## APPENDIX No. 36 :

REPORT OF THE HARBOUR MASTER FOR THE PORT OF PORT HOOD, C.B., FOR THE CALENDAR I'EAR ENDED 31st DECEMBER, 1876.

## Port Hood, 2nd January, 1877.

Srr,-I have the bonour to submit to you the following Report for the calendar year ended December 31st, 1876 :-

On the 15th May last I proceeded with boats and crew to lay down the buoys in and at the entrance to Port Hood Harbour, and that of Indique Shoal, which I completed in three days. I also painted and refitted all the buoys before laying them down.

On the 13th November I proceeded to take in the Indique Shoal buoy. But owing to a squall of wind that came up at the time I was obliged to slip the chain and put a small buoy on the buoy I succeeded in landing at Indique. On the 27th I again gave it a trial, but found them foul and could not start them. On the 14th of December I again made fast to them. Having previously provided grapnels and other gear to trip them out of hold, but the weather did not permit a fair trial. The ice having commenced to form my only alternative was to secure them so that I might be able to hook them in the spring.

I took up all the buoys at Port Hurst on the 28th and 29th November, and stored them on Smith's Island.

There has been considerable repairs and improvements made in the harbour this year, and the wharves generally have been put in better repair.

In July, Mr. I. B. Hegan, Civil Engineer, made a thorough survey for the construction of a breakwater across to the island, which, it is hoped, may be commenced at an early date.

I have the honour to enclose a return showing the number of tonnage and of vessels entering this port.

> I have the honour to be, Sir, Your obedient servant,

JOHN H. MURPHY,<br>Harbour Master.

| Wm. Smith, Esq., Deputy Minister of Marine and Fisheries, Ottawa. |
| :---: |
|  |  |

I, John H. Murphy, of Port Hood, in the County of Inverness, Harbour Master, make oath and say that the various statements contained in the foregoing report are
true and correct.

> JOHN H. MURPHY,
> Harbour Master.

Sworn to before me at Port Hood in the County of Inverness, this 2nd day of January, 1877.

## APPENDIX No. 37.

## REPORT OF THE HARBOUR MASTER FOR THE PORT OF MULGRAVE, FOR THE CALEN DAR YEAR ENDED 31st DECEMBER, 1876.

Port Mulgrave, N.S.
Sir,-I have the honour to submit my first Report as Harbour Master for the Port of Port Mulgrave for the year ended 31st December, 1876. There has been quite a falling oft of Dominion and American vessels at this port this year on account of the fisheries failing in the Gulf of St. Lawrence, and about the Magdalen 1slands. Previous years upwards of five hundred vessels frequented this port bound on a mackerel fishing voyage, this year only sixty-five schooners were engaged in that branch of fisheries. I have to state with pleasure that fees collected by me on vessels arriving or leaving this port have been paid very willingly by the masters of those vessels, and I met with no difficulty in the execution of my duty in collecting the fees. Many ressels anchored in this port only for shelter of which I did not collect any Harbour Master's fees.

The Port of Port Mulgrave is a thoroughfare for small vessels bound to the fishing grounds in the Gulf of St. Lawrence, and as it is the safest harbour in the Strait of Canso when the ice is running, vessels in the spring are obliged to anchor in this port for safety, and remain until the ice passes out of the strait. The portnot being commodious on account of accumulation of mud on the best of the anchorage ground, it is difficult to accommodate the large early fleet that require safe anohorage.

The service of a dredge a short time to clear away the obstruction would make this a good winter port, and would be very beneficial to P. E. I. vessels that cannot get to their ports of dostination late in the fall. Herewith enclosed you will please find a list of veasels that paid Harbour Master's fees at this port for the year onded 1876. The amount of fees collected in the port of Port Mulgrave for the year 1876, as stated in detail, is two hundred and one dollars.

|  | Number. | Regular Tonnage. | Fees Received. |
| :---: | :---: | :---: | :---: |
| Brigantines.................... | 2 | 418 | \$3.50 |
| Barques........................ | 2 | 793 | $6 \cdot 00$ |
| Ships. ......................... | 1 | 966 | 5-00 |
| Schooners..................... | 219 | 13,678 | 186.50 |
|  | 224 | 15,855 | \$201.00 |

I have the honour to be, Sir,
Your most obedient servant,
ANGUS H. McDONALD,
Harbour Master.
To the Hon. A. J. Sunth,
Minister of Marine and Fisheries,
Ottawa.
$\left.\begin{array}{l}\text { Sworn betore me this } \\ \text { 3rd day of January, 1877. }\end{array}\right\}$
Wm. S. WYLac, J.P.

## APPENDIX No. 38.

REPORT OF THE HARBOUR MASTER FOR THE PORT OF PUGWASH, N.S. FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1876.

Pugwash, 3rd January, 1877.
Sir,-I have the ${ }^{3}$ honour to submit my Annual Report ended 31st December, 1876 ; also a list of vessels paying Harbour dues.

Previous to the present year the spar buoys were used, secured by anchor. These buoys were frequently displaced in stormy weather, and eventually, during a heary storm in the fall of 1875 , two of them were lost with anchors and chains. Last spring I was furnished by the Department at Halifax, with casks for buoys and chains. The casks I had securely bound and secured by stone kedges of about 300 lbs . each, and have had no trouble with them this season, except with one held by an anchor being displaced twice. I consider the cask buoys better than the spar. There has been quite a large number of schooners in this port last summer, but you will see by my return that dues have been co!lected from vory few, they having generally paid twice before arriving here. I require a small soow very much, for the purpose of placing and lifting the buoys, as it is difficult to get over; and I hope you will give the matter due consideration.

> I am, Sir,

JAMES BENT, Harbour Master.

To Wı. Smith, Esq., Deputy Minister of Marine and Fisheries:

## APPENDIX No. 39.

## REPORT OF THE HARBOUR MASTER FOR THE PORT OF TUSKET, N.S. FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1876.

## Tusket, County of Yarmouth, 31st December, 1876.

Sir,-I herewith send you statement in duplicate of payable vessels entering the port of Tusket during the year 1876.

It will be necessary to have a flat-bottom boat made this winter, sufficiently large to enable me to put down and replace buoys next spring, as soon as the ice breaks up.

The ice very frequently carries these buoys for quite a distance, consequently they have to be raised and replaced. We have a strong current in Tusket River, some places not less than six miles per hour, often with heavy sea.

It is almost impossible to hire a suitable boat, and the cost would be a great deal more than the interest with wear and tear.

Some of these buoys are ten miles below Tusket, in a large open bay, where the sea, with a southerly wind, has full force.

The probable cost of a suitable boat and gear will be from seventy five to one hundred dollars.
I am, Sir, Your obedient servant,

FORMAN HATFIELD,<br>Harbour Master.

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

## APPENDIX No. 40.

## REPORT OF THE HARBOUR MASTER FOR THE PORT OF ST. MARGARET'S BAY, N.S., FOR THE CALENDAR YEAR ENDED 31st DEC., 1876.

St. Margaret's Baf, N.S., 1st January, 1877.

Sir,-I have the honor to enclose my annual report with statement of vessels arriving at this port liable to pay Harbour Master's fees. Many of the vessels arriving at this port I collect nothing from, they having two receipts for previous payments. I am happy to inform you that nothing has transpired during the year of which I have to complain. I have to state with pleasure that fees collected on vessels arriving at said port have been paid without any trouble by the captains of said vessels.

I appointed a place to deposit ballast last year, and have made all vessels strictly to comply with the regulations.

Pleaso send me a few copies to be given to pilots.
I have the honour to be, Sir, Your most obedient serrant, PETER F. BOUTILLIER, Harbour Master.
To William Smith, Esq.,
Deputy Minister of JIarine and Fisheries, Ottawa.

USworn before me this 1st day of January, 1877, at St. Margaret's Bay.

Geo. Dauphinee, J.P.

## APPENDIX No. 4 I .

## REPORTE OF THE HARBOUR-MASTER FOR THE PORT OF WHYCOCOMAH, N.S., FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1876.

Whycoconah, 2nd January, 1877.
Sir,—Enclosed please find Report for the year ended 31st December, $1876^{\circ}$ The fees collected is but small; and I beg to ask your kindness to inform me particularly if I am not entitled to receive the salary mentioned in my instructions, although the fees collected in this port do not come near up to it. Our harbour, it is true, is a good harbour and worthy of particular notice and attention, and by every appearance will be visited by more vessels hereafter, owing to resources heretofore unatiended to; and, besides, the best of our harbour channel used to be very much spoiled aud heaped up with ballast stuff from vessels coming into this harbour, before I got my appointment, which cause would result in endangering our harbour if timely caution were not taken against such doings. Now I find that in my furvishing myself with necessary equipments, such as boat, \&c., to fill my position as Hirbour Master with, only the bare fee that I collect is a matter of expense and trouble to me, without getting the appointed salary, but I look forward to the time when this port may be more paying than its mere salary.

Hoping that you will please see to securing me the proper salary for my duty and service, and will ever feel.

Your obedient servant,
NEIL McKINNON,
Harbour Master.

## APPENDIX No. 42.

आEPORT OF THE HARBOUR MASTER FOR THE PORT OF YARMOUTH, N.S., FOR THE CALENDAR YEAR ENDED 31sT DECEMBER, 1876.

Yarmouth, Nova Scotia,<br>1st January, 1877.

Sir,-I have the honour to report that since my appointment to the office of Harbour Master for the Port of Yarmouth, Nova Scotia, on the 26 th July, 1876, the vessels as shown in the accompanying statement have entered this port up to the 31st December liable to harbour dues. I am glad to inform you that everything seems to have gone on satisfactorily.

The steam dredge "Canada" has made very good improvement during her stay at this port; but it will require considerable length of time to dredge out the channel as per plan, as her carrying capacity is small and the distance of deposit is upwards of four miles. But the following season her distance of deposit can be shortened more than a mile with a small expense-by laying down a few temporary buoys, which will also enable her to continue on her work in thick foggy weather.

The spiles and buoys of this harbour are in a very good condition, excepting in the upper part of the harbour. There they will require to be straightened up and some of them renewed in the following spring, as by age and the wear of ice they have become almost useless.

I have the honour to be,
Your obedient servant,

GEO. E. CANN,<br>Marbour Master.

> To the Honourable A. J. Smitn, Minister of Marine and Fisheries, Ottawa.
$\left.\begin{array}{r}\text { Sworn before me this 1st day of January, } 1877 . \\ \text { Nathan B. Lewis, J.P. }\end{array}\right\}$
Record of vessels entering the Port of Yarmouth, Nova Scotia, liable to payment of Harbour Master's fees, under the Act 38 Vic., chap. 30. :-

| Rig. | Number. | Register <br> Tonnage. | Fees Collected. |
| :---: | :---: | :---: | :---: |
| Ships ......... ....................................... | 3 | 4,157 | \$ 1500 |
| Barques............... ................................... | 2 | 1,647 | 900 |
| Brigs ............ | 2 | 489 | 400 |
| Brigantines ........................ . . . . . . . . . . . . | 10 | 1,312 | 1450 |
| :Schooners | 131 | 5,176 | 9100 |
| Total number of ships.................. | 148 |  |  |
| Total amount of register tonnage.. | ........ | 12,681 |  |
| Total amount of fees collected. |  |  | \$133 50 |

## AṔPENDIX No. 43.

REPORT OF THE HARBOUR MASTER FOR THE PORT OF CRAPAUD, P.E.I., FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1876.

Crapaud, P.E.I., 8th January, 1877.
Sir,-The report of Wesley Myers, Harbour Master of the Port of Crapaud, in the Island aforesaid, as follows:-

That the buoys at Crapaud Harbour were duly placed, in the spring, in their proper places, and kept so until the close of navigation, and then had them all safely landed in the month of December.

I have also attended to the duties of my office according to the Act and instructions furnished to me.

I also send you an account of all vessels that have paid their harbour dues this season, which I hope you will find correct.

WESLEY MYERS.

## To Hon. Albert J. Smith, <br> Minister of Marine and Fisheries, Ottawa.

- I, Wesley Myers, of Crapaud, Queen's County, P.E.I., farmer, make oath and say, that all the facts, statements and thinge set forth in the foregoing report are true in fact and substance.
Sworn to before me, at Crapa
P.E.I., this 8th Jan 1877.

omon Liard, J.P.

## APPENDIX No. 44.

## REPORT OF THE HARBOUR MASTER FOR THE PORT OF GRAND RI VER . P.E.I., FOR THE CALENDAR YEAR ENDED 31sT DECEMBER, 1876.

Grand River, December 31st, 1876.
Sir, - I enclose to you the list of vessels that I boarded this last season. These were not all that came to this port. There were several vessels of small size that I did not board; it would be lost time to do so, for it would not pay anybody in this port for what he collects; they all pay at other ports, and I cannot force no new vessel that is built in this port to pay, for the Act does not bind them to do so.

The buoys were placed at the opening of the navigation, but on the 28th of May the ice came in, and we were obliged to takc them up; and they received considerable damage, with some loss. They were placed immediately afterwards and kept so; and on the 16 th of December, there commenced a gale of wind, and the ice carried them all away, and I hare not heard any account of them jet.

Yours truly,

To the Hon. A. J. SMith, Minister of Marine, Ottawa.

RONALD S. McDONALD, Harbour Masterfor the Port of Grand River.

## APPENDIX No. $45 \cdot$

REPORT OF THE HARBOUR MASTER FOR THE PORT OF MURRAY HARBOUR, P.E.I., FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1876.

Srr,-Hereunder please find Report of Vessels having entered at the Port of Murray Harbour during last year, and statement of fees collected by me, which, though small, is more than treble what I collected last year. The increase is owing to the alterations in the law with reference to small vessels. I hope there will be a similar increase next year, as what is now collected is not at all a sufficient remuneration for the labour performed.


Sworn before me this 10 th day of January, 1877.

> Andrew Miller, J.P.

## APPENDIX No. 46.

REPOR OF THE HARBOUR MASTER FOR THE PORT OF PINETTE, P.E.I., FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1876.

Sir,-Owing to the trade being carried on by a fleet of small vessels belonging to this harbour, the amount of fees collected has not increased, besides there are a great many which are provided with the two receipts before entering the harbour. The trade of this port is greatly on the increase this year on account of the pains taken with the channel by keeping it well bushed, besides the buoys have been kept in their proper places. I beg to remind you that Murchison's time has expired on the 20th of November, 1876, according to contract. He lifted the buoys on that day, the same time there were two brigs and six schooners londing in the harbour that had to go out, I then placed three temporary buogs out to guide them and they all got away without any trouble, some of them came and took the second load and came back before the close of navigation. Please let me know what will be done about buoys next season. I have a great deal of trouble for very little pay as you see by the above list which is a just and true account to the best of my knowledge.

