7 | 43.1 |
| $\because 3$ | 22.9 | 11.4 | 29.0 | $10 \cdot 5$ | 28.0 | 12.0 | 39.9 | $26 \cdot 1$ | 51.8 | $39 \cdot 1$ | 54.8 | 42.8 |
| 24 | 29.3 | 75 | 23.0 | 10.0 | $25 \cdot 9$ | 10.0 | $39 \cdot 9$ | 2.8 | $45 \cdot 5$ | 38.6 | 538 | 37.0 |
| 25. | $20 \cdot 1$ | 2.1 | 35.5 | $3 \cdot 6$ | $24 \cdot 9$ | 7.9 | $43 \cdot 1$ | 30.5 | 52.8 | 38.6 | 54.8 | $45 \cdot 1$ |
| 26 | $27 \cdot 6$ | 143 | 37.9 | 33.0 | 209 | $5 \cdot 4$ | 44.9 | 31.5 | 67:2 | 35.5 | 61.7 | $45 \cdot 1$ |
| 27 | 375 | 25.1 | 37.0 | $22 \cdot 1$ | $21: 9$ | 6.9 | $39 \cdot 9$ | 27.6 | 61.4 | $40 \cdot 9$ | 73.7 | $47 \cdot 1$ |
| 28 | $37 \cdot 2$ | $0 \cdot 2$ | 24.0 | 14.0 | 25.9 | 10.0 | $42 \cdot 9$ | $20 \cdot 1$ | 50.3 | 40.2 | 83.1 ${ }^{\prime}$ | 53.0 |
| 29 | 6.9 | 42 | 29.9 | $15 \cdot 5$ | 28.0 | 6.9 | 56.8 | $27 \cdot 1$ | $54 \cdot 1$ | 39.6 | $74 \cdot 7$ | 56.7 |
| 30 | 24.9 | $15 \cdot 3$ | - | $\cdots$ | 30.0 | 79 | $57 \cdot 8$ | $27 \cdot 1$ | 60.7 | 382 | 69.7 | 53.5 |
| 31 | :16\% | 10.2 | $\cdots$ | $\cdots$ | 34.0 | 0.0 | .... | $\ldots$ | $55 \cdot 0$ | 43.0 | $\ldots$ | $\cdots$ |
|  | 24.8 | 3.0 | $20 \cdot 3$ | 3.0 | $23 \cdot 2$ | $4 \cdot 1$ | $39 \cdot 1$ | 21.6 | 51.4 | 31.7 | $65 \cdot 9$ | 45.6 |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | October. |  | Norember. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | M1n. | Max. | Min. | Max. | Min. | $\begin{aligned} & \dot{A} \\ & A \end{aligned}$ |
| - | - | - | - | - | - | - | - | - | 0 | - | - |  |
| 647 | 53.5 | 72.7 | 53.0 | $57 \cdot 1$ | 41.8 | 48.8 | $42 \cdot 1$ | 41.9 | 33.8 | 9.5 | 1.8 | 1 |
| 6.0 | $52 \cdot 9$ | 82.7 | 62.6 | $58 \%$ | 4.1 | 47.3 | 39.9 | $30 \cdot 4$ | 34.0 | 19.9 | 6.9 | 2 |
| 69.7 | 46.1 | $62 \cdot 6$ | 50.0 | 647 | $4!4$ | 58.0 | 43.5 | 36.2 | 31.5 | 25.9 | 16.4 | 3 |
| 72'5 | 50.6 | 59.7 | 45.3 | 69.7 | 510 | $52 \cdot 6$ | 423 | $37 \cdot 9$ | 23.4 | 239 | 18.3 | 4 |
| $69 \cdot 3$ | 57.0 | 61.0 | $5 \pm .0$ | 63.7 | $51 \%$ | 496 | $40 \cdot 1$ | 45.9 | $31 \cdot 4$ | 28.0 | 63 | 5 |
| $70 \cdot 4$ | 55.5 | 60.7 | 51.0 | 68.7 | 580 | 53.8 | 35.3 | 54.8 | 43.6 | 35.0 | $24 \cdot 1$ | 6 |
| 66.7 | $53 \cdot 2$ | 67.7 | 45.2 | 58.7 | 47.0 | 46.8 | $39 \cdot 1$ | 56.7 | 41.3 | 19.9 | 7.9 | 7 |
| 697 | 50.0 | 68.6 | $47 \cdot 0$ | 49.8 | 36.0 | 46.3 | $38 \cdot 1$ | 478 | 33.0 | $9 \cdot 8$ | $4 \cdot 1$ | 8 |
| 697 | 49.0 | 63.7 | $46 \cdot 1$ | 55.8 | 33.0 | $43 \cdot 8$ | $3 \cdot 1$ | 37.0 | 31.6 | 11.6 | $4 \cdot 3$ | 9 |
| 69.7 | 51.6 | 69.7 | $46 \cdot 6$ | 57.7 | 33.0 | 46.9 | 35.0 | $37 \cdot 9$ | 290 | $10 \cdot 3$ | 7.2 | 10 |
| 69.7 | 46.9 | 61.6 | 47.0 | 57.7 | 33.0 | $60 \cdot 2$ | $3 \overline{5} 4$ | $35 \cdot 3$ | 24.4 | $19 \cdot 9$ | $3 \cdot 2$ | 11 |
| 68.7 | 53.0 | 67.7 | 48.0 | 58.7 | $43 \cdot 1$ | 623 | $39 \cdot 1$ | $38 \cdot 3$ | 25.3 | 22.9 | 4.9 | 12 |
| $67 \cdot 4$ | $50 \cdot 2$ | 66.7 | 48.0 | 59.7 | $43 \cdot 1$ | 42.6 | 36.0 | 389 | 32.0 | 28.0 | 17.6 | 13 |
| 667 | $46 \cdot 1$ | $67 \cdot 7$ | 50.0 | 66.7 | 46.6 | 47.0 | $35 \cdot 1$ | 34.0 | 27.0 | 28.0 | $22 \cdot 1$ | 14 |
| 69.7 | $46 \cdot 6$ | 57.7 | $46 \cdot 1$ | 50.8 | $42 \cdot 1$ | $50 \cdot 5$ | 31.0 | 310 | $22 \cdot 1$ | $30 \cdot 6$ | 22.1 | 15 |
| 66.7 | $48 \cdot 6$ | 62.7 | $45 \cdot 1$ | 49.8 | 41.3 | 51.9 | 36.8 | $30^{\circ} 0$ | 13.0 | 30.0 | $22 \cdot 1$ | 16 |
| 66.7 | 47.0 | 60.6 | $45 \cdot 1$ | 577 | $40 \cdot 1$ | 55.3 | 39.7 | 35.0 | 170 | 26.0 | 21.1 | 17 |
| 66.7 | 56.6 | 677 | $46 \cdot 1$ | 52.8 | $44 \cdot 5$ | 40.2 | 360 | 330 | 22.0 | 28.0 | 21.1 | 18 |
| 74.7 | $50 \cdot 1$ | 737 | 55.0 | 56.5 | 409 | 11) | 31.7 | 259 | 18.1 | 33.0 | $23 \cdot 1$ | 19 |
| 59.7 | $50 \cdot 1$ | 74:7 | 47.0 | 57.2 | 38.1 | $39 \cdot 9$ | 29.3 | 28.0 | 16.0 | $27 \times 4$ | 10.0 | 20 |
| 650 | 56.0 | 73.7 | $47 \cdot 0$ | 615 | 45.8 | $52 \cdot 4$ | $34 \cdot 3$ | 30.0 | 16.4 | 18.4 | 0.8 | 21 |
| 66.0 | 483 | 62.7 | $45 \cdot 1$ | 51.9 | $42 \cdot 2$ | $50 \cdot 4$ | $38 \cdot 1$ | 17.3 | 29 | $20 \cdot 4$ | $2 \cdot 4$ | 22 |
| 687 | 491 | 647 | 50.0 . | 48.9 | 40.2 | 54.8 | 38.3 | 20.6 | 11.0 | 249 | 11.5 | 23 |
| $70 \cdot 7$ | 53.6 | $65 \cdot 9$ | 47.8 | 50.0 | 353 | $56^{\circ}$ | 34.0 | $21-9$ | 12.0 | 23.0 | 15.0 | 24 |
| 68.6 | 403 | 53.5 | $44 \cdot 1$ | 47.8 | \$1.3 | 36.0 | 32.0 | 19.0 | 39 | $23 \cdot 4$ | 13.7 | 25 |
| 687 | 53.0 | 56.8 | 44.1 | 54.8 | $39 \cdot 3$ | 36.0 | 29.5 | 18.8 | $5 \cdot 9$ | 28.3 | 18.6 | 28 |
| 65.7 | 52.0 | 57.7 | $46 \cdot 1$ | 70.2 | 46.1 | 37.9 | $30 \cdot 2$ | $19 \cdot 9$ | 5.9 | 27.3 | 21.8 | 27 |
| 63.7 | 51.0 | $65 \cdot 4$ | $49 \cdot 3$ | 47.8 | 41.8 | $35^{\circ} 0$ | 26.0 | 28.0 | 140 | 26.6 | $4 \cdot 3$ | 28 |
| 597 | 46.6 | $61 \cdot 7$ | $46 \cdot 1$ | 56.8 | 42.2 | 324 | 27.0 | $29 \cdot 5$ | $8 \cdot 1$ | 10.3 | $3 \cdot 4$ | 29. |
| 667 | $46^{\circ} 6$ | 667 | $47 \cdot 1$ | 54.6 | $45 \cdot 1$ | $37 \cdot 9$ | 30.0 | 103 | 3.2 | 7.6 | $4 \cdot 9$ | 30. |
| 68.7 | 51.0 | 597 | 4211 | ... | . $\cdot$ | $39^{\circ} 0$ | 34.0 | . $\cdot \cdot$ | $\cdots$ | $8 \cdot 6$ | 24 | 31 |
| 64:5 | 60.8 | 653 | $48^{\circ} 0$ | $57 \cdot 2$ | $42 \cdot 4$ | 46.8 | 35.4 | $32 \cdot 8$ | 21.0 | 22.1 | $10 \cdot 2$ |  |

TABLE LIX.—St. John, N. B. Maximum

| $\dot{4}$ | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | $\bullet$ | $\cdots$ | - | - | ? | - | - | - | a | - | - |
| 1 | 23.0 | 4.0 | 31.0 | 8.0 | 38.0 | 23.0 | 350 | 24.0 | 41.0 | 34.0 | 58.0 | 48.0 |
| 2 | 38.0 | 11.0 | 9.0 | 10.0 | 24.0 | $10 \%$ | 35.0 | 17.0 | 46.0 | 32.0 | 61.0 | 52.0 |
| 3 | $35 \cdot 0$ | 7.0 | 14.0 | 4.0 | 35.0 | 15.0 | 42.0 | 30.0 | 45.0 | 36.0 | 65.0 | 48.0 |
| 4 | 38.0 | 8.0 | 19.0 | 90 | 44.0 | 35.0 | 43.0 | 37.0 | 50.0 | 40.0 | 64.0 | 40.0 |
| 5 | 36.0 | 10.0 | 25.0 | 11.0 | 40.0 | 21.0 | $45^{\circ} 0$ | 39.0 | 56.0 | 41.0 | 65.0 | 41.0 |
| 6 | 37.0 | 2.0 | 330 | 12.0 | 26.0 | 14.0 | 480 | 34.0 | 56.0 | 43.0 | 68.0 | 44.0 |
| 7 | 38.0 | 24.0 | 23.0 | 8.0 | 30.0 | 18.0 | 37.0 | 26.0 | 55.0 | 35.0 | 70.0 | 47.0 |
| 8 | 36.0 | 22.0 | 30.0 | 10.0 | 340 | 7.0 | 32.0 | 200 | 46.0 | 34.0 | 64.0 | 43.0 |
| 9 | 33.0 | 22.0 | 33.0 | 10 | 17.0 | $3 \cdot 0$ | 37.0 | 22.0 | 51.0 | 39.0 | 63.0 | 50.0 |
| 10 | 39.0 | 23.0 | 14.0 | 70 | 33.0 | 15.0 | 41.0 | 33.0 | $61 \cdot 0$ | 44.0 | 73.0 | 48.0 |
| 11 | 24.0 | 12.0 | 24.0 | 4.0 | 24.0 | 3.0 | . 48.0 | 30.0 | 49.0 | 43.0 | 65.0 | 51.0 |
| 12 | 39.0 | 15.0 | 38.0 | 19.0 | 23.0 | 2.0 | 320 | $19 \cdot 0$ | 59.0 | 41.0 | 73.0 | 50.0 |
| 13 | 35.0 | 11.0 | 41.0 | 36.0 | 19.0 | 1.0 | 42.0 | 20.0 | 45.0 | 35.0 | 74.0 | 55.0 |
| 14 | 12.0 | 1.0 | 38.0 | 12.0 | 250 | 70 | 46.0 | 31.0 | 46.0 | 37.0 | 63.0 | $48^{\circ} 0$ |
| 15 | $35 \%$ | 30 | 21.0 | 10.0 | 27.0 | 13.0 | 49.0 | 30.0 | 55.0 | 800 | 63.0 | 51.0 |
| 16 | 31.0 | 15.0 | 22.0 | 21.0 | 27.0 | 14.0 | 50.0 | 36.0 | 62.0 | $39^{\circ} 0$ | 65.0 | 440 |
| 17 | $33 \cdot 0$ | 25.0 | 32.0 | 14.0 | 27.0 | 15.0 | 40.0 | 27.0 | 57.0 | $41^{\circ} 0$ | 73.0 | 520 |
| 18 | 87.0 | 29.0 | 41.0 | 31.0 | 27.0 | 11.0 | 40.0 | 27.0 | 57.0 | 41.0 | 67.0 | 50.0 |
| 19 | 36.0 | 27.0 | 42.0 | $1 \because 0$ | 35.0 | 24.0 | 42.0 | 25.0 | 55.0 | 40.0 | 62.0 | 51.0 |
| 20 | 28.0 | 18.0 | 22.0 | 50 | 85.0 | 26.0 | 40.0 | 37.0 | $40^{\circ} 0$ | $44^{\circ} 0$ | 61.0 | 50.0 |
| 21 | 20.0 | 9.0 | 33.0 | 14.0 | 31.0 | 22.0 | 52.0 | 38.0 | 52.0 | 44.0 | 59.0 | 49.0 |
| 22 | 17.0 | 5.0 | 34.0 | 21.0 | 35.0 | 28.0 | 50.0 | 35.0 | 51.0 | $44^{\circ} 0$ | 58.0 | 51.0 |
| 23 | 42.0 | 14.0 | 33.0 | 9.0 | 38.0 | 29.0 | 44.0 | 34.0 | 54.0 | 46.0 | 58.0 | $48^{\circ} 0$ |
| 24 | 38.0 | 25.0 | 20.0 | 20.0 | $35 \cdot 0$ | 27.0 | 43.0 | 27.0 | 51.0 | 44.0 | 61.0 | 47.0 |
| 25 | 27.0 | 18.0 | 33.0 | 17.0 | 28.0 | 21.0 | 48.0 | 28.0 | 56.0 | 47.0 | $65^{\circ} 0$ | 48.0 |
| 26 | 34.0 | 21.0 | 39.0 | 27.0 | 28.0 | 14.0 | 42.0 | 36.0 | 60.0 | 45.0 | 67.0 | 53.0 |
| 27 | 38.0 | 26.0 | 42.0 | 36.0 | 32.0 | 10.0 | 54.0 | 38.0 | 58.0 | 470 | 78.0 | 52.0 |
| 28 | 43.0 | 35.0 | 41.0 | 29.0 | 31.0 | 16.0 | 46.0 | $30 \cdot 0$ | 65.0 | 50.0 | 63.0 | 53.0 |
| 29 | 40.0 | 4.0 | 43.0 | 35.0 | 34.0 | 20.0 | $46^{\circ} 0$ | 35.0 | 62.0 | 48.0 | 62.0 | 54.0 |
| 30 | 35.0 | $1 \cdot 0$ | -••• | . $\cdot$. | 32.0 | 18.0 | 46.0 | 39.0 | 64.0 | 42.0 | 73.0 | 54.0 |
| 31 | 44.0 | 30.0 | $\ldots$ | $\cdots$ | 32.0 | 29.0 | $\ldots$ | -• | 57.0 | $46^{\circ} 0$ | $\cdots$ | .... |
|  | $33 \cdot 6$ | $15 \cdot 4$ | $30 \cdot 3$ | 13.4 | $80 \cdot 6$ | 163 | 43.3 | $30 \cdot 1$ | 53.9 | 41.2 | $65 \cdot 7$ | $49 \cdot 1$ |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | MIn. | Max. | MIn. | Max. | Min. | 安 |
| - | 9 | $\bullet$ | $\bigcirc$ | - | - | - | $\bullet$ | - | - | $\bigcirc$ | $\checkmark$ |  |
| 75.0 | 53.0 | 82.0 | 56.0 | 64.0 | 50.0 | 57.0 | 45.0 | 57.0 | 35.0 | 15.0 | 8.0 | 1 |
| 04.0 | 54.0 | 65.0 | 55-0 | 64.0 | 63.0 | 57.0 | 40.0 | 48.0 | 30.0 | 19.0 | 30 | 2 |
| 71.0 | 55.0 | 64.0 | 56.0 | 65.0 | 55.0 | 57.0 | 41.0 | 40.0 | $80^{\circ} 0$ | 20.0 | 150 | 8 |
| 77.0 | 55.0 | 65.0 | 58.0 | 65.0 | 55.0 | 59.0 | 52.0 | 45.0 | 28.0 | 23.0 | $15 \cdot 0$ | 4 |
| 69.0 | 53.0 | 67.0 | 57.0 | - 65.0 | 58.0 | 580 | 51.0 | 47.0 | 31.0 | $33 \cdot 0$ | 10.0 | 5 |
| 61.0 | 540 | 70.0 | 53.0 | 700 | 36.0 | 58.0 | 50.0 | 57.0 | 45.0 | 42.0 | 29.0 | 6 |
| 69.0 | 54.0 | 73.0 | 55.0 | 70.0 | 58.0 | 54.0 | 44.0 | 58.0 | 43.0 | 31.0 | 17.0 | 7 |
| 71.0 | 50.0 | 65.0 | 50.0 | 70.0 | 54.0 | 55.0 | 40.0 | 44.0 | 82.0 | 18.0 | 90 | 8 |
| 66.0 | 54.0 | 62.0 | 53.0 | 60.0 | 59.0 | 55.0 | 45.0 | 44.0 | 29.0 | 18.0 | 70 | 9 |
| 75.0 | 53.0 | $66^{\circ} 0$ | 54.0 | 58.0 | 49.0 | 55.0 | 49.0 | 43.0 | 34.0 | 17.0 | 2.0 | 10 |
| $\pi \cdot 0$ | 60.0 | 59.0 | 58.0 | 66.0 | 50.0 | 550 | 48.0 | 42.0 | 27.0 | 17.0 | 3.0 | 11 |
| 74.0 | 53.0 | 710 | 55.0 | 610 | 46.0 | 57.0 | 48.0 | 49.0 | 40.0 | 28.0 | 6.0 | 12 |
| 82.0 | 51.0 | 640 | 54.0 | 63:0 | 50.0 | 49.0 | 37.0 | 43.0 | 33.0 | 41.0 | 17.0 | 13 |
| 75.0 | 57.0 | 58.0 | 53.0 | 65.0 | $5 \pm 4$ | 54.0 | 340 | 35.0 | 29.0 | 410 | 30.0 | 14 |
| 88.0 | 51.0 | 66.0 | 54.0 | 62.0 | 58.0 | 56.0 | 42.0 | 32.0 | 28.0 | 39.0 | 830 | 15 |
| 71.0 | 51.0 | 67.0 | 47.0 | 80.0 | 53.0 | 59.0 | 46.0 | 39.0 | 28.0 | 39.0 | 230 | 16 |
| - 4.0 | 54.0 | 69.0 | 53:0 | 61.0 | 520 | 58.0 | 50.0 | 39.0 | 25.0 | 29.0 | 17.0 | 17 |
| 69.0 | 59.0 | 67.0 | 50.0 | 68.0 | 53.0 | 560 | 440 | 45.0 | 35.0 | 27.0 | 18.0 | 18 |
| $74 \cdot 0$ | 52.0 | 64.0 | 53.0 | 65.0 | 47.0 | 48.0 | 360 | 37.0 | 20.0 | 35.0 | 19.0 | 18 |
| 720 | 53.0 | 59.0 | 550 | 58.0 | 43.0 | 47.0 | 36.0 | 42.0 | 18.0 | 35.0 | 21.0 | 20 |
| 69.0 | 59.0 | 81.0 | 55.0 | 020 | 59.0 | 49.0 | 30.0 | 47.0 | 20.0 | 24.0 | 15.0 | 21 |
| 72.0 | 57.0 | 65.0 | 55.0 | 60.0 | $49 \cdot 0$ | 55.0 | 36.0 | 21.0 | 14.0 | 30.0 | 22.0 | 22 |
| 62.0 | 55.0 | 65.0 | 63.0 | 57.0 | 44.0 | 57.0 | 48.0 | 19.0 | 11.0 | 34.0 | 27.0 | 23 |
| 61.0 | 54.0 | 74.0 | 53.0 | 550 | 37.0 | 53.0 | 36.0 | 23.0 | 13.0 | 33.0 | 25.0 | 24 |
| 68.0 | 53.0 | 64.0 | 52.0 | 58.0 | 49.0 | 38.0 | 33.0 | 23.0 | 16.0 | 80.0 | 24.0 | 25 |
| 63.0 | 51.0 | 61.0 | 45.0 | 80.0 | 50.0 | 45.0 | 32.0 | 170 | 8.0 | 31.0 | 21.0 | 28 |
| 60.0 | 53.0 | 010 | 40.0 | 80.0 | 52.0 | 48.0 | 40.0 | 20.0 | $8 \cdot 0$ | 320 | 28.0 | 27 |
| 70.0 | 53.0 | 61.0 | 64.0 | 65.0 | 55.0 | 48.0 | 31.0 | $27 \cdot 0$ | 11.0 | 30.0 | 12.0 | 23 |
| 73.0 | 53.0 | 730 | 550 | 81.0 | 50.0 | 38.0 | 26.0 | 290 | 23.0 | 22.0 | 7.0 | 29 |
| 62.0 | 64.0 | 70.0 | 53.0 | 58.0 | 49.0 | 48.0 | 33.0 | 320 | 11.0 | 15.0 | 6.0 | 30 |
| 78.0 | 53.0 | 63.0 | 48.0 | $\ldots$ | ... | 56.0 | 45.0 | .... | . $\cdot$. | 9.0 | 0.0 | 31 |
| 69.1 | 587 | 08.2 | 53.2 | 60.5 | 49.3 | 52.9 | 40.9 | 98.6 | 25.2 | 278 | 18.0 |  |

TABLE LX.-Fredricton, N. B. Maximum

and Minimum Temperature, 1880.

| Juls. |  | August. |  | September. |  | Octolier. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mri. | MIn. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | $\stackrel{\dot{x}}{\underline{i}}$ |
| c | - | - | - | - | - | - | 0 | - | $\bigcirc$ | - | - |  |
| 82.7 | 61.9 | $90 \cdot 7$ | $63 \cdot 4$ | $77 \cdot 7$ | 42.5 | 58.8 | $35 \cdot 1$ | $46 \cdot 1$ | 34.0 | 11.4 | 17.9 | 1 |
| $790{ }^{\circ}$ | $58.4{ }^{\prime}$ | 82.5 | 61.9 | 77.5 | 5299 | 80.7 | 330 | 47.1 | 30.0 | 18.7 | 23 | 2 |
| 76.3 | $56-9$ | $60 \cdot 8$ | 60.9 | 82.7 | 57.9 | 83.7 | 35 | 40.0 | 23.5 | 24.8 | 11.2 | 3 |
| $83 \cdot 2$ | 50.9 | 64.7 | 58.9 | 797 | 624 | $63 \%$ | $40 \cdot 9$ | 44.4 | 210 | 21.2 | 13.8 | 4 |
| 83.7 | 53.8 | 72.8 | 55.9 | 86.7 | 61.9 | 60\% | 150 | 44.9 | $25 \cdot 9$ | 20.0 | 1.5 | 5 |
| 70.8 | 509 | 79\% | 50.9 | $85 \%$ | 519 | 63.9 | 420 | $55 \cdot 4$ | 415 | 39.9 | 22.9 | 0 |
| 857 | 504 | $74 \cdot 3$ | 47.9 | 71.6 | 53.0 | 51.8 | 350 | 63.7 | 40.0 | 27.0 | 12.8 | 7 |
| $82 \cdot 7$ | 54.9 | 73.0 | 43.3 | 67 -8 | $50-9$ | 56.8 | 37.0 | 40.0 | 28.0 | $14 \cdot 3$ | 5.6 | R |
| 807 | 51.9 | 78.2 | 51-9 | 61.7 | 490 | 617 | 42.0 | $41 \cdot 1$ | 28.0 | 14:5 | $\cdots 1$ | 3 |
| $80 \cdot 2$ | 61-9 | 70.8 | 59.9 | 81.7 | 48-9 | $56 \cdot 8$ | 47.9 | 42.9 | 28.0 | 16.3 | 11.7 | 10 |
| $78 \cdot 7$ | 51.9 | $78 \cdot 7$ | 57.9 | 74.8 | 18.9 | 6i\% | 49.9 | $30 \cdot 9$ | 230 | 13.3 | 13.8 | 11 |
| 817 | $47 \cdot 4$ | 827 | 52.9 | 770 | 4.0 | 69.8 | 42.0 | 49.8 | 340 | 23.2 | 3.6 | 12 |
| 76.0 | $51 \cdot 9$ | 81.6 | 53.1 | $73 \cdot 8$ | 450 | 45-9 | 33.0 | 39.0 | $27 \cdot 0$ | 34.5 | 30 | 13 |
| $75 \cdot 8$ | 499 | 68.6 | 57 - | 63.7 | 57.9 | 6. 8 | $31 \cdot 4$ | 350 | 240 | 38.9 | 28.0 | 14 |
| 827 | 43.0 | 667 | $47 \cdot 4$ | 61.7 | $55 \cdot 4$ | 6.17 | 330 | 30.0 | $17 \cdot 4$ | $36^{\circ} 0$ | 31.5 | 15 |
| $77 \cdot 2$ | 409 | 68.6 | 43.9 | 86.8 | $55 \% 0$ | $6 \mathrm{6} \cdot 1$ | 38.1 | 35 | 219 | 36.0 | 24.4 | 16 |
| 807 | 57-9 | $73 \cdot 7$ | 47-4 | $70 \cdot 8$ | 49.9 | us 7 | 14.9 | 37.9 | 12.8 | $25 \cdot 1$ | 11.8 | 17 |
| 847 | 52.9 | 75.6 | 45.2 | 69.8 | 46.0 | 62\% | 30 | $39 \cdot 9$ | 27.0 | $20 \cdot 1$ | 12.8 | 18 |
| 80.7 | 50.9 | $72 \cdot 8$ | 47.9 | 65.8 | 42.0 | $18 \cdot 3$ | 290 | 275 | 138 | $37 \cdot 9$ | 15.8 | 19 |
| 85.7 | 62.0 | 74.8 | \% 3 | 58.0 | 39.0 | 17.8 | 30 | 36\% | $10 \cdot 7$ | 30.0 | 6.6 | 20 |
| 77 | 59.9 | 76.9 | 63.0 | 63.7 | 49.9 | 61.8 | 240 | 38.4 | 122 | 25.1 | 1\% | 21 |
| 797 | 610 | 81.7 | יִ | 59\% | 460 | 5 | 350 | 18.2 | 117 | 31.0 | 12-8 | 22 |
| 69.8 | 60.9 | $83 \%$ | 059 | 56\%8 | 36.0 | $\square$ | 4;0 | 17\% | 8.7 | 300 | 275 | 2; |
| $72 \cdot 8$ | $36 \%$ | 81\% | 4 | 5108 | 290 | 51.3 | 3i\% | 217 | $11 \%$ | 30\% | 14.8 | 21 |
| S3\% | 55.9 | 64.7 | 0 | 2 | 465 | 360 | \% 0 | $2 \cdots$ | 54 | 31.3 | 24.1 | 25 |
| 807 | 58.9 | 60\%3 | 110 | 60.7 | 18\% | 4.9 | :310 | 16\% | 13.0 | 31 $\because$ | 234 | 26 |
| 75.8 | 59.0 | 73.3 | 400 | 17.9 | 547 | 410 | \% | 13:3 | 15.7 | 815 | 26.0 | 27 |
| 76.8 | \%39 | 82.7 | 55.9 | 66.7 | 56.9 | 34.9 | $\because 5$ | - | $8 \cdot 2$ | 31.5 | 56 | 28 |
| 759 | 40.9 | 73.8 | $33 \cdot 4$ | 61.7 | 16.9 | 4 | 24.0 | 31.6 | 9.7 | $15 \% 3$ | 2\% | $\xrightarrow{3}$ |
| 72.0 | 54.9 | 70.8 | 460 | 66\% |  | 159 | : 3 | $\underline{3}$ | 11.7 | 11:5 | $7 \cdot 1$ | 30 |
| 807 | 5022 " | $7 \times 8$ | $40 \%$ | $\ldots$ | .... | 368 | $41 \%$ | $\ldots$ | . $\cdot \cdot$ | 90 | 97 | 31 |
| 707 | 55.2 | 75.7 | 52.4 | 65.7 | 490 | 55.4 | 36.5 | 33 | $17 \cdot 1$ | 261 | 8.0 |  |

TABLE LXI.-Chatham, N. B. Maximum

| $\underset{A}{A}$ | January. |  | Februars. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | M1n. | Max. | Min. | Max. | Min. | Max. | M1n. |
|  | - | - | - | - | - | - | - | - | - | - | - | - |
| 1 | 13.0 | 65 | 10.2 | 36 | $35 \cdot 6$ | 13.3 | $34 \cdot 6$ | 13.1 | 53.1 | 28.0 | 74.5 | 48.5 |
| 2 | $33 \cdot 8$ | $1 \cdot 1$ | 7.6 | 13.3 | 20.6 | 3.8 | 53.6 | $3 \cdot 2$ | 49.2 | 24.1 | 65.6 | 44.8 |
| 3 | 31.7 | 2.0 | $5 \cdot 8$ | 13.5 | $27 \cdot 2$ | $3 \cdot 0$ | 52.2 | $15 \cdot 9$ | 56.4 | 277 | 61.5 | 41.5 |
| 4 | 32.0 | $3 \cdot 3$ | 16.6 | 58 | 39.5 | 24.8 | 47.5 | 35.6 | $56 \cdot 1$ | $35 \cdot 3$ | 61.5 | 38.8 |
| 5 | 28.0 | - 13 | 20.6 | - 1.8 | $30 \cdot 1$ | 13.3 | 48.8 | 349 | 58.3 | $34 \cdot 8$ | $71 \cdot 7$ | $\mathbf{3 5 - 4}$ |
| 6 | 31.8 | 18.0 | 26.6 | 7.3 | 27.3 | - 1.6 | 42.6 | 28.0 | 53.5 | 33.5 | 69.1 | 35.5 |
| 7 | $33 \cdot 1$ | 63 | 152 | - 78 | $32 \cdot 6$ | - 3.3 | 33.0 | 21.7 | 52.1 | 29.0 | 57.2 | 43.3 |
| 8 | 35.5 | 5.0 | 21.7 | $20 \cdot 3$ | 30.8 | - 36 | 26.6 | 14.8 | 56.8 | 23.4 | 81.2 | $47 \cdot 9$ |
| 9 | 26.8 | 13 | 25.2 | 6.6 | $8 \cdot 6$ | - 15.1 | 36.1 | 10.3 | 62.5 | 39.2 | 72.5 | 50.5 |
| 10 | 34.6 | 14.0 | 7.5 | 20-2 | 23.5 | - 8.4 | $46 \cdot 1$ | $30 \cdot 4$ | $74 \cdot 4$ | 40.8 | $70 \cdot 0$ | 45.8 |
| 11 | 24.0 | 0.3 | 23.5 | $1 \cdot 3$ | 11.0 | - 6.8 | 40.5 | 257 | $70 \cdot 1$ | 49.8 | $78 \cdot 1$ | 54.3 |
| 12 | $30 \cdot 5$ | 2.2 | 27.9 | 0.0 | 16.6 | $20 \cdot 9$ | 28.6 | 13.9 | 63.5 | 42.0 | 72-1 | 51.4 |
| 13 | 28.6 | 38 | 42.6 | -215 | 19.2 | -14.6 | 37.5 | 10.1 | $43 \cdot 5$ | 34.0 | 66.6 | 49.8 |
| 14 | 14.6 | - 32 | 21.5 | 6.6 | 14.6 | 57 | 403 | $18 \cdot 1$ | $45 \cdot 1$ | $35 \cdot 9$ | 61.5 | 40.0 |
| 15 | 18.7 | 8.7 | 14.6 | $18 \cdot 4$ | 26.6 | - 80 | 50.5 | 24.6 | $50 \cdot 5$ | 32:2 | 62.5 | 423 |
| 16 | 18.3 | 7.0 | 27.6 | 5.8 | 29.6 | 10.6 | 46.1 | 299 | 64.2 | 35.8 | $72 \cdot 6$ | 39.5 |
| 17 | 266 | 14.3 | 33.6 | 1.7 | 22.6 | $2 \cdot 2$ | 20.9 | 24.9 | 52.6 | 337 | 77.5 | 44:7 |
| 18 | 34.3 | 28.8 | 47.5 | $23 \cdot 8$ | 20.6 | 4.3 | $42 \cdot 1$ | $22 \cdot 1$ | 54.5 | 81.3 | $88 \cdot 1$ | 45:0 |
| 10 | $32 \cdot 3$ | 18.6 | 44.6 | 3.3 | 38.4 | 10.8 | 55.4 | $18 \%$ | 67.5 | 25.8 | $87 \cdot 2$ | 47:0 |
| 20 | 28.2 | 78 | 21.6 | 0.4 | 32.5 | 8.3 | 57.4 | 39.0 | 76.2 | 48.7 | 86.5 | 58.4 |
| 21 | 12.8 | 78 | 322 | 6.7 | $39 \cdot 6$ | 2.4 | 62\% | $34 \cdot 5$ | 624 | 42.3 | 71.2 | 63.8 |
| 22 | 25.6 | - 22 | $32 \cdot 1$ | - 1.5 | $42 \cdot 2$ | 17.7 | 66.6 | 29.8 | $42 \cdot 8$ | 40.2 | 57.6 | 49.7 |
| 23 | $34 \cdot 5$ | $9 \cdot 4$ | 27.7 | 0.1 | 33.5 | 18.3 | $47 \cdot 4$ | 28.1 | 73.4 | $30 \cdot 2$ | 52.9 | 46.2 |
| 24 | $30 \cdot 1$ | 16.3 | $28 \cdot 6$ | $8 \cdot 5$ | 29.5 | 11.0 | 50.6 | $22 \cdot 2$ | 69.4 | 47.6 | 63.9 | 43.9 |
| 25 | 20.4 | 18 | 31.2 | $5 \cdot 6$ | $27 \cdot \theta$ | $20 \cdot 2$ | 53.5 | 25.7 | 58.5 | 42-2 | $69 \cdot 1$ | $42 \cdot 1$ |
| 28 | 34.5 | 4.8 | 37.8 | 18.5 | 29.2 | 12.0 | $40 \cdot 1$ | 27.0 | 734 | 440 | 68.4 | 63.0 |
| 27 | $30 \cdot 1$ | 6.1 | 47.5 | 29.8 | $30 \cdot 3$ | 0.3 | 51.5 | 33.0 | 85.4 | 412 | 83.2 | 58.5 |
| 28 | 42.9 | $20 \cdot 1$ | 87.5 | 17.9 | 27.2 | 0.5 | 475 | $25 \cdot 2$ | $74 \cdot 4$ | $48 \cdot 2$ | $84 \cdot 5$ | 58.5 |
| 29 | 29.1 | 23 | 373 | 24.0 | 35-1 | 13.9 | 60.8 | 25.5 | 65.0 | 410 | 85.1 | 61:9 |
| 80 | 31.6 | 11.7 | .... | .... | $33 \cdot 6$ | 13.9 | 525 | 41.5 | 09.1 | $38 \cdot 5$ | $88 \cdot 4$ | 60.0 |
| 31 | 42.5 | 17.2 | $\cdots$ | .... | 33.3 | 27.0 | .... | . $\cdot$. | 58.5 | 47 '2 | .... | $\ldots$ |
|  | $20 \cdot 4$ | 33 | $2 \mathrm{C} \cdot 1$ | 17 | 283 | $3 \cdot 5$ | 46.6 | 21.2 | $60 \cdot 9$ | 87.3 | $71 \cdot 5$ | $48 \cdot 1$ |

and Minimum Tenperature, 1880.