NIEL McLEOD, Harbour Master.

Wworn before me this 10th day of January, 1877.
Alex, Williams, J.P.

## APPENDIX No. 47 .

REPORT OF THE HARBOUR MASTER FOR THE PORT OF ST. PETER'S HARBOUR FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1876.

St. Peter's Harbour, P.E.I., 2nd January, 1877.

Sir,--I have the honour to submit my Annaal Report for the jear ended 31st December, 1876.

There were three buoys placed in the harbour last spring as soon as it was cleared of ice, and they were well kept there during the season. They were taken up this fall. There was a part of the breakwater carried away in the November gale of 1875 , and it has not yet ljeen replaced.

For about two months in the summer there are, on an average, from about twenty to thirty small fishing vessels from Nova Scotia in and out of the harbour. The depth of water on the bar is nine feet at average low tides.

There were only two vessels sailing from this port during the season that I could exact any fees from, and when I exacted payment they told me they had to go to the port of Georgetown to finish loading and clearing. So I have not to report the reception of any fees; I have received none.

I have the honour to be, Sir,
Your obedient servant,
JAMES McDONALD, Harbour Master.
To Wm. Smith, Esq.,
Deputy Minister of Marine and Fisheries, Ottawa.

Sworn before me this 3rd day of January, 1877.
James Hagan, J.P.

## APPENDIX No. 48.

REPORT OF THE HARBOUR MASTER FOR THE PORT OF SUMMERSIDE, P.E.I., FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1876.

Summerside, P.E.I., 31st December, 1876.
Sir,-I beg to transmit my Annual Report for the Jear eaded 31st December, 1876.

That the buoys were properly placed, and kept in place, and carefully attended to the entire season.

I have also to state that, in the month of August and September, there were two schooners grounded on McCallum's Point Reef, at the entrance of this harbour. The reason alleged by the captains was, that the buoys were not painted according to Dominion law, of which I never had any notice, and I therefore followed the local regulations in that respect; but last spring, after placing the buoys, Mr. Mitchell informed me of the new order of painting buoys. We then came to the conclusion to let them remain for the season to save expenses of replacing them.

The captains of the above schooners stated that they could not get a pilot when off this harbour, which I believe to be true, as there are no pilots appointed here under Dominion laws.

The schooner" Brave," is still sunk in the channel as formerly stated by me. The contractor has not succeeded in raising her as yet, but will try as soon as possible in the spring.

I would suggest to the Department the placing of three anchors to the west side of the Railway Wharf, for vessels to haul off by from the wharf, as vessels have sustained damages to the amount of about three thousand dollars this fall and last fall for the want of means to haul off by in gales of wind.

> I have the honour to be, Sir,
> Your most obedient servant,
> (Signed), RONALD CAMPBELL, Harbour Master.

I also attach to the foregoing statement the number of vessels which entered the Port of Summerside, liable to payment of Harbour Master's fees, the number being sixty-three. The amount of fees collected was sixty-five dollars, for which I had to pay five per cent. for collecting to the Collector of Customs, as it was much easier for him to cullect it than for me.

> Yours, \&c.,
(Initialed),
R. C.

Sworn to before me, this 9th day of January 1877,
Colin McLennan, J.P.

## APPENDIX No. 49.

# REPORT́ OF THE HARBOUR MASTER FOR THE PORT OF TRACADIE, P.E.I., FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1876. 

Grand Tracadie, Prince Edward Island, 30th December, 1876.

Sir,- I have the honour to submit to you my Annual Report for Tracadie Harbour for the year, 1876.

That the two buoys belonging to this Harbour were placed by me in their respective positions when I took the proper soundings of the channel in the spring, the said buoys being depositad in the deepest part of the said channel; and the said buoys remained in their positions until the close of the navigation in this port when I took them up. I wish also to state that I erected the beacons in their proper localities, which, after this year, will not be required, as the Tower lights built here this summer will answer the purpose of beacons by day and light by night. The above mentioned were not lit this season owing to the want of lamps, which I trust will be placed in the towers before the opening of the navigation next spring.

I received the sum of one dollar for harbour fees in the entire summer.
I also desire to bring to your notice the necessity for a breakwater as the harbour is so shoally that no vessel of any large tonnage can enter, and moreover, that said harbour with about five feet more water on it would afford shelter and good anchorage for a considerable number of vessels which would frequent the vicinity of this harbour; but on account of the shoal water at present, and a bend forming in the Gulf at this point which renders it very dangerous in case of heavy gales of northerly wind that frequently visits this coast during the summer season, and having no safe place in such cases, they wholly have deserted the place.

I have the honour to remain,
Your obedient servant,
(Signed), HUGH CAMPBELL, Harbour Master.
To the Hon. Albert J. Saithe,
Minister of Marine and Fisheries, for the Dominion of Canada.

I, Hugh Campbell, of Tracadie, in Queen's County, in Prince Edward Island, farmer, do make oath and say that all the facts, statements, and things set forth in the above and foregoing report are true in fact and substance.
(Signed), HUGH CAMPBELL.

> Sworn before me at Charlottetown, Prince
> Edward Island, this 8th day of January,
> A.D., 1877.
> H. F. Callbeck, J. P.
> for Queen's County.

## APPENDIX No. 50.

## REPORT OF THE HARBOUR MASTER FOR THE PORT OF SUMMERSLDE FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1876.

Sir,-Above please see report of vessels, arriving at this port, liable to pay Harbour Master's fees. About four-fifths of those arriving pay me nothing, having two receipts for previous payment; therefore my receipts are small. I have to row a boat about three miles to the wharves, down the river, which takes up a good deal of $m y$ time and unless I am better paid for my services than I have been heretofore, it will be impossible for me to do justice as Harbour Master. We have had the Steam Dredge "Priace Edward," for about six weeks removing the banks out of the channel that were left in the fall of 1874. She did good work; it has greatly improved our shipping place. We have now fifteen feet of water in the shallowest part of the channel at ordinary spring tides, which will greatly increase the traffic in our Harbour.

I would also call your attention to the fact that now our farmers are about beginning to dig mud on the edges of the channel that was dredged this summer. I will have to lay off and stake the ground for them, otherwise they will injure the channel as they did last winter. I stated the matter to your agent, Mr. Mitchell (Charlottetown); he ordered me to attend to it, and report to you. I would, therefore ${ }_{r}$ most respectfnlly ask you to give those matters due consideration.

I have the honour to be, Sir,
Your obedient servant,
(Signed), JOHN FURNESS, Harbour Master.
To the Hon. A. J. Smith,
Minister of Marine and Fisheries, Ottawa.

## APPENDIX No. 5 I.

Table shewing the names of Ports proclaimed under the Dominion Acts, 36 Vic., chap. 9,37 Vic., chap. 34, and 38 Vic., chap. 30 , for the appointment of Harbour Masters, the dates of proclamation, the names of the Harbour Masters appointed under the Acts named, and the Acts 35 Vic., chap. 42 , and 36 Vic., chap. 12 and 63 , the dates of the appointinent of the Harbour Masters, the amount which each of their salaries is not to exceed, the amount of fees collected by each of them during the calendar year ended 31st December, 1876, and the overplus, if any, paid into the credit of the Receiver-General.

PROVINCE OF ONTARIO.

| Name of Port. | $\begin{gathered} \text { Date } \\ \text { of } \\ \text { Proclamation. } \end{gathered}$ | Name of Harbour Master. | Date of Appointment. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Goderich ........ | 28 April, 1876.. | Thomas Dancey. | 22 April, 1876.. | $\$ 8 \mathrm{cts}$ <br> 300 <br> 00 | $\$ \mathrm{cts}$. 28300 | \$ cts. |
| Southampton ... | 23 Sept., 1875.. | David Cascaden .............. | 13 Sept., 1875.. | 10000 | 1200 | ........... |

PROVINCE OF QUEBEO.

| Gaspé ............ | 25 Sept., 1874.. | Joseph Eden | 22 Sept., 1874..\| | 50000 | 12900 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| St. Johns.. ........ | ) Within the ( | Julien Napoleon Bourassa | 21 July, 1876..\| | 40000 | 29750 |  |
| Sorel................ | $\}$ barbor of $\{$ | Pierre Betlefeuille ............. | 20 April, 1875.. | 30000 | 51000 | 21000 |
| Three Rivers ..... | J Montrial. | Uldoric Frederick LangIois. | 14 June, 1875.. | 30000 | 35700 | 5700 |

PROVINCE OF NEW BRUNSWICK.

| Bathurst | 30 May , 1873... | Peter J. Hachey | $12 \mathrm{Dec} ., 1874 .$. | 20000 | 4750 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bay Verte | 30 May , 1873... | No appointment |  |  |  |  |
| Bactouche | 30 May , 1873... | John Keswick | 20 April, 1876..\| | 10000 | 4050 |  |
| Campbelltow | 30 May , 1873. | William Mott | 9 July, 1873.. | 20000 | 350 |  |
| Campobello | \|3u May, 1873.. | Jobn Benjamin Beatty | 7 July, 1873.. | 10000 | 1300 |  |
| Caraquet | 30 May , 1873.. | Gervais Basil Paulin.. | 0 A pril, 1874.. | 15000 | 4300 |  |
| Chatham | $30 \mathrm{May}, 1873 .$. | William Johnst | 7 July, 1873.. | 30000 | 75400 | 45400 |
| Cocagne . . ........ | $30 \mathrm{May}, 1873 .$. | John Brooks .... | 7 July, 1873.. | 10000 | 1650 |  |
| Dalhonsie ...... .. | $30 \mathrm{May}, 1873 .$. | John Urqubart Camp | 8 July, 1874.. | 20000 | 10300 |  |
| Dorchester ........ | 30 May , 1873... | Joshua King ... | 9 July, 1875.. | 20000 | 5200 |  |
| redericton ...... rand Manan..... | $30 \mathrm{May}, 1873 .$. 18 Sep., 1876... | No appointment .............. | 18 Sept., 1876.. | 10000 |  |  |
| Great Shemogue | 17 May, 1875... | John Avard. | $10 \mathrm{May}, 1875 .$. | 10000 | 450 |  |
| Harvey............. | 30 May , 1873... | Joseph McAlmon | 10 April, 1875.. | 10000 | 1150 |  |
| Hillsborough .... | 30 May , 1873... | Nehemiah Bennet | 30 April, 1874..' | 15000 | 3250 |  |
| Ledge of St. Stephens.. | 30 May 1873... | Cbarles Young | 22 April, 1876. | 10000 | 1100 |  |
| Moncton... | 30 May, 1873... | No appointment. |  |  |  |  |
| Musquash | 26 Mar., 1874... | Samuel Hayward | 26 Mar., 1874.. | 10000 | 4400 |  |
| Newcastle | 30 May , 1873... | Jobn Niven | 7 July, 1873.. | 30000 | 19250 |  |
| North Jogg | $30 \text { May, } 1873 .$ | No appointment ......... .... |  |  |  |  |
| Richibucto | 30 May 1873. | James Alexander Jardine... | 11 May, 1874.. | 20000 | 14900 |  |
| RockIand | 30 May , 1873... | No appointment |  |  |  |  |
| Sackville | $30 \mathrm{May}, 1873 .$. | No appointment ...... ........ |  |  |  |  |

## Table showing the names of Ports proclaimed under the Dominion Acts, \&c.-Contimued.

PROVINCE OF NEW BRUNSWICK.-Continued.

| Name of Port. | Date of Proclamation. | Name of Harbour Master. | Date of Appointment. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\$$ cts. | $\$$ cts. | $\$ \mathrm{cts}$. |
| St. Andrewt..... | ( May, 1873... | hn Balson. | 7 July, 1873.. | 10000 | 4450 |  |
| St. George ....... | 30 May 1873... | mes Dick | 7 July, 1873.. | 10000 | 4200 |  |
| St. Martins ...... | 14 May, 1874... | oseph Carson | 14 May, 1874.. | 10000 | 600 |  |
| Shediac ........... | 30 May , 1873... | Alexander McQueen | 19 May 1876.. | 30000 | 30100 | 00 |
| Shippegan......... | 30 May , 1873... | Peter DeGrace ....... | 1 June, :876.. | 10000 | 600 |  |
| Tracadie .. ........ | $17 \mathrm{May}, 1875 . .$. | ital Arceno .................... | 9 July, 1875..\| | 10000 | 500 | ............ |

PROVINCE OF NOFA SCOTIA.


## Table showing the names of Ports proclaimed under the Dominion Acts, \&c.-Continued.

## PROVINCE OF PRINCE EDWARD ISLAND.

| Name of Port. | $\begin{array}{\|c\|} \text { Date } \\ \text { of } \\ \text { Proclamation. } \end{array}$ | Name of Harbour Master. | Date of Appointmen |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bay Fortune |  |  |  | \$ cts. |  | $\$ \mathrm{cts}$. |
| Cardigan Bridge | 15 April, 1875.. | Wiliam R. Dingwell . | 10 April, 1875. |  |  |  |
| Cardigan Bridge |  | George Alley | 4 Nov., 1874. | 20000 | No return... |  |
| Cascumpec | 15 July, 1874... | George Wells | 17 June, 1874. | 20000 | 2850 |  |
| Charlottetown | 15 July, 1874..\| | William White | 17 June, 1874. | 40000 | 13650 |  |
| Crapaud ..... | 15 July, 1874.. | Wesley Meyers | 17 June, 1874. | 20000 | 2300 |  |
| Egmont Bay | 15 July, 1874..\| | Alexander McArthur ......... | 17 June, 1874. | 20000 | No return... |  |
| Georgetown | 15 July, 1874.. | John Bradshaw Howlett | 17 June, 1874. | 20000 | 8400 | ........... |
| Grand River..... | 10 April, 1875.. | Ronald S. McDonald........ | 10 April, 1875. | 20000 | 400 |  |
| Malpeque......... | 10 July, 1874.. | Vacant ........ ........... |  |  |  |  |
| Montagu Bridge. | 15 July, 1874.. | Daniel O. Campbell | 17 June, 1874. | 20000 | 1700 |  |
| Murray Bridge... | 15 July 1874.. | William Millar .... | 17 June, 1874. | 20000 | 400 |  |
| New London .... | 15 July, 1874.. | George Mackenzie | 17 June, 1874. | 20000 | 600 |  |
| North Pinette ... | 15 July, 1874..\| | Niel McLeod | 17 June, 1874. | 20000 | 850 |  |
| Port Hill ....... | 15 July, 1874... | James Ellis. | 17 June, 1874. | 20000 | 700 |  |
| Rollo Bay | 10 April, 1875.. | Charles Deagle | 10 April, 1875. | 20000 |  |  |
| Rustico | 17 May , 1875.. | William McNeill, jun. | 5 May, 1875. | 20000 | No return... |  |
| St. Peters's Bay . | 10 April, $1875 .$. | James McDonald | 10 April, 1875. | 20000 |  |  |
| Souris ............. | 10 April, 1875. | Alexander Halloran | 10 April, 1875. | 20000 |  |  |
| Summerside ...... | 15 July, 1874... | Ronald Campbell.... | 17 June, 1874.. | 20000 | 6500 |  |
| Tracadie ...... | 17 May , 1875.. | Hugh Campbell . | 5 May , 1875. | 20000 | 100 |  |
| Vernon River Bridge ....... | 19 July, 1874.. | John Furness | 17 June, 1874. | 20000 | 1250 |  |
| West River ..... | 17 May , 1875.. | Ewan MeMillan .............. | $5 \mathrm{May}, 1875$. | 20000 |  |  |

PROVINCE OF BRITISH COLUMBIA.

| Burrard Inlet .. | 4 Dec., 1876.. | Isaac Johns . | 4 Dec., 1876.. | 40000 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nanaimo .......... | 10 April, 1875.. | Thomas Eric Peck............. | 25 April, 1876.. | 50000 | 27500 | - |
| Victoria and Esquimalt $\qquad$ | 20 Mar., 1875.. | Jeremiah Nagle ................ | 8 Mar., 1875.. | 60000 | 63650 | . |

## W M. SMITH, Deputy Minister of Marine, \&c.

## Ottawa, 1st January, 1877.

## APPENDIX No. 52.

Statement of amounts of Collections and Expenditure on account of Harbour Improvements, at the undermentioned Ports, at which Tonnage Dues have been imposed by Proclamation, for the fiscal year ended 30th June, 1876.

COLLECTIONS IN PROVINCE OF QUEBEU.


COLLECTIONS IN PROVINCE OF NEW BRONSWICK.

| Richibucto ....Bathurst...... | $\begin{array}{r} 20,602 \\ 9,720 \end{array}$ | 2,060 20 | 3,032 20 |
| :---: | :---: | :---: | :---: |
|  |  | 97200 |  |
|  |  |  |  |
|  |  |  | 3,580 80 |

Expenditure on account of Harbour Improvements, for the fiscal year ended 30th June, 1876.

Richibucto, N.B., for building breakwater
$\$ 10,85242$

WM. SMITH,
Deputy Minister of Marine, \&c.

[^0]
## APPENDIX No. 53.

## REPORT OF THE PILOTAGE DISTRICT OF MONTREAL FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1876.

25th January, 1877.

Sir,-I have the honour, by desire of the Harbour Commissioners of Montreal, to transmit herewith for the information of the Honorable the Minister of Marine and Fisheries, the following report for the year ended 31st December, 1876, in accordance with the provisions of the 24th section of the Act respecting pilotage.

There were no new pilots licensed in this District in 1876.
Name and age of each pilot acting under the authority of the Harbour Commissioners of Montreal :-

Name Age. \begin{tabular}{c}
Service <br>
for which <br>
Licensed.

$\quad$ Name. $\quad$

Service <br>
for which <br>
Licensed.
\end{tabular}

Onesime Naud .................... 72
Zephirin Mayrand................ 68
P. Marcel Mathieu............... 56

François A. Mayrand............ 56
Joseph Leveille.................. . 58
Hector Hamelin................... 58
Joseph Dussereau. ............... 68
Leandre Mayrand................. 53
Zephirin Bouillé.................. 47
Placide Gallardet................. 60
Joseph Barnabe de Lafreniere 65
Cyrille Belisle..................... 48
Adolph Lise........................ 46
G. Raymond....................... 46

Eusebe Toupin.................... 51
Augustin Rand.................. 49
Hubert A. Belisle................. 45
Athanase Dufresne............... 42
Jean B. Dorval.................... 44
Louis N. Bouillé.................. . 49
Edouard Naud
33

Service Licensed.

Pierre Gagnon
48
Onesime Naud ................... 35
Joseph O'Hamelin.............. 42
Joseph Chamondet.............. 35
Louis A. Bouillè................ . 36
Prudet Beaudet.................. 34
Elzear Belisle.................... 41
George Belisle .................... 86
© Joseph Pleau...................... 38
E Celestin Brunet ................ . 33
寻 ${ }_{5}$ Louis Belisle........................ 30
Damas Caien..................... 35
Ulric Groleau.................... 28
Alfred Frenette ................. 36
Alfred St. Amand.............. 32
Phillipe Belanger ...... .... . . 37
Victor Gagnon.................. 57
Narcisse Perrault.............. 38
Trefle Toupin. .................. 28
Cleophas Auger ............... . . 29

Name and age of each apprentice serving his time under the authority of the Harbour Commissioners of Montreal :-
Ferdinand Pilote.Age.
Name. ..... Age ${ }^{-}$
Joseph Toupin ..... 22
Alexis Gauthier ..... 27Leon Croteau
Trefle Gosselin ..... 34Wilbrod Gauthier.Jean Arcand
Alphonse Cossette
Deleve NaultLouis N. Bouille23
Norbert Arcand ..... 22
Ulric Toupin.
Nestor Arcand ..... 21 ..... 21 ..... 19
23
23
3
3
Nere Belisle26
Louis Mayrand ..... 28
Hubert Perrault ..... 28
Odilon Protelance ..... 24
21 Laurent Gauthier.
21 Laurent Gauthier. ..... 26 ..... 26

There have been several casualties during the past year, as mentioned below, but none of them of a scrious character, and none of the cases referred to the Commissioners and fully investigated, did, in the opinion of the Commissioners, call for the infliction of any penalties upon the pilots complained against.

On the night of the 13 th June, the steamship "Polino" ran into and sank an unknown barge; no lives were lost nor complaints made.

On the 26th July the steamship "Stelors," Bradley master, in charge of Pilot Alfred St. Armand, while on her way to Quebec touched several times, especially at Cap à la Roche. On the return of the steamer in October, Captain Bradley laid a complaint against the pilot for incompetency. The Commissioners investigated into the matter, together with the case of the steamship "Colombo," Tate, master, which vessel grounded under similar circumstances 27 th September, when in charge of Pilot llector Hamelin. After hearing evidence on both sides, the Commissioners, together with the Chief Engineer and other officers of the Trust, and the pilots, proceeded to Cap à la Roche, where soundings were taken and other information obtained. Owing to the absence of the complaining parties the Commissioners have not been able to complete the investigation. It is probable that the vessels may have grounded on boulders brought down to the edge of the channel by tho ice, as alleged by the pilots; if so, the dredges have fully remored the obstructions.

On the 15th August the steamship "Circassian," in going out of the harbour collided with the steamer "Berthier," but no damage of any consequence was done.

During a violent gale on the same day the Norwegian bark "Swift," in changing position in the harbour was blown on the shoals near St. Helen's Island; she was got off without much difficulty.

On the 30th August the ship "Lake Ontario" came into collision with the steamer "Canadian," towing a raft, and did considerable damage. The owners of the ship paid $\$ 1,000$ for damages by mutual agreement between the parties.

On the 3rd November the steamship "Quebec" ran into the tug "C. J. Brydges," with a tow of barges in St. Mary's Current, and sank one barge. The accident was said to have been caused by the captain of the tug endeavouring to cross in front of the steamship.

The Commissioners have experienced great difficulty in obtaining thorough investigations into some of the cases brought before them, as it is almost impossible to have all the interested parties present at one time, more especially as regards steamships whose stay in port is generally very short.

I have to report that one pilot, David Mathieu, died on the 13 th July last.
Two pilota, Zephirin Mayrand, agod 68, and Joseph Dussereau, aged 68, were licensed for one year, in conformity with the 36 th section of the Pilotage Act of 1873.

There are forty-four acting pilots.
Tariff of pilotage now in force in the Pilotage District of Montreal :-
Pilotage of vessels in tow of a stenmer, for each foot of draught of water, upwards or downwards...............................
Pilotage of vessels propelled by stoam, for each foot of draught of water, upwards or downwards..............................
 upwards
250
Pilotage of vessels under sail,for each foot of draught of water, downwards.
420
280
Moving a vossel from one wharf to another in the Harbour of Montreal, or from foot of current into the Harbour......... 500

The amount received for poundage being 5 per cent. of the earnings of the pilots, was $81,737.43$, from which it would appear that the gross earnings of the pilots were about $\$ 34,740$; besides this there was received a further sum of $\$ 1644.58$, being interest on investments, making a total of $\$ 2,382.01$.

The disbursements were $\$ 1,245$, paid as pensions to old and infirm pilots and the widows of deceased pilots.

> I have the honour to be, Sir,
> Your most obedient servant,
> H. H. WHITNEY, Secretary, Harbour Commissioners, Montreal.

To Wm. Smith, Esq.,<br>Deputy Minister Marine, \&c., Ottawa.

> Harbove Commissioners of Montreal, Secretary's Office, Montreal, 27 th February, 1877.

Sir,-I have the honour to acknowledge the receipt of your letter of the 21st inst., asking for certain information relating to the Pilotage District of Montreal.

I beg to state, in reply, that since the abolition of the Trinity House, when the Pilotage affairs were transferred to this Trust, there has been nothing paid to the Secretary out of the Pilotage funds, neither is there anything paid to the pilots, as the money earned by them is paid direct, less 5 per cent. retained, which is placed to the credit of the "Decayed Pilot Fund" for the relief of old and infirm pilots and the widows of pilots.

The following is a statement of the fund on the 1st January, 1877, viz. :-

| Montreal Harbour Bonds, $6 \frac{1}{2}$ per cent. interest | \$21,000 00 |
| :---: | :---: |
| do Waterworks Bond, 6 do | 2,000 00 |
| Domin:on Stock, 6 do | 1,620 00 |
| Cash in City District Savings Bank, 5 per <br> cent. interest................................... \$4,079 20 |  |
| Cash in Treasurer's hands....................... 1766 |  |
|  | 4,096 86 |
| Total. | \$28,716 86 |

I also enclose copy of our By-laws. Articles Nos. 72 and 91, inclusive, refer to pilotage matters; and Article No. 128 gives the tariff of pilotage now in force, but which, as you are aware, the Commissioners are about having amended.

I am, Sir,
Your most obedient servant,

H. D. WHITNEY,<br>Assistant Secretary.

William Smith, Esq.,
Deputy Minister of Marine, \&e., Ottawa.

## APPENDIX No. 54.


#### Abstract

Branch Pilots for and below the Harbour of Quebec, According to Seniority, with their Distinguishing Numbers, which they are bound to take from the Secretary-Treasurer of the Quebec Harbour Commission, under a Penalty of $£ 10$ Currency




Branch Pilots for and below the Harbour of Quebec, \&c.-Continued.

| No. | Names. | Residence. |
| :---: | :---: | :---: |
|  |  |  |
| 47 | Pierre Pepin....... | ISt. John, Orleans. |
| 48 | Charles Dumas.......... | Green Island. |
| 49 | Louis Cottin Dugal ..... | St. Michel, Bell. |
| 50 | Edouard Genest........... | Ste. Petronille, Orleans. |
| 51 | Pierre Lapierre.... | Notre-Dame, Levis. |
| 52 | Anselme Marmen......... | Quebec. |
| 53 | Magloire Delisle........... | Green Island. |
| 54 | Jean-Kapt. Talbot, lst............. | Berthier. |
| 55 | Frs,-Xav. Delisle, lst......... ... | St. Jobn, Orleans. |
| 56 | Joseph Dick........................ | do do |
| 57 | Frs. Noël.... | Ste. Petronille, Orleans, |
| 68 | Paul Langlois. | Ste. Agathe, |
| 59 | Marcel Côlè... | Green Island. |
| 60 | George Audet dit Lapointe. | Lauzon, Levis. |
| 61 | Gabriel Lachance. | St. John, Orleans. |
| 62 | Isaie Marticotte. | Quebec. |
| 63 | François Dallaire. | St. Lanrent, Orleans. |
| 64 | Laurent Godbout, lat | Quebec, St. Sauvèur. |
| 65 | Pierre Roy............... | do do |
| 66 | Clovis Antil................ | St. Jean Port Joli. |
| 67 | Pierre Ruelland. | St. Michel, Bell. |
| 68 | Hubert Dumas.. | Trois-Pistoles. |
| 69 | Damase Babin. | St. Jean Port Joli. |
| 70 | Jos Boucber dit Morency........ | Quebec. |
| 71 | Maurice Pepin dit Lachance.... | do <br> St Laurent, Orleans. |
| 72 | David Bouffard...... ............... | St. Laurent, Orleans. |
| 73 | Pierre Curodeau..... | do do <br> do do |
| 74 | Edouard İabrèque......... ..... | do do <br> dohn do |
| 75 | Bart. Pepin dit Lachance, lat | $\begin{aligned} & \text { St John } \\ & \text { Douebec. St. Sauvèur. } \end{aligned}$ |
| 76 | Antoine Lapoin te............ | Quebec, St. Sauvèur. Cacouna. |
| 77 | Jean Chasse............... | Cacouna. <br> Lauzon, Levis. |
| 78 | Narcisse Forgues........ Frs. Dumes, | Lauzon, Levis. <br> Green Island. |
| 88 | Frs. Dinique Verreault. | Mechin. |
| 81 | Michel Guenard... ..... | Notre-Dame, Levis. |
| 82 | Jean Coulombe... | St. Laurent, Orleans. |
| 83 | Thomas Connel. | Quebec. |
| 84 | A lexis Vézina. | Crane Ialand. |
| 85 | Gilbert Baillargeon.. | Ste. Petronille, Orleans. |
| 86 | Jean Giroux................... | Notre-Dame, Levis. Quebec. |
| 87 | Jos. Phil. Couillard...... | Quebec. do |
| 88 | Nicholas Fortín ............. | $\begin{aligned} & \text { do } \\ & \text { do } \end{aligned}$ |
| 89 | Magloire Mercier........... ..... | St. Nichel, Bell. |
| 90 | Louis Ulivier Leclerc... ....... | St. Michel, Bell. Ste. Petronille, Orleans. |
| 91 | Pierre Gourdeau................. | Ste. Petronille, Orleans. |
| 92 | Jean-Bapt. Tremblay, lst. ....... | Quebec. <br> Green Island. |
| 93 | Julien Dion........ .................. |  |
| 94 95 | Pierre Lemieux...... | Trois-Pistoles. |
| 95 | H,ouis Fontaine..... | Notre-Dame Aux., Buckland. |
| 97 | ! Abraham Gouillard Després..... | St. Michel, Bell. |
| 98 | Frs, Godreau.. ................ ...... | Cap. St. Ignace. |
| 99 | Jérémie Dufresne.................. | Quebec, st. Sauveur. <br> do |
| 100 | Joseph Blouin ............ |  |
| 101 | Antoine Gobeil... ....... | do do do |
| 102 | Pierre Fontaine.. | St Luce, Rimouski. |
| 103 | Joseph Laroie............ | Lauzon, Levis. |
| 104 105 | Victor Demers..... | Brie St. Paul. |
| 105 106 | Loseph Plante .... | St. John, Orleans. |

Brance Pilots for and below the Harbour of Quebec, \&c.-Continued.