| July. |  | August. |  | September. |  | October. |  | November. |  | December: |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | 家 |
| - | 0 | - | - | - | - | - | - | - | - | 0 | $\bigcirc$ |  |
| $78 \cdot 1$ | 59.8 | $87 \cdot 4$ | $62 \cdot 9$ | $72 \cdot 5$ | 447 | 56.2 | 37.0 | 48.7 | 34.0 | 11.6 | 73 | 1 |
| 76.6 | 58.5 | 91.1 | 63.4 | 730 | 56.0 | 597 | 31.0 | $48 \%$ | 28.2 | 20.6 | 6.3 | 2 |
| $73 \cdot 1$ | 56.2 | 68.8 | $60 \cdot 1$ | 78.5 | 58.6 | 63.4 | 34.9 | $4 \div 5$ | 25.0 | 28.5 | $12 \cdot 8$ | 3 |
| 78.9 | 53.6 | $60 \cdot 1$ | 56.1 | 80.7 | 61.3 | 63.4 | 50.1 | 40.5 | 22.5 | 24.5 | $13 \cdot 3$ | 4 |
| 85.1 | $54 \cdot 4$ | $72 \cdot 6$ | 55.6 | 86.1 | $62 \cdot 1$ | $64 \cdot 1$ | 40.4 | 458 | 21.6 | 21.7 | 27 | 5 |
| 735 | 6) 7 | $77 \cdot 1$ | $49 \cdot 3$ | 81.5 | 56.9 | 62.1 | $30 \cdot 5$ | 59.5 | 39-4 | 37.4 | 20.4 | 6 |
| 829 | 58.6 | 71.4 | 50.9 | 71.5 | 533 | 55.1 | 38.5 | 64.1 | 43.0 | 23.6 | 93 | 7 |
| $82 \cdot 1$ | 53.4 | $73 \cdot 6$ | 45.5 | $65 \cdot 1$ | 49.2 | 57.5 | $30 \cdot 5$ | 43.5 | $32 \cdot 6$ | 11.6 | 3.5 | 8 |
| 78.5 | 83.0 | 66.1 | 53.2 | 60.2 | $46 \cdot 4$ | 56.7 | 397 | 42.5 | 29.9 | 15.0 | 7.3 | 9 |
| 85.2 | 63.1 | 70.1 | 58.5 | 62.5 | 46.0 | 64.2 | 35.2 | 42.5 | 383 | 15.9 | 14.2 | 10 |
| 69.3 | 51.9 | 82.5 | $52 \cdot 3$ | 71.0 | $48 \cdot 7$ | 62.6 | 46.0 | $41 \cdot 4$ | $23 \cdot 4$ | 17.5 | 75 | 11 |
| 80.5 | 46.8 | 83.5 | 529 | 79.6 | $42 \cdot 8$ | $69 \cdot 6$ | 46.3 | $44 \cdot 4$ | 33.0 | 24.2 | $1 \cdot 1$ | 12 |
| 787 | 51.9 | $82 \cdot 4$ | 54.7 | 74.5 | 44.6 | 47.5 | 357 | $40 \cdot 4$ | 339 | 32.6 | 5.0 | 18 |
| 73.0 | 51.0 | 65.1 | 55.8 | 65.6 | 57.9 | 55.6 | 30.5 | 31.6 | 29.0 | 37.8 | 26.1 | 14 |
| $77 \cdot 4$ | $47 \cdot 9$ | 68.1 | $48 \cdot 1$ | 60.6 | $55 \cdot 2$ | $61 \cdot 4$ | $35 \cdot 4$ | 302 | 193 | $33 \cdot 8$ | 25.4 | 15 |
| 77\% | $48 \cdot 1$ | 68.5 | 45.4 | 67.5 | 55.8 | 68.5 | 36.6 | 31.5 | $20 \cdot 1$ | 33.6 | 26.4 | 16 |
| 81.9 | 63.0 | 69.0 | $48 \cdot 1$ | 68.2 | 50.2 | $60 \cdot 9$ | 41.5 | 35.5 | 11.9 | 28.2 | 19.6 | 17 |
| 83.5 | 58.8 | 75.5 | 42.1 | 67.2 | 49.7 | 64.1 | $35 \cdot 3$ | 36.6 | 213 | 31.6 | 16.0 | 18 |
| 84.5 | 50.0 | 72.5 | $49 \cdot 1$ | 66.6 | 42.2 | 49.1 | 29.1 | , 28.2 | 153 | 31.6 | 15.1 | 19 |
| 852 | 61.1 | $76 \cdot 1$ | 57.0 | $62 \cdot 1$ | 36-9 | 49.5 | 28.0 | 32.5 | $9 \cdot 7$ | 332 | $10 \cdot 9$ | 20 |
| 69.7 | 60.4 | 76:5 | 56.8 | 57.6 | 50.5 | 51.5 | 23.8 | $34 \cdot 6$ | 14.8 | 26.3 | 5.0 | 21 |
| $81 \cdot 8$ | 65:2 | 80:2 | 69.5 | 61.2 | 44'8 | 48.9 | 29.6 | 17.2 | $9 \cdot 0$ | 29.9 | 21.0 | 22 |
| 69.5 | 6) 7 | 81.5 | 58.2 | 56.2 | 38.7 | 57.5 | 44.0 | 19-2 | 114 | 34.2 | 27.0 | 23 |
| 74.5 | 60.5 | 78:5 | 57.2 | 55.1 | $80 \cdot 9$ | $52 \cdot 5$ | 36.6 | 21.6 | $9 \theta$ | 206 | 15.8 | 24 |
| $81 . \theta$ | 55.2 | 64.1 | 48.4 | 58.1 | 37.0 | $40 \cdot 1$ | 32.4 | 18.4 | $0 \cdot 4$ | 302 | 22.7 | 25 |
| 85.1 | 69.2 | 67•1 | $44 \cdot 2$ | $52 \cdot 1$ | 42.2 | $45 \cdot 1$ | 28.0 | 21.8 | 0.3 | 30.0 | 21.0 | 26 |
| 72.5 | 60.8 | 72:5 | 41.8 | $65 \cdot 1$ | 517 | $44^{\prime} 5$ | 28.5 | 18.8 | $7 \cdot 3$ | 31.6 | 28.6 | 27 |
| $77 \cdot 2$ | 57.5 | 77.5 | 52:2 | 610 | $52 \cdot 8$ | $44 \cdot 4$ | $27 \cdot 4$ | 27.6 | 34 | 33.2 | 7.8 | 28 |
| 72-1 | $52 \cdot \theta$ | 72.2 | 53.0 | 64.4 | $42 \cdot 3$ | 48.2 | 25.2 | 26.6 | $1 \cdot 2$ | 12.2 | 21 | 29 |
| 60.8 | 55.8 | $70 \cdot 1$ | 40.2 | 63.5 | $37 \cdot 6$ | 47.9 | 24.9 | 22:3 | 0.0 | 10.8 | - 15 | 80 |
| 78.8 | $55 \cdot 4$ | $73 \cdot 9$ | 40.4 | ... | .... | 57\% | $30 \cdot 4$ | $\cdots$ | $\ldots$ | 10.6 | 7.2 | 31 |
| 778 | 56.2 | 743 | $52 \cdot 3$ | $6 \cdot 1$ | 48.3 | 55-8 | 35.2 | 35.6 | 195 | 25.8 | $9 \cdot 1$ |  |

TABLE LXII.-Dalhousie, N. B. Maximum

| $\underset{\underset{K}{\dot{K}}}{\dot{\Sigma}}$ | January, |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Mlb. | Max. | Min. | Mex. | Min. | Mex. | MIn. | Max. | Min. |
|  | - | - | $\bigcirc$ | - | - | - | - | $\bullet$ | 0 | - | - | - |
| 1 | $6 \cdot 0$ | 45 | $11^{\circ} 0$ | 90 | .... | $\cdots$ | 38.5 | 230 | 43.5 | 23.0 | 65.0 | 41:3 |
| 2 | 33.0 | 0.5 | 3.0 | 17.0 | 32.0 | $4 \cdot 0$ | 52.0 | 220 | 39.0 | 25.0 | 62's | 12.5 |
| 3 | 32.0 | 4.0 | 6.0 | 17.5 | 31.0 | 5.5 | 40.5 | 24.5 | 44.0 | 30.0 | 65.0 | 35.5 |
| 4 | 24.0 | 6.0 | 140 | 8.0 | 21.5 | 3.0 | 410 | 250 | $43 \cdot 9$ | 23.0 | 67.0 | 37.0 |
| 5 | 20.5 | 0.0 | 18.0 | 0.0 | 31.8 | 195 | 43.0 | 32.0 | 41.5 | 36.5 | 77.0 | 36.5 |
| 6 | 8.0 | 11.0 | 21.5 | $1 \cdot 0$ | 31.5 | 13.0 | $39 \cdot 5$ | 22.0 | 41.6 | 39.0 | $74 \cdot 5$ | $40^{\circ} 0$ |
| 7 | 24.0 | 8.0 | 10.0 | 6.0 | 310 | 45 | $\ldots$ | $\ldots$ | 42.0 | 25.0 | 50.0 | 440 |
| 8 | 28.0 | 11.0 | 13.0 | 5.0 | 240 | 120 | 330 | 9.5 | $40 \cdot 5$ | 19.5 | 655 | 47.0 |
| 9 | 190 | 125 | 140 | 7.0 | 350 | 50 | 32.0 | 1.5 | 47.5 | 30.0 | 65.0 | 400 |
| 10 | 31.0 | 16.0 | 1.0 | 18.0 | 4.0 | $18 \cdot 5$ | 37.0 | 21.5 | 490 | 34.0 | 75.0 | 48.0 |
| 11 | 140 | 1.0 | 11.0 | 18.0 | 140 | $2 \cdot 5$ | 350 | 22.5 | 42.5 | 30-5 | 71.5 | 52.5 |
| 12 | 28.0 | 3.0 | 22.5 | 13.0 | 11.0 | 12.0 | 24.000 | 75 | 37.5 | 30.0 | 70.0 | $5 \overline{7} 0$ |
| 13 | 23.5 | 1.0 | 32.0 | 200 | 9.0 | 20\%2 | 20.0 | 3.5 | 43.5 | 27.0 | 650 | 47.5 |
| 1 | 100 | 75 | 22.0 | 12.0 | 10.5 | 6.0 | 27.5 | 13.0 | 47.5 | 210 | 63.5 | 47.5 |
| 15 | 12.0 | 80 | 20.0 | $2 \cdot 5$ | 120 | 80 | 30.5 | 8.0 | 53.5 | 33.0 | 710 | 420 |
| 18 | 17.5 | 60 | 25.5 | $4 \cdot 0$ | 19.5 | $10 \cdot 2$ | 36.0 | 220 | 51.5 | 310 | 70.0 | 425 |
| 17 | 22.5 | 15.0 | 250 | 6.0 | 210 | 6.5 | 28.5 | 18.0 | 67.5 | 38.5 | 78.5 | 40.0 |
| 18 | 28.0 | 17.0 | 28.0 | 20.0 | 19.0 | 80 | 43.0 | 18.0 | \% 0 | 370 | $\mathbf{8 6} \cdot 0$ | 46.0 |
| 19 | 31.0 | 20.0 | 31.0 | 0.0 | 23.5 | 50 | 420 | $21-5$ | 80 | 35 | 85.5 | 49.0 |
| 20 | 28.0 | 2.5 | 17.0 | 20 | 28.5 | 8.5 | 50.0 | 33.0 | 510 | 36.0 | 770 | 55.5 |
| 21 | 10.0 | 25 | 10.0 | 30 | 28.0 | 1.10 | . $45 \%$ | 28.0 | 58.5 | 33.0 | 68.5 | $54 \cdot 5$ |
| 22 | 160 | 20 | 210 | 100 | 330 | 13.5 | 58.0 | 205 | 63.0 | 43.0 | 57.0 | 50.0 |
| 23 | 30.0 | 70 | 24.0 | 15 | :50 | 150 | 45.5 | 250 | 55.0 | 350 | 60.0 | 47.5 |
| 24 | 31.5 | 12.5 | 26.0 | 11.0 | 20 | 150) | 41.0 | 190 | 57.0 | 35.0 | 60.0 | $41 \%$ |
| 25 | 21.5 | $0 \cdot 0$ | 230 | 17.0 | $2 \cdot 5$ | 19.0 | $43 \cdot 5$ | 230 | 6 5 .0 | 29.0 | 61.5 | 47.5 |
| 28 | $30 \cdot 5$ | 5.0 | 33.0 | 330 | 29.5 | 17\% | $39 \cdot 0$ | 350 | 775 | 45.0 | 63.5 | 60.0 |
| 27 | 35\% | 11.5 | 41.0 | 32.0 | 23.0 | 11.5 | 44.0 | 30.0 | 625 | 42.0 | 81.0 | 55.5 |
| 28 | 30.0 | $10 \cdot 0$ | .... | . | 220 | 83 | 43.0 | 230 | 47.0 | 38.0 | 72.5 | 51\% |
| 29 | 20.0 | 6.0 | $\ldots$ | .... | 20 | 310 | 41.5 | 36.5 | 53.5 | 38.0 | 79.0 | (00.0) |
| 30 | $9 \cdot 0$ | 10.0 | ... | .... | 38.0 | 16.5 | 11\% | 330 | 53.0 | 850 | 70.0 | $56 \%$ |
| 31 | 335 | 6.5 |  | .... | 390 | 15.0 | .... |  | 52 | 44.0 | . $\cdot \cdot$ |  |
|  | 260 | 3.7 | 19.6 | , 2.9 | $25 \%$ | - 3 | $30 \cdot 7$ | 213 | 50.5 | 390 | 69.4 | $47 \%$ |

and Ninimum Temperature, 1880.

| July. |  | August. |  | September. |  | 0etober. |  | November. |  | Decomber. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | M/n. | Mrax. | M In . | Max. | M1n. | 安 |
| - | - | - | - | - | - | - | - | - | - | - | - |  |
| 78.0 | 38.0 | 85.5 | 62.0 | 65.0 | 44.0 | $56 \cdot 0$ | 38.0 | 51.0 | 30.5 | $8 \cdot 5$ | 1.5 | 1 |
| 720 | 5\%0 | 90.5 | 60.0 | $50 \cdot 5$ | 54.0 | 51.5 | 33.5 | 435 | 29.0 | 16.5 | 0.0 | 2 |
| 770 | 52.0 | 69.0 | 50.0 | 81.0 | 50.0 | 5 | 41.0 | 43.5 | 26.5 | 23.0 | 10.5 | 3 |
| 70.5 | 53.0 | 610 | 47.0 | 70\% | 62.5 | 65.0 | 46.0 | 38.0 | 24.5 | 235 | 16.5 | 4 |
| 87.0 | 440 | 700 | $50 \cdot 0$ | 815 | $60 \cdot 5$ | 51.0 | 45.0 | $40 \cdot 5$ | 27.0 | 24.0 | 6.5 | 5 |
| 87.5 | 53.0 | .... | $\ldots$ | 81.5 | 51.0 | 52.5 | 38.0 | 41.0 | 33.0 | 31.0 | 190 | 6 |
| 78.5 | 55.5 | 66\% | 40.0 | 67.5 | 51.0 | 50.5 | 35.5 | 61.0 | 40.0 | 280 | 3.0 | 7 |
| 760 | 56.0 | 72\% | 40.1 | 040 | 450 | 52.0 | 34.5 | 48.0 | 89.0 | 15 | $0 \cdot 5$ | 8 |
| 72.0 | 51.0 | 03.5 | 53.0 | 60.0 | 460 | 62\% | 37.0 | 30.0 | 31.0 | 12.11 | 40 | 9 |
| 78.5 | 010 | 65.0 | 50.0 | $60 \%$ | 43.0 | $52 \cdot 5$ | 39.0 | 42.0 | 27.0 | $\ldots$ | $\ldots$ | 10 |
| 68.0 | 53.0 | 80.0 | 65.5 | 73.0 | 44.0 | $00 \cdot 5$ | 41.5 | 32.5 | 21.0 | $1 \because 0$ | 6.5 | 11 |
| $81 \cdot 2$ | 47.0 | 80.0 | 62.0 | 7.5 | 46.0 | 60.5 | 440 | 35.5 | 25.0 | 19.5 | 50 | 12 |
| 82.0 | 49.5 | 76.0 | 48.0 | 09.0 | 40.0 | 53.5 | $34 \cdot 5$ | $\ldots$ | $\ldots$ | 25.5 | 15.0 | 1: |
| 68.0 | 00.0 | 70.0 | $49 \cdot 5$ | 50.0 | 53.0 | 50.0 | 29.0 | 380 | 21.0 | 310 | 23.0 | 14 |
| 77.0 | 46.0 | 65\% | 45.0 | 57.5 | 59.0 | $60 \cdot 0$ | 44.0 | 27-5 | 15.0 | 30.5 | $25 \cdot 5$ | 1.5 |
| 73.5 | 40.0 | 60.0 | 40.0 | 61.5 | 52.0 | 61.0 | 3 ij 0 | 24.5 | 18.0 | 29.5 | 23.0 | 16 |
| 760 | 68.0 | 68.5 | 44.0 | 605 | 50.0 | .... | ... | 22.5 | 16.5 | 25.5 | 17.0 | 17 |
| 82.0 | 58.0 | 70.0 | 400 | 64.5 | 46.0 | $\ldots$ | .... | 33.0 | 21.0 | 29.0 | 220 | 18 |
| 76.5 | 52.0 | 765 | 49.0 | 62.0 | 39.5 | -... | 315 | 265 | 17.0 | 36.0 | 23.5 | 19 |
| 77.0 | 57.0 | 70.0 | 50.0 | 54.0 | 37.0 | 45 | 24.0 | $30 \cdot 0$ | 11.0 | 30.0 | 21.0 | 20 |
| 67.5 | 60.0 | 70.0 | $49 \cdot 5$ | 57.0 | $50 \cdot 5$ | 46.0 | 24.0 | $\ldots$ | $\cdots$ | 250 | 7.0 | 21 |
| 77.5 | 59.5 | 78.0 | 59.0 | 60.0 | 41.0 | $44 \cdot 5$ | $30 \cdot 5$ | 18.0 | 2.5 | 30\% | 10.5 | 으 |
| 720 | 59.0 | 78.5 | 56.0 | 52.5 | 29:3 | .... | .... | 20.5 | 11.0 | $20 \cdot 0$ | $12 \cdot 0$ | 23 |
| 70.0 | 56.0 | 740 | 545 | 50.0 | $30 \cdot 5$ | 52.0 | 29.0 | 23.0 | 14.0 | 29.0 | 15\% | 24 |
| 83.5 | 55.0 | 83.0 | 45.0 | $55 \%$ | 35.0 | .... | 38.5 | 18.0 | 8.0 | 255 | 9.5 | 25 |
| 70.0 | .... | 64.0 | 40.0 | 43.0 | 41.5 | 41.5 | 20.0 | 185 | 55 | $28 \cdot 5$ | 210 | 26 |
| 775 | 57.5 | 62.0 | 40.0 | 57.5 | 45.0 | 420 | 29.0 | 130 | 15 | 29.0 | 22.0 | 2r |
| 73.0 | 52.0 | 73.0 | 55.0 | 60.0 | 46.5 | 42.0 | 215 | $24 \cdot 0$ | $5 \cdot 0$ | 31.0 | 11.5 | 28 |
| ;0.0 | 51.0 | 62.0 | 52.6 | 59.5 | 43.0 | $40 \cdot 5$ | 24.5 | 275 | 16.5 | 13.5 | 5.0 | 29 |
| 73.0 | $52 \cdot 5$ | 660 | 440 | 560 | 42\% | 40.0 | 24.0 | 23.0 | 10 | 9.0 | 5.0 | 30 |
| 80.0 | 59.5 | 72-3 | 39.0 | ... | .... | 50.5 | 25.5 | $\ldots$ | .... | 70 | 6.0 | 31 |
| 76.5 | 53.6 | 71.0 | 50.1 | 63.0 | $46 \cdot 0$ | 51.0 | 83.8 | $32 \cdot 1$ | $19 \cdot 3$ | $25 \cdot 5$ | 11.0 |  |

TABLE LXIII.—Bathurst, N. B. Waximuth

| $\begin{gathered} \text { P } \\ \text { A } \end{gathered}$ | Januarj. |  | February. |  | March. |  | April. |  | Mas. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Mid. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | M1n |
|  | $\bullet$ | $\stackrel{\square}{9}$ | $\bullet$ | - | - | - | - | - | - | - | - | - |
| 1 | 28.5 | 20.0 | .... |  | 34.5 | $10 \cdot 4$ | 34.5 | 0.8 | 51.5 | 33.8 | 58.5 | 48.3 |
| 2 | 23-5 | 8.5 | 44.5 | 15.0 | 18.5 | 5.0 | 34.5 | 11.8 | $\ldots$ | $\ldots$ | 69.5 | 46.8 |
| 3 | 34.5 | 11.2 | 17.5 | 18.8 | 23.5 | 11.2 | 40.5 | 1588 | $43 \cdot 5$ | 24.0 | 59.5 | 38.8 |
| 4 |  |  | 28.5 | 15.8 | 28.5 | $10 \cdot 2$ | $\ldots$ | .... | 55.5 | 34.8 | 59.5 | \$5.8 |
| 5 | 34.5 | 8.3 | 17.5 | $9 \cdot 2$ | 30.5 | $15 \cdot 4$ | 48.5 | 30.8 | 49.5 | 34.8 | 63.5 | 97.8 |
| 8 | 18.5 | 138 | 19.5 | 3.0 | 23.6 | 6.0 | 47.5 | 30.8 | 48.5 | $35 \cdot 8$ | ... | .... |
| 7 | $30 \cdot 5$ | 10.0 | 27.5 | $10 \cdot 2$ | $\cdots$ | $\cdots$ | $38 \cdot 5$ | 19.8 | $38 \cdot 5$ | $30 \cdot 8$ | 67.5 | 37.2 |
| 8 | 32.5 | $8 \cdot 1$ | .... | $\ldots$ | 30.5 | $0 \cdot 0$ | $31 \%$ | 14.4 | 415 | 21.8 | 60.5 | 494 |
| 9 | $80 \cdot 5$ | $7 \cdot 1$ | 20.5 | $20 \cdot 8$ | 20.5 | 2.0 | 25.5 | $5 \cdot 0$ | .... | . | 56.5 | 53.4 |
| 10 | 28.5 | 0.0 | 215 | 8.0 | $5 \cdot 5$ | 0.0 | 35.5 | 10.0 | 63.5 | $39 \cdot 8$ | 62.5 | 48. 4 |
| 11 | .... | .... | 15.5 | 4.0 | 12.5 | 3.0 | $\ldots$ | $\ldots$ | 56.5 | 43.8 | 71.5 | $52 \cdot 4$ |
| 12 | 34.5 | 0.8 | 17\% | $9 \cdot 2$ | 6.5 | 15.0 | 45.5 | 13.8 | 64.5 | 448 | 78.5 | 60.5 |
| 13 | 28.5 | $12 \cdot 2$ | 335 | 13.4 | 8\% | 28 | 21.5 | 9.8 | 46.5 | $34 \cdot 8$ | . $\cdot$. | .... |
| 14 | $20 \cdot 5$ | $2 \cdot 0$ | 31.5 | $12 \cdot 3$ | $\ldots$ | $\cdots$ | 33.5 | 1593 | $40 \cdot 5$ | 37.8 | 68.5 | 48.8 |
| 15 | $20 \cdot 5$ | 0.8 | .... | $\ldots$ | 18.5 | 6.0 | 34.5 | 19.8 | $46 \cdot 5$ | $35 \cdot 8$ | 81.5 | 48.8 |
| 10 | $20 \cdot 5$ | 11.8 | 15\% | 2.0 | 19.5 | 4.0 | 42.5 | 25.8 | $\ldots$ | .... | 59.5 | 37.8 |
| 17 | 20.5 | $7 \cdot 8$ | 25.5 | $0 \cdot 0$ | 24 | 10.0 | 37.5 | 27.8 | 60.5 | 362 | 69.5 | $43 \cdot 8$ |
| 18 | .... | .... | 25 | $10 \%$ | 19.5 | 8.0 | .... | ...' | 49.5 | $34 \cdot 2$ | 74.5 | 43.8 |
| 19 | 29.5 | 10.2 | 44.5 | $35 \cdot 9$ | 295 | 12.3 | 36.5 | 18.8 | 51.5 | 28.1 | $82 \cdot 5$ | $10 \cdot 8$ |
| 20 | 31.5 | 112 | 33.5 | 30 | 27.5 | $10 \cdot 5$ | 54.5 | 33.0 | 64.5 | $44 \cdot 8$ | $\cdots$ | . |
| 21 | 18.5 | 5.8 | 18.5 | 80 | $\ldots$ | $\cdots$ | 59.5 | $30 \cdot 1$ | 33.5 | $40 \cdot 4$ | 82.5 | 57.4 |
| 22 | 18.5 | 5.8 | .... | . | 32.5 | 15.4 | 59.5 | 36.9 | $49 \cdot 5$ | $40 \cdot 4$ | 64.5 | 55.4 |
| 28 | 15.8 | $5 \cdot 8$ | 28.5 | 11.2 | 34.5 | 14.4 | 50.5 | $80 \cdot 9$ | . $\cdot$ | .... | 505 | 50.4 |
| 24 | 32.5 | $9 \cdot 3$ | 27.5 | 14.0 | 30.5 | $10 \cdot 2$ | 37.5 | 22.8 | 54.5 | 40.8 | 50.5 | 40.2 |
| 5 | *... | $\ldots$ | 215 | 10.2 | 28.5 | 14.2 | -... | .... | 51.5 | 48.8 | 58.5 | 453 |
| 23 | 345 | 3.0 | 32-5 | 18.6 | $20 \cdot 5$ | 15.4 | 48.5 | 20.8 | $65 \cdot 5$ | 43.8 | 67.5 | $55 \cdot 4$ |
| 27 | $30 \%$ | 6.0 | 805 | 336 | 15.5 | $6 \cdot 0$ | 49.5 | 34.8 | $63 \cdot 5$ | $45 \cdot 8$ | $\ldots$ | . |
| 28 | 37.5 | 22.8 | 43.5 | $22^{\circ} 0$ | .... | $\ldots$ | 48.5 | 238 | 68.5 | 49.8 | 73•5 | 53.4 |
| 29 | 41.5 | 5.0 | -• | .... | 30.5 | 8.8 | $45 \cdot 5$ | 26.8 | 68.5 | 40.8 | 74.5 | 60.5 |
| 30 | $19 \cdot 5$ | 8.8 | $\cdots$ | $\ldots$ | $38 \cdot 5$ | 5.8 | 63.5 | 38.8 | $\ldots$ | .... | 88.5 | 68.5 |
| 31 | 43.5 | 5.0 | *** | $\cdots$ | 83.5 | $8 \cdot 8$ | .... | $\cdots$ | $60 \cdot 5$ | 44.0 | $\cdots$ | . |
|  | 28.1 | 87 | 27.3 | 8.2 | $24 \cdot 2$ | 6.8 | 42.7 | $22 \cdot 6$ | $5 \cdot 2$ | 38.4 | 68.8 | 48.9 |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | October. |  | November. |  | lecember. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max | Min. |  |
| - | - | - | $\checkmark$ | - | 9 | - | - | - | $\bullet$ | - | - |  |
| 73.5 | 62.5 | .... | $\cdots$ | 62.5 | $41 \cdot 8$ | 61.5 | 38.2 | $55 \cdot 5$ | 34-1 | 135 | $2 \cdot 8$ | 1 |
| 76.5 | 58.5 | $82 \cdot 5$ | 64.5 | 65.5 | 43.8 | 50.5 | $31 \cdot 1$ | 41.5 | $29 \cdot 1$ | 12.5 | 3.8 | 2 |
| 74.5 | 61.5 | 90.5 | $61 \cdot 5$ | 64.5 | $56 \cdot 8$ | . | $\cdots$ | 44.5 | 26.0 | 19.5 | $4 \cdot 3$ | 3 |
| ... | ... | 67.5 | $55 \cdot 4$ | 78.5 | 60.8 | 62.5 | $35 \cdot 4$ | 41.5 | 23.0 | 29.5 | 19.8 | 4 |
| 73.5 | 66.6 | $65 \cdot 5$ | 54'4 | . | $\ldots$ | 635 | 55.5 | 395 | $29 \cdot 1$ | $\ldots$ | - ... | 5 |
| 79.5 | 50.5 | 69.5 | 46.3 | $79 \cdot 5$ | 42.2 | 61.5 | $40 \cdot 5$ | 45.5 | $31 \cdot 1$ | 28:5 | 10.0 | 6 |
| 775 | $48 \cdot 5$ | 72.5 | 453 | 84.5 | 51.3 | 57.5 | 38.5 | $\ldots$ | .... | 36-5 | 11.0 | 7 |
| 73.5 | 40-4 | $\ldots$ | . ${ }^{\text {. }}$ | 84.5 | $44 \cdot 2$ | 53.5 | $31 \cdot 3$ | 63.5 | 36.2 | 29.5 | 5.0 | 8 |
| 73.5 | 42.4 | 68.5 | 43.8 | 60.5 | $55 \cdot 3$ | 53.5 | 354 | 63.5 | 33.4 | 13.5 | 7.5 | 9 |
| 78.5 | 53.5 | 64.5 | 57.8 | 58.5 | $50 \cdot 4$ | $\ldots$ | $\ldots$ | 39.5 | $30 \cdot 1$ | 11.5 | 10.0 | 10 |
| ...' | $\ldots$ | $64 \cdot 5$ | $48 \cdot 8$ | 61.5 | $52 \cdot 3$ | 55.5 | 32.7 | $40 \cdot 5$ | 19.9 | 10.5 | 10.5 | 11 |
| 79.5 | $54{ }^{\text {¢ }} 4$ | 745 | $49 \cdot 8$ | $\ldots$ | .... | 60.5 | 30.7 | 38.5 | 25.0 | .... | $\cdots$ | 12 |
| 765 | 50.4 | 77.5 | $52 \cdot 8$ | 69.5 | 41.2 | 61.5 | $3 \pm .7$ | 43.5 | 360 | 21.5 | 8.0 | 13 |
| 81.5 | $49 \cdot 4$ | $74 \cdot 5$ | $54 \cdot 8$ | 75.5 | 66. 4 | 42.5 | 29.7 | .... | $\ldots$ | 29.5 | 18.0 | 14 |
| 67.5 | $50 \cdot 4$ |  | $\ldots$ | 61.5 | 56.3 | 51.5 | $32 \%$ | 38.5 | 19.9 | $35 \cdot 5$ | 23.0 | 15 |
| 725 | 45.3 | 64.5 . | 45.8 | 58.5 | 41.2 | 55.5 | 32.7 | $29 \cdot 5$ | 17.9 | $33 \cdot 5$ | 29.0 | 16 |
| $75 \cdot 5$ | 65.5 | 64.5 | $47 \cdot 8$ | 59.5 | $44 \cdot 2$ | . | $\cdots$ | 26.5 | 13.8 | 33.5 | 21.0 | 17 |
| .... | . $\cdot$ | $65 \cdot 5$ | 48.8 | 67.5 | 46.2 | 625 | $40 \cdot 4$ | $34 \cdot 5$ | 16.8 | 29.5 | 21.0 | 18 |
| $77 \cdot 5$ | $53 \cdot 4$ | $74 \cdot 5$ | 52.8 | .... | $\cdots$ | 55.5 | $30 \cdot 3$ | 37.5 | 14.0 | $\ldots$ | $\cdots$ | 19 |
| $79 \cdot 5$ | 60.5 | $72 \cdot 5$ | 608 | 63.5 | 35.2 | 46.5 | 29.3 | $32 \cdot 5$ | $5 \cdot 8$ | 34.5 | $22 \cdot 1$ | 20 |
| $80 \cdot 5$ | 65*5 | 73:5 | $50 \cdot 8$ | 57.5 | 43.2 | 42.5 | 21.2 | . $\cdot$. | $\cdots$ | $33 \cdot 5$ | $4 \cdot 8$ | 21 |
| 69.5 | 64.5 | $\ldots$ | $\ldots$ | 56.5 | 47.2 | 49.5 | 33.3 | $3 \pm .5$ | $7 \cdot 4$ | $24 \cdot 5$ | 8.0 | 22 |
| 725 | 63.5 | $76 \cdot 5$ | $60 \cdot 2$ | 58.5 | $40 \cdot 2$ | 48.5 | 38.4 | 19.5 | $9 \cdot 4$ | 33.5 | 24.2 | 23 |
| 68.5 | 60.5 | 79.5 | 57.2 | 54.5 | $33 \cdot 1$ | $\cdots$ | $\cdots$ | 19.5 | 14.6 | $33 \cdot 5$ | $21 \cdot 1$ | 24 |
| .... | .... | 73.5 | 55.2 | 54.5 | 40.2 | 55.5 | $34 \cdot 4$ | $20 \cdot 5$ | 12.5 | $\cdots$ | $\ldots$ | 25 |
| 68.5 | 60.5 | 59.5 | 43.0 | .... | $\cdots$ | 30.5 | 34'4 | $10 \cdot 5$ | 104 | $\ldots$ | .... | 26 |
| $84 \cdot 5$ | $65 \cdot 5$ | $65 \cdot 5$ | 48.9 | 59.5 | 43.3 | 43.5 | 27.3 | 20.5 | $7 \cdot 5$ | $30 \cdot 5$ | 150 | 27 |
| $72 \cdot 5$ | $59 \cdot 5$ | $70 \cdot 5$ | 56.2 | 66.5 | 51.3 | $43 \cdot 5$ | 23.3 | $\ldots$ | - | $30 \cdot 5$ | 260 | 28 |
| 72.5 | $55 \cdot 4$ | .... | .... | 57.5 | 52.3 | 39.5 | 24.2 | 20.5 | $9 \cdot 4$ | 31.5 | 0.4 | 29 |
| 88.5 | 59.5 | 75.5 | 44.8 | $60 \cdot 5$ | 40.2 | $33 \cdot 5$ | 25.2 | 27.5 | 0.2 | 95 | 2.5 | 30 |
| $65 \cdot 5$ | $57 \cdot 4$ | $65 \cdot 5$ | $35 \cdot 8$ | . $\cdot$. | $\cdots$ | '. ${ }^{\prime}$ | . $\cdot$. | $\cdots$ | $\cdots \cdot$ | 10.5 | $2 \cdot 5$ | 31 |
| $74 \cdot 1$ | 56.5 | $71 \cdot 3$ | 517 | $64^{\prime} 7$ | 47.3 | 52.0 | 33.2 | $37 \cdot 6$ | 19\%2 | 251 | $9 \cdot 6$ |  |