## Branch Pilots for and below the Harbour of Quebec, \&c.-Continued.

| No. | Names. | A ge. | Residence. |
| :---: | :---: | :---: | :---: |
| 168 | Pierre Pepin dit Lachance. | 28 | Ste. Anne Lapocatière. |
| 169 | Theophille Gourdeau........ | 33 | Ste. Petronille, Orleans. |
| 170 | Isiode Noêl................ | 27 | St. John do |
| 171 | Jean Evariste Adsm. | 33 | L'Islet. |
| 172 | Alfred Larochelle .......................... ........... .......... | 27 | Notre-Dame, Levis. |
| 173 | Théophile Corriveau.............................................. | 30 | Quebec, St. Sauvèur. |
| 174 | Elzéar Godbout..... ....................................... ........ | 29 | do do |
| 175 | George Couillard Després........................................ | 29 | Bienville, Levis. |
| 176 | Pierre Gobeil........................................................ | 29 | St. John, Orleans. |
| 177 | Thos. Alfred Antil..................... .............................. | 27 | L'Islet. |
| 178 | Théodule Pepin dit Lachance.................................... | 32 | Quebec. |
| 179 | Achille Trefflée Simard............ ...................................... | 31 | Rivier re-du-Loup. |
| 180 | Jean-Bte. Patonie.......... ......................... .................... | 26 | Bienville, Levis. |
| 181 | Narcisse Lavoie... ............. ...... .................. ........... | 28 | Ste. Luce de Rimouski. |
| 182 | Alfred Turgeon..................... ....... .... هn-.............. | 25 | 'St. John, Orleans. |
| 183 | Joseph Emilio Couillard................ ........................ | 26 | Quebec. |
| 184 | Louis Albert Royer ............... ........ ................................ | 32 | St. John, Orleans. |
| 185 | Adélard Sansterre.. ...... ......................................... | 27 | St. Michel, Bell. |
| 186 | Onézime Noël........................................................ | 25 | St. John, Orleans. |
| 187 | Napoléon Baillargeon............................................ | 27 | Ste. Petronille, Or leans. |
| 188 | David F. Pelletier................................................. | 25 | Lauzon, Levis. |
| 189 | Joseph Frs.-Xav. Bernier......................................... | 25 | L'Islet. |
| 190 | Frs--Xav. Demeule................................................. | 25 | St. John, Orleans. |
| 191 | Louis Honoré Lapierre................................. .......... | 27 | Notre-Dame, Levis, |
| 192 | Joseph Eugène Lachance......................................... | 23 | St. Sohn, Levis. |

Scale of pensions allowed to sick Pilots, or to the widows of Pilots, according to the Resolution of the Trinity House of Quebec, dated 31st January, 1860, viz:-

| A Pilot having served as such, less than 10 years $\ldots . . . . . . . . . . . . . . .10$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| do | do | 10 years and less than | 15. | 16 |  |
| do | do | 15 | do | $20 .$. | 20 |
| do | do | 20 | do | $25 .$. | $25^{*}$ |
| do | do | 25 | do | $35 .$. | $30^{*}$ |
| do | do | 35 | do | $44 .$. | $35^{*}$ |
| do |  |  |  |  |  | Widow of a Pilot whose husband has served as such, less than 10 years......................... £10

do do 10 years and less than $15 \ldots$ 12
do do 15 do $20 \ldots \quad 16$
do do 20 years and over............ 20
To Pilots sick during the season of navigation, provided it be previous to the 1 st Scptember, $£ 2.00$ per month from beginning of their illness until they resume their duties.

If a Pilot be sick for more than a year he is then to be pensioned.
Mr. Primrose's opioion is that children of Pilots (infirm) have a right to a pen-sion-Vide Volume II, page 251, 10th April, 1860.

$$
\begin{aligned}
& \text { (Signed), } \text { C. R. MICHAUD, } \\
& \text { Secretary. }
\end{aligned}
$$

> Harbour Conmissioners Office, Quebec, 30th December, 1876.

Statement from the Board of the Corporation of Pilots for and below the Harbour of Quebec, for the Year 1876.

Pilots actually on the list................................................... 189
do superanuated........ ................................................... 6
do died during year............................................................. 4
do suspended pro. tem ............................................................ 2
do sick, relieved.............................................................. 2
do in charge of Jominion Steamers.......................................... 2
do in charge of other vessels .................................................. 2
do in charge of light-ships................................................................. 2
Number of apprentices ............................................................................. 49

Total receipt of the Corporation, $\$ 148,224.22$; Paid by 281 Foreign vessels, $\$ 30,475.59$; Paid by 835 British vessels, 117,748.63. Total expenditure, $\$ 25,638.94$.

| (Signed) | C. R. MICHATD, |
| :--- | :--- |
| (Signed) | J. B. MARTEL, |
| Secretary-Treasurer. |  |

[^1]
## APPENDIX No. 55.

## REPORT OF THE PILOTAGE COMMISSIONERS OF ST. JOHN, N.B., FOR THE GALENDAR YEAR, ENDED 31sт DECEMBER, 1876.

## Office of Commissioners, Pilotage Authority, Dibtrict St. John, N.B., 8th December, 1876.

Sir,--I have the honour herewith to forward gou the returns of our transactions for the year ended this day.

I am, Sir, Your most obedient servant,
(Signed), J. U. THOMAS, Secretary-Treasurer.
William Smith, Esq.g
Deputy Minister of Marine, \&c., Ottawa.

Receipts and Expenditure of Office from 31st December, 1875, to 31st December, 1876.

|  | \$ | cts. | \$ | cts. |
| :---: | :---: | :---: | :---: | :---: |
| By Balance last account, \$795.14; error \$8......................................... | ..... ...... | ...... | 803 | 14 |
| 7 licenses to Pilots, $\$ 5$ each ......................................................... | .......... | ...... | 35 | 00 |
| 1 license to schooner "Tormenter": .........."...... ......................... |  |  | 10 | 00 |
| Received from sundry vessels leaving Port for one year to date, 25 cents per foot on outward draught of water. $\qquad$ <br> Received on two ships leaving Musquash from Pilot House. |  | ....... | 1,914 7 | 56 50 |
| Received on two ships leaving Musquash from Pilot House................ |  |  | 7 | 50 |
|  |  |  | 2,800 | 20 |
| To paid A. C. Fairweather, taking evidence ............................ ........... | 10 | 00 |  |  |
| S. J. King, auditing accounts, 1875 | 60 | 00 |  |  |
| J. \& A. McMillin, printing. | 8 | 50 |  |  |
| C. W. Weldon, attending court....................... ................................... | 12 | 80 |  |  |
| do opinion on law | 25 | 00 |  |  |
| Salary of Secretary, 12 months...................................... .............. | 800 | 00 |  |  |
| Office rent, fuel and gas, 12 months... ....... ................................... | 200 | 00 |  |  |
| Alexander Watson, filling out licenses.................. ........................ | 1 | 85 | 1,118 | 15 |
| Balance to credit of Pilot Fund ................................... |  |  | \$1,682 | 05 |

(Signed),
J. U. THOMAS,

Secretary-Treasurer.

## Office of Commissioners, Pilotage Authority,

 30th December, 1876.Office of Commissioners, Pilotade Adthority, District St. John, N.B., 30th December, 1876.
Resurns of all vessels coming under the direction of the Pilotage Authority from31st December, 1875, to 31st December, 1876:-
Ships and barks ..... '235
Brige and brigantines ..... 106
Schooners ..... 195
Steamers ..... 10
Total ..... 546
Amount of pilotage earned ..... \$26,112 68
Briuish.
Ships and barks ..... 190
Brigs and brigantines ..... 94
Schooners ..... 70
Steamers ..... 10
Total ..... 364
Amount of pilotage earned ..... $\$ 18,53917$
Foreiyn.
Ships and barks ..... 45
Brigs and brigantines ..... 12
Schooners ..... 125
Total ..... 182
Amount of pilotage earned ..... 87,873 51
(Signed), J. U. THOMAS, $\underset{\text { Secretary-Treasurer. }}{\text { Then }}$
Office of Commissioners, Pifotage Authority, District St. John, N.B., 30th Dec, 1876.
Rates of pilotage port of st. John.
INWARDS.
1st District from Partridge Island to Musquash Head bearing north-west, per foot.
\$1 00
\$1 00
2nd District from Musquash Head to Point Le Preaux, north-west, per foot ..... 125
3rd District from Point Le Preaux to North Head, Grand Manan, north-west, or North Channel, south-east, per foot
150
150
4th District from North Head of Grand Manan or North Channel as atoresaid, to Machias Seal Island South or Brier Island, south-east, per foot
125
125
5 th District shall be from the outside limit of the fourth district to a bound ranging with Mount Desert and Cape Sable Seal Island leaving north-west, and south-east being the outside limits of the Pilotage District, per foot ..... 225

## OUTWARDS.

From the Harbour of the Port of St. John to outside Partridge Island, $\$ 1.25$ per foot.<br>Down the bay when required shall be $\$ 2$ per foot over and above the Harbour Pilotage outwards.<br>Musquash District 1 and 2 of the Port or Harbour St. John, shall be No. 1 Harbour Musquash, and districts No. 3, 4 and 5 of the said Harbour of St. John shall be 2, 3 and 4 of the Harbour of Musquash.<br>The rates of pilotage inwards into the Harbour of Musquash shall be No. 1 District $\$ 1.75$ per foot, draft of water at 75 cents additional per foot; each district bounded beyond the said 1st district.<br>Outward pilotage within the 1st district shall be $\$ 1$ per foot.

$$
\text { (Signed), J. U. THOMAS, } \quad \begin{aligned}
& \text { Secretary-Treasurer. }
\end{aligned}
$$

## Office of Commissioners, Pilotage Authority, District St. John, N.B., 30th December, 1876.

Returns of Pilots Licensed for the Pilotage District of St. John, N.B.


Office of Commisstoners, Pilotage Authority, District of St. John, N.B., 30th December, 1876
Return of Apprentices now Serving under this Authority.

(Signed), J. U. THOMAS,
Secretary-Trensurer.

## Office of Pilot Comissioners, District of St. John, N.B., 1st March, 1877.

Sir,-I have the honour to acknowledge the receipt of your letter of the 21 sit ultimo, and in reply beg to inform you that the Secretary of this district is paid $\$ 800$ per annum.

Balance to the credit of the Pilot Fund on the 31st December last, $\$ 1,682.05$, as stated in the returns furnished. Part of the amount is in the Bank of New Brunswich on interest at 5 per cent. and at our last meeting a Committee was appointed to invest the balance.

Our pilots are paid the amount of their individual earnings through this office.
I am, Sir,
Your most obedient servant,
(Signed),
J. U. THOMAS,

Secretary-Treasurer.
William Smith, Esq.,
Deputy Minister of Marine, de. Ottawa.

## APPENDIX No. ヶ6.

REPORT OF THE PILOTAGE COMMISSIONERS OF CHARLOTTE, N.B., FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1876.

Saint Andrews, New Brunswick, December 31, 1876.
Sir,-I have the honour to annex Pilotage Returns for the County of Charlotte, for the year ended 31st December, 1876.

I am, Sir,
Your most obedient servant,
(Signed),
C. E. O. HATHEWAY, Commissioner (Acting Secretary).

To Wm. Smitin, Esq.,
Deputy Minister of Marine and Fisheries, Ottawa, Canada.

Pilotage Returns for the County of Charlotte, for the Year 1876.
Licensed Pilots acting for the year 1876 :-
Name. Age. What Service.

1. William Cline...... 66 years......For Pilot District of the County.
2. Thomas Conley.... 46
3. Edward Cline....... 61 "..... " "
4. Joseph Boyd....... 41 ...... " "

One pilot boat licensed.
Amounts received by Pilots, for pilotage, in the year 1876:-
British vessels. .\$311 75
Foreign vessels........................................................... 21500
Total
$\$ 52675$
Rates of pilotage :-
1st Pilotage District, inward or outward............... $\$ 225$ per foot.
3rd " "
To Campobello, 20c. per foot less than above rates.
4th Pilotage District, inward or outward
100
From 1st November to 1st April, 20c. per foot additional.
Harbour Pilotage, up to 300 tons, $\$ 2.50$; over 300 tons, $\$ 3$.
River Pilotage in St. Andrew's Bay, up to 200 tons, $\$ 4$; to 300 tons, $\$ 5$; to 400 tons, $\$ 6$; over 400 tons, $\$ 8$.
River Pilotage, St. Andrew's Bay to any harbour in the County, under 200 tons, $\$ 6$; under 300 tons, $\$ 8 ; 400$ tons, $\$ 10$; over 400 tons, $\$ 12$.
5—b 181

Receipts by Commissioners:-

> Four licenses and regulations to Pilots...................... $\$ 2400$ One license to Pilot Boat................................... 500
$\$ 2900$

CHARGES :
Paid Commiseion, St. George and St. Stephen.......... $\$ 1400$
Allowance for Secretary......................................... 1000
Printing.............................................................. 500
$\$ 2900$

(Signed), C. E. O. HATHEWAY, Commissioner and Acting Secretary.

## E.E.

St. Andrews,
December 31, 1876.

> St. Andrews, N. B.,
> 27th February, 1877.

Sir,-I have the honour to acknowledge the receipt of your communication of 21st instant, and in reply have to state that, during the three years this County has been made a District under the law. Receipts for pilotage have ${ }^{\circ}$ been small, and, by desire of the Pilots of the District, no fund was provided for under the local regalations.

The only amounts coming into the Commissioners' hands, as per returns furnished the Department, were, for licenses for three years ending December, 1876, \$147, expended as follows:-

Paid commission at outports, three years ended December, 1876.
$\$ 6400$
Secretary, for three years ended December, 1876
Printing, stationery, etc., three years ended Decomber, 1876

$$
2100
$$

$\$ 14700$
I am, Sir,
Your most obedient servant,
(Signed), C. E. O. HATHEWAY, Commissioner and Acting Secretary.
To Wh. Smith,
Deputy Minister of Marine, etc., Ottawa.

## APPENDIX No. 57.

Pilotage Returns for the District of Miramichi, in the Province of New Brunswick, for the year ending December 31st, 1876.

|  | Names. | 8080 | For what service rendered. |
| :---: | :---: | :---: | :---: |
| 1 | Joseph Jemmo .. | 62 |  |
| 2 | Louis Jemmo ............................................ | 22 | To pilot inwards only. |
| 3 | Pilot dea,l. |  |  |
| 4 | Angus McEachern ................. .............. | 57 | Full license for the district. |
| 5 | Mitchell Martin.................................... | 47 | do |
| 6 | Frank Martin....................... .............. | 42 | do |
| 7 | Maxime Martin....................... .............. | 31 | do |
| 9 | Alexander Martin ................... ............ | 51 | do |
| 10 | Angus McLean. ............. ..................... | 43 | do |
| 11 | Alexander Wilson ....................... ......... | 30 25 | do |
| 12 | George Savoy........ ............. ............... | 32 | do |
| 13 | Reuben Nowlan .................................... | 32 | do |
| 14 | John McEachern...... ................................... | 26 | do |
| 15 | Charles McLean ................................. | 37 | do |
| 16 | Antoine Casey ..................... ............. | 60 | do |
| 17 | John Brown .......... . ...... ......... . . . . . . . . . . | 65 | do |
| 18 | James Walls......................... ............. | 59 | do |
| 19 | Wm. McEachern........................................ | 32 | do |
| 20 | Oliver Foster............................................... | 35 | To pilot inwards only. |
| 21 | Michael Muzerall. ........ ............................... | 51 | Full license for the district. |
| 22 | William Walls........................................... | 22 | do |
| 23 | William Tait. | 53 | do |
| 24 | Allan McEachern. | 42 | do |
| 25 | George Hewison.................................. | 56 | do |
| 26 | John McQullam ................................... | 24 | To pilot inwards only. |

Rates of pilotage chargeable at this Port on all vessels, British and Foreign:-
When inward bound, $\$ 2.25$ per foot.
When outward bound, drawing less than 17 feet, $\$ 1.75$ per foot.
Outward bound, drawing 17 feet and upwards, $\$ 2$ per foot.
For every vessel taken to sea after 1st November, a bonus of $\$ 4$.
For the removal and mooring of any ship or vessel-
\$1.50 for vessels not exceeding 100 tons.
2.00 for vessels over 100, and not exceeding 200 tons.
3.00 for vessels over 200 , and not exceeding 300 tons.
4.00 for vessels over 300 tons.

And where the distance of removal exceeds four miles, 50 per cent. to be added to the foregoing rates.

Vessels reported inwards, 291 :-
British.
115
Foreign ... ........... ....................................... .................... . 176
Vessels reported outwards, 282 :-
British.
109
Foreign .......................................................................... 173
Total amount of Pilotage inwards, \$7,494.70:-
British .................................................................. \$2,914 28
Foreign .............................................................. 4,58042
Total amount of pilotage outwards, 8,564.52:-
British ................................................................. 3,256 60
Foreign ................................................................. 5,307 92

Tee following Statement gives the number of Vessels brought in and taken to Sea by each Pilot, and the Amount of Fees received.

| Name of Pilot. | British Vessels British Vessels  <br> Inwards. Outwards. |  |  |  | Foreign Vessels Inwards. |  | Foreign Vessels Outwards. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | \$ cts. |  | \$ cts. |  | \$ cts. |  | \$ cts. | \$ cts. |
| Joseph Jemmo.. | ${ }^{5}$ | 12150 | 4 | 11737 | 5 | 13613 | 5 | 15519 | 53019 |
| Louis Jemmo.......... | 2 | 5625 | ] | 2712 | 4 | 10575 | 1 | 2800 | 21712 |
| Angus MoEachern | 6 | 16200 | 7 | 24275 | 8 | 19237 | 14 | 449 12, | 1,046 $2 \pm$ |
| Mitchell Martin | 8 | 18900 | 5 | 14325 | 8 | 21431 | 10 | 32625 | 87281 |
| Frank Martin | 8 | 20925 | 10 | 29763 | 10 | 27112 | 10 | 29 y 87 | 1,077 87 |
| Maxime Martin | 11 | 27337 | 11 | $30 \pm 25$ | 10 | 25313 | 12 | $34575^{\text {' }}$ | 1,176 50 |
| alex. Martin . | 4। | 10237 |  |  | 7 | 17663 | 5 | 14600 | 42500 |
| Angus McLean........ | 6 | 13893 | 8 | 25500 | 10 | 26550 | 8 | 25500 | 91443 |
| Alexander Wilson.... | 5 | 12712 | 5 | 14412 | 11 | 28238 | 8 | 28450 | 83812 |
| Robert Walls............ | 3 | 8213 | 4 | 11762 | 8 | 20587 | 11 | 32313 | 72875 |
| George Savoy.......... | 6 | 15862 | 8 | 26838 | 10 | 27113 | 10 | 30506 | 1,003 19 |
| Reuben Nowlan.. | 5 | 11250 | 2 | 5075 | 6 | 14737 | 7 | 20506 | 51568 |
| John McEachern. | 1 | 2250 | 4 | 11412 | 16 | 42862 | 14 | 41975 | 98499 |
| Charles McLean | 4 | 10238 | 6 | 14800 | 2 | 5287 | 3 | 8300 | 38625 |
| Antoine Casey. |  | ........ |  | 1....... | 1 | 2250 |  |  | 2250 |
| John Brown.... | 2 | 7537 | 4 | 12100 | 7 | 17213 | 8 | 21775 | 58625 |
| James Walls.. | 5 | 13219 | 6 | 16187 | 5 | 14062 | 5 | 16675 | 60143 |
| Wm. McEachern | 2 | 4837 | 2 | 4375 | 6 | 14681 | 4 | 12000 | 35893 |
| Oliver Foster.. | 9 | 21431 | 2 | 5075 | 2 | 5175 |  |  | 31681 |
| Michael Muzerall | 6 | 12825 | 2 | 4900 |  |  |  |  | 17725 |
| William Walls... | 5 | 12712 | 4 | 12987 | 7 | 17775 | 8 | 24425 | 67899 |
| William Tait. | 5 | 13725 | 7 | 23463 | 12 | 31275 | 14 | 40837 | 67898 1,093 |
| Allen McEachern | 3 | 9900 | 5 | 18900 | 13 | 34481 | 15 | 48912 | 1,121 93 |
| George Hewison........ |  | ....... | 1 | 2450 |  |  |  |  | 2450 |
| John McOullam......... |  | 9450 | 1 | 2187 | 8 | 20812 | 1 | 3600 | 36049 |
|  | 115 | 2,914 28 |  | 3,256 60 | 176 | 4,58042 | 173 | 5,307 92 | 16,059 22 |

Statement of Boats and the Tonnage, \&c., of each, licensed by the Pilotage Authorities for the year 1876.

| 呙 | Name. |  | Captain's Name. | When Licensed. | When Renewed. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Spray |  | John Brown. |  |  |
|  | Industry. .... | $16{ }^{100}$ | Mitchell Martin ............................... | May, 1875... | May, 1876.... |
|  | Venus............... | 18 | George Savoy............................. |  |  |
|  | Express.... | 16 | Angus MeLean..................... ........... | $\text { do } \quad . .$ | do |
|  | Telegraph ......... | 20 | Frank Martin .......... ....................... | $\begin{array}{ll}\text { do } \\ \text { do } & \ldots \\ \text { do }\end{array}$ | do |
|  | Phantom.......... | 20 | James Walls.. .............................. | do $\begin{array}{ll}\text { do } & \cdots\end{array}$ | do |
|  | Advance ........... | 23 28 38 | Angus MeEachern... .... ............... | do  <br> do $\cdots$ | do |
|  | Whitewing | ${ }_{20}^{28} 100$ | Wm. Tait $\qquad$ | May, 1876.... |  |
|  | Whtag |  | Maxime Martin ....................... | do | ...................... |

Recerpts and Expenditures all Money received by or on behalf of the Pilotage Authority in respect of Pilots or Pilotage.

|  | \$ | cts. | \$ | cte |
| :---: | :---: | :---: | :---: | :---: |
|  | 84 | 00 |  |  |
|  | 20 | 00 |  |  |
| do for renewals of seven pilot boat licenses, at $\$ 5$ each ........... ........ | 35 | 00 |  |  |
| do for two pilot boat licenses, at $\$ 10$ each....................................... | 20 | 00 |  |  |
| Total receipts for year 1876 <br> Balance on hand from 1875 |  |  | 159 | 00 |
|  |  | ..... | 19 | 18 |
|  |  |  | 178 | 18 |
| Paid Miramichi Advance for advertizing. do Union Advocate for advertizing and printing reports, \&c. do James Walls and John Brown, for examining four applicants for license.. | 3 | 20 |  |  |
|  | 9 | 60 |  |  |
|  | 4 | 00 |  |  |
| do James Henderson, surveving, and reporting on two pilot boats, at <br> \$5 each. | 10 | 00 |  |  |
| do James Henderson, examining and reporting on seven pilot boats, for renewals of license, at $\$ 2.50$ <br> do for telegrams $\qquad$ | 17 | 50 |  |  |
|  | 1 | 30 |  |  |
| do for postage and stationery ........... .............................................. | 3 | 60 | 49 | 20 |
| Balance on hand. |  |  | \$128 | 93 |

# WILLIAM PARK, 

Chairman.
R. R. CALL, $\underset{\text { Secretary. }}{\text {, }}$

Newcastle, Miramichi, N.B., January 8th, 1877.

———

## Office Pilotage Authorities, Newcastle, Miramichi, N.B., 26th Feb., 1877.

Sir,-_I have the honour to acknowledge the receipt of your letter dated the 21st inst., and, in reply, beg to state that the balance to credit of Pilotage Authority, on 1st January, 1877, was $\$ 128.98$; and that this sum has since been paid to the Secretary on account of the amount due him for his services for three years.

I have the honour to be, Sir,
Your obedient servant,

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

To Wm. Smith, Esq.,
Deputy Minister Marine and Fisheries, Ottawa.

## APCENDIX No. 58.

REPORT OF THE PILOTAGE AUTHORITY FOR THE DISTRICT \{OF
RICHIBUCTO, N. B., FOR THE YEAR ENDED 31st DECEMBER, 1876.
Richibucto, 22nd January, 1877.Sir,--The pilotage Authority for this port are unable to hand in a full statementof the thonies collected for Pilotage, as the Pilots themselves collected the pilotageand there has not been a correct account kept.
The enclosed Returns are as nearly correct as can be obtained.
I am, Sir,
Your obedient servant,
To Wm. Smith, Fer.,
(Signed), W. J. SMITH, Secretary.
Deputy Minister of Marine and Fisheries, Ottawa.
Amount receired for Licenses, 13 licenses at $\$ 2.00$ ..... $\$ 2600$
EXI'ENDItURE.
Paid for printing 250 copies Regulations. ..... $\$ 800$
Paid for Postage and Stationery ..... 200Balance in hand$\$ 1600$.
Riohibuotos, N.B., ..... 23nd January, 1877. $\}$
(Signed), W. J. SMITH, Secretary.
pilotage return for the District of Richibucto, for the year, 1876.Pilots.Thomilis Michaud.Joseph McNeil,Sylvany Richard.Albert Long.Richard Long.Wm. H. Long.Samuel Jichard.James W. Long.Wm. Irving.George Irvirg.Henry D. Irving.. Iohn Long.Creorge H. Long.

To Pilot any vessel within the Pilotage District of Richibucto..

## Rates of Pilotage.

Inwards and outward, $\$ 1.50$ per foot.
Removal and moving any ship or vessel, viz.:-$\$ 1.50$ for vessels not exceeding 100 tons.$\$ 2.00$ " over 100 tons and not exceeding 200 tons.
$\$ 3.00$ " " 200 " " 300 ..... "
$\$ 4.00$ for all vessels over 400 tons.
Vessels inward and outward at the port of Richibucto :-
British and Colonial ..... 36
Foreign ..... 16
52
Amounts collected by Pilots :-
British Vessels. ..... $\$ 1,35000$
Foreign ..... 60000
$\$ 1,95000$

No Pilotage Fund yet established. Each Pilot collects his own pilotage.

## APPENDIX No. 59.

REPORT OF THE COMMISSIONERS OF PILOTS FOR HALIFAX, N.S., FOR THE CALENDAR YEAR ENDED 31st. DECEMBER, 1876.

Halifax, N.S., 8th January, 1877.
Sir,--In compliance with the law, I herewith have the honour to transmit the
Annual Returns of the Pilotage Authority for the District of Halifax as follows:-
Return of vessels, inward, British and foreign.
Return of vessels, outward, British and foreign.
Statement of receipts and disbursements.
Scale of pilotage fees.
List of licensed pilots.

> I have the honour to be, Sir, Your obedient servant,

Office of Commissioners of Pilots, Halifax, N.S., 31st December, 1876.