TABLE LXIV.—St. Andrews, N. B. Maximum

| $\dot{\sim}$ | Janaary. |  | February |  | March. |  | April: |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | $\bigcirc$ | - | - | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | - | 9 | - | 8 | - |
| 1 | 27.3 | 2.0 | 30.8 | $2 \cdot 3$ | 40.0 | $\ldots$ | 40.0 | 28.3 | $45 \cdot 8$ | $32 \cdot 0$ | $72 \cdot 6$ | 48.2 |
| 2 | 41.0 | 15.8 | 5.0 | 14.8 | $27 \cdot 3$ | .... | $42 \cdot 3$ | 21.8 | 52.9 | 33.0 | $63 \cdot 9$ | 52.6 |
| 3 | 35.0 | 6.0 | 15.6 | $1 \%$ | 38.0 | $\ldots$ | 39.0 | $32 \cdot 1$ | 44.8 | 37.2 | 58.7 | 47.7 |
| 4 | 30.0 | 6.0 | 18.4 | 9.0 | 46.8 | $\ldots$ | 43.8 | 37.0 | 63.5 | 40.8 | 86.9 | 45.0 |
| 5 | 37.0 | 3.5 | 28.8 | 14.8 | 41.8 | $\cdots$ | 547 | 38.0 | 51.2 | 41.0 | 697 | $48 \cdot 2$ |
| 6 | 37.0 | 2.0 | 32.0 | 14.8 | $28 \cdot 4$ | $\ldots$ | 48.8 | 35.0 | $64 \cdot 7$ | 40.0 | $70 \cdot 7$ | 47.2 |
| 7 | 37.0 | 17.8 | 21.4 | $7 \cdot 6$ | 34.0 | ... | 38.0 | $26 \cdot 3$ | 58.1 | 35.0 | 597 | 46.2 |
| 8 | 36.5 | 14.8 | 29.0 | 10-2 | 35.0 | $\ldots$ | 33.5 | 19.8 | 50.8 | 37.5 | 637 | 447 |
| 0 | $34 \cdot 1$ | 21.8 | 30.8 | 2.0 | 17.9 | .... | 40.0 | 21.8 | 56.2 | 41.0 | 67.7 | 51.2 |
| 10 | 38.8 | 16.8 | 23.2 | 11.8 | 35.0 | .... | 44.6 | 35.0 | 56.7 | 42.8 | $78 \cdot 1$ | 49.2 |
| 1 L | 24.8 | 7.0 | 23.8 | .... | 18.9 | $\ldots$ | 47.8 | 268 | $72 \cdot 6$ | 43.2 | $74 \cdot 6$ | 54.1 |
| 12 | 390 | 17.8 | 40.0 | . $\cdot$. | 23.8 | 1.6 | 28.8 | 168 | 63.2 | 45.2 | $72 \cdot 6$ | $55 \cdot 1$ |
| 13 | 31.0 | 2.0 | 42.8 | . $\cdot$. | 19.9 | 1.6 | 44.3 | 337 | 46.8 | 37.0 | $76 \cdot 1$ | $56 \cdot 1$ |
| 14 | 14.9 | 8.0 | 38.5 | $\cdots$ | 28.8 | $10 \cdot 6$ | $47 \cdot 8$ | 31.0 | 48.3 | $38 \cdot 1$ | 62.2 | $55 \cdot 1$ |
| 15 | 30.5 | 6.0 | $22 \cdot 3$ | ... | 28.8 | 9.6 | $43 \cdot 3$ | 32.0 | 507 | 39.5 | 687 | 497 |
| 10 | 32.0 | 18.8 | 293 | $\ldots$ | 27.3 | 19.8 | 53.2 | 86.2 | 67.7 | 42.7 | 88.7 | 47-2 |
| 17 | $35 \cdot 1$ | $24 \cdot 4$ | $34 \cdot 0$ | $\ldots$ | 26.0 | 16.8 | 410 | 26.8 | 63.7 | 44.2 | 73.6 | $49 \cdot 2$ |
| 18 | $39 \cdot 1$ | $80 \cdot 4$ | 44.8 | $\ldots$ | 27.8 | 10.6 | $43 \cdot 8$ | $27 \cdot 3$ | 62.2 | 41.0 | $77 \cdot 6$ | 48.2 |
| 10 | $36 \cdot 1$ | 23.8 | $44 \cdot 8$ | . | 33.5 | 24.7 | 51.2 | 28.3 | 567 | 42.2 | $79 \cdot 6$ | $52 \cdot 1$ |
| 20 | 30.8 | 18.8 | $24 \cdot 8$ | . $\cdot$. | $37 \cdot 3$ | 267 | 48.8 | 39.0 | 657 | 44.2 | $73 \cdot 1$ | $52 \cdot 8$ |
| 21 | $22 \cdot 8$ | 60 | 34.0 | ... | $35 \cdot 1$ | 28.2 | 86.7 | 35.0 | 63.7 | 46.0 | $59 \cdot 7$ | 50.2 |
| 22 | 22.8 | 3.0 | 32.2 | $\ldots$ | 38.3 | 22.7 | 54.7 | 350 | 59.7 | 47.2 | $62 \cdot 4$ | $49 \cdot 2$ |
| 23 | $42 \cdot 3$ | 18.5 | 85.0 | ... | 40.0 | 25.2 | 46.2 | 34.0 | 63.2 | 48.2 | $63 \cdot 3$ | $52 \cdot 1$ |
| 21 | 36.0 | 17.8 | $20 \cdot 3$ | $\ldots$ | 34.0 | 24.7 | 47.3 | 26.3 | 57.7 | 45.0 | 67.2 | 48.2 |
| :00 | 27.3 | 11.0 | 32-1 | $\cdots$ | 80.8 | 18.8 | 617 | $20 \cdot 8$ | 667 | 477 | $69 \cdot 2$ | $47 \times 2$ |
| 9 | 83 | 15.8 | 36.5 |  | 23.3 | 12.8 | $42 \cdot 3$ | 38.0 | 65-9 | 44.2 | 70.0 | $52 \cdot 1$ |
| 27 | 41.5 | 22.4 | 48.1 | . $\cdot$. | 855 | 10.6 | 547 | $30 \cdot 0$ | 81.6 | $46 \cdot 5$ | $88 \cdot 1$ | $54 \cdot 1$ |
| 2 s | 4788 | 31.4 | 38.0 | ... | 32.0 | 22.7 | 47.8 | 30.3 | 75.6 | 56.6 | $72 \cdot 1$ | $51 \cdot 4$ |
| 9 | 36.3 | 1.0 | $44 \cdot 8$ | $\cdots$ | 35.0 | 24.0 | 61.5 | 88.0 | 66.2 | $47 \cdot 2$ | 65.2 | $52 \cdot 1$ |
| 30 | 36.4 | $5 \cdot 0$ | .... | $\ldots$ | 33.3 | $22 \cdot 3$ | 47.8 | 410 | $64 \cdot 7$ | 47.2 | 74.6 | $56 \cdot 1$ |
| 81 | 44.8 | 23.9 | $\cdots$ | -' | 87.0 | 30.8 | $\ldots$ | $\cdots$ | 54.2 | 477 | $\cdots \cdot \cdot$ | $\ldots$ |
|  | $35 \%$ | 12\%3 | $81 \cdot 3$ |  | $32 \cdot 1$ | $\cdots$ | $45^{\circ} 9$ | 30٪8 | 5048 | $42^{\circ}{ }^{\circ}$ | 69.5 | 60.4 |

and Minimum Temporature, 1880.

| July. |  | August. |  | September. |  | 0ctober. |  | Notember. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max, | Min. | 荷 |
| - | - | - | 0 | - | - | - | 0 | - | - | - | - |  |
| $80 \cdot 6$ | 59.1 | $87 \cdot 1$ | 88.0 | 72.6 | $54 \cdot 1$ | 56.7 | 44.2 | 46.8 | 36.6 | 18.9 | $10 \cdot 1$ | 1 |
| 61.3 | $52 \cdot 4$ | 79.2 | 62.0 | 70.5 | 55.6 | 597 | 42.2 | 48.8 | $30^{\circ} 0$ | $17 \cdot 9$ | $15 \cdot 6$ | 2 |
| 72•1 | 54.1 | 677 | $60 \cdot 4$ | 76.8 | 58.3 | 807 | 42.2 | 41.0 | 32.0 | $28 \cdot 3$ | 16.0 | 3 |
| $78 \cdot 2$ | $57 \cdot 1$ | 627 | $57 \cdot 1$ | $75 \cdot 6$ | 61.3 | 60.7 | 53.1 | 44.8 | $34 \cdot 6$ | 27.8 | 13.8 | 4 |
| 79.6 | 57.3 | 70.7 | 59.6 | 77.7 | 60.1 | 60.7 | 47.2 | 48.3 | 38.3 | 35.0 | 14.8 | 5 |
| 86.7 | 54.6 | $74 \cdot 6$ | 57.6 | $82 \cdot 1$ | 59.0 | $60 \cdot 1$ | 49.2 | 54.7 | 47.2 | 423 | 29.3 | 6 |
| 74.6 | $54 \cdot 1$ | 74.6 | $59 \cdot 1$ | 72•1 | $58 \cdot 1$ | 577 | 44.2 | 597 | 41.0 | 30.3 | 18.8 | 7 |
| $82 \cdot 2$ | 56.1 | 687 | $55 \cdot 6$ | 68.5 | $56 \cdot 1$ | 55.7 | $39 \cdot 5$ | 43.6 | 31.3 | 20.9 | $10 \cdot 8$ | 8 |
| $68 \cdot 3$ | $58 \cdot 1$ | $69 \cdot 2$ | 57.3 | 61.7 | $54 \cdot 9$ | 58.7 | 47.7 | 46.8 | $32 \cdot 1$ | 18.9 | $10 \cdot 3$ | 9 |
| $83 \cdot 7$ | $61 \cdot 1$ | 72-1 | 57.3 | 58.2 | $50 \cdot 2$ | 56.2 | 49.2 | 46.3 | $33 \cdot 1$ | $19 \cdot 4$ | 11.1 | 10 |
| 76.4 | $59 \cdot 1$ | 71.2 | 58.1 | 707 | 51.5 | 61.7 | 48.7 | 44.8 | 36.0 | 18.9 | 3.8 | 11 |
| 79.6 | 56.6 | $75 \cdot 6$ | 58.6 | 70.7 | 517 | 61.7 | 46.2 | 50.3 | 39.0 | 26.4 | - 14.8 | 12 |
| $70 \cdot 7$ | $55 \cdot 1$ | 74.0 | $58 \cdot 1$ | $67 \cdot 2$ | $53 \cdot 1$ | 47.8 | 35.0 | 42.8 | $33 \cdot 5$ | 41.0 | 22.0 | 13 |
| 73.2 | $55 \cdot 1$ | $64 \cdot 2$ | $59 \cdot 1$ | 59*5 | $55 \cdot 1$ | 58.7 | $37 \cdot 1$ | 36.5 | 28.3 | 41.8 | 34.0 | 14 |
| $74 \cdot 6$ | $52 \cdot 1$ | 66.2 | 50.2 | 617 | $58 \cdot 1$ | 62.7 | 43.0 | 34.0 | $28 \cdot 3$ | 39.5 | 34.0 | 15 |
| 64.5 | $53 \cdot 3$ | 687 | 52.5 | 637 | $55 \cdot 1$ | 63.7 | 46.2 | 41.9 | 29.3 | 36.0 | $25 \cdot 3$ | 16 |
| 71•3 | 53.1 | 707 | 54.1 | 68.5 | 54.3 | 63.7 | 55-1 | 39.5 | 28.3 | $29^{\circ} 0$ | 15.8 | 17 |
| $79 \cdot 6$ | 53.1 | $65 \cdot 9$ | 52.1 | 68.5 | 56.1 | 61.2 | $40 \cdot 0$ | 45.8 | $30 \cdot 3$ | 26.8 | 16.6 | 18 |
| 78.0 | $58 \cdot 1$ | 64.2 | 53.1 | 677 | 49.7 | I 50.8 | 38.5 | 32.0 | 21.7 | 36.0 | 17.8 | 19 |
| $74 \cdot 6$ | $55 \cdot 1$ | 66.7 | $55 \cdot 1$ | $57 \%$ | 51.2 | 47.3 | 35.5 | 40.0 | 24.8 | 31.6 | $20 \cdot 8$ | 20 |
| 68.9 | $56 \cdot 1$ | $63 \cdot 1$ | $55 \cdot 1$ | 61.2 | $53 \cdot 1$ | 50.8 | 34.0 | 37.5 | 19.7 | 26.8 | 17.8 | 21 |
| 66.0 | 55.1 | 78.1 | $55 \cdot 1$ | 60.7 | 47.2 | 527 | 39.2 | 24.8 | 13.0 | $31 \cdot 3$ | 247 | 22 |
| 67.5 | 56.4 | $83 \cdot 6$ | 54.9 | 57.3 | 43.2 | 57.2 | 50.2 | 21.8 | 123 | 35.0 | 293 | 23 |
| 68.2 | 56.5 | 75.6 | $59 \cdot 1$ | 58.2 | 412 | 53.2 | $35 \cdot 0$ | $24 \cdot 3$ | 13.8 | 31.0 | 25.3 | 24 |
| 78.6 | 57.1 | 65.7 | 497 | 61.7 | 51.1 | 38.0 | 34.0 | $24 \cdot 8$ | 14.8 | 30.8 | 25.8 | 25 |
| 71.9 | 55.1 | 667 | 48.2 | 56.2 | 51.2 | 43.8 | 32.0 | 17\% | 9.6 | 32.0 | 25.0 | 26 |
| $67 \cdot 2$ | 56.5 | $67 \cdot 2$ | 50.1 | 67.7 | 54.3 | 493 | 40.0 | 28.8 | 10.6 | 33.0 | 29.3 | 27 |
| $76 \cdot 1$ | 58.2 | 74-1 | 56.1 | 63.7 | 56.6 | 41.5 | $30 \cdot 3$ | $33 \cdot 5$ | $15 \cdot 8$ | 32.5 | $9 \cdot 6$ | 28 |
| $72 \cdot 1$ | 55.1 | 72.6 | $60 \cdot 1$ | 637 | 497 | 44.3 | 27.0 | 39.5 | $30 \%$ | 18.4 | $9 \cdot 1$ | 29 |
| 707 | $55 \cdot 1$ | $70 \cdot 7$ | $52 \cdot 1$ | 63.2 | 49.2 | 50.3 | 38.7 | 32.0 | 11.6 | 13.4 | 4.6 | 30 |
| 78.6 | 56.3 | 707 | 48.7 | .... | . $\cdot$ | 577 | 41.5 | $\ldots$ | .... | 12.9 | 0.6 | 31 |
| $73 \cdot 4$ | $55 \cdot 9$ | 71.0 | 55.9 | 662 | 58.4 | 55.0 | 415 | $39 \cdot 1$ | $27 \cdot 1$ | 28.5 | 17.9 |  |

TABLE LXV.-Halifax, N. S. Maximum

| $\dot{\Delta}$ | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | - | - | - | - | - | $\bigcirc$ | $\bigcirc$ | - | - | - |
| 1 | $80 \cdot 1$ | 7.8 | $30 \cdot 4$ | 20.0 | $39 \cdot 7$ | 25.0 | 29.6 | $24 \cdot 0$ | $45 \cdot 4$ | 31.8 | $76 \cdot 3$ | $50 \cdot 1$ |
| 2 | 37.6 | $7 \cdot 9$ | $20 \cdot 3$ | $2 \cdot 7$ | 25.5 | 16.6 | 46.2 | $19 \cdot 8$ | 48.0 | $20 \cdot 4$ | 70.0 | 51.3 |
| 3 | 34.2 | 6.0 | 30.2 | $0 \cdot 1$ | $34 \cdot 4$ | 12.5 | 50.0 | 24.8 | 46.2 | 35.0 | $50 \cdot 0$ | 46.0 |
| 4 | 39.5 | 5.5 | 37.8 | 18.0 | $45 \cdot 4$ | 31.9 | $43 \cdot 0$ | $33 \cdot 7$ | 62.6 | 30.5 | 60.8 | $42 \cdot 4$ |
| 5 | $35 \cdot 5$ | 10.5 | 28.6 | 18.0 | 37.7 | 29.2 | 49.3 | 36.0 | 45.3 | 37.7 | 64.8 | $40 \cdot 9$ |
| 6 | $36 \cdot 2$ | 6.4 | $36 \cdot 4$ | 20.0 | 29.9 | 182 | $50 \cdot 3$ | $31 \cdot 1$ | 52.0 | $40 \cdot 4$ | 61.4 | 47.0 |
| 7 | $40 \cdot 2$ | $22 \cdot 4$ | 21.5 | 11.2 | 31.8 | 15.5 | 37.0 | 20.0 | 50.8 | 33.9 | $53 \cdot 4$ | 43.8 |
| 8 | $30 \cdot 8$ | 18.9 | 29.0 | $8 \cdot 6$ | 35.0 | 117 | 33.0 | 18.6 | 50.3 | $29: 2$ | 58.0 | 45.3 |
| 9 | 35.3 | 19.7 | 36.2 | 5-2 | 19.5 | 3.0 | $40 \cdot 7$ | 22.0 | 52.2 | 38.5 | 56.4 | 45.0 |
| 10 | 41.8 | $29 \cdot 3$ | 16.7 | $3 \cdot 4$ | 32.5 | 120 | $45 \cdot 1$ | 29.2 | 51.7 | 36.8 | 77.3 | $42 \cdot 6$ |
| 11 | 29.8 | 18.0 | $30 \cdot 5$ | 13.0 | 23.0 | 2.3 | $47 \cdot 1$ | $31 \cdot 1$ | 66.8 | 32.0 | 74.8 | 49.5 |
| 12 | 37.0 | 16.0 | 40.7 | 13.0 | $23 \cdot 3$ | 0.0 | $34 \cdot 7$ | 20.0 | 51.6 | 41.0 | 72.0 | 52.5 |
| 13 | 34.8 | 15.0 | 45.0 | 36.0 | 21.0 | $5 \cdot 0$ | $43 \cdot 7$ | 18.0 | 468 | 35.7 | 76.2 | 50.0 |
| 14 | 15.0 | 3.5 | 37.0 | 17.2 | 26.7 | $9 \cdot 1$ | 48.4 | 30.8 | 46.7 | $34 \cdot 3$ | 61.9 | $49 \cdot 8$ |
| 15 | 31.5 | 3.4 | 28.1 | 11.0 | 29.0 | 18.0 | 39.0 | 30.0 | 52.0 | 342 | 57.7 | 44.0 |
| 16 | $34 \cdot 1$ | $22 \cdot 3$ | 24.9 | 20.0 | $20 \cdot 1$ | 14.0 | 57.0 | 33.0 | $62 \cdot 4$ | $32 \cdot 5$ | $70 \cdot 3$ | $40 \cdot 1$ |
| 17 | 36.0 | 38.0 | 30.0 | $15 \cdot 4$ | 25.0 | 14.0 | 33.8 | 28.8 | 54.6 | $30 \cdot 2$ | 74.0 | 43.5 |
| 18 | 36.0 | $30 \cdot 4$ | 42.9 | $23 \cdot 1$ | $30 \cdot 2$ | 8.0 | $34 \cdot 2$ | 25.0 | 63.0 | 36.6 | 77.2 | $45 \cdot 5$ |
| 19 | 34.3 | $29 \cdot 8$ | 450 | 16.8 | 35.0 | 18.1 | $54 \cdot 8$ | 26.0 | $40 \cdot 4$ | 32.0 | 83.7 | $48 \cdot 1$ |
| 20 | $34 \cdot 4$ | 21.5 | 10.0 | 6.6 | $30 \cdot 3$ | 19.0 | $40 \cdot 4$ | 36.0 | 59.3 | $30 \cdot 3$ | 78.2 | 52.0 |
| 21 | $30 \cdot 2$ | $15 \cdot 3$ | 37.2 | 11.0 | $36 \cdot 3$ | 13.7 | 61.8 | 35.0 | 70.0 | $43 \cdot 3$ | 63.9 | $52 \cdot 6$ |
| 22 | $2 \overline{5} \cdot 1$ | 11.0 | 38.8 | 24.0 | 45.4 | 24.0 | 58.0 | $30 \cdot 3$ | $74 \cdot 1$ | 473 | 645 | $49 \cdot 4$ |
| 23 | 42.8 | 17.0 | 31.0 | $10 \cdot 4$ | $40 \cdot 3$ | 26.3 | 43.0 | $32 \cdot 1$ | 73.3 | $46 \cdot 1$ | 57.3 | $47 \times 4$ |
| 24 | 38.4 | 31.1 | 28.9 | 23.8 | $36 \cdot 1$ | 251 | 47.0 | 25.5 | 66.5 | 510 | $58 \cdot 1$ | 46.0 |
| 25 | 33.3 | 20.0 | 434 | 25.0 | 36.9 | 253 | 51.5 | 27•S | 61.0 | 40.0 | $77 \cdot 3$ | 12 S |
| 26 | $87 \cdot 4$ | 16.8 | 35.6 | 30.0 | 26.7 | 14.0 | $44 \cdot 1$ | $32 \cdot 2$ | 61.8 | 395 | 59.5 | 43.1 |
| 27 | $39 \cdot 7$ | 20.0 | $48 \cdot 8$ | 33.0 | 31.0 | $8 \cdot 9$ | 61.3 | 40.9 | 58.8 | 40.0 | 83.1 | 56.0 |
| 28 | 47.0 | 34.0 | 40.2 | $30 \cdot 5$ | 84.5 | 17.8 | 49.0 | 31.0 | 88.0 | 43.3 | $78 \cdot 7$ | 56.0 |
| 29 | $39 \cdot 1$ | 8.4 | 47.3 | 32.0 | $33 \cdot 4$ | 14.3 | $51 \cdot 2$ | $27 \cdot 1$ | 60.5 | 52.3 | $72 \cdot 5$ | 56.0 |
| 80 | 32.0 | $4 \cdot 4$ | ... | . $\cdot$. | $32 \cdot 5$ | $19 \cdot 9$ | 48.8 | 365 | 66.7 | 43.3 | 86.3 | 53.0 |
| 31 | 44.0 | $29 \cdot 0$ | $\cdots$ | $\cdots$ | 34.9 | 27.2 | $\cdots$ | $\ldots$ | 55.0 | 46.5 | $\cdots$ | $\cdots$ |
|  | $35 \cdot 9$ | $17 \cdot 3$ | 33.0 | $17 \cdot 1$ | 31.9 | 16.1 | 46.2 | $28 \cdot 7$ | 57.9 | 38.6 | $68 \cdot 9$ | $47 \times 7$ |

and Minimum Temperature, 1880.

| July, |  | August. |  | September. |  | 0ctober. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Mid. | Max | M1n. | Max. | M1n. | Max. | M12. | Max. | Min. | Max. | Min. | シ |
| - | 0 | - | - | - | - | - | - | - | $\bigcirc$ | - | - |  |
| 83'4 | 58.0 | 90.0 | 55.3 | 74.9 | $46^{4} 4$ | 63.9 | 44.0 | 55.3 | 34.0 | 20.5 | 13.3 | 1 |
| $78 \cdot 2$ | $58 \cdot 1$ | $83 \cdot 3$ | 61.0 | 72.6 | $46 \cdot 1$ | 62.5 | 42.0 | 48.0 | 22.7 | $22 \cdot 2$ | 9.3 | 2 |
| $74 \cdot 2$ | 58.8 | $78 \cdot 4$ | 60.5 | 78.0 | 46.0 | 627. | $40 \cdot 5$ | $44 \cdot 2$ | 31.0 | 27.3 | 14.0 | 3 |
| $74 \cdot 3$ | 588 | $74 \cdot 3$ | 61.8 | 78.3 | 56.0 | $66^{4}$ | 498 | 44.9 | 28.9 | 24.0 | $17 \cdot 6$ | 4 |
| $82 \cdot 3$ | 54.3 | 70.0 | 60.7 | 85.0 | 56.0 | 70.0 | 58.3 | 48.0 | 30.5 | 35.2 | 15.0 | 5 |
| 72.5 | 56.5 | $76 \cdot 4$ | 58.0 | 83.8 | 61.0 | 63.7 | $50 \cdot 4$ | $55 \cdot 1$ | 45.2 | 45.0 | 34.7 | 6 |
| 87.3 | 58.8 | 78.0 | 56.0 | $76 \cdot 3$ | 60.7 | $65 \cdot 4$ | 43.9 | 60.4 | 44.8 | 35\% | 250 | 7 |
| 81.6 | 55.0 | 73.0 | 51.0 | $70 \cdot 4$ | $56 \cdot 1$ | 57.7 | 40.8 | $48 \cdot 3$ | 35.5 | $2 \overline{2} 6$ | 163 | 8 |
| $77 \cdot 0$ | $59 \cdot 1$ | 73.0 | 54'4 | 59.3 | 54.0 | 57.5 | 40.0 | $47 \cdot 6$ | $30 \cdot 4$ | $\underline{2} \cdot 9$ | 90 | 9 |
| 80.2 | 59.5 | $75 \cdot 7$ | 57.0 | 60.0 | 548 | 59.3 | 41.0 | 42.7 | 31.2 | 262 | $8 \cdot 1$ | 10 |
| 75.0 | 55.0 | $74 \cdot 7$ | 57.2 | $60 \cdot 3$ | 49.8 | 62.7 | 41.5 | $43 \cdot 8$ | 28.7 | $23 \cdot 3$ | 15.9 | 11 |
| 787 | 504 | 69.8 | 53.5 | 714 | $45^{\circ} 0$ | 64.8 | 41.5 | 52.0 | 40.0 | 249 | 17.0 | 12 |
| $72 \cdot 5$ | $50 \cdot 3$ | 71.9 | ${ }^{+} 40.7$ | 69.3 | 51.0 | $55 \cdot 3$ | 35.0 | 43.8 | 36.0 | 38.2 | 19.5 | 13 |
| 71.0 | 53.0 | 68.0 | 49.5 | 68.7 | $54 \cdot 3$ | 49.7 | 319 | 38.9 | 295 | 41.8 | $34 \cdot 0$ | 14 |
| $77 \cdot 3$ | $49 \cdot 0$ | 76.0 | $52 \cdot 4$ | 63.3 | 59.5 | 58.9 | 360 | $34 \cdot 1$ | 27.8 | 368 | $32 \cdot 9$ | 15 |
| 73.8 | 54.9 | 68.0 | 46.8 | 687 | 51:\% | 677 | 360 | 41.5 | 26.7 | 37.0 | 30.7 | 16 |
| 72.1 | 57.0 | 69.0 | 49.7 | 70.0 | 51.3 | 61.3 | $48 \cdot 3$ | 40.2 | 28.1 | $32 \cdot 3$ | 21.8 | 17 |
| 80.0 | $58 \cdot 4$ | 69.0 | 48.3 | 71.0 | 53.0 | 64.8 | 42.0 | $47 \cdot 1$ | $35 \cdot 1$ | $32 \cdot 3$ | 21.2 | 18 |
| $83 \cdot 3$ | $55 \cdot 1$ | $71 \cdot 1$ | $46^{\circ} 0$ | 68.7 | 49.0 | 538 | 35.0 | 437 | 22.6 | 314 | 23.0 | 19 |
| 72.7 | 54.9 | $66^{\circ} 1$ | 523 | 63.3 | 4138 | 52.2 | 31-2 | 44.4 | $19 \cdot 4$ | $34 \cdot 3$ | 23.4 | 20 |
| 67.7 | 59.0 | 750 | 60.3 | $66^{\circ} 0$ | 53.8 | 54.0 | 31.9 | 52\% | 23.3 | 28.0 | 23.2 | 21 |
| $71 \cdot 1$ | 60.8 | $82 \cdot 3$ | $50 \cdot 4$ | 65.0 | 48.3 | 57.5 | 33.8 | $24 \cdot 0$ | 19.2 | 34.3 | 233 | 22 |
| 76.8 | $61^{\circ} 0$ | $82 \cdot 2$ | 54.8 | 59.6 | 43.8 | 57.0 | 488 | $23 \cdot 4$ | 18.0 | $35 \cdot 0$ | 31.5 | 23 |
| 68.0 | $61 \cdot 4$ | 81.0 | $57 \cdot 3$ | 61.0 | 37.2 | 51.7 | 39.0 | $2 \pm 0$ | 17.6 | 33.0 | $26 \cdot 1$ | 24 |
| $79 \cdot 0$ | 59.0 | $70 \cdot 2$ | 58.0 | 62.7 | $43 \cdot 3$ | 400 | $34 \cdot 1$ | $34 \cdot 2$ | 18.0 | 36.0 | 260 | 25 |
| 677 | 57.0 | 69.3 | $46 \cdot 1$ | 60.5 | $46 \cdot 1$ | $46 \cdot 4$ | 33.6 | 23.0 | 15 | 37.9 | 21.0 | 26 |
| 713 | 58.8 | $69 \cdot 8$ | 44.3 | $60 \cdot 3$ | 49.8 | 49.0 | 33.5 | 26.0 | 117 | $38 \cdot 1$ | 23.8 | 27 |
| $70 \cdot 7$ | 597 | $76 \cdot 3$ | 550 | 74.0 | 61.7 | 55.0 | 41.0 | $35 \cdot 6$ | 200 | $36 \cdot 6$ | $20 \cdot 1$ | 28 |
| $70 \cdot 3$ | 55.3 | 73.0 | 58.4 | 68.3 | 55.6 | 44.5 | 35.5 | 44.0 | 27.0 | 31.8 | 150 | 29 |
| 71.0 | 53.3 | $70 \cdot 6$ | 52.0 | 6.64 | 46.5 | 49.5 | $32 \%$ | 329 | 13:3 | 3.8 | $9 \cdot 3$ | 30 |
| 77.3 | $55 \cdot 4$ | $72 \cdot 4$ | $49 \cdot 3$ |  | $\ldots$ | 57.8 | $42^{\circ} 0$ | $\cdots$ | $\cdots$ | 17.5 | $7 \cdot 0$ | 31 |
| 74.8 | 56.6 | $74 \cdot 1$ | 53.7 | 69.1 | $51 \cdot 4$ | $57 \cdot 4$ | $39 \cdot 8$ | 41-2 | $27 \cdot 4$ | 31.8 | $20 \cdot 4$ |  |


| $\begin{aligned} & \dot{4} \\ & \dot{4} \end{aligned}$ | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Mla. | Max, | Min. | Max. | Min. | Max. | Min. |
|  | - | - | - | - | - | - | - | - | - | - | - | - |
| 1 | 28.0 | $2 \cdot 0$ | $29^{\circ} 0$ | 12.0 | $42 \cdot 3$ | 10.0 | $32 \cdot 4$ | 27.0 | 52.0 | 34.2 | $87 \cdot 1$ | 46.5 |
| 2 | 35.0 | $9 \cdot 3$ | 16.4 | $3 \cdot 8$ | $21 \cdot 1$ | $7 \cdot 3$ | $35 \cdot 3$ | 197 | 50.4 | 30.8 | $67 \cdot 2$ | 460 |
| 8 | $34 \cdot 6$ | 8.6 | $20 \cdot 6$ | $3 \cdot 4$ | $20 \cdot 3$ | $7 \cdot 6$ | 51.9 | $12 \cdot 4$ | 54.6 | 36.0 | $49^{\circ} 0$ | $43 \cdot 8$ |
| 4 | 36.0 | 13.6 | $32 \cdot 5$ | 8.0 | 36.0 | 15.0 | 45.0 | 33.0 | 47.0 | $30 \cdot 2$ | $47 \cdot 4$ | 39.6 |
| 5 | 36.0 | $13 \cdot 4$ | $21 \cdot 4$ | 6.6 | $32 \cdot 6$ | 19.0 | 48.5 | $32 \cdot 0$ | 51.7 | $27 \cdot 1$ | $44 \cdot 1$ | 39.0 |
| 6 | 29.8 | 5.8 | $31 \cdot 1$ | $3 \cdot 3$ | 24.8 | $14 \cdot 6$ | 45.0 | 27.8 | 50.6 | $38 \cdot 8$ | $50 \cdot 6$ | $39 \cdot 6$ |
| 7 | 36.0 | $9 \cdot 4$ | 22.0 | $9 \cdot 5$ | 22.0 | $2 \cdot 0$ | 34.0 | 19.8 | 99.9 | 28.7 | $54 \cdot 4$ | $40 \cdot 1$ |
| 8 | 31.9 | $7 \cdot 0$ | $12 \cdot 6$ | $11 \cdot 8$ | 33.5 | 0.8 | 28.5 | 11.8 | $42 \cdot 3$ | 28.0 | 54.0 | $42 \cdot 8$ |
| $\theta$ | 26.3 | 1.0 | 38.2 | 1.0 | 8.4 | 11.9 | $32 \cdot 4$ | 10.0 | 53.0 | $30 \cdot 0$ | 63.7 | 42.7 |
| 10 | 43.0 | 9.0 | $4 \cdot 9$ | 72 | 22.8 | $7 \cdot 0$ | $41 \cdot 3$ | 24.7 | 51.0 | $36 \cdot 3$ | $62 \cdot 6$ | $46^{\circ} 0$ |
| 11 | $30 \cdot 8$ | $15 \cdot 2$ | 22.7 | 24 | 17.9 | $7 \cdot 6$ | 44.0 | 30.0 | 68.7 | 36.2 | $75 \cdot 2$ | 450 |
| 12 | 33.2 | 12.0 | 32.2 | 8.7 | 10.0 | $24 \cdot 2$ | 36.4 | 21.3 | $67 \cdot 2$ | 33.0 | $61 \cdot 4$ | $43 \cdot 6$ |
| 13 | $32 \cdot 2$ | 19.5 | 43.3 | 23.0 | $12 \cdot 1$ | $14 \cdot 7$ | $34 \cdot 1$ | $17 \cdot 6$ | $45 \cdot 4$ | 350 | 68.2 | 42.7 |
| 14 | 20.8 | 4.0 | 260 | 16.0 | 20.5 | 17.0 | $37 \cdot 4$ | 20.6 | $38 \cdot 6$ | $32 \cdot 4$ | $61 \cdot 2$ | 44.0 |
| 15 | 23.0 | 1.8 | 18.9 | 0.6 | 22.4 | - 87 | 36.0 | 18.8 | 46.2 | $32 \cdot 4$ | 46.9 | 42.7 |
| 18 | 278 | 17.8 | $2 \overline{3} 6$ | 15.0 | 26.7 | $9 \cdot 4$ | $40 \cdot 9$ | $27 \cdot 4$ | 58.0 | 31.2 | $60 \cdot 5$ | 41.3 |
| 17 | $32 \cdot 1$ | ¢2. 6 | 22.0 | 1.4 | $23 \cdot 1$ | $8 \cdot 6$ | 33.0 | 23.7 | 51.9 | $26 \cdot 9$ | 70.1 | 39.8 |
| 18 | 37.5 | $30 \cdot 3$ | 37.8 | 2.2 | $29 \cdot 1$ | -33 | 29.6 | $25 \cdot 8$ | 58.0 | 27.0 | 76.4 | 35.8 |
| 19 | 44.1 | 28.0 | $4 \cdot 3$ | 16.2 | 31.4 | $7 \cdot 0$ | 38.8 | $24 \cdot 4$ | 54.0 | 22.8 | 77.9 | 48.0 |
| 20 | 31.6 | 15.0 | 187 | 40 | 250 | 4.2 | 48.7 | 28.3 | 53.) | $35 \cdot 7$ | 79-9 | $48 \cdot 6$ |
| 21 | 34.6 | 14.8 | 32.0 | 9.1 | 26.5 | 7.7 | 48.0 | 27.0 | $70 \cdot 9$ | $45^{\circ} 0$ | 70.1 | $53 \cdot 5$ |
| 22 | 31.0 | 75 | 38.0 | 14.8 | 85.0 | 2.0 | 58.4 | $22 \cdot 6$ | $56 \cdot 6$ | 38.0 | 54.7 | $45 \cdot 4$ |
| 23 | 41.0 | 12 | 28.5 | $9 \cdot 5$ | 35.0 | 19.0 | 47.2 | 28.6 | 740 | $38 \cdot 9$ | 502 | $43 \cdot 6$ |
| 24 | 41.8 | $32 \cdot 4$ | 29.0 | 2.0 | 327 | 24.0 | 40.0 | 24.6 | $72 \cdot 3$ | 45.0 | 57.9 | 41.8 |
| 25 | 333 | 117 | 32.0 | 20.6 | 37.3 | 26.5 | 47.2 | $20 \cdot 5$ | $48 \cdot 1$ | 37.0 | 6\%:8 | $39 \cdot 6$ |
| 26 | 29.9 | $3 \cdot 3$ | $45 \cdot 4$ | 29.0 | $27 \cdot 1$ | 18.0 | $40 \cdot 2$ | 23.0 | $46 \cdot 4$ | $37 \cdot 4$ | 72.9 | 430 |
| 27 | 36.0 | 80 | 41.9 | 31.4 | $23 \cdot 5$ | 1.0 | 54.9 | 31.2 | 62.8 | $40 \cdot 5$ | 69.0 | $48 \cdot 7$ |
| 28 | 43.0 | $33 \cdot 4$ | $37 \%$ | 28.4 | $32 \cdot 9$ | 07 | 41.5 | $26 \cdot 6$ | 71.9 | 45.5 | 767 | 45.0 |
| 29 | 398 | 5.8 | 4.5.5 | $29 \cdot 3$ | $27 \cdot 6$ | 18.0 | 52.7 | 25.3 | 61.7 | 38.0 | $77 \cdot 6$ | $52 \cdot 8$ |
| 30 | 24.0 | $5 \cdot 1$ | $\cdots$ | $\cdots$ | 34.0 | 21.0 | $40^{\circ} 0$ | 32.0 | 60.7 | 33.0 | 85.0 | 66.2 |
| 31 | 41.3 | $23 \cdot 3$ | $\cdots$ | $\cdots$ | 35.2 | 29.3 | .... | $\cdots$ | $50 \cdot 9$ | $33 \cdot 3$ | $\cdots$ | - |
|  | $33 \cdot 9$ | 10.7 | $20 \cdot 2$ | $8 \cdot 0$ | $20 \cdot 7$ | $5 ;$ | 42.1 | $24 \cdot 1$ | 55.5 | 34-3 | $63 \cdot 3$ | $44 \cdot 3$ |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | M1n. | Max. | MIn. | Max. | M1n. | Max. | M1n. | Max. | Min. | Max. | Min. | 安 |
| - | - | 0 | - | $\underline{\square}$ | $\bullet$ | - | $\bigcirc$ | $?$ | - | 0 | - |  |
| 77.0 | $55^{\circ} 0$ | 81.0 | $56 \cdot 1$ | $70 \cdot 8$ | 47.0 | 63.0 | 44.5 | 564 | 30.8 | 21.0 | $18 \cdot 3$ | 1 |
| 81.0 | 56.0 | 86.3 | $65 \cdot 1$ | $69 \cdot 1$ | 49.6 | 60.0 | 38.0 | $48 \cdot 9$ | 27.6 | $28 \cdot 3$ | 9.5 | 2 |
| 62.0 | 54.0 | 817 | 62.0 | 73.0 | 61.2 | 60.9 | $33 \cdot 4$ | $46 \cdot 3$ | 28.0 | 28.5 | 19.0 | 3 |
| 712 | 53.0 | $75 \cdot 9$ | 62.0 | 807 | 64.0 | 62.7 | 37.6 | 45.0 | 29.0 | 31.7 | 24.0 | 4 |
| 77.8 | $56 \cdot 4$ | $70 \cdot 9$ | 61.0 | $80 \cdot 5$ | 61.4 | 67.2 | 51.7 | 46.0 | 24.8 | $35 \cdot 1$ | 187 | 5 |
| 73.3 | $57 \cdot 4$ | $72 \cdot 6$ | 57.5 | 83.7 | 58.8 | 62.0 | 56.4 | 54.0 | 36.2 | 39.0 | 28.8 | 6 |
| 68.2 | 59.2 | 72.0 | 47.0 | $75 \cdot 4$ | 53.6 | 61 3 | $45 \cdot 5$ | 59.9 | 49.5 | 35.9 | $30 \cdot 8$ | 7 |
| 789 | 57.7 | $67 \cdot 4$ | $42 \cdot 1$ | 65.0 | 53.4 | $57 \cdot 2$ | 38.6 | 54.8 | 40.0 | 35-9 | 13.3 | 8 |
| $78 \cdot 4$ | 55.0 | 64.9 | $42 \cdot 1$ | 59.8 | $52 \cdot 4$ | 537 | 33.8 | $44 \cdot 2$ | 35.0 | 31.1 | 15.0 | 9 |
| 77.9 | 58.0 | 69.0 | 57.0 | $59 \cdot 1$ | $52 \cdot 4$ | 56.3 | $42 \cdot 4$ | 43.3 | 34.0 | 24.3 | 10.4 | 10 |
| 72\% | 53.0 | 71.2 | 54.0 | $60 \cdot 9$ | $52 \cdot 5$ | 63.0 | $37 \cdot 1$ | $42 \cdot 8$ | 34.0 | $27 \cdot 6$ | $21 \cdot 4$ | 11 |
| 69-9 | 50.0 | $76 \cdot 4$ | $49 \cdot 4$ | 71.9 | 48.7 | 66.5 | $50 \cdot 4$ | 51.9 | 38.4 | 28.0 | 22.5 | 12 |
| 727 | 48.4 | 757 | 55.6 | 70.7 | 44.0 | $59 \cdot 4$ | 39.0 | $43 \cdot 9$ | 38.0 | $30 \cdot 6$ | 17.9 | 13 |
| 61.5 | 51.5 | 73.0 | 57.5 | 68.4 | 47.8 | 46.2 | 35.3 | $38 \cdot 6$ | 33.6 | 42.8 | 30.6 | 14 |
| $66^{-9}$ | $51 \cdot 4$ | $72^{\circ} 0$ | $56^{\circ} 0$ | 64.0 | 51.2 | 53.7 | $42 \cdot 5$ | $36 \cdot 8$ | 29.2 | 34.7 | 29.7 | 15 |
| 712 | 47:6 | $66^{\circ} 0$ | 46.5 | 69.8 | 58.5 | $61 \cdot 3$ | $43 \cdot 4$ | $40 \cdot 2$ | 30.0 | 39.0 | $32 \cdot 3$ | 16 |
| $70 \cdot 3$ | 58.6 | 65.5 | 43.4 | 67.6 | 55.1 | 63.5 | $42 \cdot 4$ | $38 \cdot 2$ | 29.0 | 36.3 | 25.6 | 17 |
| 79-2 | 62.0 | 68.5 | 41.6 | 67.0 | 51.2 | 63.1 | 47.6 | $45^{\prime} 1$ | $30 \cdot 1$ | 27.8 | 21.5 | 18 |
| $82 \cdot 5$ | 57.8 | 71.9 | $47^{\circ} 0$ | 64.5 | $42 \cdot 6$ | 52.6 | $32 \cdot 8$ | 43.9 | 27.0 | 35.0 | 24.8 | 19 |
| 79:3 | 57.0 | 707 | 44.4 | 61.0 | 38.6 | $50 \cdot 1$ | 29.9 | 37.0 | 23.6 | 36.0 | 29.0 | 20 |
| 74*3 | 61.0 | $75 \cdot 4$ | $61^{\prime 6}$ | $61^{\circ} 0$ | 44.2 | 517 | 25.0 | $53 \cdot 4$ | 256 | $33 \cdot 4$ | 23.0 | 21 |
| $88 \cdot 1$ | 66.3 | 75.0 | 62.0 | $67 \cdot 8$ | $49 \cdot 4$ | $53 \cdot 4$ | $28 \cdot 6$ | 267 | $20 \cdot 4$ | $35 \cdot 6$ | 28.6 | 22 |
| 81.9 | 68.1- | 79.3 | 50.0 | 507 | $46 \cdot 8$ | 50.1 | $33 \cdot 5$ | 27.5 | 18.8 | $35 \cdot 4$ | $32 \cdot 1$ | 23 |
| 71.0 | 62.5 | $80^{\circ} 0$ | 54.3 | 56.4 | $43 \cdot 5$ | 65.0 | 48.0 | $29 \cdot 9$ | 23.2 | $34 \cdot 7$ | 31.1 | 24 |
| 75'8 | $59 \cdot 3$ | 68.3 | 52.0 | 58.8 | 44.2 | $48 \cdot 3$ | $37 \times 0$ | 33.4 | 222 | 33.9 | $29 \cdot 3$ | 25 |
| $80 \cdot 8$ | 58.0 | 647 | $42 \cdot 4$ | 56.3 | $36 \cdot 3$ | 50.0 | 37.0 | $27 \cdot 6$ | 21.0 | 33.8 | 28.3 | 28 |
| $78 \cdot 6$ | 58.9 | 67.2 | 42.6 | 63.6 | 48.0 | 527 | $45 \cdot 6$ | 28.5 | 12.0 | $35 \cdot 8$ | 29.6 | 27 |
| $75 \cdot 9$ | 62.0 | $75 \cdot 8$ | 58.3 | $75 \cdot 4$ | $60^{\circ} 0$ | 51.6 | 47.4 | 32.6 | 9.4 | 39.0 | 28.4 | 28 |
| $68 \cdot 1$ | $62 \cdot 4$ | $60 \cdot 9$ | 57.0 | $74 \times 3$ | 60.0 | $49 \cdot 4$ | $43 \cdot 4$ | 36.6 | 6.5 | 37.8 | 18.6 | 29 |
| 72-2 | 59.0 | 677 | 48.8 | $66 \cdot 4$ | 52.2 | 52.4 | $42 \cdot 5$ | 85.5 | 147 | 50.2 | 11.0 | 30 |
| 68.2 | 553 | 68.4 | $41 \cdot 4$ | $\cdots$ | $\ldots$ | 55.4 | 41.5 | . $\cdot$. | $\cdots$ | 17.6 | $8 \cdot 6$ | 31 |
| $74 \cdot 1$ | 67.2 | 72.4 | $52 \cdot 8$ | 67.5 | 50.9 | 56.6 | $40 \cdot 3$ | $41 \times 6$ | $27 \cdot 4$ | $33 \cdot 4$ | 22.8 |  |


| $\stackrel{\dot{\Delta}}{\dot{C}}$ | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | M1n. | Max. | Min. | Max. | Min. | A:ax. | Min. |
|  | $n$ | - | - | - | - | - | - | - | - | - | - | - |
| 1 | 10.7 | 14.8 | 31.7 | $19 \cdot 2$ | 45.0 | 24.1 | 29.0 | 24.6 | 51.0 | 33.1 | 73.0 | $50 \cdot 6$ |
| 2 | 38.0 | 15.3 | 232 | $9 \cdot 3$ | 26.0 | 14.4 | 39.9 | 12.9 | 47.2 | 27.2 | $67 \cdot 3$ | 50.7 |
| 3 | $34 \cdot 8$ | $3 \cdot 2$ | 17.8 | 150 | 243 | $0 \cdot 4$ | 57.2 | $8 \cdot 9$ | 56.3 | $35 \cdot 1$ | $62 \cdot 1$ | 46.2 |
| 4 | $37 \cdot 4$ | 12.6 | 36.6 | 121 | $43 \cdot 4$ | 28.1 | 47.6 | 36.6 | 56.0 | 41.0 | $59 \cdot 2$ | 40.7 |
| 6 | 81.8 | 9.9 | 23.6 | 0.8 | 37.0 | $25 \cdot 9$ | 50.8 | 39.0 | 66.0 | 37.2 | $58 \cdot 1$ | 42.7 |
| 6 | $30 \cdot 6$ | 87 | 35.7 | 5.8 | 28.3 | 14.9 | $40 \cdot 6$ | $32 \cdot 1$ | 57.0 | 40.2 | $58 \cdot 3$ | 44.7 |
| 7 | $38 \cdot 6$ | 11.9 | 23.2 | $2 \cdot 1$ | 31.4 | 6.8 | 368 | $22 \cdot 3$ | $47 \cdot 6$ | $32 \cdot 6$ | 69.0 | 427 |
| 8 | 34.0 | 0.6 | 18.0 | 14.8 | 36.5 | 12.9 | $30 \cdot 0$ | $19 \cdot 1$ | $50 \cdot 1$ | 24.3 | 77.7 | 47.0 |
| 9 | $33 \cdot 4$ | $0 \cdot 3$ | 38.0 | $4 \cdot 3$ | 147 | 1.5 | 37.2 | 21.5 | $61 \cdot 3$ | $39 \cdot 1$ | 78.5 | $47 \cdot 5$ |
| 10 | 47.7 | 32.0 | 10.0 | 13.8 | $30 \cdot 5$ | 2.5 | 48.3 | 327 | 67.0 | $4{ }^{4} 2$ | 79.0 | $43 \cdot 4$ |
| 11 | $85 \cdot 1$ | $12 \cdot 4$ | 233 | 6.8 | 202 | 3.7 | 57.6 | 345 | 66.2 | $40 \cdot 4$ | 73.7 | 43.7 |
| 12 | 32.2 | $5 \cdot 8$ | 39.0 | 11.8 | 17.6 | 15.3 | 39.0 | 20.3 | 66.8 | 44.0 | 66.3 | 54.9 |
| 18 | 33.0 | 14.7 | 417 | $34 \cdot 1$ | 16.7 | 3.2 | 38.0 | $18 \cdot 1$ | 50.0 | $35 \cdot 4$ | 67.6 | 46.2 |
| 14 | 20.0 | 6.4 | $36 \cdot 4$ | 15.2 | 21.6 | 78 | $42 \cdot 5$ | 25.5 | $42 \cdot 3$ | 33.7 | 67.7 | $40 \cdot 4$ |
| 15 | 26.7 | 10.8 | $25 \cdot 1$ | 4.8 | 25.0 | $10 \cdot 9$ | 47.0 | 28.2 | 49.7 | 32.2 | 53.0 | 42-5 |
| 16 | 29.8 | 14.4 | 230 | 16.4 | 26.8 | 86 | 55.1 | 31.1 | 60.0 | 24.5 | $67 \cdot 5$ | 30.1 |
| 17 | 87.3 | $30 \cdot 1$ | 26.6 | $7 \times 4$ | 24.0 | $12 \cdot 9$ | 33.2 | 27.2 | 60.6 | 27.0 | 72.7 | 35.3 |
| 18 | $87 \cdot 0$ | $30 \cdot 1$ | $43 \cdot 4$ | 8.4 | 25.2 | 27 | 31.6 | 28.0 | 52.3 | $34 \cdot 1$ | 76.6 | 38.2 |
| 19 | 34.6 | 26.9 | $47 \cdot 6$ | $15 \cdot 4$ | 37.3 | 37 | 52.7 | $24 \cdot 1$ | 61.0 | $25 \cdot 1$ | 75.6 | $43 \cdot 2$ |
| 20 | 30.8 | 3.8 | 18.0 | 3.5 | 29.0 | 19.4 | 51.2 | 357 | 64.8 | 40.2 | 71.3 | $45 \cdot 2$ |
| 21 | 38.1 | 14.0 | 33.6 | 3.3 | 350 | 27 | $82 \cdot 6$ | 86.9 | 83.8 | $50 \cdot 1$ | $70 \cdot 1$ | $49 \cdot 1$ |
| 22 | 19.8 | 48 | 39.5 | 23.8 | $37 \cdot 3$ | 13.0 | 64.6 | 27.2 | $60 \cdot 0$ | 48.0 | $60 \cdot 8$ | $53 \cdot 1$ |
| 23 | $44 \cdot 6$ | 8.0 | 84.8 | 17.9 | 38.4 | 23.3 | 43.8 | 28.2 | $75 \cdot 8$ | $50 \cdot 9$ | 56.7 | $48 \cdot 6$ |
| 24 | $43 \cdot 4$ | 30.7 | 26.0 | 17.4 | 34.0 | 13.6 | 42.8 | $22 \cdot 1$ | 88.8 | $52 \cdot 1$ | 54.5 | $45 \cdot 3$ |
| 25 | $32 \cdot 2$ | $17 \cdot 4$ | 40.0 | $22 \cdot 9$ | $35 \cdot 4$ | 27.0 | $48 \cdot 6$ | $22 \cdot 1$ | 687 | 48.9 | 79.7 | $41 \cdot 5$ |
| 26 | $32 \cdot 7$ | 7.2 | $44 \cdot 8$ | 253 | $29 \cdot 4$ | 12.0 | $46 \cdot 3$ | 29.0 | 69.0 | $42 \cdot 4$ | 67.7 | 51.9 |
| 27 | 36.3 | 10.2 | 45.0 | 32.7 | 266 | $-10.8$ | 527 | $37 \cdot 1$ | $77 \cdot 6$ | $4 \times 2$ | 78.0 | $55 \cdot$ |
| 28 | 45.0 | 33.1 | 46.2 | 27.2 | 32.7 | $3 \cdot 1$ | 45.8 | 27.2 | 83.8 | 53.1 | 83.6 | $48 \cdot 1$ |
| 29 | 36.7 | $8 \cdot 1$ | $49 \cdot 2$ | 31.9 | 29.8 | 11.2 | 55.0 | 23.5 | $62 \cdot 4$ | $48 \cdot 9$ | 77.7 | $59 \cdot 3$ |
| 80 | $25 \cdot 6$ | 0.9 | .... | .... | 31.3 | 19.3 | 58.7 | $38 \cdot 2$ | 70.0 | 38.0 | 86.6 | $59 \cdot 9$ |
| 81 | $47 \cdot 4$ | $22 \% 3$ | $\cdots$ | $\cdots$ | $34 \cdot 6$ | 27.2 | -. | $\ldots$ | 60\%0 | $48^{\circ} 0$ | $\cdots$ | $\cdots$ |
|  | $34 \cdot 6$ | $8 \cdot 8$ | $82 \cdot 5$ | $10 \cdot 7$ | 30.0 | $8 \cdot 1$ | $46 \cdot 1$ | $27 \cdot 1$ | 62.2 | $36 \cdot 1$ | $69 \cdot 3$ | 46.8 |

and Minimùm T'emperature, 1880.

| July. |  | August. |  | September. |  | 0ctober. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | M1n. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | M1n. | * |
| - | - | - | - | - | - | - | - | - | - | - | $\bigcirc$ |  |
| 78.7 | 59.5 | $80-2$ | $57 \cdot 1$ | $75 \cdot 7$ | $39 \cdot 1$ | 628 | $38 \cdot 2$ | 59.4 | $33 \cdot 1$ | 178 | $5 \cdot 4$ | 1 |
| $81 \cdot 3$ | 50.2 | $90 \cdot 5$ | 56.6 | $75 \cdot 2$ | $45 \cdot 1$ | $61 \cdot 7$ | $30 \cdot 1$ | 47.3 | 27.4 | 21.3 | 4.8 | 2 |
| 73.2 | 59.1 | 83.4 | 830 | 76.8 | 57.5 | 64.6 | $31 \cdot 1$ | 437 | 25.2 | 275 | 11.4 | 3 |
| $81 \cdot 4$ | 52-8 | 807 | 638 | $81 \cdot 3$ | 58.1 | $67 \cdot 4$ | 43.7 | 46.6 | 20.3 | $24 \cdot 9$ | 16.6 | 4 |
| $82 \cdot 6$ | 474 | 68.7 | 61.6 | 78.0 | 64.6 | 71.6 | 501 | $45 \cdot 3$ | $24 \cdot 3$ | 31.5 | 6.9 | 5 |
| 75.2 | 64.5 | 726 | $57 \cdot 6$ | 84.4 | $62 \cdot 1$ | 65.0 | 54.3 | 58.5 | 37.7 | $45: 2$ | 26.2 | 6 |
| $70 \cdot 7$ | 632 | $75 \cdot 1$ | 47.3 | $74 \cdot 4$ | $52 \cdot 1$ | 54.2 | 43.2 | 63.7 | 49.3 | 335 | 24.4 | 7 |
| 74.6 | 58.0 | 73.6 | 40.6 | 723 | $54 \cdot 1$ | 58.0 | 55.1 | 50.3 | 38.7 | 24.9 | 2.7 | 8 |
| 81.8 | 47.5 | 72.8 | $53 \cdot 4$ | 60.8 | 52.1 | 57.0 | 343 | $43 \cdot 3$ | 311 | 330 | 57 | 9 |
| 78.4 | 81.3 | 72.0 | 60.6 | 60.0 | $\cdots 54 \cdot 6$ | 62.3 | $32 \cdot 1$ | 42.5 | $27 \cdot 3$ | $23 \cdot 1$ | 16.8 | 10 |
| 72-6 | 55.8 | $74 \cdot 3$ | 58.4 | 60.6 | 50.9 | 62.8 | $3 \cdot 1$ | 38.7 | 23.3 | 23.5 | 14.4 | 11 |
| 758 | 440 | 80.0 | $40 \cdot 3$ | 75.0 | 38.2 | 69.0 | 48.9 | 52.8 | 382 | 21.8 | 23 | 12 |
| $74 \cdot 3$ | 42.0 | 802 | 50.6 | 71.6 | 412 | 60.0 | 37.7 | 42.3 | 35.6 | 36.0 | 0.7 | 13 |
| $70 \cdot 2$ | $54 \cdot 1$ | 74.7 | 51.9 | 73.7 | $54 \cdot 3$ | 51.2 | 28.2 | 38.4 | 29.9 | 42.9 | 34.0 | 1. |
| 74.3 | 382 | 717 | 58.7 | $68 \cdot 3$ | 59.1 | 58.5 | 31.3 | 33.8 | $24 \cdot 1$ | 37.0 | $31 \cdot 1$ | 15 |
| 73.0 | 43.2 | 67.3 | 45.0 | 71.6 | 553 | 606 | $31 \cdot 3$ | 40.5 | 13.2 | 36.3 | $32 \cdot 1$ | 16 |
| 78.8 | 58.1 | 72.0 | 46.7 | 67.3 | 543 | $73 \cdot 2$ | 392 | 38.0 | 23.3 | 33.5 | 19.4 | 17 |
| 79.2 | 83.0 | $75 \cdot 3$ | 39.7 | 67.8 | $52 \cdot 3$ | 66.5 | 460 | 474 | $32 \cdot 3$ | 29.0 | 18.9 | 18 |
| 88.0 | 497 | 72.6 | 39.7 | 68.0 | 417 | $64 \cdot 6$ | 24.2 | 44.4 | 19.3 | 350 | 24.2 | 19 |
| $88 \cdot 1$ | 52.7 | 69.2 | $56 \cdot 1$ | 66.4 | 35.3 | 50.5 | 26.3 | 39.6 | 11.0 | $33 \cdot 8$ | 18.8 | 20 |
| $82 \cdot 3$ | 84.0 | 78.7 | 63.5 | 67.2 | $52 \cdot 6$ | 55.3 | 26.9 | $53 \cdot 4$ | 24.4 | 28.3 | 19.1 | 21 |
| 82.6 | 87.0 | 727 | 58.9 | 67.0 | 48.3 | 59.5 | $20 \cdot 2$ | 25.4 | $17 \cdot 4$ | $33 \cdot 4$ | 24.9 | 22 |
| $81 \cdot 1$ | 65.8 | 78.8 | $48 \cdot 2$ | $60 \cdot 2$ | $40 \cdot 2$ | 593 | $49 \cdot 1$ | 23.0 | $13 \cdot 9$ | 346 | 31.1 | 23 |
| $70 \cdot 6$ | $80 \cdot 0$ | 82.0 | 50.6 | 57.5 | 317 | 59.3 | 43.2 | 23.0 | $12 \cdot 4$ | $33 \cdot 7$ | 26.2 | 24 |
| 75.2 | 59.3 | 68.4 | 49.0 | 61.2 | 43.7 | 44.3 | $34 \cdot 1$ | 328 | 6.6 | 35.6 | 24.8 | 25 |
| 77.2 | $51 \cdot 1$ | 653 | 89.2 | 84.6 | 35.6 | 49.8 | $32 \cdot 1$ | 25.5 | 12.7 | 37.5 | $12 \cdot 4$ | 26 |
| $78 \cdot 3$ | $52 \cdot 3$ | 743 | 360 | 70.3 | $51 \cdot 1$ | 49.0 | 29.2 | 26.3 | $0 \cdot 1$ | 30.0 | 26.2 | 27 |
| $77 \cdot 0$ | 58.1 | $80 \cdot 6$ | $54 \cdot 1$ | 76.5 | 63.3 | 545 | 45.0 | 29.3 | $9 \cdot 6$ | 37.0 | 21.2 | 28 |
| 737 | 55.5 | 74.3 | 58.8 | 72.2 | 57.9 | $44 \cdot 2$ | 30.7 | 38.5 | 12.9 | 20.0 | $10 \cdot 4$ | 29 |
| 68.8 | $56 \cdot 1$ | $74 \cdot 4$ | 43.3 | 69.8 | 42.2 | 48.5 | 26.3 | 35.0 | 84 | $3 \mathrm{~s} \cdot 2$ | $5 \cdot 4$ | 30 |
| $70 \cdot 2$ | $57 \cdot 1$ | $73 \cdot 4$ | $42 \cdot 1$ | $\cdots$ | $\ldots$ | 58.2 | $34 \cdot 1$ | .... | .... | 14.8 | $1 \cdot 3$ | 31 |
| 768 | 54.9 | 75.2 | 51.6 | 69.5 | 49.6 | 58.9 | 36.9 | $41 \cdot 1$ | 22.8 | 30.7 | 14.3 |  |