LIST OF PILOTS FOR THE PORT OF HALIFAX, 1876.

| Number. | Name. | Residence. |
| :---: | :---: | :---: |
| 1 | John Flemming | Ketch Harbour. |
| 2 | Thomas Holland. | Duncan's Cove. |
| 3 | James Holland..................... ................... | do do |
| 4 | William Baker......................................... | Halifax. |
| 5 | Bernard Gallagher. | do |
| 6 | Charles Glazebrook. | Ferguson's Cove. |
| 7 | Daniel Martin. | Ketch Harbour. |
| 8 | David Keefer.. | do do |
| 9 | Joseph Rhine. | Herring Cove. |
| 10 | Patrick Hayes. | do do |
| 11 | Hugh Manro... | do do |
| 12 | Jeremiah FIolland. | Duncan's Cove. |
| 13 | Edward Bayers. | Ketch Harbour. |
| 14 | James Henrihan. |  |
| 15 | William Buazeby...................................... | do <br> do |
| 16 | John Hayes.. | Herring Cove. |
| 17 | Timothy Saul... | Upper Prospect. |
| 18 | Thomas Beazely | Ferguson's Cove. |
| 19 | William Smith... | do do |

Statenent of Receipts and Disbursements from 1st January, 1876, to 31st December 1876 :-

| Receipts. |  |  |  |
| :---: | :---: | :---: | :---: |
| By amount collected, inward and outward pilotage...... " " from vessels subject to outward dues that |  |  | \$13,286 40 |
|  |  |  |  |
|  |  | did not take Pilots.... | 34760 |
|  | \% | received for licenses, renewals and bonds... | 27500 |
|  |  |  | \$13,909 00 |

## Expenditure.



## E. \& O. E.

Halifax, N.S., 31st December, 1876.

Scale of Pilotage dues for the Port of Halifax:-


Over 600 tons, an additional one dollar for every 100 tons (or fractional part "thereof) above 600 tons, inwards, and eighty cents outwards. Outward pilotage for all vessels 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 80 tons and under 250 tons register tonnage, shall pay one-half of the tariff rates if spoken by a pilot and his services are not accepted, but any such vessel taking a pilot voluntarily shall pay full tariff rates.
(Signed), FRED. D. CORBETT,
Secretary-Treasurer.

Office of Commissioners of Pilots,
Halifax, N.S., 31st December, 1876.
Peturn of Vessels entered Outward at the Port of Halifax, N.S., from 1st January to31st December, 1876, subject to compulsory pilotage dues:-

BRITISH.

|  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Schooner. | Brigantine. | Brig. | Barque. | Ship. | Steamer. | Tonnage. |
| 8 | 39 | 4 | 30 | 5 | 142 | 204,486 |
| Amount of <br> Fees. |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

FOREIGN.

| 8 | 3 | 3 | 15 | $\ldots \ldots$ | 6 | 16.784 | 39620 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16 | 42 | 9 | 15 | 5 | 148 | 221,270 | 3,78880 |

E. \& O. E.
(Signed), FREDK. D. CORBETT, Secretary-Treasurer.

Office of Conmissioners of Pilots, Halifax, N.S., 31st December, 1876.
Return of Vessels entered Inward at the Port of Halifax, N.S., from 1st January to 31st December, 1876, subject to compulsory pilotage dues :-

BRITISH.

| chooner. | Brigantine. | Brig. | Barque. | Ship. | Steamer. | Tonnage. | Amount of Fees. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 253 | 230 | 8 | 31 | 6 | 131 | 25,398 | \$8,561 20 |
| FOREIGN. |  |  |  |  |  |  |  |
| 25 | 4 | 3 | 14 | ..... | 28 | 39,397 | 1,284 00 |
| 278 | 234 | 11 | 45 | 6 | 159 | 293,384 | 9,845 20 |
| E. \& O. E |  |  |  |  |  |  |  |
| (Signed), FREDK. D. CORBETT, |  |  |  |  |  |  |  |

Office of Commissioner of Pilots,
Halifax, N.S., 28th-February, 1877.
Sir,-I have the honour to acknowledge receipt of your favour of 21 st inst, asking for certain information, which I now have the pleasure to transmit.

I am, Sir,
Your obedient servant,
(Signed), FREDK. D. CORBETT, Secretary.

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

Annual Salary of Secretary-Treasurer.......................... $\$ 50000$
Average earnings of each Pilot for past year, 1876....... 70700
A mount at credit of Pilotage Fund, 1st January, 1877, in
Dominion Savinge Bank, bearing interest at rate of
4 per cent. per annum
1,00000
Copy of By-Laws and Regulations herewith enclosed.

## APPENDIX No. 60.

Pilotage Returns for the District of Bras d'Or Lake and Great and Little Bras d'Or, in the Province of Nova Scotia, Dominion of Canada, for the year ended 31st December, 1876, as required by Section 24, Chapter 54, 36 Vic., ontitled: "An Act respecting Pilotage."

## 1. LICENSED PILOTS.


2. No Masters or Mates cerrificated to act as Pilots.
3. Services for which the 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 Lake."
4. The pilotage dues for the time being in force are as set forth in the scale hereto aunexed.
5. As we have no Pilotage Fund each Pilot takes what he earns.
6. Amount rcceived for licensing Pilots for the year, $\$ 20$.
$\left.\begin{array}{cl}\text { (Signed), } & \begin{array}{l}\text { J.A.FRASER, } \\ \text { ". } \\ \text { DONALD MORRISON, } \\ \text { D }\end{array} \\ \text { WILLIAM MCDONALD, }\end{array}\right\}$ Commissioners.

Big Bras o'Or,
January 10th, 1876.

Scale of Pilotage Fees for Bras d'Or Lake for 1876.

| Tonnage of Vessels. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| 80 to 100 ............ | 400 | 600 | 700 | 1000 | 1000 | 800 | 1000 |
| 100 "150... | 600 | 700 | 900 | 1100 | 1100 | 1000 | 1200 |
| 150 " 200 .............. | 700 | 900 | 1100 | 1300 | 1300 | 1200 | 1300 |
| 200 " 250 .............. | 800 | 1100 | 1200 | 1400 | 1400 | 1300 | 1400 |
| 250 " 300 ............... | 900 | 1100 | 1200 | 1500 | 1500 | 1400 | 1500 |
| 300 " 350 ...... ....... | 1000 | 1200 | 1300 | 1600 | 1600 | 1500 | 1600 |
| 350 " 400 .. | 1100 | 1400 | 1500 | 1700 | 1700 | 1600 | 1700 |
| 400 " 450 .. | 1200 | 1500 | 1600 | 1800 | 1800 | 1700 | 1800 |
| 450 " 500 ............... | 1300 | 1600 | 1700 | 1800 | 1800 | 1700 | 1800 |
| 500 " 600 ......... ...... | 1400 | 1700 | 1800 | 1900 | 1900 | 1800 | 1900 |
| 600 " $700 . . . . . . . . . . .$. | 1500 | 1700 | 1900 | 2000 | 2000 | 1900 | 2000 |
| 700 " 800 ............... | 1600 | 1800 | 2000 | 2000 | 2000 | 2000 | 2100 |

## APPFNDIX No 6r.

## REPORT OF THE PILOTAGE COMMISSIONERS FOR PICTOU, N. S., FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1876,

Pictou, 6th January, 1877.

Sir,-The Pilotage Authority for Pictou District have the honour to submit their Pilotage Returns for the past year.

They have no remarks to make further than to state that a complaint was lodged against one of the Pilots who, while in the discharge of his duty on board the steamdredge $S t$. Lawrence, allowed her to get on the flats, whereby she was prevented from work for one day. On investigation the Commissioners suspended the Pilot's license for one month.

> We have the honour to be, Sir,
> Your most obedient servantr,
\(\left.\begin{array}{l}R. P. GRANT, <br>
J. A. GORDON, <br>
JAMES D. M'GREGOR, <br>
A.J. PATTERSON, <br>

DANIEL MCDONALD.\end{array}\right\}\)| Pilotage Authority, |
| ---: |
| Pictou District. |

Plootage Returns for the District of Pictou, N.S., for the Year ending 31st December, 1876, as required by Section 34 of Chap. 54.36 Vic., entitled: "An Act respecting Pilotage."

> 1.-LICENSED PILOTS.

2. Certificated Masters and Mates.-None.
3. Services for which Pilots were licensed: "To undertake the Pilotage of vessels of every description within and throughout the Pilotage District of Pictou."

4th. The pilotage dues for the time being in force are as follows:-
Vessels of 80 and under 150 tons, $\$ 6$ inward and $\$ 4$ outward.

| do | 150 | do | 300 | 10 | do | 6 | do |
| :--- | ---: | :--- | ---: | :--- | :--- | ---: | :--- |
| do | 300 | do | 400 | 12 | do | 8 | do |
| do | 400 | do | 500 | $\mathbf{1 4}$ | do | 9 | do |
| do | $\mathbf{5 0 0}$ | do | 600 | $\mathbf{1 5}$ | do | 10 | do |
| do | 600 | do | 800 | $\mathbf{1 6}$ | do | 11 | do |
| do | 800 | do | 1,000 | $\mathbf{1 7}$ | do | 12 | do |

And all vessels under 80 tons, 5 cents per ton inward, and 4 cents per ton outward.

And all steamers to be rated at net tonnage.
All vessels exempted from compulsory pilotage, and not taking a pilot in or out, requiring services of a pilot to or fiom any of the loading wharves shall pay 50 cents per foot draft of water. All vessels not exceeding 150 tons register shall be exempted from outward compulsory pilotage.
l 5. Total amount received for pilotage dues, \$2,912 40

6. Receipts and expenditures of all money received by or on behalf of the pilotage authority in respect of pilots or pilotage:

Total.......................................................... \$2,928 40
Expenditures.
Paid pilots the dues collected................................ $\$ 2,91240$
Fees for annual bonds paid to secretary............. 1600
Total.......................................................... \$2,928 40
R. P. GRANT,
J.A. GORDON,
JAMES D. McGREGOR,
$\left.\begin{array}{l}\text { A. J. PATTERSON, } \\ \text { DANIEL MCDONALD, }\end{array}\right\} \quad$ Pilotage Authority,
$\quad$ Pictou District.

Ottawa, 5th March, 1877.
Sir,-In answer to your letter of 21st ult. addressed to J. A. Gordon, Esq.; one of the "Pilotage Authority" for Pictou District, requesting a return of payments made to the Secretary out of Pilotage funds, and the amount of balance in hand, I have to state that the returns made in January embrace all the transactions of the Board for 1876. The Pilots are allowed to collect their own pilotages in full. The Secretary receives no remuneration for his services; and there is no balance whatever in hand.

> I have the honour to be, Sir,
> Your most obedient serrant,

R. P. GRANT,<br>Chairman of Board.

Wm. Smith, Esq.,
Depuly Minister of Marine and Fisheries, Ottawa.

## APPENDIX No. 62.

Pilotage Returns for the District of Sydney, C.B, for the year ended 31st December, 1876, as required by Sec. 24 of Chap. 54,36 Vic., entitled "An Act respecting Pilotage."

| 安 | Name of Pilot. | Residence. | Service for which Licensed. | \% | Remarks. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | D. McGillivray (Big)...... | Low Point |  |  |  |
| 2 | James Petrie................. | do ..................... |  | 55 |  |
| 3 | John Carroll ................ | do .................... |  | 49 |  |
| 4 | John Brown . ................ | do .................... |  | 53 |  |
| 5 | David Mullins ...... ........ | do ........ ........... |  | 49 |  |
| 6 | \|Peter Madore. | North Sydney ............... |  | 46 |  |
| 7 | John Curran................. | Low Point... ................ |  | 51 |  |
| 8 | D. McGillivray (Little)... | do ..... ............... |  | 57 |  |
| 9 | Thomas Doyle......... ..... | do ....................\| |  | 58 |  |
| 10 | John Petrie ................. | do ................... |  | 46 |  |
| 11 | Robert Mullins .............. | do .................... |  | 64 |  |
| 12 | Corn. Mullins. .............. | do ...... .............. | Licensed to pilot | 45 |  |
| 13 | D. McGillivray (Bar)...... | do .................... | vessels of every de- | 48 |  |
| 14 | William Ratchford ....... | do ................... | scription in and out | 39 |  |
| 15 | John Cann ................... | North Sydney .............. | of Sydney and North | 26 |  |
| 16 | Thos. Townsend............ | Sydney......................... | Sydney Harbour. | 67 |  |
| 17 | John Brown, jun............ | Low Point............... ..... |  | 26 |  |
| 18 | John Mallins ................ | do .................... |  | 26 |  |
| 19 | S. Shannahan ............ | do .................... |  | 34 |  |
| 20 | Andrew Ratchford ......... | do ............. ...... |  | 32 |  |
| 21 | John Fraser ................. | Point Edward ............... |  | 36 |  |
| 22 | James McGillivray........ | Low Point. ......... ....... .. |  | 26 |  |
| 23 | George Townsend .... ...... | Sydney.. ........ .............. |  | 58 |  |
| 24 | Angus McNeil.............. | do .................. ..... |  | 33 |  |
| 25 | John Daley. ................ | do ...... .................. ${ }^{1}$ |  | 54 |  |
| 26 | Hugh McGillivray ........ | Low Point.................... |  | 48 |  |
| 27 | G. McGillivray (Dan)...... | do ................... |  | 31 |  |
| 1 | R. Guildford................ .. | Steamship "G. Shattuck" | Licensed to pilot | 49 |  |
| 2 | W. Giffin.... .. ............... | Schooner "Bonnie Belle" | each his own vessel | 38 |  |
| 3 | W. Spencer.. | do "Rebecca Ann" | only as Master within | 27 |  |
| 4 | A. A. Terrie ................. | Brig. "Milo"................... | the District of Syd- | 26 |  |
| 5 | B. LeBlanc ................... | do "Ruth" .............. | ney. | 32 |  |
| 1 | Patrick Laffin............... | Lingan ................ ........ |  | 46 |  |
| 2 | Thomas Laffin ..... ......... | do .............. ..... .. |  | 58 |  |
| 3 | Richard Hall ................. | do ...................... | Lessels in and out of |  |  |
| 4 | Neil Robertson ............. | do ...................... | Lingan only. |  |  |
| 5 | Lawrence Laffin........... | do ....................... |  |  |  |
| 6 | William Hall . .............. | do ......... ............. |  | 50 |  |
| 6 | A. Langlois...... ........... | Schooner "G. Hughes".. | $\left\{\begin{array}{l}\text { Licensed to pilot } \\ \text { his own vessel in and } \\ \text { out of Lingan. }\end{array}\right\}$ | 32 |  |
| 1 | Edward Petrie ............. | Glace Bay. |  | 33 |  |
| 2 | William Nealen............. | do .................... | - | 43 |  |
| 8 | Thomas Ling.... ........... | do ...... ............... | Licensed to pilot | 37 |  |
| 4 | Joseph Shanahan........... | do .................... | vessels in and out of | 37 |  |
| 5 | Edmond Petrie........ ..... | do . .................. | Little Glace Bry and | 43 |  |
| 6 | Patrick Ryan............... | do .................... | Port Caledonia only. | 38 |  |
| 7 | Hugh Robertson........... | do ...... ....... ..... |  | 60 |  |
| 8 | William McLeod........... | do .................... |  | 35 |  |
| 9 | Edward Mahon ............. | do ................... |  | 60 |  |
| 7 | T. Townsend................ | Schooner "Hector" ....... | Licensed each to |  |  |
| 8 | E. Farrell.................... | do "Farnboro".... | $\}$ In and out of Little | 43 |  |
| 9 | M. Leonard.................... | do "Rose" ......... | Glace Bay. | 29 |  |

The scale of pilotage for the District of Sydney, as at present in force, is as follows:-

To Sydney. To North Sydney.
For vessels under 100 tons........................ $\$ 600$
$\$ 500$
From 100 to 150 tons................................. 700


And for every additional 50 tons or fractional part thereof, $\$ 100$.
Outward pilotage the same as inward.
Vessels hailed by a licensed Pilot outside of the limits of the port for which they are bound, and not taking such Pilot, to pay half pilotage inward; and upon being spoken outwrad within twenty-four hour's of being ready for sea, to be liable to half pilotage outward, if Pilot refused.

Vessels only liable for pilotage at port of arrival within the district, unless a Pilot be taken for the second port or ports, when full pilotage shall be paid.

The rates of pilotage for Lingan, Little Glace Bay and Port Caledonia are the same as for North Sydney.

The total number of arrivals at the Port of Sydney, paying pilotage, in 1876, was 49, consisting of:-

Tons.
34 steamers (British), tonoage.
33,346
15 sailing vessels (British), tonnage......................................... 9,176
Total amount of tonnage......... 42,522
And the amount of pilotage collected was all from
British ressels.
$\$ 1.67100$
The total number of arrivals at North Sylney, ${ }^{3}$ paying pilotage, was 485 , consisting of:-

$$
\begin{aligned}
& 3 \text { do (Foreign), do ................................................... 2,827 } \\
& 388 \text { sailing vessels (British), tonnage................................................... 124,362 } \\
& 47 \text { do (Foreign), do ................................ 24,324 }
\end{aligned}
$$

Total amount of tomnage.

$$
175,022
$$

Pilotage collected from British vessels

$$
\$ 6,365 \quad 00
$$

$$
1,057 \quad 00
$$

Total pilotage collected at North Syclney. $\$ \overline{\$ 7}, 42200$
The total number of arrivals at South Bar, paying pilotage, was 17, consisting

Total amount of tonnage ..... 13,160
Pilotage collected from British vessels ..... $\$ 18750$
Total pilotage collected at South Bar. ..... $\$ 33150$

The total number of arrivals at Lingan, paying pilotage, was 55, consisting of : -


The total number of arrivals at Little Glace Bay, paying pilotage, was 85, consisting of :-


The total number of arrivals at Port Caledonia paying pilotage was 107, consisting of-


| recapitulation. |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Total Vessels. | Total Tonnage. | Total Fess. |
| Sydney | ... 49 | 42,522 | \$ 1,671 00 |
| North Sydney.. | ... 485 | 175,022 | 7,422 00 |
| South Bar....... | ... 17 | 13,160 | 33150 |
| Lingan ... | 55 | 8,646 | 50200 |
| Little Glace Bay. | .. 85 | 16,019 | 83250 |
| Port Caledonia... | .. 107 | 22,011 | 1,106 58 |
|  | 798 | 277,380 | \$11,865 58 |

Statrment of Receipts and Disbursements by the Pilotage Authority of Sydney from the 1st Jannary to 31st December, $1876:-$

## RECEIPTS.

| Sydney and North Sydney.-Licenses and bonds, $\$ 81$ Masters' Licenses, $\$ 50$; Boat Licenses, $\$ 26.9 . . . . .$. | \$157 00 |
| :---: | :---: |
| ingan.--Licenses and Bonds. \$18; Masters' Licenses, |  |
| \$10; Boat Licenses, \$8. | 3600 |
| ittle Glace Bay and Port Caledonia.--Licenses and Bonds, |  |
| \$43; Masters' Licenses, \$30; Boat Licenses, \$17.. |  |
| tal reccipts of Pilotage. | 1,865 58 |

$\$ 12,14858$
EXPENDITURE.
Salar ies of 6 Collectors........................... $\$ 60000$
Acting Secretary and Treasurer................ 10000
Paid Commissioners expenses, $\$ 20$ each.... 10000
Printing and Stationery......................... 6500
Paid Pilote, per Receipt Books................. 11,272 30
$\$ 12,13730$
Balance on hand................................................ \$11 28
\(\left.\begin{array}{cl}(Signed) \& W. PURVES, <br>
" " \& ANDREW HAYES, <br>
" " \& MATTHEW ROACH, <br>

" \& ALEX. C. ROSS,\end{array}\right\}\)| Pilotage Authority, |
| :---: |
| of District Sydney. |

North Sydney, C.B., 10th January, 1877.

## North Sydney, C.B., 3rd March, 1877.

Sir,-In reply to your communication of the 22 nd ultimo, marked "immediate," I beg to hand you a list of the Sydney and Nortl: Sydney Pilots, with the amount paid to each for 1876. I have communicated with Little Glace Bay, Port Caledonia and Lingan, and trust to have similar returns to send you in a few days.

Referring you to my account rendered you at the beginning of the year, you will find that the sum of $\$ 600$ has been reserved out of the Pilotage fund for the salaries of the collectors in this Pilotage District. The collectors in the District are six in number, there boing one in Sydney, one at North Sydney, one at South Bar, one at Port Caledonia, one at Little Glace Bay, and one at Lingan. Each of these collectors at the present moment holds in his hand the 50 par cent deducted from his collec-
 adjusted, and an appropriate sum paid to each Collector in accordance with the amount of work performed, at the meeting of the Board of Commissioners, to be held at the Court House, in Sydney, on Monday next, particular's of which will be then given if required.

The Secretary and Treasurer of the Board is allowed $\$ 100$ for his services, and the Commissioners $\$ 20$ each for travelling expenses.

The balance of funds, as per account rendered your Department, is \$11.28, which is in my hands.

I hand you herewith a copy of our pilotage regulations, and remain Your obedient servant,

W. PURVES,<br>Commissioner of Pilots.

William Smith, Eiof.,<br>Deputy Minister of Marine, \&c., Ottawa.

## Amounts paid Pilots for Sydney in 1876.

Sylvester Sharahan..................................................... 25333
Angus McNeil........................................................................ 27758
John Mullins............................................................... 26307
Peter Madone........................................................... 23005
James McGilvey, jun...................................................................... 30400
John Daley............................... ................................. 30400
Con. Mullins...................... ......................................... . 30400
George Townsend...................................................... 33600
William Ratchford.................................................... 30400
John Cann................................................................ 36000
James Petrie........................................................... 54000
David Mullins...... ..................................................... 31090
John Fraser.............................................................. 30400
John Brown, jun........................................................ 30400
John Curran............................................................. 30400
Hugh McGilvey.......................................................... 30400
John Brown, sen......................................................... 30400
John Petrie............................................................. 30400
John Carwell, sen........................................................ 540.49
Andrew Ratchford.................................................... . 30400
Thomas Doyal........................................................... 30400
Dan. McGilvey, No. 1.............................. ................... 30400
Thomas Townsand.................................................... 30400
Dan. D. McGilvey........................................................ 30168
James McGivey, sen.................................................. 30400
Dan. B. McGilvey. . . .................................................. 39710
Robert Mullins........................... .............................. . 25100
$\$ 8,72190$
(Signed) A. C. ROSS,
Collector.
Norti Spdnex, March 2nd, 1877.

## North Synney, C.B., 19th March, 1877.

Sir,-I wrote you on the 3rd instant in reply to your communication of the 22nd ultimo, giving you all the information in answer to your questions up to that date in my possession.

I now hand you returns of names of Pilots for Little Glace Bay and Lingan, with the amount paid to each for 1876 ; also the names of the collectors or secretaries of the Pilotage Authority at the different points of the District, and the amount paid to each.

These returns, with those I have already forwarded, will complete the information which you ask for.

I have the honour to be, Sur,
Your obedient servant,

> (Signed), W. PURVES:
> Chairman and Commissioner of Pilots.

William Smith, Esq.,
Deputy Minister of Marine and Fisheries, Ottawa:

Salaries of Collectors of Pilotage in the Pilotage District of Sydney, for the Year 1876.

W. PURVES,

Commissioner of Pilots.

Nortil Sydney, C.B., March 16th, 1877.

Return of Numers and Names of Pilots for Little Glace Bay and Port of Caledonia and of Lingan, and amounts of each.


W. PURVES,<br>Commissioner of Pilots.

North Spdney, C.B., March 16th, 1877.

## APPENDIX No. 63.

## WINDSOR, N.S., PILOTAGE AUTHORITY.

Windsor, N.S., 26th December, 1876.
Sir, -I have the honour to inform you that the Commissioners of Pilotage have not appointed any Pilots for the District of Hants and Kings Counties in this Province, and consequently I have no report to make.

Your obedient servant,
THOMAS AYLWARD,

## William Smith, Esq., <br> Deputy Minister of Marine and Fisheries, Canada.

## APPENDIX No. 64.

REPORT OF THE PILOTAGE AUTHORITY FOR THE DISTRICT OF BRITISH COLUMBIA FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1876.

Vigtoria, B.C.
Sir,-I have the honour to enclose herewith Pilotage Returns for the District of British Columbia up to 81st December, 1876.
(Signed,) EDGAR CROW BAKER, Secretary.
The Hon. Minister of Marine, \&c., Ottawa.

## BRITISH COLUMBIA PILOTAGE AUTHORITY.

Returns under Section 24, Clause I, to 31st December, 1876.

| No. | Name. | Age. | Remarks. |
| :---: | :---: | :---: | :---: |
| 8 | John Sabistan ......... ........................................ | 48 | Passed under Old Board. |
| 10 | James McIntosh.................................................................... | 49 | do do |
| 11 | James Ramsay ............................... ................. | 47 | do do |
| 13 | Frederick Revely....................... ..................... | 39 | do do |
| 15 | George Rudlin ................... ..... ........ .............. | 42 | do New Board. |
| 16 | William Scott.......................... ...................... | 38 | do do |
| 17 | John Ramsay ......... ........ ................................. | 40 | do do |
| 18 | James Christensen........................................... | 37 | do do |

Clause II.
No Apprentices up to 31st December, 1876.
No Certificated Masters or Mates up to 31st December, 1876.
No Acting Pilots or Apprentices do do
(Signed, EDGAR CROW BAKER,
Secretary, Pilotage Authority.

## BRITISH UOLUMBIA PILOTAGE AUTHORITY.

Returns to 31st December, 1876, under Section 24, Clause II.

| No. | Name. | Age. | Service. |
| :---: | :---: | :---: | :---: |
| $\Delta^{1}$ | John Sabistan................ ..... | 48 | Victoria, Esquimalt, Burrard Inlet, Nanaimo and Straits of Juan de Fuca. |
| 2 | James McIntosh ......... ........ | 49 | do do do |
| 3 | James Ramsey ................... | 47 | do do do |
| 4 | Frederick Revely................. | 39 | do do do do dor |
| 5 | George Rudlin .................... | 42 | The navigable waters of British Columbia from the shores of Washington Territory to the Northern boundary of the Province, on the entire district, with its harbours and rivers. |
| 6 | William Scott.......... .......... | 38 | do do do |
| 7 | John Ramsay....................... | 40 | do do do |
| 8 | James Christensen................ | 37 | $\text { do do } \quad \text { do }$ |

EDGAR CROW BAKER,<br>Secretary, Pilotage Authority.

## BRITISH COLUMBIA PILOTAGE AUTHORITY, UNDER SECTION 24, CLAUSE 3.

Revised Rules and Orders for the Regulation of Pilots and Pilotage in the Province of British Columbia, made in pursuance of "The Pilotage Ordinance, 1867," all previous Rules and Orders being hereby repealed.
[22nd August, 1873.]

1. Vessels employed in the provincial coasting trade, and having taken out a coasting license, shall be exempt from pilotage.
2. All foreign-going versels over six feet draught shall pay pilotage fees in accordance with the schedule annexed hereto.

Schedule of Rates of Pilotage chargeable for Vessels entering the undermentioned Ports, viz:-
$a$.
FROM SEA OR ROYAL BAY,

| o Royal Bay (optional)...................................... $\$ 3$ per foot. |  |
| :---: | :---: |
| (Vessels coming to anchor in | Royal Roads shall be exempt from |
| Pilotage when they employ a Pilot for Burrard Inlet, Nanaimo or any other loading or discharging Port in the Province). |  |
|  |  |
| Victoria.......................... $\{$ | ( 83 per foot under 10 feot draught. |
|  | \$t " for |
|  | $\$ 3$ per foot for Vessel |
| To Nanaimo or Departure Bay | 10 feet draught. |
|  | $\$ 4$ per foot for Vessels of $: 0$ and upwards. |
| T |  |
|  |  |
|  |  |

To New Westminster... $\left\{\begin{array}{l}\text { Rate to be subject to agreement, but not } \\ \text { to exceed, for Sailing Vessels, } \$ 6 \text { per } \\ \text { foot, and fir Steamers } \$ 4 \text { per foot. }\end{array}\right.$
b. The Pilot Grounds for the several Ports* of the Province of British Columbia shall, for the purposes of enforcing these Rales and Orders, be taken to be as hereby defined, viz :-
Victoria and Esquimalt- Outside of a line drawn from Trial Island to Race Rocks Light, bearing N.E. by N., and S.W. by S. (magnetic).
Borrard Inlet.-A line from Paseage Island to Point Grey, bearing of the latter being S. E. (magnetic).
Fraser River.-Outside Lightship.
Nanaimo and Departure Bay.-Outside a line dirawn from Entriance Ieland to a point on Vancouver Island, one mile W. of the West Rocks, bearing W. (magnetic) and to the southern entrance by Dodd's Narrows, a line drawn from the mark on Gabriola Island to Sharpe Point, bearing'S.W. by W. $\frac{1}{3}$ W., and N.E. by E. $\frac{1}{2}$ E. (magnetic).