TABLE LXVIII.-Glace Bay, N. S. Maximum

| $\underset{i}{i}$ | Janary. |  | February |  | March. |  | April. |  | Mas. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | MIn. |
| 1 | $25 \cdot 9$ | $5 \cdot 9$ | 38.0 | $12 \cdot 3$ | 41.0 | 22.3 | 33.0 | 20\% | $\ldots$ | ... | 85.9 | 42.1 |
| 2 | 35-4 | $5 \cdot 1$ | 17.8 | 3.0 | 22.3 | $8 \cdot 3$ | 32.5 | $20 \times 2$ | .... | .... | $61-9$ | 42.6 |
| 3 | $23 \cdot 5$ | $7 \cdot 1$ | 15.8 | 4.0 | 18.8 | 83 | 47.0 | 20.2 | 53.5 | $32 \cdot 1$ | 440 | 41.1 |
| 4 | 350 | 15 | 31.5 | 82 | 350 | $12 \cdot 3$ | 430 | 29.1 | 46.5 | $30 \cdot 1$ | 45.0 | $38 \cdot 1$ |
| 5 | 8 sin 0 | 40 | 17.8 | $4 \cdot 2$ | 31.0 | 18.2 | 45.0 | 38.1 | 48.0 | 25.2 | 42.5 | $37 \cdot 6$ |
| 8 | 97.4 | $8 \cdot 1$ |  | .... | 24.9 | 17.2 | 430 | $29 \cdot 1$ | 48.0 | $35 \cdot 1$ | 46.0 | $37 \cdot 6$ |
| 7 | 360 | 17.2 | 20.0 | $2 \cdot 0$ | 17.8 | 4-2 | 31.0 | 22.2 | 410 | 27.2 | $46^{\circ} 0$ | 38.1 |
| 8 | 220 | 10-2 | 18.8 | -6.8 | 32.0 | $2 \cdot 2$ | 27.9 | 103 | 30 | 257 | 47.0 | $42 \cdot 6$ |
| ${ }^{1}$ | 38.0 | 6.1 | 35.0 | $3 \cdot 1$ | 12.8 | 25 | $3 \overline{5} 0$ | 6.0 | 220 | 3 | $59 \cdot 9$ | $44 \cdot 0$ |
| 10 | 42.0 | 18.2 | 7.9 | 60 | 23.0 | 25 | 41.0 | $20-7$ | -1, | 32.1 | 55.0 | 45.0 |
| 11 | 38.0 | 15.3 | 21.8 | 35 | $1 \cdot 4$ | 6.9 | 42.0 | $29 \cdot 1$ | 540 | $3 \pm 1$ | 75.0 | $42 \cdot 3$ |
| 12 | 33.0 | 113 | 32.0 | 0.0 | 6.4 | 10.9 | 40.0 | 21.2 | 460 | 30.1 | 50.9 | 46\% |
| 13 | 31.0 | 23.2 | 41.0 | $22 \cdot 2$ | 11.8 | 50 | 33.0 | $15 \%$ | 36.0 | 32.6 | $67 \cdot 1$ | 42.6 |
| 14 | 21.4 | 8.2 | 25.9 | 15.3 | 20.8 | 2.0 | 38.0 | 21-2 | 30.0 | 31.1 | 59.0 | $42 \cdot 1$ |
| 18 | 22:3 | $5 \cdot 1$ | 22.8 | 0.9 | 19.8 | 4.0 | 34.0 | $18 \cdot 3$ | 39.0 | $30 \cdot 1$ | 43.0 | $40 \cdot 1$ |
| 16 | 27.0 | $15 \cdot 3$ | 26.9 | 13.8 | 25.9 | $2 \cdot 5$ | 470 | 272 | 57.9 | $30 \cdot 1$ | 55.0 | $38 \cdot 1$ |
| 17 | 31.0 | 18.2 | 188 | 5.9 | $24 \cdot 9$ | $10 \cdot 3$ | 320 | 25.2 | 47.0 | 29.2 | 69.0 | 41.6 |
| $1 \times$ | 36.5 | 28.1 | 37.0 | $4 \cdot 9$ | 24.9 | $4 \cdot 1$ | 28.9 | 27.2 | 53.0 | 27.2 | $72 \cdot 5$ | $37 \cdot 6$ |
| 10 | 43.5 | 28.1 | 41.0 | $19 \cdot 3$ | 33.0 | 15 | 34.0 | 23.2 | -2.0 | 23:2 | $73 \cdot 0$ | 47.0 |
| 20 | 81.5 | 12.3 | $20 \cdot 3$ | 19 | 33.0 | $10 \cdot 3$ | 490 | $27 \cdot 2$ | 62.0 | $33 \cdot 1$ | 70.0 | 40.0 |
| 21 | 330 | 11.3 | .... | $\ldots$ | $25 \cdot 9$ | 13.3 | 44.0 | 32-1 | 72.0 | $43 \cdot 1$ | 70.0 | 520 |
| 22 | 33\% | 8.2 | 30.0 | 18.2 | 31.6 | $13 \cdot 3$ | 450 | 25\% | 56.4 | $35 \cdot 1$ | $52 \cdot 5$ | 48.1 |
| 23 | 87.0 | 4.1 | 28.8 | 17\% | 33.0 | 15.3 | 47.0 | 28.1 | 77.0 | $34 \cdot 1$ | -45.0 | $41 \cdot 1$ |
| 2 | 40.0 | $82 \cdot 1$ | 28.0 | 113 | 315 | 22.7 | 41.5 | $20 \cdot 2$ | 710 | $40 \cdot 1$ | 52-5 | 40.1 |
| 25 | 38.0 | 18.3 | 31.0 | 26.2 | $\cdots$ | $\ldots$ | 48.0 | 20.2 | 450 | 351 | 58.0 | $\mathbf{8 7} \cdot 6$ |
| 20 | 31.0 | 77 | 43.0 | $27 \cdot 6$ | 28.0 | 10.3 | 44.0 | 23.2 | 43.0 | $34 \cdot 1$ | 73.0 | $30 \cdot 1$ |
| 27 | 38.0 | 14.3 | 38.0 | $29 \cdot 1$ | 23.9 | 77 | 56.0 | $35 \cdot 1$ | 61.9 | $38 \cdot 1$ | $05 \cdot 9$ | 48.0 |
| 28 | 42.0 | $32 \cdot 1$ | 33.5 | 28.1 | $20 \cdot 4$ | $4 \cdot 9$ | 38.0 | $24 \cdot 2$ | 64.0 | 38.1 | 75.0 | $43 \cdot 1$ |
| 30 | $30 \cdot 0$ | $6 \cdot 2$ | $42 \cdot 0$ | 28.1 | 28.0 | 19.2 | 55.0 | 23.2 | 58.9 | 87.1 | 78.0 | 51.0 |
| 80 | $20 \cdot 8$ | 7.2 | .... | .... | 35.0 | 17.2 | -• | .... | 52.0 | $85 \cdot 1$ | 84.0 | 58.0 |
| 31 | 41.0 | 20.2 | .... | $\cdots$ | 33.5 | $28 \cdot 1$ | .... | $\cdots$ | 61.9 | $31 \cdot 1$ |  | $\cdots$ |
|  | 38.3 | 12.6 | 28.4 | $10 \cdot 5$ | 25-2 | 7-8 | $40 \cdot 6$ | 24.0 | 52\% | 31.6 | 57.3 | 42.7 |

and Minimum Temperature, 1880.

| Juls. |  | August. |  | Septomber. |  | October. |  | November. |  | Decembor. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Mux. | Min. | Max. | Min. | Max. | Min. | Max. | M10. | Max. | Min. | $\stackrel{\text { E }}{\sim}$ |
| - | - | - | - | - | - | - | - | - | - | $\bigcirc$ | $\checkmark$ |  |
| 78.0 | 53.0 | 86.0 | 525 | 68.0 | 45.0 | .... | $\cdots$ | 510 | $30 \cdot 1$ | 20.3 | 118 | 1 |
| 85.0 | 57.0 | $90 \cdot 0$ | 63.0 | 71.0 | 55.0 | 650 | $38 \cdot 1$ | 51.0 | 26.2 | 249 | $8 \cdot 2$ | 9 |
| $62 \cdot 9$ | 52.0 | 850 | 57.0 | 750 | 60.0 | $62: 9$ | $31 \cdot 1$ | 46.0 | $32 \cdot 6$ | $27-9$ | 17.2 | 3 |
| 68.0 | $52 \cdot 5$ | 84.0 | 61.5 | 840 | 59.0 | 629 | 38.1 | 44.0 | 33.1 | 81.0 | 24.1 | 4 |
| 82.0 | 51.0 | 0.0 | 600 | 82.5 | 61.0 | 66.0 | 50.0 | $42^{\circ} 0$ | $29 \cdot 1$ | $34 \cdot 0$ | $23 \cdot 1$ | 5 |
| 79.0 | 54.0 | 770 | 550 | 86.0 | 57.0 | 59.9 | 550 | 53.0 | $33 \cdot 1$ | 37.0 | 26.1 | 6 |
| 65.0 | 57.0 | 70.0 | 525 | $\because 0$ | 530 | 59.9 | $43 \cdot 1$ | 58.0 | 470 | 350 | $30 \cdot 1$ | 7 |
| 80.0 | 56.0 | 050 | 46.0 | .... | .... | 57.0 | $39 \cdot 1$ | 58.0 | $37 \cdot 1$ | 33.0 | $10 \cdot 3$ | 8 |
| 78.0 | 53.0 | 68.0 | 42.1 | .... | $\ldots$ | 53.0 | 36.1 | 44.0 | $30 \cdot 1$ | 27.9 | 13.3 | 8 |
| 78.0 | 57.0 | 720 | 570 | 50.9 | 52.0 | 54.0 | $42 \cdot 1$ | 44.0 | $33 \cdot 1$ | 25.4 | 20.2 | 10 |
| 750 | 52.5 | 63.0 | 53.5 | 60.9 | 53.0 | 66.0 | 37.1 | 42.0 | $33 \cdot 1$ | $27 \cdot 9$ | 23.2 | 11 |
| 71.0 | 48.0 | 73.0 | 50.0 | 67.0 | 52.0 | .... | .... | 52.0 | $37 \cdot 1$ | 27.9 | 21.2 | 12 |
| 78.0 | $44 \cdot 1$ | $76 \cdot 0$ | 54.0 | 74.0 | $43 \cdot 1$ | 67.0 | 35.1 | 440 | - $36 \cdot 1$ | 31.0 | 18.2 | 13 |
| $60 \cdot 9$ | 50.0 | 73.0 | 56.0 | 72.0 | 54.0 | 47.0 | $33 \cdot 1$ | 38.0 | 32-1 | 42.0 | 25.1 | 14 |
| 89.0 | 48.0 | 74.0 | 58.0 | $59 \cdot 9$ | 5.0 | 52.0 | $41 \cdot 1$ | 36.0 | $2 \overline{2} \cdot 2$ | 34.0 | $27 \cdot 1$ | 15 |
| 76.0 | 46.0 | 69.0 | 470 | $\ldots$ | .... | 61.9 | 43.1 | 38.0 | $28 \cdot 1$ | 38.0 | 31.1 | 16 |
| $75 \cdot 0$ | 63.0 | 69.0 | 41.1 | 68.0 | 51.0 | 61.9 | 41.0 | 38.0 | 25.2 | 35.0 | 28.1 | 17 |
| 83.0 | 61.0 | 66.0 | 42.6 | 68.0 | 47.0 | $62 \cdot 9$ | 450 | $\ldots$ | .... | $20^{\circ} 0$ | 18.2 | 18 |
| 76.0 | 57.0 | 715 | 46.0 | 65.0 | 46.0 | 53.0 | $30 \cdot 2$ | 45.0 | 26.2 | $33^{1} 0$ | 21.2 | 19 |
| 70.0 | 56.5 | 71-5 | 496 | 61-9 | $43 \cdot 1$ | 50.0 | $30 \cdot 2$ | 370 | $20 \cdot 2$ | 33.0 | $30 \cdot 1$ | 20 |
| 79.5 | 58.5 | $77 \cdot 0$ | 61.0 | 60.9 | 42.6 | 51.0 | 26\% | 55.0 | $26 \cdot 1$ | 32.0 | 22.2 | 21 |
| 87.0 | 64.0 | 77.0 | 61.0 | 70.0 | 47.5 | 54.0 | 28.2 | $2 \mathrm{i} \cdot 9$ | 17.2 | 350 | 27.2 | 22 |
| 86.0 | $66^{\circ} 0$ | 81.5 | 56.5 | 59.9 | 4.1 | 49.0 | $37 \cdot 1$ | 24.0 | 17.2 | 36.0 | 32.1 | 21 |
| 72.0 | 61.0 | 82.0 | min | 58.0 | $39 \cdot 1$ | 53.0 | 45.0 | 27.9 | 21.2 | 35.0 | 81.1 | 21 |
| 78.0 | 58.0 | 69.0 | 53.0 | 59.9 | $39 \cdot 1$ | 51.0 | 38.1 | $17 \cdot 8$ | $32 \cdot 1$ | 34.0 | $30 \cdot 1$ | 25 |
| 81.0 | 62.0 | 65.0 | 47.5 | 55.0 | $45 \cdot 0$ | 50.5 | $37 \cdot 1$ | 29.0 | 21.2 | 33.0 | $80 \cdot 1$ | 26 |
| $77 \cdot 0$ | 57.5 | 63.9 | 43.6 | $62 \cdot 9$ | 46-0 | 51.0 | 45.0 | 27.9 | 14.2 | $\ldots$ | ... | 27 |
| 78.0 | 61.0 | 76.0 | 48.0 | $\ldots$ | .... | 500 | 45.0 | 32.0 | 13.3 | 37.0 | 29.1 | 25 |
| 67.0 | 62.0 | 680 | 57.0 | 70.0 | 56.0 | 480 | 43.1 | 350 | 9.2 | 33.0 | 72 | 29 |
| 760 | 57.0 | 07.0 | 50 | 62.9 | 48.0 | 52.0 | $42 \cdot 1$ | 330 | $12 \cdot 8$ | 50.4 | 10.3 | 30 |
| 710 | 56.0 | 70.0 | $41 \cdot 1$ | .... | ... | 57.0 | 45.0 | .... | .... | $12 \cdot 8$ | 6 2 | 31 |
| 763 | 56.0 | $73 \cdot 4$ | 51.7 | 68.0 | $50 \cdot 1$ | 50.2 | $39 \cdot 4$ | 41.4 | 20.1 | 32.2 | 21.8 |  |

TABLE LXIX.-Windsor, N.S. Maximum.

| $\dot{\Delta}$ | January. . |  | February. |  | March. |  | April. |  | May. |  | June |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | M1n. | Max. | Min. |
|  | - | - | - | - | - | - | - | - | - | - | $\bigcirc$ | - |
| 1 | 17.0 | 1.0 | 33.0 | 20.0 | 40.0 | 25.5 | 29.0 | 223 | 49.0 | 32.7 | $77 \cdot 0$ | 52.8 |
| 2 | 40.0 | $32 \cdot 2$ | 10.0 | 3.0 | 21.9 | 90 | 43.5 | 12.2 | 47.0 | 29.0 | 65.0 | 51.7 |
| 8 | 33.0 | 1.8 | 20.0 | 5.0 | 33.0 | 13.2 | 49.0 | 11:2 | 51.0 | 31.7 | $61 \%$ | $46 \cdot 1$ |
| 4 | 37.0 | 20.2 | 33.0 | 30 | $4 \cdot 6$ | 23.3 | 45.5 | 35.7 | 59.0 | 39.7 | 61.0 | $40 \cdot 2$ |
| 5 | 36.0 | 10.2 | 340 | 4.0 | 465 | 27.3 | 50.0 | 30.2 | 64.0 | 38.7 | 63.5 | 41.7 |
| 6 | 330 | 6.1 | 37.0 | 10.0 | 37.0 | 165 | 47.5 | 33.7 | 55.0 | 44.0 | 60.0 | 43.1 |
| 7 | 400 | 13.2 | 20.0 | 10.0 | 33.5 | 13.2 | 370 | $23 \%$ | 54.0 | 32.7 | 61.5 | 41.7 |
| 8 | 35.0 | $8 \cdot 1$ | .... | .... | 42.1 | 11.2 | 30.5 | $19 \cdot 2$ | 54.5 | 26.0 | 70.0 | $45 \cdot 1$ |
| 9 | 34.0 | $7 \cdot 1$ | 35.0 | 3.0 | 19.0 | 30 | 43.1 | 21.3 | 58.0 | 39.2 | 71.0 | $46 \cdot 1$ |
| 10 | 44.0 | 27.3 | 11.0 | 3.0 | 310 | $8 \cdot 1$ | 47.0 | 28.0 | 58.5 | $4+0$ | 73.0 | 45.1 |
| 11 | 30.0 | 14.2 | 28.0 | 100 | 25.5 | 4.0 | 56.0 | 31.0 | 69.0 | 40.2 | 75.0 | $48 \cdot 1$ |
| 12 | 37.0 | 14.2 | 36.0 | 10.0 | 23.5 | $3 \cdot 3$ | 48.5 | 20.0 | 61.0 | 43.0 | 70.0 | 56.3 |
| 13 | 32.0 | 15.2 | 44.0 | - 200 | 21.5 | 50 | 41.0 | 18.0 | 40.0 | 35.2 | .... | .... |
| 1 | 16.0 | 1.2 | 37.0 | 17.0 | 24.0 | 5.0 | 47.5 | 29.0 | 42.6 | 34.2 | .... | ... |
| 15 | 30.0 | $5 \cdot 3$ | 23.0 | 11.0 | 24.0 | 16.2 | 47.5 | 205 | 325 | 35.2 | . $\cdot$. | . $\cdot$. |
| 18 | .... | .. | 270 | 170 | 26.0 | $8 \cdot 1$ | 55.0 | 33.7 | 61.0 | 20.5 | .... | . $\cdot$. |
| 17 | . $\cdot$. | .... | 34.0 | $12 \cdot 2$ | $24 \cdot 5$ | $15 \cdot 2$ | 375 | 265 | 61.0 | 34.7 | . $\cdot$. | ...' |
| 18 | 35.0 | 21.3 | 46.5 | 27.0 | 26.5 | $7 \cdot 6$ | 32.0 | 26.5 | $5 \% 0$ | 37.2 | . $\cdot$. | .... |
| 19 | 35.0 | $22 \cdot 3$ | 300 | 150 | 34.0 | 15-2 | 520 | 20.5 | 57.0 | 28.5 | .... | . $\cdot$. |
| 20 | 33.0 | $14 \cdot 3$ | 10.0 | 50 | 31.5 | 21.3 | 54.0 | 35.2 | 650 | 38.7 | . $\cdot \cdot$ | .... |
| $2]$ | 30.0 | 14.2 | 33.0 | 6.0 | : 610 | 9.7 | 61.0 | 397 | 82.9 | 50.0 | $\cdots$ | ... |
| 22 | 21.0 | 2.0 | 37.0 | $22 \cdot 3$ | 41.0 | 22.8 | 60.0 | 38.7 | 71.0 | 50.0 | -••• | $\ldots$ |
| 23 | 43.0 | $2 \cdot 0$ | 37.0 | 10.0 | $3 \% 0$ | $2{ }^{2} \times$ | 46.0 | 33.2 | 72.0 | 52.7 | .... | $\ldots$ |
| 24 | 35.0 | 203 | 31.0 | $12 \cdot 2$ | 37.0 | $21 \cdot 3$ | 47.5 | 250 | 70.0 | 22.0 | $\ldots$ | .... |
| 25 | 35.0 | 20.2 | $42 \cdot 1$ | 16.0 | 32.0 | $23 \cdot 3$ | 515 | 27.0 | 70.0 | $48 \cdot 6$ | .... | $\cdots$ |
| 26 | ...' | -... | 41.0 | 25.0 | 27.5 | 183 | 45.0 | 31.7 | 72.0 | $45 \cdot 1$ | $\cdots$ | -•• |
| 27 | 38.0 | 12.2 | 44.0 | 29.0 | 28.5 | 2.8 | 57.0 | 39.2 | $81^{\circ} 0$ | 44.1 | $\cdots$ | $\cdots$ |
| 28 | $47 \cdot 0$ | $34 \cdot 2$ | 41.0 | $27 \cdot 3$ | 31.0 | 14.2 | 46.5 | 27.5 | 81\% | 503 | .... | $\cdots$ |
| 29 | 45.0 | 3.0 | 47.0 | 34.2 | 31.0 | 14.7 | 52\% | 27.5 | 60.0 | $50 \cdot 2$ | .... | ... |
| 30 | 21.8 | - 73 | $\cdots$ | $\ldots$ | 310\% | 18.8 | 52.0 | 37.7 | 60.0 | 30.2 | .... | $\cdots$ |
| 31 | 46.0 | 223 | ... | $\cdots$ | 31.0 | 203 | *... | .... | 58.0 | $5 \cdot 1$ | . $\cdot$. | $\cdots \cdot$ |
|  | 34.0 | 12.7 | 32.9 | 13.0 | 31.3 | 14.5 | $17: 3$ | 241 | 618 | $40 \cdot 2$ | .... | -••• |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | Octoher. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Mln. | Max. | Min. | Max. | M10. | Max. | Min. | Max. | Min. | Max. | Min. | $\stackrel{\Delta}{4}$ |
| - | - | - | - | - | - | - | - | - | - | - | - |  |
| $\ldots$ | .... | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | .... | $\ldots$ | 19.9 | 12.2 | 1 |
| ... | $\cdots$ | $\ldots$ | $\ldots$ | . ${ }^{\text {a }}$ | $\ldots$ | $\ldots$ | $\ldots$ | 57.0 | 31.8 | 19.9 | 6.0 | 2 |
| . | .... | . | .... | .... | -. $\cdot$ | 63.0 | 33.2 | $\cdots$ | $\ldots$ | 26.5 | 137 | 3 |
| .... | .... | .. | .... | .... | ... | 65.0 | $49 \cdot 1$ | 43-1 | $29 \cdot 3$ | 25.9 | 19.8 | 4 |
| $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 69.0 | $52 \cdot 8$ | $\ldots$ | $\ldots$ | 29.0 | 107 | 5 |
| .... | $\ldots$ | .... | $\ldots$ | $\ldots$ | .... | 61.0 | $51 \cdot 1$ | $47 \cdot 6$ | $23 \cdot 3$ | $46 \cdot 1$ | $27 \cdot 3$ | 6 |
| $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\cdots$ | .... | 53.0 | 42.2 | 57 | $43 \cdot 1$ | 36.5 | 24.8 | 7 |
| ... | $\cdots$ | . | $\ldots$ | .... | .... | 55.0 | 392 | 63.0 | 45.6 | 27.0 | 12.2 | 8 |
| .... | .... | ... | . $\cdot$. | $\ldots$ | $\ldots$ | 55.0 | 40.7 | 48.0 | 38.7 | 21.1 | 55 | 9 |
| -• | $\ldots$ | .... | .... | $\ldots$ | .... | 60.0 | 36.7 | 47.0 | $24 \cdot 5$ | 19.9 | $9 \cdot 0$ | 10 |
| .... | .... | - .. | $\ldots$ | ... | .... | 65.0 | 38.2 | .... | $\ldots$ | 22.3 | 14.0 | 11 |
| ...* | . | .... | ... | $\ldots$ | $\ldots$ | 64.5 | 48.1 | 41.6 | 23.0 | 25.2 | 12.0 | 12 |
| $\ldots$ | $\ldots$ | ... | . | $\ldots$ | $\ldots$ | 56.0 | 37.7 | 51.0 | 37.2 | $35 \cdot 4$ | 11.7 | 13 |
| .... | ...' | ... | ... | $\cdots$ | .... | 515 | $32 \cdot 2$ | $42 \cdot 1$ | 36.7 | 39.5 | $34-2$ | 14 |
| . | . | ... | .... | $\ldots$ | . . . | 57.0 | 31.2 | 30.0 | 23.5 | 358 | 31.8 | 15 |
| .. | .... | .... | ... | .... | .... | $66^{\circ} 0$ | 44.2 | 34.5 | 26.5 | 37.0 | $32 \cdot 2$ | 16 |
| .... | .. | ... | .... | .... | .... | $73 \cdot 0$ | $40 \cdot 6$ | 30.0 | 215 | . $\cdot$. | .... | 17 |
| .... | $\cdots \cdot$ | .... | .... | .... | .. | .... | .... | 40.0 | 24.5 | $\ldots$ | .... | 18 |
| .... | .. | $\ldots$ | .... | .... | ... | 63.0 | 33.2 | 46.0 | $33 \cdot 2$ | .... | .... | 19 |
| ... | .... | .... | $\ldots$ | .... | - $\cdot$. | 49.6 | 27.8 | 44.0 | $22 \cdot 8$ | $\cdots$ | .... | 20 |
| .. | $\ldots$ | .... | .... | . | .... | 515 | 26.3 | 40.7 | 14.0 | $\cdots$ | $\ldots$ | 21 |
| .... | .... | $\ldots$ | .... | .... | .... | 55.0 | 26.8 | 52.5 | 23.0 | $\cdots$ | $\cdots$ | 22 |
| .... ${ }^{\circ}$ | $\ldots$ | .... | $\ldots$ | .... | ... | 58.0 | 41.7 | 25.8 | $15 \cdot 5$ | . | $\ldots$ | 21 |
| .... | $\ldots$ | .... | .... | .. | .... | 53.3 | 41.2 | 22.4 | 11.0 | *.' | $\cdots$ | 2.1 |
| . $\cdot$. | .... | .... | .... | .... | .... | $45 \cdot 1$ | 34.2 | $\cdots$ | $\cdots$ | .... | $\cdots$ | 25 |
| .... | .... | .... | ... | . | . $\cdot$ | $44 \cdot 6$ | 33.7 | 33.2 | 14.7 | $\cdots$ | $\ldots$ | 26 |
| .... | .... | .... | ... | ... | $\ldots$ | 47.6 | $30 \cdot 3$ | 27.0 | 10.0 | .... | .... | 27 |
| .... | $\ldots$ | .... | .... | .... | .... | $50 \cdot 1$ | 40.2 | 30.0 | 11.7 | .... | .... | 28 |
| . | .... | . $\cdot$ | $\ldots$ | . $\cdot$. | .... | $42 \cdot 1$ | 29.8 | 36.5 | $18 \cdot 3$ | -... | $\cdots$ | 29 |
|  | ...' | - | . $\cdot$ | .... | .... | 51.1 | 27.3 | . ${ }^{\prime}$ | $\cdots$ | $\cdots$ | .... | 30 |
|  | ... | .... | . $\cdot$. | .... | .... | 58.5 | 39-9 | .... | $\ldots$ | $\cdots$ | .... | 31 |
| . |  | .... | .. | .... | .... | 60.1 | 37.8 | $42^{\circ} 0$ | 25.0 | .... | .... |  |

TABLE LXX.-Yarmouth, N. S. Maximum

| $\dot{y}$ | January. |  | February |  | March. |  | April. |  | Mas. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min |
|  | - | - | - | - | - | - | - | - | $\bigcirc$ | - | - | - |
| 1 | 20.0 | 8.6 | 40.0 | 14.4 | $42 \cdot 5$ | 27.3 | 37.6 | 223 | .... | ...' | 64.1 | $4 \mathrm{~F} \%$ |
| 2 | $40 \cdot 9$ | 21.8 | 19.0 | 8.3 | 30.8 | 20.8 | 41.0 | 19.9 | 44.8 | $35 \cdot 2$ | $57 \cdot 5$ | $41 ; 6$ |
| 3 | 41.4 | $19 \cdot 4$ | 38-9 | 6.8 | 39.6 | 21.8 | 44.8 | 25.3 | 52.0 | 37.7 | 68.6 | 44.7 |
| 4 | 42.7 | $13 \cdot 4$ | 43.0 | 20.3 | 43.8 | 34.4 | 48.0 | 38.2 | $60 \cdot 8$ | 40.0 | 631 | 30-4 |
| 5 | $42 \cdot 9$ | 26.8 | 31.7 | 22.3 | 44.0 | 28.8 | 49.8 | 38.2 | 56.2 | $30 \cdot 1$ | 613 | 41.7 |
| 6 | 32.9 | 8.4 | 36.4 | 27.3 | 32.3 | 20.5 | 47.2 | 33.2 | 55.5 | 42.0 | 62.6 | $45 \%$ |
| 7 | $45 \cdot 9$ | 31.1 | $30 \cdot 9$ | $14 \cdot 3$ | 32.8 | 20.3 | 37.6 | 29.3 | $47 \cdot 1$ | 357 | 65.0 | $43 \cdot 4$ |
| 8 | 43.4 | 21.3 | 33.9 | 14.8 | 368 | 15.0 | 34.8 | 24.3 | 52.5 | 34.7 | 64.6 | 42.4 |
| 9 | 40.0 | 27.3 | $39 \cdot 9$ | $10 \cdot 4$ | 23.6 | 6.4 | 42.0 | 29.8 | 55.2 | 40.7 | 71.0 | 43.2 |
| 10 | 42.9 | $35 \cdot 1$ | $27 \cdot 4$ | $5 \cdot 4$ | 30.3 | 19.9 | 40.0 | 317 | 70.1 | 43.7 | 60.6 | 45.3 |
| 11 | 434 | 23.3 | $33 \cdot 4$ | 1109 | 27.8 | 12.2 | 52.0 | 29.3 | $50 \cdot 6$ | 41.2 | $64 \cdot 3$ | 47.9 |
| 12 | $40 \cdot 9$ | $20 \cdot 3$ | 44.0 | 16.3 | 28.8 | 79 | 338 | 20.8 | $64 \cdot 1$ | 38.4 | $64 \cdot 3$ | $48 \cdot 1$ |
| 13 | 42.4 | $2 \mathrm{~A} \cdot 1$ | 42.2 | 37.3 | $22 \cdot 3$ | $8 \cdot 2$ | 41.2 | $27 \cdot 1$ | 51.0 | $35 \cdot 7$ | 67.6 | 468 |
| 14 | 28.6 | $10 \cdot 6$ | 418 | $20 \cdot 3$ | 28.8 | 120 | 45.2 | 32.4 | 50.5 | 36.0 | 67.0 | 40.2 |
| 15 | 33.9 | 10.4 | 28.8 | $17 \cdot 3$ | 31.8 | 18.4 | 48.5 | 35-4 | 56.0 | $85 \cdot 2$ | 63.8 | 44.0 |
| 16 | 33.0 | 23.3 | 31.9 | 21.8 | $29-8$ | 17.9 | 56.5 | 37.0 | 55.5 | 34.0 | 64.0 | 43.4 |
| 17 | 37.0 | 27.3 | 36.4 | 22.8 | 31.5 | 19.2 | 46.5 | $30 \cdot 4$ | 54.2 | $40 \cdot 7$ | 65.5 | $44 \cdot 3$ |
| 18 | 38.9 | 27.3 | 45.0 | $34 \cdot 1$ | 28.8 | $20 \cdot 3$ | 35.8 | 29.3 | $64 \cdot 5$ | 30.0 | 66.2 | $40 \cdot 7$ |
| 10 | $38 \cdot 1$ | 31-6 | 46.0 | 14.2 | $36-8$ | 258 | 44.5 | 27.5 | 50.0 | 357 | 68.1 | 51.1 |
| 20 | 89.9 | 27.3 | 27.0 | 114 | 40-5 | 22.1 | 48.5 | 87.2 | 50.5 | 460 | 66.0 | 52.2 |
| 21 | 40.0 | 22.3 | 367 | $18 \cdot 3$ | 383 | 18.6 | 58.0 | 37.0 | 56.5 | $43 \cdot 7$ | $64 \cdot 9$ | 50.6 |
| 22 | 25.8 | 12.4 | 30.0 | 27.3 | 30.8 | 30.7 | 50.0 | 31.2 | 57.0 | 46.3 | 60-0 | 48.1 |
| 23 | 48.5 | $10 \cdot 3$ | 86.9 | 24.1 | 36.8 | 24.5 | 47.5 | 28.5 | 00.5 | $48 \cdot 3$ | $60 \cdot 2$ | 48.1 |
| 24 | 45.5 | 33.6 | $31 \cdot 1$ | 29.8 | 36.3 | 20.8 | 44.5 | 27.8 | 54.0 | 45.2 | $62 \cdot 9$ | 45.8 |
| 25 | 380 | 24.8 | 37.9 | $22 \cdot 1$ | 35.0 | 22.3 | 44.5 | $30 \cdot 4$ | 683 | 437 | 74-1 | $47 \cdot 1$ |
| 23 | 39.9 | 22.8 | 42.8 | 28.1 | 28.8 | 10.8 | 47.0 | 36.7 | 55.8 | 44.0 | 73:3 | 56.1 |
| $\because 7$ | 425 | 25.8 | 44.0 | 34.1 | 34.3 | $10 \cdot 2$ | 50.5 | 36.2 | $65 \cdot 1$ | 46.3 | $77 \cdot 1$ | 50.2 |
| 38 | 40.0 | 36.1 | $47^{\circ} 0$ | 28.1 | 31.0 | 16.2 | 440 | $32 \cdot 4$ | $66^{6}$ | $48 \cdot 6$ | 72.8 | 50.1 |
| 29 | 41.5 | 12.9 | 48.0 | 38.7 | 40.0 | 18.0 | 48.5 | $32 \cdot 4$ | 60.1 | 45.2 | 67.8 | 57.0 |
| 30 | 27.6 | $0 \cdot 4$ | .... | .... | 38.8 | 16.4 | 52.5 | 30'2 | 66.6 | 40.4 | 75.0 | 58.9 |
| 31 | $50 \%$ | 25.5 | .... | $\cdots$ | 303 | $28 \cdot 4$ | $\cdots$ | $\cdots$ | 01.5 | $46 \cdot 1$ | .... | $\cdots$ |
|  | 30*6 | $22 \cdot 1$ | 87'3 | 20.4 | 34.2 | $20 \cdot 1$ | $45 \cdot 9$ | 31.3 | 57'6 | $40 \cdot 9$ | 60'4 |  |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Mex. | Min. | Max. | M1n. | Max. | Min. | Max. | Min. | Max. | Min. | 茵 |
| - | - | - | - | - | - | - | - | - | - | - | - |  |
| $72 \cdot 1$ | 53-9 | 72.8 | 557 | 67.8 | $43 \cdot 4$ | 55.5 | 42.7 | 47.5 | $40 \cdot 0$ | 28.9 | 16.4 | 1 |
| 64.8 | 55.5 | 87.5 | 58.1 | 71.7 | $45 \cdot 8$ | 83.6 | 38.6 | $49 \cdot 8$ | $35 \cdot 1$ | 253 | 15.2 | 2 |
| 70.0 | 57.0 | $70 \cdot 6$ | $59 \cdot 1$ | 68.3 | 56.9 | $67 \cdot 6$ | 39.7 | $49 \cdot 0$ | $30 \cdot 6$ | $34 \cdot 4$ | $22 \cdot 5$ | 3 |
| 70-9 | $52 \cdot 1$ | 74.0 | 56.9 | 74.2 | 56.8 | 86.2 | 51.6 | 54.1 | $30 \cdot 3$ | 33.9 | 23.5 | 4 |
| 66.8 | $52 \cdot 3$ | 63.8 | 53.6 | 72.7 | 58.1 | 81.5 | 53.1 | 52.8 | 30.6 | 37.4 | $18 \cdot 5$ | 5 |
| $65 \cdot 6$ | 53.9 | 67.5 | $54 \cdot 2$ | $73 \cdot 9$ | 57.6 | 62.5 | $52 \cdot 1$ | 61.5 | $48 \cdot 3$ | 444 | $34 \cdot 1$ | 6 |
| 70.0 | 52.6 | $70 \cdot 1$ | 53.6 | 68.3 | 55.6 | 55.0 | 47.2 | 61.0 | $45 \cdot 2$ | 38.4 | 27.4 | 7 |
| 6, 3 | 52.6 | $75 \cdot 6$ | 53.6 | $70 \cdot 1$ | 54.7 | $54 \cdot 6$ | 40.2 | $49 \cdot 4$ | 38.2 | $32 \cdot 4$ | 19.0 | 8 |
| 70.1 | 51.9 | 60.2 | $54 \cdot 1$ | 62.8 | 53.1 | 59.5 | 43.2 | 47:1 | 37.7 | 34.4 | 8.4 | 9 |
| $69 \cdot 1$ | $54 \cdot 3$ | 67.2 | 55.5 | 62.5 | 62.1 | 63.1 | 39.6 | 48.1 | $32 \cdot 6$ | 26.4 | 6.4 | 10 |
| 88.9 | 54.1 | $70 \cdot 9$ | 51.9 | 63.1 | 50.6 | 63.2 | 40.2 | 47.7 | 28.8 | 27.9 | 9.9 | 11 |
| 65.6 | 47.7 | 89.3 | 50.2 | $71 \cdot 1$ | 43.7 | $61 \cdot 5$ | 48.9 | 63.9 | 40.2 | 329 | 14.4 | 12 |
| 62.6 | 51.6 | 68.7 | 48.2 | 70-9 | 48.3 | 51.1 | 37.9 | 47.3 | 34.6 | 44.9 | $29 \cdot 3$ | 13 |
| 67.5 | 53.6 | $67 \cdot 5$ | 519 | 68.8 | 57.2 | 53.0 | 37.5 | 41.7 | 34.3 | 43.9 | 32-9 | 14 |
| 85.2 | 49.1 | 65.8 | $53 \cdot 1$ | 68.2 | 54.7 | 67.5 | 457 | 39.9 | $29 \cdot 2$ | $42 \cdot \mathrm{I}$ | 32.1 | 15 |
| 72-1 | 55.1 | 61.6 | $50 \cdot 1$ | 68.6 | $48 \cdot 7$ | 61.2 | 47.6 | $44 \cdot 7$ | 28.7 | 41.7 | 32.1 | 16 |
| 85.2 | 52.7 | 67.9 | 50.3 | 64.9 | 52.1 | 62.8 | 53.6 | 45.9 | $31 \cdot 1$ | 35.9 | $23 \cdot 1$ | 17 |
| $71 \cdot 1$ | 53.3 | $70 \cdot 1$ | 47.2 | 81.8 | 48.7 | 615 | $47 \cdot 1$ | 64.0 | 33.1 | 31.9 | 23.3 | 18 |
| 725 | 51.2 | $71 \cdot 6$ | 51.6 | 650 | 441 | 52.0 | 38.0 | $40 \cdot 1$ | 22.7 | 369 | 25.3 | 19 |
| 78.0 | 52.6 | 6:8 | 56.1 | 88.8 | 45.3 | 51.2 | 31.6 | 51.0 | 20.0 | 37.9 | 278 | 20 |
| 70.5 | 58.5 | 67.9 | 55.6 | 63.8 | 51.2 | 55.8 | 30.6 | 59.0 | 24.5 | $32 \cdot 1$ | 23.5 | 21 |
| 67.2 | 57.9 | 69.6 | $55^{6} 6$ | $59 \cdot 4$ | 505 | 60.0 | 33.9 | 40.8 | 17.7 | $38 \cdot 1$ | 24.3 | 22 |
| 68.9 | $55 \cdot 1$ | 72-1 | 51.6 | 56.1 | 47.9 | ${ }^{61} \cdot 8$ | $49 \cdot 1$ | 36.4 | 19\% | 39-9 | 302 | 23 |
| 66.5 | $50 \cdot 1$ | 71.1 | 55.6 | 56.1 | 37.2 | 56.6 | 377 | $30 \cdot 4$ | 19\% | $37 \cdot 4$ | 2 F 5 | 24 |
| $69 \cdot 8$ | 55.6 | 65.8 | 48.7 | 81.0 | 44.2 | 41.9 | $38 \cdot 1$ | 48.4 | $20 \%$ | 36.9 | 24.5 | 25 |
| $72 \cdot 8$ | 55.1 | 01.1 | 4.0 | 648 | 41.7 | $44 \cdot 9$ | 35.6 | 25.9 | 13.0 | 35.9 | 21.3 | 26 |
| $62 \cdot 8$ | 56.1 | 662 | 41.7 | 71.9 | 52.7 | 51.5 | 37.2 | $34 \cdot 9$ | 149 | 38.1 | 30.0 | 27 |
| $69 \cdot 1$ | 53.3 | 712 | 56.6 | 72.0 | 56.6 | $48 \cdot 5$ | 35.6 | 36.4 | $20 \cdot 8$ | 38.9 | 18.0 | 28 |
| $00 \cdot 3$ | $49^{\circ}$ | $77 \cdot 6$ | 57.1 | 01.5 | 54.1 | 457 | $30 \cdot 9$ | 45.7 | 31.6 | 29.9 | 14.2 | 29 |
| $65 \cdot 5$ | $50 \cdot 3$ | 72\% | 48.8 | $62 \cdot 2$ | 49.3 | 54.0 | 28.7 | 40.7 | 19.7 | 33.1 | 12.9 | 30 |
| 67.8 | 52.9 | 70.6 | 452 | $\cdots$ | .... | 00.0 | $45 \cdot 4$ | $\cdots$ | .... | 25.8 | 11.4 | 31 |
| 68.5 | 63.5 | 689 | 52.4 | $66^{4}$ | 49.4 | 56.9 | $41 \cdot 1$ | 48.2 | $29 \cdot 4$ | $35 \cdot 4$ | 21.9 |  |

TABLE LXXI.-Charlottetown, P.E. 1. Maximum

| $\underset{A}{4}$ | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | M1n. | Max. | Min. | Max. | Min. |
|  | - | - | - | - | - | - | - | - | - | - | - | - |
| 1 | 197 | 4.0 | 25.9 | $5 \cdot 1$ | 38.8 | 17.4 | 26.9 | 19.5 | $44 \cdot 3$ | $30 \cdot 0$ | 72.2 | 51.2 |
| 2 | 38.8 | 1.5 | 77 | 8.9 | $19 \cdot 8$ | 97 | 310 | 13.0 | 42.0 | $30 \cdot 1$ | 60.8 | 44.0 |
| 3 | $34 \cdot 1$ | $0 \cdot 1$ | 12.3 | 47 | 25.2 | $10 \cdot 1$ | 467 | 16.8 | 50.8 | $30-9$ | 63.7 | $38 \cdot 3$ |
| 4 | 37.2 | 1.0 | 27.6 | 90 | 39.0 | 23.4 | $41 \cdot 4$ | 34.4 | 470 | $30 \cdot 0$ | 483 | $\mathbf{3 8} \mathbf{7}$ |
| 5 | 36.0 | $9 \cdot 3$ | 20.8 | 8.4 | 82.7 | 14.9 | 47.9 | 347 | 59.0 | $30 \cdot 6$ | 52.2 | $40 \cdot 2$ |
| 6 | 31.1 | $1 \cdot 6$ | 80.6 | $6 \cdot 1$ | 20.2 | 12.9 | $42 \cdot 3$ | 28.3 | $49 \cdot 8$ | 31.5 | $48 \cdot 8$ | 412 |
| 7 | 357 | 13.6 | $19 \cdot 8$ | $2 \cdot 1$ | 23.2 | $5 \cdot 1$ | 31.9 | 19.6 | 39.0 | 28.2 | 60.7 | 41.0 |
| 8. | 31.2 | 10.1 | 22.3 | 0.9 | 36.0 | 17 | 26.9 | 16.3 | 45.2 | 265 | 64.0 | 48.1 |
| 9 | 27.5 | $3 \cdot 2$ | 33.3 | $2 \cdot 1$ | 44 | 4.0 | 30.7 | 16.1 | $\ldots$ | .... | 669 | 46.2 |
| 10 | $39 \cdot 8$ | 25.6 | 45 | 93 | 21.3 | 0.4 | 42.0 | 27.0 | 01.3 | $39 \cdot 2$ | $65 \cdot 1$ | $44 \cdot 1$ |
| 11 | $27 \cdot 6$ | $10 \cdot 3$ | 18.7 | - 57 | 8.6 | 8.5 | 48.6 | 33.5 | 62.2 | 40.2 | $71 \cdot 4$ | 48.0 |
| 12 | 32.9 | 10.0 | 37.0 | $1 \cdot 9$ | 8.7 | 11.3 | 34.9 | 16.4 | 61.6 | $39 \cdot 2$ | $66 \cdot 4$ | 51.0 |
| 13 | $27 \cdot 4$ | 10.1 | $42 \cdot 1$ | 22-1 | 14.5 | $1 \cdot 9$ | $35 \cdot 9$ | $15 \cdot 1$ | $42 \cdot 2$ | $32 \cdot 1$ | $63 \cdot 1$ | 48.5 |
| 14 | 12.7 | 0.0 | $24 \cdot 1$ | 8.1 | 15:3 | $5 \cdot 1$ | $30^{\circ} 9$ | 22.6 | $39 \cdot 8$ | 32.6 | 51.8 | 45.9 |
| 15) | 20.1 | $4 \cdot 3$ | 183 | 0.9 | 15.0 | 2-1 | 43.3 | 23.3 | $43 \cdot 1$ | 83.1 | 48.3 | 38.8 |
| 10 | $26 \cdot 9$ | 8.1 | $21 \%$ | $12 \cdot 1$ | 23.8 | $4 \cdot 0$ | 41.9 | $2 \mathrm{~T} \cdot 2$ | 52.0 | $32 \cdot 1$ | $63 \cdot 8$ | 38.5 |
| 17 | 31.8 | $22 \cdot 1$ | 22\% | 8-1 | 189 | $0 \cdot 1$ | 328 | 23.5 | 560 | $32 \cdot 3$ | 68.9 | 44.8 |
| 18 | 32.9 | 27.0 | $410 \cdot 4$ | 15.6 | 20.0 | $4 \cdot 0$ | $20 \cdot 2$ | 24.8 | 44.0 | 31.1 | $72 \cdot 9$ | 46.2 |
| 19 | 33.0 | 23.7 | $40 \cdot 9$ | $8 \cdot 9$ | $33 \cdot 4$ | $7 \% 2$ | $40 \cdot 1$ | 22.0 | 58.0 | $25 \cdot 8$ | 76.3 | 51.1 |
| 20 | 203 | 8.0 | 19.5 | 1.0 | 26.8 | $12 \cdot 1$ | 49.0 | 31.5 | 63.1 | 40.5 | $75 \cdot 9$ | 55.0 |
| 21 | 34.9 | 8.6 | 82.9 | $4 \cdot 2$ | 28.4 | 6.1 | $50 \cdot 8$ | 32.9 | $74 \cdot 4$ | 39.2 | 67.7 | 54.7 |
| 22 | $15 \cdot 0$ | $0 \cdot 3$ | $35 \cdot 1$ | 19.6 | 34.7 | 11.4 | $58 \%$ | 31.2 | 57.2 | $37 \cdot 4$ | 58.3 | $47 \cdot 9$ |
| 23 | $40 \cdot 1$ | 0.6 | $29 \cdot 2$ | $10 \cdot 1$ | 333 | 18.9 | 40.0 | 29.1 | 87.8 | 44.2 | $52 \cdot 3$ | 43.9 |
| 24 | 38.0 | 23.3 | $22 \cdot 1$ | 16.4 | 32.9 | 173 | 43.0 | 27.7 | 70.1 | $51-1$ | $49 \cdot 4$ | 43.3 |
| 25 | 25.2 | 103 | $30 \cdot 9$ | 10.9 | $35 \cdot 9$ | 19.9 | $48 \cdot 7$ | 20.1 | 53.7 | 39.9 | 64'4 | 45.0 |
| 20 | 30.0 | 10.1 | 41.6 | $17 \cdot 1$ | 22.0 | 11.0 | $42 \cdot 1$ | 28.1 | 50.8 | $45 \cdot 6$ | $65 \cdot 2$ | $60 \cdot 1$ |
| 27 | $35 \cdot 9$ | $9 \cdot 9$ | $41 \cdot 2$ | 29.0 | 25.0 | $7 \cdot 2$ | 48.9 | 35.7 | $73 \cdot 8$ | 46.3 | 69.9 | $50 \cdot 1$ |
| 28 | $42 \cdot 1$ | 326 | $30 \cdot 3$ | 25.3 | 23.2 | $0 \cdot 1$ | 41.6 | 29.4 | 78.3 | 55.1 | 70.6 | 54.5 |
| 29 | $30 \cdot 1$ | 37 | 42:3 | 32.4 | 20.2 | 12.3 | $52 \cdot 4$ | 29.4 | 60.4 | $42 \cdot 3$ | 74.8 | 58.6 |
| 30 | 287 | 0.4 | $\ldots . \cdot$ | $\ldots$ | $50 \cdot 8$ | 187 | 47.3 | 85.9 | 61.4 | $40 \cdot 2$ | 82.8 | 81.3 |
| 31 | 41.7 | $23 \cdot 9$ | $\cdots$ | $\cdots$ | 29.9 | 24.0 | $\cdots$ | .... | 56.0 | 48.7 | $\cdots$ | $\cdots$ |
|  | 31.5 | $9 \cdot 6$ | 27.6 | $8 \cdot 6$ | 25.2 | 8.6 | $41 \cdot 3$ | 257 | 55.7 | 37.0 | 63.8 | $47 \cdot 2$ |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| - | - | - | $\bigcirc$ | - | $\stackrel{ }{ }$ | - | - | 9 | a | - | 0 |  |
| 80.8 | 62.5 | $83 \cdot 4$ | 63.5 | 72.0 | 52.8 | 59.9 | $45 \cdot 5$ | 55.1 | $38^{\circ} 0$ | 14.3 | 6.0 | 1 |
| 76.6 | 59.5 | 86.8 | 65.5 | 71.1 | 58.7 | $59 \cdot 3$ | 41.2 | 55.0 | $23 \cdot 1$ | 19.6 | 6.0 | 2 |
| 68.8 | 55.6 | $75 \cdot 6$ | 62.0 | $72 \cdot 9$ | 60.1 | 61.2 | 41.6 | 41.5 | $30 \cdot 1$ | 26.4 | 13.1 | 3 |
| 71.5 | 51.9 | $73 \cdot 4$ | 58.5 | 78.3 | 63.2 | 66.1 | 53.5 | $42 \cdot 8$ | $27 \cdot 1$ | 24.9 | 20.1 | 4 |
| 81.7 | 57.6 | 68.4 | 59.9 | 792 | 65.2 | 635 | 54.6 | 47.5 | 31.2 | $28 \cdot 1$ | 15.0 | 5 |
| $77 \cdot 6$ | $63 \cdot 5$ | 73.2 | 58.3 | $82 \cdot 1$ | 62.9 | 59.5 | $52 \cdot 4$ | 53.8 | 4.1 | $40 \cdot 3$ | $26 \cdot 1$ | 6 |
| 687 | 61-2 | 68.9 | 53.1 | 70.3 | 577 | 54.6 | 45.4 | $59 \cdot 5$ | 45.7 | 32.0 | $17 \cdot 1$ | 7 |
| 79.7 | $60 \cdot 6$ | 65.3 | 50.7 | 66.3 | 54.3 | 55.5 | 41.9 | $47 \cdot 3$ | 35.6 | 19.0 | $8 \cdot 4$ | 8 |
| $77 \cdot 4$ | 58.2 | 67.2 | 55.7 | 62.5 | $53 \cdot 1$ | 54.6 | 421 | 41.8 | 31.9 | 20.7 | $5 \cdot 1$ | 9 |
| 82.5 | $64 \cdot 5$ | 71.9 | 58.8 | 59.6 | 53.1 | 57.5 | 40.7 | $38 \cdot 1$ | 30.4 | 21.9 | 0.1 | 10 |
| 66.0 | 53.6 | $71 \%$ | 56.8 | 59.5 | $45 \cdot 9$ | 61.6 | $47 \cdot 8$ | 40.3 | $33 \cdot 1$ | $22 \cdot 6$ | 17.6 | 11 |
| 74.9 | 49.5 | 75-3 | 563 | 68.7 | $4 \overline{2} \cdot 2$ | 65.3 | 51.7 | $50 \cdot 7$ | 38.2 | $21 \cdot 3$ | $11 \cdot 9$ | 12 |
| $73 \cdot 4$ | 58.0 | 77.2 | 61.2 | 69.0 | 56.1 | 55.2 | 37.2 | 41.2 | 34.2 | $34 \cdot 3$ | $10 \cdot 1$ | 13 |
| 64.2 | 53.7 | $72 \cdot 9$ | 61.6 | 70.4 | 56.5 | $46 \cdot 4$ | 357 | 35.9 | 29.6 | 38.0 | $29 \cdot 3$ | 14 |
| $70 \cdot 9$ | 53.5 | 70.2 | 56.6 | $65 \cdot 2$ | $59 \cdot 1$ | 51.0 | 34.2 | 32.7 | 26.9 | $34 \cdot 5$ | $30 \cdot 1$ | 15 |
| 737 | 54.1 | 63.8 | 50.2 | $69 \cdot 4$ | 56.1 | $60 \cdot 3$ | 38.6 | 37.8 | $24 \cdot 6$ | 339 | $29 \cdot 1$ | 16 |
| 72.7 | 58.2 | 61\% 5 | 52.2 | 68.7 | 55.8 | 645 | 43.8 | 38.6 | 28.0 | $30 \cdot 9$ | 18.7 | 17 |
| 80.7 | 628 | 68.2 | 47.2 | 66.5 | 53.2 | 61.3 | 44.2 | $43 \cdot 5$ | $36 \cdot 9$ | 28.9 | $18 \cdot 3$ | 18 |
| 79.9 | 60.2 | 70.7 | 55.3 | 63.0 | 48.1 | $49 \cdot 4$ | 37- ${ }^{1}$ | 40.2 | $22 \cdot 1$ | 34.0 | 22.6 | 19 |
| $82 \cdot 4$ | 59.2 | $65 \cdot 9$ | 58.8 | 63.4 | 44.8 | 50.0 | 35.2 | 38.0 | 18.8 | 33.8 | $21 \cdot 1$ | 20 |
| 75.3 | 63.8 | $72 \cdot 8$ | $62 \cdot 3$ | 65.0 | $45 \cdot 4$ | 51.0 | 38.3 | 47.9 | $19 \cdot 1$ | 28.6 | $24 \cdot 1$ | 21 |
| 78.8 | $67 \cdot 1$ | 77.4 | 64.6 | 61.5 | 48.7 | 57.0 | $42 \cdot 1$ | 21.5 | $10 \cdot 1$ | 33.5 | 27.0 | 22 |
| 75.2 | $64 \cdot 9$ | $80 \cdot 3$ | 61.5 | 54.8 | 43.2 | 56.6 | 46.2 | 20.2 | 9.6 | 34.0 | 297 | 23 |
| 67.8 | 62.4 | 76.2 | $60 \cdot 1$ | $54 \cdot 4$ | 41.6 | 56.5 | 41.2 | 23.4 | $17 \cdot 4$ | 32.0 | 27.8 | 24 |
| $7 \cdot 1$ | 59.0 | 67.7 | 50.9 | 55.9 | 41.8 | 42.8 | $34 \cdot 7$ | 23.9 | 16.4 | $32 \cdot 9$ | 26.1 | 25 |
| 75.8 | 61.1 | 62.8 | 47•1 | 54.5 | $41 \cdot 2$ | 47.7 | 34.5 | 23.5 | $12 \cdot 4$ | 32.4 | 21.8 | 26 |
| 73.7 | 62.2 | 68.0 | $49 \cdot 1$ | 64.7 | $53 \cdot 1$ | 50.0 | $39 \cdot 1$ | 23.9 | 6.1 | 34.4 | 28.1 | 27 |
| 74.4 | 60.7 | 76.2 | 57.8 | 68.9 | 60.2 | 51.8 | 40.2 | 24.9 | $12 \cdot 4$ | 34.) | 127 | 28 |
| 71.9 | 58.2 | 65.2 | 53.9 | 69.4 | 55.8 | 43.1 | $32 \cdot 6$ | $34 \cdot 6$ | $13 \cdot 1$ | $26 \cdot 6$ | 6.4 | 29 |
| 68.7 | 57.2 | 68.0 | 51.1 | 64.5 | $40 \cdot 9$ | 45.8 | 31.1 | $29 \cdot 3$ | $8 \cdot 3$ | 28.6 | 3.6 | 30 |
| 69.7 | 58.0 | 67.9 | 47-1 | . $\cdot$ | . $\cdot$. | 56.4 | $44^{5}$ | $\cdots$ | $\cdots$ | 8.9 | 1.2 | 31 |
| $74 \cdot 6$ | 59.2 | 71.6 | 56.4 | $66 \cdot 4$ | $52 \cdot 9$ | 55.3 | 41.8 | 38.5 | 254 | 28.6 | 17.3 |  |

TABLE LXXL.-Kilmahumaig, P. E. I. Maximum

| $\dot{\theta}$ | January. |  | February |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min, |
|  | 9 | $\bigcirc$ | - | 0 | - | 9 | 9 | 0 | ? | - | $\underline{9}$ | - |
| 1 | 16.2 | 2.8 | 25.2 | 20 | $26 \cdot 1$ | 18.6 | 26.6 | 16.7 | 48.9 | $29 \cdot 9$ | 68-1 | 47.5 |
| 2 | 367 | 8.7 | $3 \cdot 1$ | - 9.3 | $19 \cdot 4$ | $7 \cdot 4$ | 36.0 | 10\%7 | $38 \cdot 2$ | 26.0 | $62 \cdot 4$ | 457 |
| 3 | 33.5 | 4.4 | 8.8 | 97 | 27.8 | 10.4 | 41.4 | 17.0 | 57.6 | 30.5 | $54 \cdot 4$ | 41.6 |
| 4 | $36 \cdot 4$ | $8 \cdot 4$ | 14.7 | 8.0 | $37 \cdot 2$ | 23.4 | 417 | 33.9 | 48.2 | 31.4 | $51 \cdot 1$ | $40 \cdot 4$ |
| 5 | 36.4 | 9.6 | 18.4 | 8.6 | $30 \cdot 3$ | 13.5 | $40 \cdot 5$ | 39.2 | 49.7 | 30.8 | $61 \cdot 1$ | 38.4 |
| 6 | 27.8 | 10.3 | 27.8 | 0.2 | 21.6 | 11.4 | $40 \cdot 4$ | 30.5 | 547 | 31.6 | 56.8 | 42.1 |
| 7 | $35 \cdot 1$ | 8.9 | 19.8 | $5 \cdot 5$ | 27.8 | 0.9 | 32.6 | $20 \cdot 3$ | 43.5 | 29.7 | $54 \cdot 6$ | 41.2 |
| 8 | 29.9 | 78 | 17.2 | 5.9 | 31.0 | 24 | 25.9 | 182 | 45.2 | $\mathbf{2 4 . 8}$ | 66.2 | 45.7 |
| 9 | $25 \cdot 1$ | $1 \cdot 4$ | $29 \cdot 7$ | 2.1 | 9.8 | 87 | $33 \cdot 8$ | 18.0 | $52 \cdot 5$ | $36 \cdot 4$ | 68.4 | 47.3 |
| 10 | 40.3 | 21.4 | $2 \cdot 3$ | 10.5 | 22.8 | $8 \cdot 4$ | 47.5 | 27.6 | 64.8 | 36.5 | $65 \cdot 1$ | 46.7 |
| 11 | 29.3 | $3 \cdot 1$ | 13.5 | 0.6 | $9 \cdot 4$ | 127 | 44.6 | $35 \cdot 1$ | 68.5 | 39.6 | 78.5 | 48.7 |
| 12 | $33 \cdot 9$ | 1/8 | 35.0 | $10 \cdot 6$ | 10.4 | 21:2 | 37.9 | 17.8 | 53.0 | 36.5 | $69 \cdot 4$ | $50 \cdot 1$ |
| 13 | 26.2 | 11.7 | 41.0 | $22 \cdot 1$ | 15.8 | $1 \cdot 1$ | $35 \cdot 3$ | 18.8 | $27 \cdot 6$ | $32 \cdot 5$ | 61.0 | 48.0 |
| 14 | 18.2 | 8.5 | 23.2 | 9-3 | 14.8 | 1.9 | 37.4 | 20.8 | 40.0 | $32 \cdot 9$ | $54 \cdot 7$ | $47 \cdot 1$ |
| 15 | $28 \cdot 1$ | $12 \cdot 4$ | $17 \cdot 3$ | $3 \cdot 5$ | $19 \cdot 6$ | 1.6 | $47 \cdot 2$ | 20.9 | 46.2 | 33.5 | 52.6 | 39.8 |
| 16 | 25.6 | 3.0 | 23.7 | 11.3 | 27.6 | 1.6 | 56.0 | 23.5 | 53.8 | $34 \cdot 3$ | 67.8 | 38.7 |
| 17 | $30 \cdot 1$ | $18 \cdot 5$ | 26.2 | $10 \cdot 3$ | 16.2 | 1.6 | 30.3 | $24 \cdot 1$ | $49 \cdot 8$ | 29.0 | 67.9 | 39.7 |
| 18 | $35 \cdot 1$ | 24.8 | $43 \cdot 1$ | 16.0 | $21 \cdot 8$ | 48 | 31.1 | $24 \cdot 9$ | 42.7 | $29 \cdot 9$ | 73.6 | 42.0 |
| 19 | 29.4 | 23.5 | 43.2 | 7.8 | 35.5 | $7 \cdot 7$ | 47.3 | 173 | $62 \cdot 4$ | 26.0 | $78 \cdot 2$ | $48 \cdot 4$ |
| 20 | 24.6 | 79 | 20.2 | $2 \cdot 1$ | $24 \cdot 6$ | 6.7 | 53.1 | $35 \cdot 3$ | $72 \cdot 2$ | 45.7 | 83.8 | 56.6 |
| 21 | 23.9 | $8 \cdot 9$ | $30 \cdot 3$ | 0.9 | $31 \cdot 3$ | 24 | 49.6 | 37.8 | $73 \cdot 5$ | $38 \cdot 4$ | 72-2 | 52.7 |
| 22 | $15 \cdot 4$ | 0.4 | $34 \cdot 1$ | $2 \cdot 3$ | 38.6 | $9 \cdot 2$ | 63.2 | 29.1 | 41.3 | 37.7 | 577 | 48.5 |
| 23 | 398 | 1.8 | 27.2 | 0.1 | $31 \cdot 1$ | $19 \cdot 2$ | 45.5 | $30 \cdot 5$ | 68.5 | $37 \cdot 8$ | 49.7 | $43 \cdot 9$ |
| 24 | 40.0 | 24.6 | 21.2 | 16.0 | 28.7 | 126 | 44.2 | 26.0 | $69 \cdot 7$ | 43.9 | 50.9 | 41.6 |
| 25 | 25.2 | $12 \cdot 1$ | 27.0 | 157 | 25.8 | 20.7 | $40 \cdot 6$ | 26.7 | 51.3 | 38.9 | 59.6 | $37 \cdot 9$ |
| 26 | 20.9 | $9 \cdot 2$ | 39.5 | $19 \cdot 3$ | 21.2 | 10.3 | 44.6 | $25 \cdot 1$ | 51.4 | $44 \cdot 1$ | $68 \cdot 2$ | 50.3 |
| 27 i | 38.0 | 12.2 | 43.0 | 31.3 | 25.8 | 5.7 | $50 \cdot 8$ | 35.9 | 81.0 | 43.9 | 72.2 | 50.3 |
| 28 | $41 \cdot 4$ | $33 \cdot 6$ | $36 \cdot 4$ | 22.2 | 20.8 | $1 \cdot 2$ | $43 \cdot 6$ | 28.5 | $70 \cdot 6$ | $45 \cdot 4$ | $82 \cdot 9$ | $52 \cdot 3$ |
| 20 | $35 \%$ | - 2 | $43 \cdot 3$ | 28.6 | 25.8 | 16.2 | 57.6 | 25.0 | 64.5 | $43 \cdot 7$ | 84.5 ${ }^{\text {c }}$ | 62-1 |
| 30 | 24.2 | 0.0 | . $\cdot$. | . . . | 30.0 | 16.4 | 50.9 | 88.8 | 55.3 | 31.2 | 76.0 | 62.5 |
| 31 | 43-2 | $23 \cdot 4$ | $\cdots$ | -... | $30 \cdot 2$ | $25 \cdot 4$ | $\cdots$ | $\cdots$ | 58.2 | 47.0 | . $\cdot$. | -•• |
|  | $30 \cdot 6$ | $7 \cdot 4$ | $26 \cdot 1$ | 6.4 | 24.4 | 6.3 | $43 \cdot 2$ | $25 \cdot 3$ | 55:8 | 35.6 | $65 * 5$ | $48 \cdot 6$ |

and Minimum Temperature, 1880.

| July. |  | August. |  | September. |  | October. |  | Norember. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | M ${ }^{\text {d }}$. | Max. | Min. | Max. | M n . | Max. | Min. | Max. | Min. | 安 |
| $\bullet$ | $\bullet$ | - | - | - | $\bigcirc$ | - | - | - | - | - | - |  |
| $80 \cdot 3$ | 61.5 | $84 \cdot 6$ | 60.9 | 69.6 | 45.0 | 58,3 | $40 \cdot 6$ | 577 | 32.8 | $14 \cdot 1$ | 4.2 | 1 |
| 79.5 | 56.4 | 86.7 | 64,3 | 66.7 | 57.6 | $59 \cdot 1$ | $31 \cdot 3$ | 47.2 | $27 \cdot 4$ | 19.8 | 6.6 | 2 |
| $65 \cdot 1$ | 53.6 | $69 \cdot 8$ | 59.9 | 76.8 | 58.1 | 63.0 | $33 \cdot 9$ | 39.8 | 23.2 | 28.8 | 14.6 | 3 |
| 72.5 | 51.0 | $67 \cdot 1$ | 58.3 | 81.7 | 617 | 68.0 | 51.6 | 44.5 | 21.0 | $25 \cdot 4$ | 19.9 | 4 |
| $84 \cdot 1$ | 54.0 | 68.7 | 57.2 | $83 \cdot 1$ | 62.2 | 67.2 | 56.6 | 46.5 | 247 | 31.0 | 15.6 | 5 |
| $77 \cdot 4$ | $60 \cdot 3$ | 74.4 | 54.6 | 81.8 | $56 \cdot 3$ | 63.7 | $41 \cdot 6$ | 55.5 | 42.0 | 38.2 | 26.1 | 6 |
| 75.0 | 61.4 | 67.6 | 497 | 69.7 | 52.5 | $54 \cdot 6$ | $39 \cdot 6$ | $62 \cdot 4$ | $45 \cdot 4$ | $30 \cdot 5$ | 17.8 | 7 |
| $78 \cdot 4$ | 580 | 66.3 | 47.0 | 62.4 | $52 \cdot 1$ | 53.8 | 41.5 | 47.0 | 34.9 | 19.0 | 4.2 | 8 |
| 80-1 | 53.7 | $66 \cdot 4$ | $54 \cdot 3$ | 57.5 | 53.3 | 58.5 | $38 \cdot 8$ | 41.4 | 31.7 | 16.9 | 2.9 | 9 |
| 85.1 | $61 \cdot 3$ | 70-5 | 56.4 | 60.7 | 49:5 | $60 \cdot 6$ | 33.5 | 39.2 | 26.6 | 19.2 | 5.2 | 10 |
| 64'5 | $52 \cdot 9$ | 75.8 | 56:1 | 63.4 | $44 \cdot 3$ | 617 | 44.6 | $39 \cdot 1$ | 26.2 | 21.7 | 3.7 | 11 |
| 76.0 | 45\% | 77.6 | 56.2 | 76.0 | 37-3 | $68 \cdot 6$ | 48.3 | 49.2 | 36.5 | 22.2 | 0.9 | 12 |
| 76.0 | 51.3 | $80 \cdot 3$ | 54.9 | 73.7 | 50.8 | 49.5 | 39.9 | 41.8 | 35.2 | $32 \cdot 3$ | 4.7 | 13 |
| $69 \cdot 9$ | 526 | 68.2 | 60.9 | 73.4 | 55.7 | 51.8 | 37.2 | $37 \cdot 1$ | 29.9 | $36 \cdot 8$ | 28.0 | 14 |
| $72 \cdot 6$ | $52 \cdot 3$ | $68 \cdot 1$ | 50.0 | 62.9 | 56.9 | 53.0 | 36.5 | 31.8 | 22.1 | 34.0 | 28.9 | 15 |
| $76 \cdot 6$ | 48.1 | $65 \cdot 8$ | 46.5 | $69 \cdot 6$ | $55 \cdot 3$ | 62:9 | $33 \cdot 5$ | 34.8 | 15.6 | $32 \cdot 1$ | 27.0 | 16 |
| 79:4 | $60 \cdot 5$ | 627 | $47 \cdot 7$ | 690 | 53.8 | 59.7 | 36.9 | 37.0 | 24.7 | 28.4 | $19 \cdot 1$ | 17 |
| 81.6 | 60.2 | 69.5 | 43.6 | 64.7 | 49.8 | $62 \cdot 1$ | 41.7 | 425 | 31.1 | 30.6 | 18.7 | 18 |
| 76:9 | 58.4 | $71 \cdot 1$ | 49:9 | 63.7 | 43.2 | $49 \cdot 6$ | 28.8 | 39.0 | 21.8 | 33.8 | 23.6 | 19 |
| $7 \cdot 4$ | 55:2 | 68.5 | 58.3 | 63.8 | $38 \cdot 9$ | $50 \cdot 3$ | 25.3 | $35 \cdot 1$ | 16.8 | 33.3 | 23.6 | 20 |
| 71.6 | 63.3 | 71.3 | $61 \cdot 9$ | 62.6 | 52.4 | 51.1 | 27.8 | 43.8 | 17.3 | 285 | $2{ }^{2} \cdot 7$ | 21 |
| $76 \cdot 6$ | 66.3 | 78.6 | $62 \cdot 3$ | 61.0 | 50.1 | 56.4 | 37.5 | 19.2 | 5.6 | 33.0 | 27.2 | 22 |
| $68 \cdot 1$ | 611 | 80.7 | 58.4 | 55.0 | 45.6 | 55.2 | 46.8 | 22.5 | 13.6 | $33 \cdot 3$ | 287 | 23 |
| 71-1 | 57.8 | 72.7 | 56.3 | 569 | 38.2 | 54.5 | 394 | $22 \cdot 8$ | 19.2 | 31.3 | 23.6 | 24 |
| $79 \cdot 6$ | 57.2 | 64.0 | 52.6 | 54.9 | 390 | 40.6 | 342 | 23.8 | 17.2 | 31.5 | 27.3 | 25 |
| $80 \cdot 4$ | $59 \cdot 3$ | 61.7 | $4 \cdot 6$ | $52 \cdot 4$ | 354 | 48.5 | 33.4 | $22 \cdot 3$ | $4 \cdot 6$ | 31.4 | $20 \cdot 2$ | 26 |
| 74.0 | $60 \cdot 4$ | 69.5 | 45.1 | 67.8 | 51.6 | 48.2 | 29.1 | 23.4 | $2 \cdot 6$ | 31.9 | $28 \cdot 5$ | 27 |
| 745 | 57.3 | 78.6 | 56.9 | $63 \cdot 4$ | 55.6 | 48.3 | 36.7 | $26 \cdot 1$ | $2 \cdot 4$ | 32.5 | 12.7 | 28 |
| $71 \cdot 9$ | 54.6 | $66^{\circ} 0$ | 53.2 | $67 \cdot 1$ | 44.9 | $40 \cdot 9$ | 26.2 | 34.0 | $4 \cdot 1$ | 21.1 | 35 | 29 |
| 66.9 | 55.3 | 64.9 | 430 | 65.6 | 404 | 45; | $26 \cdot 1$ | 28.0 | $7 \cdot 4$ | 25.5 | $2 \cdot 4$ | 30 |
| 71-1 | 56.2 | 63.4 | 41.0 |  | $\ldots$ | 56.5 | $4{ }^{4} \cdot 4$ | .... | . $\cdot$. | $7 \cdot 6$ | $3 \cdot 1$ | 31 |
| $75 \cdot 3$ | 56.7 | 71.2 | 53.6 | 66.7 | 498 | 55-1 | $37 \cdot 6$ | 378 | 21.9 | 27.6 | 14.9 |  |

TABLE LXXIII.—St. Johns, Newfoundland. Maximum

| $\begin{aligned} & \text { A } \\ & \text { A } \end{aligned}$ | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | $\cdots$ | - | - | - | - | - | - | - | - | $\bigcirc$ | - | - |
| 1 | 24.0 | 30 | 37.0 | 150 | 44.0 | 25.0 | 34.0 | 28.0 | 40.0 | 32.0 | 63.0 | $35^{\circ} 0$ |
| 2 | 28.0 | 6.0 | 350 | $7 \cdot 0$ | 87.0 | 11.0 | 320 | 20.0 | 45.0 | 31.0 | 72.0 | 42.0 |
| 3 | $34 \cdot 0$ | 50 | 12.0 | 3.0 | 180 | - | 38.0 | 25.0 | 47.0 | 28.0 | 60.0 | 43.0 |
| 4 | 25.0 | 2.0 | 38.0 | 6.0 | 28.0 | 6 | 420 | 21.0 | 46.0 | 34.0 | 60.0 | 40.0 |
| 5 | 33.0 | 15.0 | 30.0 | 14.0 | 35.0 | 21.0 | 40.0 | 25.0 | 44.0 | 26.0 | 51.0 | 38.0 |
| 6 | 18.0 | 9.5 | 18.0 | 10.0 | 30.0 | 200 | 38.0 | 32.0 | 54.0 | 31.0 | 50.0 | 38.0 |
| 7 | $37 \cdot 0$ | 10.0 | 25.0 | 6.0 | 30.0 | 17.0 | 42.0 | 30.0 | 48.0 | 27.0 | 52.0 | 48.0 |
| 8 | 29.0 | 8.0 | 8.0 | 3.0 | 31.0 | 11.0 | 34.0 | 20.0 | 39.0 | 28.0 | 50.0 | 43.0 |
| 9 | 15.0 | 5.0 | 31.0 | 2.0 | 26.0 | 4.0 | 32.0 | 16.0 | 45.0 | 27.5 | 45.0 | 42.0 |
| 10 | 33.0 | 10.0 | 30.0 | 9.0 | 22.0 | 4.0 | 32.0 | 13.0 | $44 \cdot 5$ | 27.0 | 54.0 | 41.5 |
| 11 | 38.0 | 20.0 | 10.0 | 10.0 | 24.0 | $5 \cdot 0$ | $34 \cdot 0$ | 27.0 | $34 \cdot 5$ | $32 \cdot 0$ | 59.5 | 45.0 |
| 12 | 30.0 | 17.0 | 10.0 | 2.0 | 6.0 | 40 | 42.0 | 30.0 | 48.0 | 32.0 | 63.9 | 47.0 |
| 13 | $34 \cdot 0$ | 28.0 | 28.0 | 6.0 | $7 \cdot 0$ | 4.0 | 30.0 | 20.0 | 37.0 | 32.0 | 62.0 | 44.0 |
| 14 | 35.0 | 23.0 | 28.0 | 13.0 | $7 \cdot 0$ | 4.0 | 32.0 | $15 \cdot 0$ | 41.0 | 31.0 | 62.0 | 44.0 |
| 15 | $30 \cdot 0$ | 20.0 | 18.0 | 3.0 | 14.0 | $1 \cdot 0$ | 32.0 | $18 \cdot 0$ | $36 \cdot 5$ | $30 \cdot 5$ | 46.0 | 39.0 |
| 16 | $29 \cdot 0$ | $20^{\circ} 0$ | 26.0 | 11.0 | 15.0 | $1 \cdot 0$ | 40.0 | 260 | 42.0 | 31.0 | 50.0 | 35.0 |
| 17 | 22.0 | 16.0 | 27.0 | 150 | 20.0 | $5 \cdot 0$ | 32.0 | 23.0 | 43.0 | 32.0 | 60.0 | 40.0 |
| 18 | 24.0 | 15.0 | $2^{11} 0$ | 10.0 | 18.0 | $9 \cdot 0$ | 30.0 | 23.0 | $55^{\circ} 0$ | 35.0 | 63.0 | $32 \cdot 0$ |
| 19 | 31.0 | 17.0 | 39.0 | 10.0 | 16.0 | $3 \cdot 0$ | 32.0 | 26.0 | 44.0 | 29.0 | 75.0 | 40.0 |
| 20 | 38.0 | 23.0 | 39.0 | 70 | 27.0 | 60 | 50.0 | 23.0 | 45.0 | 29.0 | 78.0 | 48.0 |
| 21 | 30.0 | 15.0 | 23.0 | 5.0 | 28.0 | 15.0 | 44.0 | $35 \cdot 0$ | $60^{\circ} 0$ | 43.0 | 68.0 | 48.0 |
| 22 | 34.0 | 26.0 | 31.0 | 15.0 | 32.0 | 21.0 | 38.0 | 33.0 | 58.0 | 34.0 | 51.0 | 41.0 |
| 23 | $30 \cdot 0$ | 16.0 | 35.0 | 25.0 | 350 | 23.0 | $44^{\circ} 0$ | 32.0 | 53.0 | 34.0 | 43.0 | 40.0 |
| 24 | 40.0 | 26.0 | 340 | 250 | 35.0 | 18.0 | 400 | 28.0 | 50.0 | $33 \cdot 0$ | 52.0 | $40 \cdot 0$ |
| 25 | 36.0 | 20 | 33.0 | 250 | 27.0 | 17.0 | 400 | 22.0 | 42.0 | 31.5 | . 52.0 | 41.0 |
| 26 | $2 \cdot 0$ | 20.0 | 42.0 | 30.0 | 35.0 | 250 | 40.0 | 21.0 | 43.0 | 31.5 | 52.5 | 42.0 |
| 27 | 25.0 | 17.0 | 44.0 | 34.0 | 320 | 140 | 15.0 | 22.0 | 55.0 | $35 \cdot 0$ | 62.0 | 41.0 |
| 28 | 37.0 | 22.0 | 40.0 | 36.0 | 30.0 | 12.0 | 46.0 | 29.0 | 52.0 | 450 | 61.0 | 48.0 |
| 29 | 38.0 | $7 \cdot 0$ | 36.0 | $27 \cdot 0$ | 290 | 20.0 | 42.0 | 24.0 | 72.0 | 43.0 | 78.5 | 47.0 |
| 30 | 10.0 | 4.0 | .... | ... | 37.0 | 18.0 | 520 | 27.0 | 50.0 | 38.0 | $74 \cdot 0$ | 51.0 |
| 31 | 37.0 | 6.0 | .... | $\cdots$ | 34.0 | 29.0 | .... | $\cdots$ | $60^{\circ} 0$ | 30.0 | .... | $\cdots$ |
|  | $30 \cdot 0$ | 14.2 | 28.6 | 11.2 | $25 \cdot 9$ | 11.0 | $38 \cdot 4$ | 24.4 | 47.5 | $32 \cdot 4$ | 59.0 | $42 \cdot 9$ |

and Minimum Temperature, 1880.

| July, |  | August. |  | September. |  | October. |  | November. |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | M1n. | Max. | M1n. | Max. | M1n. | Max. | Min. | Max. | Min. | - |
| 4 | - | - | - | $\bigcirc$ | - | - | 3 | ? | - | $\bigcirc$ | - |  |
| 80.0 | 560 | 72.0 | 54.0 | 64.0 | 40.0 | 63.0 | 49.0 | 53.0 | 37.0 | 24.0 | 14.0 | 1 |
| $80 \cdot 0$ | 53.0 | 85.5 | 58.0 | 58.0 | 40.0 | 59.0 | 44.0 | 49.0 | 40.0 | 31.0 | 18.0 | 2 |
| 67.5 | 47.0 | 78.0 | 61.0 | 60.0 | 470 | 56.0 | 36.0 | 46.0 | 35.0 | 35.0 | 12.0 | 3 |
| 74.0 | 49.0 | $84 \cdot 5$ | 63.0 | 71.0 | 58.0 | 650 | 34.0 | 39.0 | 33.0 | 30.0 | 70 | 4 |
| 72.0 | 52.0 | 79.0 | 63.0 | 76.0 | 60.0 | 55.0 | 38.0 | 39.0 | 30.0 | 33.0 | 23.0 | 5 |
| 83.0 | 55.0 | 720 | 58.0 | 78.0 | 58.0 | 84.0 | 46.0 | 47.0 | 28.0 | 34.0 | 27.0 | 6 |
| 79.0 | 58.0 | 74.0 | 52.0 | 81.0 | 58.0 | 67.0 | 48.0 | 51.0 | 31.0 | 42.0 | 32.0 | 7 |
| 69.0 | 56.0 | 71.0 | 46.0 | 62.0 | 47.0 | 53.0 | 36.0 | 490 | 35.0 | 42.0 | 25.0 | 8 |
| 75.0 | 56.0 | 73.0 | 57.0 | 58.0 | 35.0 | 55.0 | 36.0 | 44.0 | 35.0 | 41.0 | 24.0 | 9 |
| $65 \cdot 0$ | 56.0 | 70.0 | 53.0 | 54.0 | 47.0 | 49.0 | 38.0 | 43.0 | 35.0 | 310 | 25.0 | 10 |
| 76.0 | $55 \cdot 0$ | 69.0 | 53.0 | 53.0 | 47.0 | 58.0 | 34.0 | 42.0 | 32.0 | 35.0 | 25.0 | 11 |
| 67.0 | 51.0 | 65.0 | 47.0 | 56.0 | 45.0 | 62.0 | 39.0 | 40.0 | 32.0 | 35.0 | 27.0 | 12 |
| 75.0 | 48.0 | 74.0 | 47.0 | 61.0 | 41.0 | 65.0 | 45.0 | 47.0 | 33.0 | 32.0 | 22.0 | 13 |
| 58.0 | 48.0 | 70.0 | 52.0 | 61.0 | 48.0 | 56.0 | 36.0 | 42.0 | 32.0 | 41.0 | 26.0 | 14 |
| 62.0 | 47.0 | 81.0 | 64.0 | 61.0 | 53.0 | 49.0 | 36.0 | 37.0 | 31.0 | 41.0 | 35.0 | 15 |
| $75 \cdot 0$ | 470 | 77.0 | 53.0 | 66.0 | 55.0 | 50.0 | 40.0 | 37.0 | 30.0 | 43.0 | 27.0 | 16 |
| 73.0 | 52.0 | 68.0 | 50.0 | 76.0 | 54.0 | 48.0 | 44.0 | 39.0 | 28.0 | 38.0 | $32 \cdot 0$ | 17 |
| 69.0 | 53.0 | 66.5 | 45.0 | 68.0 | 55.0 | 52.0 | 12.0 | 39.0 | 27.0 | 36.0 | 26.0 | 18 |
| 81.0 | 56.0 | 73.0 | 49.0 | 64.0 | 50.0 | 53.0 | 40.0 | 48.0 | 25.0 | 33.0 | 26.0 | 19 |
| $66^{\circ} 0$ | 52.0 | 67.0 | 50.0 | 54.0 | 44.0 | 48.0 | $34 \cdot 0$ | 33.0 | 24.0 | 33.0 | 25.0 | 20 |
| 81.0 | 50.0 | 76.0 | 58.0 | 57.0 | 44.0 | 47.0 | 36.0 | 45.0 | 23.0 | 37.0 | 26.0 | 21 |
| 83.0 | 60.0 | 70.0 | 62.0 | 55.0 | 49.0 | 42.0 | 35.0 | 37.0 | 21.0 | 36.0 | 32.0 | 22 |
| 85.0 | 66.0 | 77.0 | 60.0 | 54.0 | 51.0 | 50.0 | 39.0 | 32.0 | 230 | 37.0 | 33.0 | 23 |
| 82.0 | 82.0 | 76.0 | 57.0 | 53.0 | 46.0 | 47.0 | 42.0 | 32.0 | 24.0 | 36.0 | 320 | 24 |
| 72.0 | 61.0 | 65.0 | 53.0 | $57 \cdot 0$ | 42.0 | 50.0 | 43.0 | 28.0 | 17.0 | 35.0 | 30.0 | 25 |
| 67.0 | 550 | 62.0 | 45.0 | 49.0 | 41.0 | 49.0 | 460 | 290 | 17.0 | 32.0 | 29.0 | 26 |
| 63.0 | 54.0 | 62.0 | 43.0 | 53.0 | 43.0 | 50.0 | 45.0 | 22.0 | 15.0 | 33.0 | 27.0 | 27 |
| 64.0 | 54.0 | 61.0 | 48.0 | 61.0 | 43.0 | 51.0 | 43.0 | 29.0 | 14.0 | $39 \cdot 0$ | 31.0 | 28 |
| 73.0 | $55 \%$ | 62.0 | 52.0 | 58.0 | 46.0 | 50.0 | $43 \cdot 0$ | 32.0 | 14.0 | 39.0 | 27.0 | 29 |
| 74.0 | 59.0 | 57.0 | 46.0 | 55.0 | 50.0 | 50.0 | 35.0 | 37.0 | 13.0 | 42.0 | 26.0 | 30 |
| 67.0 | $56^{\circ} 0$ | 63.0 | 46.0 | $\ldots$ | . $\cdot$. | 54.0 | 37.0 | $\ldots$ | .... | 27.0 | 19.0 | 31 |
| 728 | 54.2 | 71.0 | $53 \cdot 1$ | $61: 3$ | 48.2 | 53.5 | $43 \cdot 9$ | 59.6 | $27 \cdot 2$ | 357 | 25.6 |  |

TABLE LXXIV.-Percentage of Cloud in each Month, and for the Year 1880, at certain Stalions in the Dominion of Canada.


TABLE LXXIV (Continned).-Percentage of Cloud in each Month, \&c.


TABLE LXXIV (Continued).-Percentage of Cloud in each Month, \&c.


TABLE LXXIV (Continued).-Percentage of Cloud in each Month, \&c.


TABLE LXXV.—Percentage of Sky Clouded in the several Provinces of the Dominion of Canada in each Month, and in the year 1830.

|  | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | A听. | Sept. | Oct. | Nov. | Dec. | Year. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ONTAKIO. | 68 | 63 | 58 | 5 | 40 | 48 | 43 | 46 | 46 | 55 | 68 | 81 | 50 |
| W. and S. W. District... | 68 | 63 |  |  |  |  |  |  |  |  |  |  |  |
| N. and N. W. District... | 70 | 68 | 53 | 56 | 50 | 46 | 41 | 40 | 51 | 65 | 71 | 72 | 56 |
| Central Dlstrlct.......... | 67 | 56 | 46 | 60 | 53 | 44 | 42 | 40 | 47 | 57 | 63 | 73 | 54 |
| N. E. and E. District.... | 64 | 46 | 52 | 47 | 49 | 50 | 44 | 43 | 53 | 04 | 71 | 69 | 64 |
| Ontarlo.................... | 65 | 68 | 53 | 55 | 48 | 47 | 43 | 42 | 49 | 58 | 68 | 74 | 65 |
| Quebec..................... | 84 | 71 | 46 | 58 | $5 \overline{5}$ | 48 | 49 | 44 | 65 | 67 | 68 | 73 | 69 |
| Nova Scotia............... | 60 | 60 | 63 | 56 | 61 | 54 | 59 | 47 | 56 | 55 | 60 | 78 | 60 |
| New Brunswick. ..... ... | 53 | 67 | 53 | 52 | 63 | 52 | 56 | 49 | 63 | 57 | 49 | 57 | 65 |
| Prince Edward Island.... | 62 | 63 | 64 | 53 | 63 | 59 | 60 | 54 | 63 | 67 | 66 | 74 | 63 |
| anitoba.... .......... ... | 49 | 40 | 42 | 45 | 62 | 40 | 43 | 51 | 58 | 67 | 54 | 50 | 61 |
| Itish Columbla......... | 79 | 48 | 64 | 45 | 74 | 48 | 54 | 47 | 65 | 56 | 48 | 71 | 88 |
| Newfound!and ............ | 80 | 60 | 65 | 62 | 78 | 77 | 64 | 53 | 70 | 60 | 69 | 81 | 69 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |

TABLE LXXVI.-Rainfall in Inches, in each Month, and in the Year 1880, at the several Stations in the Dominion of Canalla, the Stations in Ontario being divided into Districts.


TABLE LXXVI (Continued). - Rainfall in each Month and in the Year 1880, de.


TABLE LXXVI (Continued).-Rainfall in each Month, and in the Year 1880, \&ec.


TABLE LXXVI (Continued.)--Rainfall in each Month, and in the Year 1880, dc.


TABLE LXXVI (Continued).-Rainfall in each Month and in the Year 1880, \&c.


TABLE LXXVII.-Quarterly Rainfall at the several Stations, with the fall of Snow in each Month, and the Total Precipitation of Rain and Melted Snow expressed in inches, during the Year 1880.


TABLE LXXVII (Continued).—Quarterly Rainfall at the several Stations, \&c.


TABLE LXXVIII (Continued).-Quarterly Rainfall at the several Stations, \& c.


TABLE LXXVII (Continued).-Quarterly Rainfall at the several stations, \&c.


* The greater part of this fell on 16th June.

TABLE LXXVII (Continued).-Quarterly Rainfall at the several Stations, dec.


TABLE LXXVIII.-Number of Days on which Rain fell in each Month and in the Year 1880, at the Stations in Table LXXVI.


TABLE LXXVIII (Continued).-Number of Days on which Rain fell, \&c.


TABLE LXXVIII（Continued）．－Number of Days on which Rain fell，de．

|  | $\begin{aligned} & \text { 离 } \\ & \text { 䔍 } \\ & \text { 年 } \end{aligned}$ |  |  | $\underset{\sim}{*}$ |  | $\begin{aligned} & \text { 总 } \\ & \text { 号 } \end{aligned}$ | 亥 |  |  | $\begin{aligned} & \dot{\Phi} \\ & \stackrel{\rightharpoonup}{0} \\ & \stackrel{0}{0} \\ & 0 \end{aligned}$ |  | －iequerea | 岗 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| QUEBEC． |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Huntlingdon．．．．．．．．．．．．．．．． | 9 | 3 | 3 | 11 | 9 | 10 | 10 | ＊ | 11 | 11 | 8 | 1 ！ | 9.1 |
| Montreal．．．．．．．．．．．．．．．．．． | 1： | 6 | $\because$ | 15 | 19 | 3if | 17 | 13 | 17 | 17 | 8 | $2{ }^{1}$ | 14. |
| Brome．．．．．．．．．．．．．．．．．．．． | 9 | 7 | 4 | 14 | 17 | 16 | 15 | 14 | 17 | 14 | 7 | 1 | 13.5 |
| Barnston．．．．．．．．．．．．．．．． | 10 | 5 | 4 | 15 | 14 | 18 | 17 | 14 | 16 | 14 | 9 | 1 | 137 |
| Danville．．．．．．．．．．．．．．．．．． | 8 | 2 | 0 | 12 | 1； | 15 | 12 | 14 | 14 | 19 | 8 | 1 | 120 |
| Quebec Observatory ．．．．．． | 1 | 5 | 1 | 11 | $11 ;$ | 14 | 16 | 16 | 19 | 19 | 6 | 0 | 127 |
| Quebec Citadel．．．．．．．．．．．． | $f_{i}$ | ${ }^{6}$ | 1 |  | 19 | 11 | 13 | 10 | 15 | 15 | 5 | 1 | 117 |
| Father Point．．．．．．．．．．．．．． | 1 | ： | 0 | 9 | 16 | 7 | $1:$ | 8 | 20 | 16 | $\because$ | 0 | 94 |
| Oranbourne．．．．．．．．．．．．．．． | 7 | 6 | 2 | 10 | 18 | 16 | 15 | 14 | 17 | 13 | 3 | 0 | 123 |
| Cbicoutimi．．．．．．．．．．．．．．． | 2 | 3 | 0 | 12 | 23 | 7 | ． | ． | 17 | 16 | 6 | 0 | ．． |
| Richmond．．．．．．．．．．．．．．．．． | 4 | 5 | 0 | 3 | 10 | 6 | $\cdots$ | 10 | －• | － | ．． | ．． | ． |
| Antlcostl．．．．．．．．．．．．．．．．． | 0 | $\because$ | 0 | 4 | 6 | $\therefore$ | $\checkmark$ | 10 | 6 | 3 | 2 | 0 | －• |
| Aylwin．．．．．．．．．．．．．．．．．．．． |  | ． | $\cdots$ |  | ．． | ． | － | $\cdots$ | 15 | 18 | 7 | 1 ！ | ． |
| Mean for Quebec．．．．．．． | 6.0 | 4.4 | $1 \cdot 4$ | 10.9 | 15\％ | $11 \%$ | 13： | 11.9 | 15.3 | 15.0 | $5 \cdot 9$ | 0.7 | 1119 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NEW BRUNSWICK． |  |  |  |  |  |  |  |  |  |  |  | $!$ |  |
| St．John．．．．．．．．．．．．．．．．．．．． | 15 | 7 | 2 | 10 | 15 | 6 | 15 | 11 | 13 | 10 | 11 | 5 | 120 |
| Chatham．．．．．．．．．．．．．．．．． | 3 | 4 | 0 | 9 | 18 | 14 | 15 | 15 | 18 | 16 | 7 | 3 | 122 |
| Fredericton ．．．．．．．．．．．．．．． | 8 | 4 | 2 | 8 | 15 | 8 | 19 | 14 | 14 | 13 | 9 | 3 | 117 |
| Dorohester．．．．．．．．．．．．．．．． | 9 | 6 | 1 | 8 | 13 | 6 | 9 | 11 | 7 | 11 | 6 | 3 | 9 |
| Dalhousie．．．．．．．．．．．．．．．．． | 0 | 2 | 0 | 6 | 10 | 6 | 12 | 9 | 12 | 13 | 2 | 0 | 72 |
| St．Andrews ．．．．．．．．．．．．． | 12 | 7 | 2 | 8 | 13 | 9 | 14 | 11 | 11 | 7 | 9 | 4 | 107 |
| Lepreaux Point ．．．．．．．．．．． | 11 | 9 | 2 | 9 | 12 | 7 | 15 | 10 | 12 | 11 | 11 | 4 | 113 |
| Dover ．．．．．．．．．．．．．．．．．．．．． | － | － | 0 | 10 | 18 | 10 | 8 | 12 | 15 | 11 | 10 | 3 | ．． |
| Bathurst ．．．．．．．．．．．．．．．．．． | 2 | 1 | 0 | 1 | 8 | 4 | 13 | 7 | 11 | 5 | 3 | 0 | 55 |
| Mean for N．Brunswick | 75 | 5.0 | 1.0 | 77 | 13.6 | 78 | $13 \cdot 3$ | 11.1 | $12 \cdot 6$ | $10 \cdot 8$ | 7.6 | $2 \cdot 8$ | $100 \cdot 8$ |

TABLE LXXVIII (Continued).-Number of Days on which Rain fell, \&c.


TABLE LXXVIII (Continued).-Number of Days on which Rain fell, \&c.


TABLE LXXIX.-Quarterly Number of Days of Rain, with the Number of Days of Snow, during the Year 1880.


TABLE LXXIX（Continued）．－Quarterly number of Days of Rain，\＆c．

|  |  |  | $\begin{aligned} & \dot{\dot{\phi}} \\ & \text { 易 } \\ & \text { 兑 } \end{aligned}$ | 息 | $\underset{\text { ®id }}{\substack{\text { ® }}}$ | NUMBER OF DAYS OF SNOW． |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | $\begin{aligned} & \dot{\text { E }} \\ & \text { 号 } \\ & \text { が } \end{aligned}$ |  |  | $\begin{aligned} & \text { 官 } \\ & \text { 安 } \end{aligned}$ | $\begin{aligned} & \text { 灾 } \\ & \text { 国 } \end{aligned}$ |  |  |  | 䔍 |
| ONTARIO－（Con．） |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Barrle．．．．．．．．．．．．．．．．．．．．．． | 10 | 34 | 31 | 18 | 93 | 6 | 7 | 7 | 4 | 1 | 3 | 12 | 9 | 49 |
| Georgina．．．．．．．．．．．．．．．．． | 17 | 42 | 43 | 28 | 130 | 6 | 11 | 11 | 2 | 1 | 3 | 14 | 13 | 61 |
| Egremont．．．．．．．．．．．．．．．．． | ． | 32 | 36 | 17 | $\cdots$ | $\cdots$ | ． | 8 | 2 | 0 | 3 | 10 | 9 | ． |
| McKellar．．．．．．．．．．．．．．．．． | ． | ． | 42 | 25 | ． | ． | ．． | ．$\cdot$ | ．$\cdot$ | ． | 3 | ． 7 | 10 | $\cdots$ |
| Mean of Dlstrict ．．．．．．．．． | 15.7 | $35 \cdot 2$ | $38 \cdot 2$ | 21.5 | 111.6 | $6 \cdot 1$ | 11.4 | $8 \cdot 1$ | 3.8 | 0.5 | $3 \cdot 1$ | $14 \cdot 3$ | 14.0 | 62.4 |
| Contral District． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Brampton．．．．．．．．．．．．．．．． | 14 | 28 | 24 | 12 | 78 | 4 | 10 | 10 | 4 | 0 | 2 | 6 | 7 | 43 |
| Toronto ．．．．．．．．．．．．．．．．． | 25 | 44 | 45 | 26 | 140 | 7 | 18 | 15 | 3 | 1 | 4 | 14 | 18 | 78 |
| Credit ．．．．．．．．．．．．．．．．．．． | ． | ． | －• | － | $\cdots$ | $\cdots$ | $\cdots$ | － | $\cdots$ | －• | ．${ }^{\prime}$ | ． | ． | － |
| Welland ．．．．．．．．．．．．．．．．． | ． | ． | － | 21 | ． | $\cdots$ | ． | ． |  | $\cdots$ | 1 | 8 | 7 | ． |
| Mean of Mstict．．．．．．．． | 19.5 | 86.0 | 30.3 | 17.7 | 1035 | $5 \cdot 5$ | 13.0 | 125 | 3.5 | 0.5 |  | 87 | $10 \cdot 7$ | 56.7 |
| N．E．and E．Distriot． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 13 | 37 | 34 | 30 | 114 | 6 | 11 | 13 | 3 | 0 | 4 | 12 | 18 | 65 |
| Peterborough．．．．．．．．．．．． | 7 | 20 | 21 | 9 | 67 | 4 | 3 | 3 | 1 | 0 | 2 | 6 | 5 | － |
| Lakefleld ．．．．．．．．．．．． | ． |  | 20 | 11 |  | 4 | － | － | － | 0 | 1 | 5 | 5 | ． |
| Lindsay ．．．．．．．．．．．．．．．．．． | ．$\cdot$ | 34 | 34 | 17 |  | $-$ | 7 | 5 | 3 | 0 | 8 | 10 | 9 | $\cdots$ |
| Norwerd ．．．．．．．．．．．．． | 14 | 22 | 25 | 19 | 80 | 3 | 0 | 8 | 0 | 1 | 2 | 8 | 6 | 29 |
| Kinisuton ．．．．．．．．．．．．．．．． | 25 | 35 | 80 | 31 | 121 | 5 | 14 | 14 | 8 | 0 | 2 | 14 | 13 | 65 |
| Fitzoy Harboar ．．．．．．．． | 10 | 34 | 32 | 21 | 87 | 7 | 7 | 8 | 2 |  | 2 | 8 | 7 | 41 |
| Pembrons：．．．．．．．．．．．．．． | 12 | 37 | 41 | 20 | 110 | 8 | 13 | 8 | 4 | 0 | 1 | 8 | 12 | 62 |
| Iockliffe ．．．．．．．．．．．．．．． | 16 | 38 | 43 | 27 | 124 | 6 | 13 | 8 | 3 | 0 | 8 | 18 | 18 | 63 |
| Ottawa | 12 | 38 | ． | 22 | ． | 10 | 13 | 12 | 2 | 0 | 2 | 11 | 9 | 59 |
| Northcote．．．．．．．．．．．．．．．． |  | ． | 30 | ． |  | $\cdots$ |  |  |  | $\cdots$ | 2 | 5 |  | ．${ }^{\text {a }}$ |
| Mean of District．． | $12 \cdot 9$ | 32－1 | 31.0 | 20.5 | 08.5 |  | 8.7 | $8 \cdot 3$ | $2 \cdot 1$ | $0 \cdot 1$ | $2 \cdot 2$ | $9 \cdot 1$ | 9.8 | 47.0 |
| Wean for Ontarlo．．．．．．． | $17 \cdot 1$ | 34．5 | 84.4 | $20 \cdot 2$ | 1062 | 5.2 | $10 \cdot 9$ | $8 \cdot 1$ | 3．1 | 0.4 | $2 \cdot 2$ | 10.3 | 11.4 | 62＇0 |

ПABLE LXXIX (Continued).-Quarterly number of Days of Rain, \&c.


TABLE LXXIX (Continued.)-Quarterly Number of Days of Rain, bc.


TABLE JXXIX (Continued).-Quarterly Number of Days of Rain, \&c.



TABLE 1.XXX1.-Differences between the Rainfall in inches during the Year 1880, in the several Provinces of the Dominion of Canada, and the average Rainfall derived from ten or more Years.

|  | MONTHS. |  |  |  |  |  |  |  |  |  |  |  | Year. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Jan. | Feb. | Maroh. | April. | May. | June. | July. | Aug. | Sapt. | Oct. | Nov. | Dec. |  |
| Ontario: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| W. and S. W. District .. .. .... | 0.03 | -0.02 | -0.56 | $0 \cdot 89$ | $0 \cdot 86$ | $1 \cdot 28$ | $-0.56$ | $1 \cdot 20$ | 0.02 | 0.51 | -0.16 | $-1 \cdot 14$ | $2 \cdot 85$ |
| N. and N. W. District. . . . . . . | 0.99 | 0.76 | -0.44 | 1.06 | 138 | 0.56 | $0 \cdot 43$ | -0.53 | 0.10 | -0.01 | $0 \cdot 88$ | $-0.47$ | 4.71 |
| Central District....... .......... | 0.92 | -0.12 | -0.60 | $1 \cdot 32$ | 1.55 | $0 \cdot 43$ | -0.48 | $1 \cdot 65$ | -078 | $0 \cdot 48$ | 0.60 | -0.80 | $4 \cdot 17$ |
| N. E. and E. District. . . . . . . . | $0 \cdot 30$ | $0 \cdot 29$ | -0.28 | $1 \cdot 11$ | 0.93 | $0 \cdot 49$ | 0.66 | $-0.30$ | -0-21 | 076 | 0.54 | -0.67 | 3.62 |
| Ontarlo.................... ........ | 0.56 | 0.23 | -0.47 | 109 | 1.18 | 0.69 | 0.01 | 0.51 | -0.22 | 0.44 | 047 | -0.77 | 3.72 |
| Quebec............................... | $0 \cdot 10$ | 0.14 | -076 | 078 | 0.25 | -0.92 | $-0.96$ | $-1.27$ | -0.02 | $1 \cdot 82$ | -0.10 | -0.64 | $-158$ |
| New Brunswick . . . . . . . . . . . . . . . | -062 | -0.39 | -175 | -0.35 | -0.22 | $-1 \cdot 62$ | $0 \cdot 22$ | $-0.64$ | $1 \cdot 21$ | $-1-25$ | -0.97 | $-0.63$ | -7.03 |
| Nova Scotia ....................... | 1.97 | 0.14 | -2.15 | -0.58 | -0.89 | -1.15 | 0.57 | -1.45 | 0.69 | $-1 \cdot 14$ | -1.80 | $0 \cdot 16$ | $-3.97$ |
| Prince Edward Island ............. | -0.16 | 0.33 | -2.03 | $-0.47$ | 0.69 | 0.05 | $-0 \cdot 34$ | $-1.58$ | $-1.07$ | -2:38 | $-1.55$ | -0.49 | $-9.00$ |
| Manitoba... | -0.02 | -0.05 | 0-20 | $-100$ | 2-22 | -1.48 | $-0.50$ | 0778 | 2.32 | 0.02 | -0.07 | $-0.18$ | $2 \cdot 24$ |
| British Columbla.................... | $2 \cdot 46$ | -0.96 | -1/11 | $0 \cdot 36$ | 0.98 | 0.03 | 077 | -0.01 | $0 \cdot 16$ | 0.24 | $-2 \cdot 46$ | $2 \cdot 94$ | $3 \cdot 40$ |
| Newfoundiand............ .. .... | -0.55 | -0.17 | $-1.87$ | -174 | -2.31 | 1.23 | -0.52 | $-3.20$ | $-1 \cdot 15$ | -1.94 | -260 | -0.85 | -15.67 |

TABLE LXXXII.-Quarterly average depth of Rain in the several Provinces of the Dominion of Canada, awl the aver, $1, \mathrm{p}$ depth of Snow in each Month, and in the Year 1880.

|  | DEPTH OF RANS IN INCHES. |  |  |  |  | DEPTH OF SNOW IN INCHES. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Winter. | Spring. | Summer. | Autamn. | Year. | Jan. | Feb. | March. | April. | May. | Oct. | Nov. | Doc. | Year. |
| Ontario: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| W. and S. W. District... | 4.01 | $9 \cdot 99$ | $9 \cdot 71$ | 5•45 | 29•16 | $3 \cdot 4$ | $18 \cdot 3$ | 5.8 | $2 \cdot 1$ | 0.2 | 0.4 | 11.0 | 7.5 | 487 |
| N. and N. W. District... | $3 \cdot 45$ | 8.74 | 872 | $6 \cdot 17$ | 28.08 | 67 | $17 \cdot 1$ | 11.8 | $7 \cdot 0$ | $0 \cdot 1$ | 6.0 | 29.8 | 27.1 | 105.6 |
| Central District......... | 3.39 | $8 \cdot 35$ | $8 \cdot 14$ | $5 \cdot 32$ | 26-20 | 4.8 | $7 \cdot 4$ | 109 | $2 \cdot 7$ | S | 1.2 | 6.2 | 7.6 | $40 \cdot 8$ |
| N. E. and E. District .. | 272 | 8.53 | $8 \cdot 24$ | $6 \cdot 13$ | 2562 | 87 | 14.2 | 12.0 | $3 \cdot 3$ | 5 | $5 \cdot 5$ | 10.4 | 16.8 | 70.4 |
| Ontario................ .... | $3 \cdot 39$ | $9 \cdot 40$ | 871 | 573 | 27.23 | 59 | 14:2 | $10 \cdot 1$ | $3 \cdot 8$ | $0 \cdot 1$ | $3 \cdot 2$ | 14.4 | 14.6 | 66.3 |
| Quebec... ................... | 1.13 | 7.07 | 8.68 | 720 | 24.08 | 17\%3 | 22.8 | 18.8 | 7.6 | 1.2 | $3 \cdot 4$ | 15.8 | 17.0 | $103 \cdot 9$ |
| New Brunswick.. .......... | 251 | $6 \cdot 60$ | 10.82 | 6.57 | 28.50 | $17 \cdot 4$ | 22.6 | 23.6 | 3.9 | 0.2 | 0.1 | 67 | $17 \cdot 8$ | $92 \cdot 3$ |
| Nova Scotla................ | 665 | $7 \cdot 88$ | $10 \cdot 45$ | $8 \cdot 86$ | 33.94 | $14 \cdot 5$ | 25.8 | 24.5 | 8.4 | $0 \cdot 1$ | 8 | $4 \cdot 6$ | 16.8 | 94.7 |
| Prince Edward Island...... | 2.01 | $7 \cdot 18$ | 771 | $4 \cdot 98$ | 21.88 | 307 | 28.7 | $30 \cdot 1$ | 78 | S | 0.0 | 6.8 | 27.9 | 132.0 |
| Manitoba................... | 0.57 | $7 \cdot 86$ | $10 \cdot 34$ | 0.85 | 19.62 | 57 | $8 \cdot 4$ | 47 | 7.9 | B | 0.3 | 1.2 | 6.4 | 34.6 |
| British Columbla........... | 761 | 4.69 | 481 | $9 \cdot 87$ | 26.98 | 31.3 | 14.7 | 107 | $2 \cdot 4$ | 0.0 | 0.0 | 17 | $12 \cdot 4$ | 34•30 |
| Newfoundland............. | $2 \cdot 61$ | 6.33 | 7.88 | 488 | 2170 | 28.6 | 88.2 | 65.4 | 11.3 | $2 \cdot 6$ | $0 \cdot 0$ | 10.0 | 9.9 | 186.0 |

M@NTH心.


TABLE LXXXF.-Quarterly average number of Days of Rain in the several Provinces of the Dominion of Canada, and the number of Days of Snow, in each Month and in the Year 1880.

|  | DAYS OF RAIN. |  |  |  |  | NUMBER OF DAYS OF SNOW. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Winter. | Spring. | Sammer. | Autumn. | Year. | Jan. | Feb. | March. | April. | May. | Oct. | Nov. | Deo. | Year. |
| Ontario: |  |  |  | - |  |  |  |  |  |  |  |  |  |  |
| W. and S. W. District.... | $20 \cdot 4$ | 847 | $37 \cdot 3$ | $21 \%$ | 11:6 | $\because 7$ | 9.4 | $6 \cdot 6$ | $3 \cdot 0$ | $0 \cdot 3$ | $1 \cdot 1$ | 9.1 | 11.0 | $44 \%$ |
| N.and S. W. District .. | 157 | 3: | $89 \cdots$ | $21 \%$ | 11.4 | $6 \cdot \mathrm{t}$ | 11'4 | $9 \cdot 1$ | 3.9 | $0 \cdot 5$ | $3 \cdot 1$ | 14•3 | 14.0 | 624 |
| Central District .... | $19 \%$ | 800 | $30 \cdot 3$ | 17: | 1035 | $5 \%$ | 13.0 | 12.5 | 3.5 | 05 | $2 \cdot 3$ | 8.7 | 10.7 | 56.7 |
| N. E. and E. District | 12.0 | $32 \cdot 1$ | 31.0 | 20.5 | 96:3 | 57 | $9 \cdot 7$ | $8 \cdot 3$ | $2 \cdot 1$ | 0.1 | 2.2 | $9 \cdot 1$ | 10\% | 47.0 |
| Ontarlo....... .............. | 17.1 | 34\% | $3 \cdot 1$ | $20 \cdot 2$ | 106:3 | . 52 | 109 | $9 \cdot 1$ | $3 \cdot 1$ | $0 \cdot 4$ | 2.2 | $10 \cdot 3$ | 11.1 | $52 \cdot 6$ |
| Quebec.................... | 11.8 | $37-8$ | $40 \%$ | 22.7 | 1130 | 130 | 13.3 | 11.8 | $6 \cdot 3$ | 1.3 | 3.9 | $10 \cdot 3$ | 12.7 | $73 \cdot 1$ |
| New Brunswick .... .. .... | $13 \cdot 5$ | $29 \cdot 1$ | 37.0 | 21.2 | $100 \cdot 8$ | $8 \cdot 1$ | 11.0 | 96 | 38 | 13 | 0.4 | 47 | 10.1 | 49.0 |
| Nova Scotia................. | 10.6 | 98.1 | 85.6 | 55 | 109.2 | $7 \cdot 1$ | 11.0 | 13.5 | 58 | $0 \cdot 9$ | $0 \cdot 1$ | $5 \cdot 1$ | 10.4 | 53.9 |
| Prince Edward Island. . . . | 10.0 | 32.4 | 37.7 | $30 \cdot 5$ | 110.6 | 10.3 | 133 | 127 | 3.7 | 1.3 | 0.0 | 9.0 | 18.0 | 68.3 |
| Manttoba,............. .... | $3 \cdot 4$ | $27 \cdot 6$ | 40.0 | $7 \cdot 8$ | 78.8 | 70 | 8.4 | 38 | 4.0 | 0.2 | 1.4 | 6.0 | 8.6 | $39 \cdot 4$ |
| British Columbia............ | 23.9 | 26.0 | $22 \cdot 5$ | 159 | 88.3 | $9 \cdot 2$ | $5 \cdot 4$ | $4 \cdot 9$ | $1 \cdot 3$ | 0.0 | 0.0 | $2 \%$ | 5.9 | 29.0 |
| Newfoundland....... . . | 10.0 | 26.0 | 38.5 | 17.0 | 91.5 | 15.0 | 10.5 | $10^{\circ} 0$ | 4.5 | 4.0 | 0.0 | 50 | $10 \cdot 5$ | 59.5 |

TABLE LXXXVI.—Edmonton, N.W.T.—Maximum and Minimum Temperature, 1880.


Abstract of Observations at Mission Station Nain, Labrador, Latitude $56^{\circ} \mathbf{2 2 ^ { \prime }} N$. $57^{\circ} 25^{\prime} N$. Longitude, $63^{\circ} 30^{\prime} W$., from



Longitude $62^{\circ}$ W., from 1st January, to 31 st. July, and at Okak, Latitude 19th August, to 31st December, 1880.

| APRIL, |  |  |  |  |  | MAY. |  |  |  |  |  | JUNE. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9 a. m. |  |  | 9 p. m. |  |  | 9 a. m. |  |  | $9 \mathrm{p} . \mathrm{m}$. |  |  | $9 \mathrm{a} . \mathrm{m}$. |  |  | $9 \mathrm{p} . \mathrm{m}$. |  |  |  |
|  |  | $\begin{gathered} \text { 吕 } \\ 0 \\ 0.0 \\ 0 \\ 0 \\ 0 \end{gathered}$ |  |  | $\left.\begin{array}{r} 3 \\ E \\ 0 \\ 0 \\ 0 \\ 0 \\ i \\ i \end{array} \right\rvert\,$ |  |  | $\begin{array}{r} 0 \\ 2 \\ 2 \\ 0 \\ 0 \\ 0 \\ 0 \end{array}$ |  |  | \% |  |  |  |  |  | - | 0 |
| 30-045 | C | 0 | $30 \cdot 004$ | SW | 2 | 29275 | E | 4 | 29349 | NE | 4 | 29-687 | E |  | 29.588 | C | 0 | 1 |
| 29.877 | W | 2 | 29.859 | W | 3 | $29 \cdot 517$ | NE | 4 | 29656 | NW | 2 | 30.031 | NW |  | 30032 | NW | 3 | 2 |
| 29.538 | sw | 2 | 29-466 | SW | 2 | 29895 | NE | 2 | 29302 | E | 2 | 105 | w |  | $30 \cdot 198$ | W | 1 | 3 |
| $29 \cdot 345$ | C | 0 | 29-335 | U | 0 | $29 \cdot 810$ | NW | 3 | 29666 | NIS | 7 | $30 \cdot 205$ | w | 1 | 30151 | sW | 1 | 4 |
| $29 \cdot 458$ | O | 0 | $29 \cdot 455$ | NW | 3 | 29.673 | W | $5$ | 29890 | 4 | 3 | 73 | C | 0 | 30072 | C | 0 | 5 |
| 29350 | N W | 6 | 29355 | N | 4 | 29957 | W | 3 | 29.849 | 0 | 0 | 999 | S |  | 29955 | 5 | 2 | 6 |
| 29.538 | NE | 4 | $29 \cdot 48$ | N | 2 | 29915 | NW | 3 | 29.885 | NW | 3 | . 088 | SW | 2 | 30.084 | SW | 2 | 7 |
| 29-663 | NW | 3 | 29.642 | N | 2 | 29.961 | NW | 3 | 29867 | W | 4 | 176 | C | 0 | 30242 | W | 1 | 8 |
| 29. 791 | NW | 3 | 29-783 | W | 2 | 29.955 | W | 4 | 29960 | W | 2 | 182 | 8 |  | 30046 | C | 0 | 9 |
| 29.833 | C | 0 | 29-867 | NE | 2 | 30048 | C | 0 | 051 | E | 2 | 917 |  |  | $29 \cdot 907$ | S | 2 | 10 |
| $29 \cdot 699$ | N | 2 | 29568 | N | 2 | 30.0 | E | 2 | 948 | E | 2 | 29665 | NW |  | 29.678 | S | 2 | 11 |
| 28.789 | E | 6 | -3 | E | 3 | 29943 | E | 4 | $30 \cdot 062$ | NW | 3 | 670 | N |  | 29729 | N | 3 | 12 |
| 28-526 | NW | 2 | 2N-750 | NW | 7 | 30261 | E | 4 | 30282 | NW | 3 | 29.725 | N | 2 | 29837 | C | 0 | 13 |
| 28.771 | NW | 8 | 29.522 | NW | 8 | 30294 | W | 3 | $30 \cdot 2$ | w | 2 | $29 \cdot 903$ | NW |  | 29981 | NE | 4 | 14 |
| 29.663 | NW | 4 | 29495 | NW | 4 | 29988 | W | 2 | 29.755 | sw | 4 | $29 \cdot 963$ | NW |  | $29 \cdot 969$ | NW | 2 | 15 |
| 29.757 | W | 4 | 29.915 | W | 3 | 29.875 | NW | 3 | 29715 | NW | 1 | 29.927 | NW | 2 | 29.915 | W | 1 | 16 |
| $30 \cdot 214$ | W | 5 | $29 \cdot 005$ | C | 0 | 29707 | NE | 3 | $29 \cdot 649$ | NW | 6 | 29941 | C | 0 | $29 \cdot 943$ | C | 0 | 17 |
| 29971 | W | 2 | 30.049 | C | 0 | 29799 | NW | 5 | 29806 | SE | 3 | 30.035 | E | 1 | 30.031 | C | 0 | 18 |
| 29.828 | E | 2 | 29637 | W | 2 | . 544 | W | 3 | 29'398 | NW | - 3 | 30009 | E | 1 | 30.016 | C | 0 | 19 |
| $29 \cdot 339$ | SW | 2 | $29 \cdot 374$ | SW | 4 | $29 \cdot 129$ | S | 3 | 29889 | NiV | 5 | $29 \cdot 905$ | $E$ | 2 | 29.907 | C | 0 | 20 |
| 29-713 | SW | 5 | 29.782 | E | 3 | 30.086 | NW | 5 | $30 \cdot 171$ | NW | 5 | 30038 | NE | 2 | 30033 | NE | 3 | 21 |
| 29.786 | W | 3 | 29.788 | N | 4 | $30 \cdot 182$ | NW | 5 | 30220 | E | 3 | 30-163 | C | 0 | 30-159 | SE | 2 | 22 |
| 29.743 | N | 3 | 29737 | N | 3 | 30104 | NW | 2 | 30099 | E | 1 | 30101 | SW | 2 | 30.037 | C | 0 | 23 |
| 29677 | NW | 4 | 29601 | NW | 7 | 30195 | E | 1 | $30 \cdot 147$ | E | 2 | 29.903 | C | 0 | 29.895 | C | 0 | 24 |
| 29.575 | NW | 5 | 29. 562 | NW | 7 | 34-101 | E | 4 | 29942 | W | 3 | 29•801 | E |  | $29 \cdot 791$ | C | 0 | 25 |
| 29.512 | NW | 7 | 29585 | NW | 4 | 29-729 | W | 2 | $29 \cdot 604$ | E | 2 | 29683 | C |  | 29784 | E | 1 | 26 |
| 29.520 | E | 4 | 29-529 | NW | 4 | 29578 | E | 1 | 29.735 | W | 1 | 29.661 | W |  | 29649 | 0 | 0 | 2 |
| $29 \cdot 593$ | W | 6 | 29709 | W | 6 | 29 | E | 3 | 29296 | NW | 5 | $29 \cdot 649$ | S |  | $29 \cdot 537$ | F | 2 | 28 |
| 29.851 | W | 4 | 29 | C | 0 | $29 \cdot 687$ | NW | 4 | 29.779 | NW | 5 | 29512 | E |  | $29 \cdot 308$ | NW | 3 | 29 |
| 29882 | E | 2 | 29-424 | C | 0 | 29927 | NW | 5 | 30021 | NW | 3 | 29-596 | N W | 5 |  |  |  | 30 |
|  |  |  |  |  |  | 30.083 | E | 1 | 29-857 | E | 1 |  |  |  |  |  |  | 31 |


|  | JUL.Y. |  |  |  |  |  | AUGUST. |  |  |  |  |  | SEPTEMBER. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $9 \mathrm{ar} . \mathrm{m}$. |  |  | 9 p. m. |  |  | $9 \mathrm{a} . \mathrm{m}$. |  |  | $9 \mathrm{p} . \mathrm{m}$. |  |  | 9 r.m. |  |  | $9 \mathrm{p} . \mathrm{mm}$. |  |  |
| $\dot{\text { ì }}$ |  |  | $\begin{gathered} \dot{3} \\ 0 \\ 0.0 \\ 0.0 \\ 0 \end{gathered}$ |  | $\begin{aligned} & \text { dig } \\ & 0 . \\ & 0.0 \\ & 0.0 \\ & 0.0 \end{aligned}$ | $\left\|\begin{array}{c} \dot{3} \\ 0 \\ 9 \\ 0 \\ 0 \\ 0 \\ 0 \end{array}\right\|$ |  |  |  | 范 | $\begin{aligned} & \text { E } \\ & \vdots \\ & \vdots \end{aligned}$ | $\begin{gathered} \bar{E} \\ \text { B } \\ \end{gathered}$ |  |  |  |  |  | $\begin{aligned} & 3 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 4 \end{aligned}$ |
| 1 | 29.615 | W | 1 | $29 \cdot 637$ | NW | 2 | . |  | .. |  | $\cdots$ |  | 29493 | C | 0 | 29973 | NW | 2 |
| 2 | $29 \cdot 663$ | W | 2 | 29.711 | W | 1 |  |  | . | $\cdots$ | $\cdots$ |  | \|29.831 | N | 2 | 29834 | NW | 2 |
| 3 | $29 \cdot 827$ | E | 2 | $29 \cdot 677$ | S | 1 | . | . | - |  | . |  | 29.680 | SW | 3 | 29.459 | NW | 4 |
| 4 | 29.876 | S | 1 | 22-889 | sw | 3 |  |  |  |  | . |  | 29558 | N | 3 | 29-677 | N | 3 |
| 5 | 29.861 | N | 3 | 29637 | sw | 3 |  |  |  |  | . |  |  |  |  |  |  |  |
| 6 | 29577 | E | 2 | 29.582 | E | 2 |  |  | $\cdots$ |  | . |  | 29561 | N | 3 | 29.484 | N | 4 |
| 7 | $29 \cdot 770$ | NW | 4 | 29742 | E | 3 |  |  | .. |  |  |  | 29604 | NW | 4 | 29662 | NW | 5 |
| 8 | 29.668 | E | 2 | 29.600 | E | 2 |  | . |  |  | $\cdots$ |  | $29 \cdot 941$ | NW | 5 | 29.968 | NW | 5 |
| 9 | 29-747 | NW | 2 | 29751 | W | 2 |  |  | .. |  | . |  | 29.857 | NW | 8 | 29835 | NW | 7 |
| 10 | 29877 | SW | 2 | 29886 | NW | 1 | . | $\cdots$ |  |  | $\cdots$ |  | 29824 | NW | 5 | 29.818 | NW | 5 |
| 11 | $30 \cdot 031$ | E | 2 | 29897 | E | 2 |  |  |  |  |  |  | 29672 | C | 0 | 29718 | W | 2 |
| 12 | 29768 | 0 | 0 | 29763 | 0 | 0 | $\cdots$ | . | . $\cdot$ |  |  |  | 29.9.7 | C | 0 | $29 \cdot 869$ | , W | 3 |
| 13 | $29 \cdot 642$ | C | 0 | 29.771 | E | 3 | . |  |  |  | .. |  | 29-835 | E | 2 | 29821 | E | 3 |
| 14 | 29520 | NE | 4 | 29464 | NW | 5 |  |  |  |  |  |  | 20867 | NW | 2 | $29 \mathrm{S62}$ | NE | 3 |
| 15 | 29788 | N | 7 | 29.798 | N | 6 |  |  | . |  | . |  | 29787 | E | 4 | 29.684 | NE | 4 |
| 16 | 29.415 | NW | 5 | 29952 | NW | 4 |  |  |  |  |  |  | 29.818 | SE: | 4 | 29.855 | NE | 4 |
| 17 | $29 \cdot 918$ | N | $4$ | 30015 | E | 3 |  |  | - |  | . |  | 29-668 | E | 3 | 29568 | E | 5 |
| 18 | 30.066 | NE | 3 | 30.089 | NF | 2 |  |  | $\cdots$ |  |  |  | 29688 | N | 4 | $29 \cdot 726$ | N | 5 |
| 19 | 30100 | ${ }^{\circ}$ | 0 | 300881 | E | $\stackrel{\square}{2}$ | 29. 423 | SW | 3 | $29 \cdot 453$ | SW | 5 | 2'.913 | NW | 3 | 30066 | NE | 4 |
| 20 | $30 \cdot 062$ | 1. | 0 | 30007 | E | 1 | 29-545 | N | 3 | 29765 | E | $2$ | 30010 | N | $:$ | 29 9015 | N | 5 |
| 21 | 29.891 | ${ }^{\prime}$ | 0 | 220 sx1 | SE | 2 | 29893 | NL: | 3 | 291941 | NE | $2$ | 2, $520^{\circ}$ | E |  | 29.456 | E | 1 |
| 22 | 29871 | NW | 3 | 24.853 | s | 1 | 29-874 | N | 3 | 29.821 | NE | 3 | 29.678 | N |  | 29-464 | - | * |
| 23 | $22 \cdot 707$ | S | 3 | 21713 | s | 1 | 29-760 | NE. | 2 | 27685 | N | 2 | $29 \cdot 696$ | N | 2 | 29663 | NE | 3 |
| 24 | 29.681 | S | 2 | 29680 | C | 0 | $29 \cdot 617$ | NW | $3$ | $29 \cdot 652$ | N | $3$ | 29. 802 | NE | 1 | 29831 | NW | 2 |
| 25 | 29725 | SE | 2 | 29.715 | 0 | 0 | 29652 | N | $\pm$ | 29.795 | E | 2 | 30 001 | NW | 3 | 30139 | E |  |
| 26 | 29.713 | SE | 2 | 29.718 | SE | 1 | 29799 | W | $3$ | 29815 | E | 3 | $30 \cdot 152$ | E | 1 | 30.014 | NE |  |
| 27 | 29-786 | N | 2 | 29.784 | $N$ | 2 | 29833 | N W | 2 | 20.798 | W |  | 20-620 | SE | 3 | 29608 | SE | 3 |
| 28 | $20 \cdot 745$ | NE | $2$ | $20 \cdot 777$ | C | 0 | 9 637 | C | 1 | 29.596 | SW | 3 |  | . |  |  |  |  |
| 29 | 29749 | NE | 3 | 29'765 | C | 0 | 29635 | W | 3 | 20642 | NW | 3 | 29822 | S | 4 | (2) 664 | SE | 3 |
| 30 | 29731 | sw | 4 | 29.723 | C | 0 | 29768 | NE | 3 | 29806 | NW | 4 | 29-404 | E | 3 | $20 \cdot 420$ | E |  |
| 31 | 20640 | C | 0 | 29.574 | C | 0 | 29.877 | NW |  | 29 875 | NW | 3 |  |  |  | . |  |  |

Longitude $62^{\circ}$ W., from 1st January, to 31st July ar.d at Okak, Latitude 19th August, to 31st December, 1880.

| OOTOBER. |  |  |  |  |  | NOVEMBER, |  |  |  |  |  | DECEMBER, |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9 a. m. |  |  | 9 p. m. |  |  | 9 н. m. |  |  | $9 \mathrm{p} . \mathrm{m}$. |  |  | 9 п. m. |  |  | $9 \mathrm{p} . \mathrm{m}$. |  |  |  |
|  |  | $\begin{array}{r} \dot{3} \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{array}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | - |
| 29564 | NW | 2 | 29765 | NW | 2 | -9 737 | E | 5 | 28.977 | E | 3 | 28.819 | N | 7 | 28.827 | NE | 6 | 1 |
| 29660 | W | 3 | 29670 | W | 3 | $29 \cdot 136$ | NE | 4 | 29-227 | N | 4 | 28.890 | E | 8 | 29-164 | E | 5 | 2 |
| 29788 | NW | 3 | 29783 | NW | 3 | 30013 | W | 6 | 29.992 | W | 3 | $29 \cdot 225$ | N | 4 | 29391 | NE | 6 | 3 |
| 29.669 | NW | 5 | $29 \mathrm{c64}$ | NW | 3 | 29390 | E | 3 | $29 \cdot 353$ | E | 3 | 29582 | N | 5 | 29836 | NW | 3 | 4 |
| 29.891 | NW | 4 | 29.884 | NW | 3 | 29561 | W | 2 | 29.568 | W | 4 | 29.931 | W | 2 | 29.893 | W | 2 | 5 |
| 29882 | sw | 3 | 29.874 | W | 4 | 29.345 | C | 0 | 29.398 | NE | 3 | 893 | W | 3 | 29.340 | NW | 3 | 6 |
| $29 \cdot 620$ | w | 3 | 29643 | w | 3 | 29.346 | W | 7 | $29 \cdot 627$ | NE | 3 | $29 \cdot 335$ | NW | 4 | 29.331 | NW | 3 | 7 |
| 29-791 | W | 4 | 29.793 | W | 3 | $29 \cdot 512$ | E | 4 | 29-349 | N | 2 | ${ }^{2} 1414$ | NW | 3 | 29•132 | NW | 4 | 8 |
| 29897 | w | 6 | $29 \cdot 900$ | W | 5 | $29 \cdot 425$ | N | 5 | 29.556 | N | 5 | 29442 | NW | 4 | 29.894 | W | 3 | 9 |
| 29.404 | $s$ | 2 | 29885 | s | 3 | 29971 | NW | 5 | $30 \cdot 237$ | NW | 3 | 13 | W | 3 | 30.015 | W | 2 | 10 |
| 29843 | S | 3 | 29548 | C | 0 | $30 \cdot 191$ | NW | 2 | 30165 | NW | 3 | $208{ }^{\prime \prime}$ | NW | 2 | 29-898 | NE | 2 | 11 |
| 29268 | C | 0 | 24157 | O | 0 | 29917 | C | 0 | $29 \cdot 800$ | W | 2 | 29708 | IW | 4 | 29654 | NW | 4 | 12 |
| 29.345 | C | 0 | 29-422 | SE | 2 | 29.506 | NE | 2 | 29488 | NE | 2 | - $9 \cdot 431$ | N | 3 | 29-404 | N | 4 | 13 |
| 29.797 | W | 3 | 29857 | W | 3 | 29341 | C | 0 | $29 \cdot 309$ | W | 2 | 29590 | NW | 2 | 29572 | NW | 2 | 14 |
| 29.915 | W | 3 | 29.928 | W | 4 | $29 \cdot 393$ | C | 0 | 29402 | E | 3 | 29779 | NW | 3 | 29769 | NW | 3 | 15 |
| 30021 | C | 0 | 29923 | C | 0 | $29 \cdot 417$ | C | 0 | $29 \cdot 425$ | E | 3 | 29815 | NW | 3 | 29901 | N | 2 | 16 |
| 29.915 | C | 0 | 29921 | C | 0 | $29 \cdot 673$ | NW | 5 | ¢9-528 | NW | 3 | 29.907 | E | 4 | 29796 | NE | 2 | 17 |
| 29.673 | E | 2 | 29671 | E | 3 | 29541 | W | 3 | 29552 | W | 5 | 30•101 | E | 5 | $30 \cdot 127$ | NE | 4 | 18 |
| 29.617 | NE | 3 | $29 \cdot 653$ | E | 3 | 29389 | NW | 4 | 29309 | NW | 3 | 30.086 | N | 2 | 30.085 | N | 3 | 19 |
| $30 \cdot 102$ | W | 3 | $30 \cdot 157$ | W | 3 | $29 \cdot 805$ | NW | 7 | 30030 | W | 2 | $30 \cdot 214$ | W | 2 | 30-200 | W | 2 | 20 |
| $30 \cdot 375$ | W | 2 | 30353 | C | 0 | $22 \cdot 750$ | NW | 2 | 20804 | E | 7 | $30 \cdot 209$ | W | 3 | 30 196 | W | 4 | 21 |
| $30 \cdot 284$ | C | 0 | 30.284 | C | 0 | 28350 | E | 9 | 29.053 | E | 6 | 30-407 | W | 4 | $30 \cdot 470$ | sW | 3 | 22 |
| $30 \cdot 217$ | W | 2 | 30123 | sw | 3 | $29 \cdot 414$ | NE | $\overline{7}$ | 29545 | E | 5 | 30451 | 8W | 3 | 30437 | SW | 2 | 23 |
| 30.045 | SE | 4 | 29887 | S | 3 | $29 \cdot 615$ | W | 6 | 29.695 | W | 5 | 30-493 | SW | 2 | 30.392 | SW | 1 | 24 |
| 29904 | S | 5 | 29.767 | 5 | 3 | 29777 | W | 3 | 29.849 | W | 4 | 30.511\| | SW | 1 | $30 \cdot 511$ | SW | 1 | 25 |
| 30039 | SE | 3 | 30037 | sw | 3 | $29 \cdot 866$ | W | 4 | 29847 | W | 4 | $30 \cdot 540$ | SW | 2 | $30 \cdot 254$ | W | 2 | 26 |
| $30 \cdot 177$ | SE | 2 | 30138 | 5 | 1 | 29804 | W | 5 | $29 \cdot 803$ | W | 3 | 06 |  |  | $30 \cdot 101$ | W | 1 | 27 |
| $30 \cdot 203$ | 0 | 0 | 29.943 | S | 1 | $29 \cdot 903$ | W | 2 | 29.796 | W | $2$ | $29 \cdot 957$ | W | 1 | 29-891 | NE | 2 | 28 |
| 29965 | C | 0 | 29.957 | W | 4 | $29 \cdot 773$ | C | 0 | $29 \cdot 303$ | NW | 2 | 28.709 | NE | 6 | 29.516 | N | 7 | 29 |
| $29 \cdot 846$ | C | 0 | 29825 | SW | 3 | 29•068 | N | 4 | 29.033 | NW | 3 | 28.759 | NW | 6 | $28 \cdot 849$ | NW | 5 | 30 |
| 29.737 | 0 | 0 | 29-735 | W | 4 | . | .. | .. | . |  |  | 28.900 | NW | 4 | $29 \cdot 134$ | NW | 4 | 31 |

## ERRATOM.



Note.-On page xxiii, " Remarks on Tables," " Barometric Corrections," it is stated that in making comparisons between the readings of the Barometer taken in Canada, and those in the United States, it should be remembered that the standard employed by the Dominion reads higher by 014 inches than that of the Signal Service of the United Siates. This statement was originally correct, but on August 1st, 1878, 013 inches was added to the correction for instrumental error, of the Signal Serrice Standard; the difference botween the standards since this date being only 001 of an inch they may be regarded as being alike for all practical purposes.


[^0]:    5. $b-8 \frac{1}{2}$
[^1]:    - 2,000 hooks on 2,000 rods of trout lines--value, $\$ 55$.

[^2]:    (1) Chlef Station.

    Class Ordinary Station.
    (a) ReportIng Telegraph Station.
    (b) Reserve Telegraph Station.
    (c) First
    (d) Second Class Ordinary Station.
    (e) Third Class Ordinary Station.

[^3]:    (1) Also Chief Station; (c) also First-class Ordinary Statlon; (d) Second-class Ordlnary Station ; (f) Cautlonary Sitorm slynial Station.

    At Woodstock, Ont., Fredericton and St. John, N. B., observatlons are regularly made at other hours for telegraphic observaiions.