Other Ports.--To be defined from time to time by the Pilot Board, as occasion may arise.
c. Any Vessel having discharged a portion of her cargo at Eequimalt, and paid full pilotage into that harbour shall, on proceeding thence to Victoria for the purpose of discharging the remainder of her cargo, only pay additional pilotage at the rate of $\$ 1.50$ per foot, if proceeding under or with the assistance of steam; and the same rule shall apply to Versels proceeding from Nanaimo to Departure Bay, or vice cersa, whether with or without the assistance of steam.
$d$. In the event of a pilot taking the charge of a vessel proceeding from the Pilot Ground of Victoria or Esquimalt Harbors, or of Royal Bay to that of Nanaimo Harbour, Burrard Inlet, or the Sand-heads of Fraser River, or vice versa, he shall receive additional pay at the rate of $\$ 3$ per foot for vessels under sail, and at the rate of $\$ 10$ per day for steamers or sailing vessels in tow of a steamer while at sea. Twenty-four hours to be counted as a day; any fraction of a day to be counted as a whole day. All vessels under steam, or in tow of a steamer, to be one-fourth less of the above rates.
e. Any fraction of a foot, not exceeding six inches, shall be paid for as half a foot; and any fraction of a foot exceeding six inches shall be paid for as a foot.
3. Every master of any ship who shall employ as a pilot any unlicensed person, or any licensed person acting out of the limits for which be is qualified, or beyond the extent of his qualification, after any pilot licensed shall have offered to take charge of such ship, shall forfeit for every such offence double the amount of the sum which would have been legally denandable for the pilotage.
4. Any person may legally, and without being subject to any penalty, assume or continue in charge of any ship as a pilot, so long as a pilot duly licensed shall not have offered to take the charge, or where and so long as such shiy shall be in distress, or under circumstances which shall have rendered it necessary for the master to avail himself of the best assistance.
5. Any licensed pilot, within the limits of his license and the extent of his qualification, may supersede, in the charge ot any ship, any person not licensed, or acting beyond the extent of his qualification; and every berson continuing in the charge of any ship without being a licensed pilot, or without being licensed to act within the limits in which such ship shall be, or beyond the extent of his qualification, after any pilot licensed or qualified shall have offerel to take charge of such ship, shall forfeit any sum not exceeding two hundred and fifty dollars, nor less than one hundred dollars.
6. If any person suspended or adjudged to have forfeited his license shall, during the time of suspension or after such adjudication, take upon himself to conduct any ship as a pilot, such person shall be liable to all such penalties in like manner as are provided against any person who shall pilot any ship without having been licensed. (Vide Paragraph 5).
7. All sums due for the pilotage of any ship trading to and from any port in the Province of British Columbia, shall be recovered in a summary manner before any Stipendiary Magistrates, or two Justices of the Peace, from the owners or master, or from the consignees or agents who shall have paid or made themselves liable to pay the said charge for the said ship, in the port of her arrival, as to pilotage inwards, and in the port from whence she shall clear out as to pilotage outwards, which sums may be levied in the like manner, according to the amount, as any penalty of the like amount may be levied under "The Pilotage Ordinance, 1867."
8. Any vessel not otherwise exempted by these Rules and Orders, or the schedule bereto, shall pay half rates of full pilotage inwards to the first duly qualified pilot who shall hail any such ressel outside the pilot ground, or exhibit the pilot flag at a distance not greater than one mile from such vessel, in the event of his service not being accepted.
9. The choice of outward pilot to be left to the captain; but in the event of the ship taking no pilot outwards, then the half-pilotage to be paid to the first duly qualified pilot that shall offer his services.
10. No vessel shall be rendered amenable to half pilotage rates for the Straits navigation by declining the services of a qualified pilot.
11. All vessels requiring the services of a pilot shall hoist the usual signal at the fore; and, when outward bound, not less than two hours prior to departure.
12. The pilot flag shall be the same as established by law in all countries under British jurisdiction, viz. : horizontal white and red (size at discretion of Pilot Board).
13. Any vessel driven, either by stress of weather or other cause, to anchor or seek shelter in any of the bays or roadsteads of the Province, shall not be liable to pilotage.
14. In all cases where a vessel shall be in tow of a steam ressel, the pilot on board the vessel towed shall liave the command and direction of both vessels so long as the steamer shall be fast to the other vessel, notwithstanding a pilot may be on board the stcamer.
15. Pilots taken to sea on board any vessel against their will, shall be entitled to claim from the master or owner of such vessel the sum of fire dollars (\$5) per diem until the date of their arrival at the port from which they were taken, and, in addition to the above, their expenses back to said port.
16. No steam vessels plyiog regularly once a week, or oftener, between Victoria and any of the various ports on Puget Sound, or in the Straits of Fuca, shall be charged with pilotage or half piiotage unless the master of such vessel shall actually take a pilot on board on :my such trips, or otherwise actually engage the services of a pilot.
These have been in furee from August, 1873, until the receipt of the by-laws on
19th March, 1877 .

Return of the total amount received for Pilotage Dues, distinguishing the amounts received from British Ships, and from Foreign Ships, to 31st December, 1876. Under Section 24, Clause 4, of Act.

| British. | American. | German. | French. | Italian. |  | Havaiian. | Peruvian. | Bremen. | Norwegian. | Recapitolation. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\$$ cts. | \$ ets. | $\$$ cts. | \$ cts | $\$$ cts. | \$ ets. | \$ ets. | \$ cts. | $\$$ cts. | \$ cts. |  | \$ cts. |
| 4400 | 81200 | 14700 | 2600 | 17700 | 16600 | 1200 | 25000 | 25300 | 6000 | British.................. | 1,413 121 |
| 18875 | 1,500 00 | 10000 | $9800 \mid$ |  | 4200 | 2100 | ................. | - |  | American . ............ | 4,010 50 |
| 20300 | 51625 | ................ | $19337 \frac{1}{2}$ | ................. | 7400 |  |  |  | ..... | German ................ | 34700 |
| 235873 | 25650 |  |  |  | 4200 |  |  |  |  | French ... . . . . . . . . . | $\therefore 1737 \frac{1}{2}$ |
| 26000 | 22325 |  |  |  |  |  |  |  |  | Italian................... | 17700 |
| 48150 | 32000 |  |  |  |  |  | .... ............ |  |  | Nicaraguan ........... | $32 \pm 00$ |
| ............... | 38250 | ……...... | - | - .... | ......... | ....... |  |  |  | Hawaiian ............. | 3300 |
| -• | * | ....... ........ | . |  |  |  |  |  |  | Peravian .............. | 25000 |
| ............... | . | ......... |  |  |  |  | ............ .... |  |  | Bremen ................. | 2530000 |
|  |  |  |  |  |  |  |  |  |  | Norwegian ............ | $6000{ }^{\text {a }}$ |
| 1,413 12 ${ }^{2}$ | 4,01050 | 24700 | 317 372 | 17700 | 32400 | 3300 | 25000 | 25300 | 6000 |  | 7,085 00 |

Remaris.-The above quoted clause calls for "the amount received in respect of different classes of ships paying different rates of pilotage tues for the time being in force, and the amounts received for the several classes of service rendered by pilots." These items are out of our power to give for the past year, from the fact that under the old by-laws the pilots collected their own dues, and kept no records beyond the amounts received; nor were they called upon to keep or give any; even the information forwarded herewith has taken considerable time and trouble to elicit. The principal cause of apparent sloth in sending these Returns as speedily as called for or desired, is attributable to the inability (feigned or otherwise), or stubbornness of Mr. Jas. McIntosh, (B. C. Pilot), to give his quota of the necessary data to compile the above statistics. In the future, under the new regulations, in fact, from the beginning of the current year, there will be no trouble in having this information (as also all other), available at all times, as every pilot is called upon to make his report on printed forms supplied for the purpose, and upon which "pilotage dues" are collected by the secretary. In short, a complete record of everything and everybody, in all matters, is now kept in the office in accordance with the "Act 1873," "Amendment 1875," and "By Laws." Before concluding these remarks, I am desired to state that the Returns for the current year will be rendered promptly to date, and mach valuable information regarding the pilotage matters, and shipping interests of the District, in course of compilation, will be suhmitted with other returns.
N.B.-The above is the gross amount of pilotage. Expenses of pilot boats, $\& \mathrm{c}$., not procurahle.

Approved and submitted.
EDGAR CROW BAKER, Secretary-Treasurer.


Victoria, Bhitish Columbia, 18th April, 1877

Dr.
Receipts and Expenditure.-Return under Section 24, Clause V.
Cr.


EDGAR CROW BAKER,
Secretary-Treasurer.
Victoria, B.C., 31st Docember, 1876.

12th March, 1877.
Sir,-I have this day received your letter of the 21st February, and, in reply, have the honour to report as under:-

1. From the date of my appointment (21st September, 1875) up to the present time, I have received no salary or remuneration for my services, owing to the absence of "funds available."
2. Balance at credit of Pilotage Authority on 1st January, 1877, was $\$ 37.32$, remaining in posscssion of myself, to defray office expenses, etc.
3. No money deposited elsewhere or invested, consequently no rate of interest accruing.
4. The only monies collected by me being the half-yearly renew als of licenses for eight pilots at $\$ 10.00$ (per old by-laws) such being my instructions until the ratification of the new by-laws.
5. Details of all matters will follow as soon as information required is obtained. I have the honour to be, Sir,

Your most obedient servant,
EDGAR CROW BAKER,
Secretary.
The Honorable
Minister of Marine, dc., Ottawa.

## APPENDIX No. 65.

## REPORT ON THE MONTREAL WATER POLICE FOR THE FISCAL YEAR ENDED 30тн JUNE, 1876.

Montreal, 11th December, 1876.
Sir,-Pursuant to the instructions contained in your letter of the 4th instant, I have the honour to submit the usual returns showing the number of persons that have been arrested by the Montreal Water Police for the fiscal year ended 30th June, 1876, as also a statement showing the expenditure for the same period.

Application having been made, and authority received, the permitted number of constables were sworn in on the 1st May, and disbanded about the close of the navigation, on the 30th November of the current year.

The number of prisoners arrested was 438 , being a decrease of 322 in comparison with previous similar term.

Crimping, as far as this Port is concerned, may be said to have been almost eradicated, only two cases having occurred within the twelve months, viz., one in May and one in June; while the return for last year shows no less than ten arrests. Particular attention has been given to frustrate, as far as possible, the efforts of parties engaged in this occupation, and the result of the eliorts have so far proved satisfactory.

I am glad to state that the endeavors of the Department to procure a suitable police station are likely to meet with success; and negotiations with the Harbour Commissioners, under your instructions, are progressing favorably.

I have, I am sorry to say, to repeat my annual statement that the number of constables composing the Montreal Water Police are insufficient for the duties they have to perform. The extension of the accommodation for sea-going vessels has been very much increased, reaching almost to Hochelaga, and the distance to be patrolled is too great to afford and insure the desired protection required by the maritime and mercantile interests.

I am led to believe that this will be the last Annual Report that I shall have the honour of presenting in my capacity of Commissioner of Dominion Police, and Iam desirous of placing on record my testimony to the uniform good conduct and efficioncy of the men comprising the Montieal Water Police, since my appointment in February, 1856, a period of over twenty years. That much of the estimation in which this body is leld by the public generally is due to the example set and to the grcat ability and discipline of their Chief, John McLaughlin, ably seconded by the four sergeants. I am bound to admit the services of both officers and men are well and widely known, and it will to me be :" great satisfaction, in retiring from this branch of the Government, to know that I shall leave behind me a force in every respect a credit. not only to the Department, lout to all with whom it is concerned, and not to be surpassed by any similar boty in the Dominion.

I would also convey to you my reseet that circumstances should serer our long and friendly official relations that I shall always look back to with gratification. Through you the Department has ever extended the most cordial assistance in forwarding and carrying ont the interests of the public service committed to your keeping; and it is to the warm, eurncst co-operation and liberal views given and taken by you on its behalf that most of the success in developing this force is attributable.

Permit me to remain,
Your ubedient servant,
Wm. Smith, Esq.,
Deputy Mininter of Marine and Fisheries,

CHAS. J. COURSOL,

Commissioner, Dominion Police. Ottawa.

Accidents on the Wharves, dec., for the Fiscal Year, ended 30th June, 1876,
1st July, 1875.—At 9 o'clock a.m., the steamer "Victoria," of the Uichelieu Co., when crossing from St. Lambert's struck a sunken rock, and sank before she could reach the wharf.

2nd July.-At 2 o'clock n.m., the lighthouse on the island wharf caught fire, and was extinguished by Mr. Britt, stevedore, and some of his men.

11th July.-At 9 o'clock p.m., James Mahoney, when crossing over the gate of No. 2 Lock of the canal, fell into the water, and was rescued by the lock men.

18th July.-At 6 o'clock p.m., three boys hired a bont and crossed to the St. Helen's Island, in returning to the city four other boys got in, making seven persons in all, when half-way across the boat swamperl, and one of them named Nolan was drowned.

21st July.-At 7 o'clock p.m., the steamship "Canadian," on her way up, ran aground opposite the Bonseconr Pier.

24th July.-At 8 o'clock a.m., a man named John McNamara, seaman, fell from the revetment wall on the front of the Griand Trunk locomotive, which was passing rapidly on the wharf underneath at the time, breaking the lamp, but, strange to say, he was not killed, though severely injured. He was conveyed to the General Hospital.

Ist August.-At 11 o'clock p.m., Andreas Gabrielsen, steward of barque "To Venner," lying at Jacques Cartier Pier, fell overboard and was drowned.

2nd Augnst.-At 9 o'clock a.m., Cyrille Gauthier, while discharging coal from the steamship "Lady Clair," when the whipple-tree broko and the bucket fell on him, by which he was seriously injured. He was conveyed to his residence.

5th August.-At 2 o'clock p.m., James Hammond was drowned near Victoria Bridge.

7 th August.-At 11 o'clock p.m., James Downey, a hand on board the barque "E. Z. Green," fell into the Canal Basin, and was saved by his comrades.

13th August.-At 11 o'clock a.m., a labourer named Edward White, while working on the ship "Lake Superior," fell into the hold and received serious injury. He was conveved to the General Hospital.

15th August.-At 4 o'clock p.m., a young man was drowned while bathing at S't. Helen's Island.

16th August.-At 2 o'clock p.m., Mr. Smith, foreman at McDougall's Foundry, reporied finding the body of a drowned man, Ovilla Currie, in the flume of the foundry. Coroner notified.

18th Angrust. - At 9 o'clock a.m., James Steel, while working on board the barque "Gilsland," was struck by the tubused in hoisting coal, throwing him down the hatchway and breaking his ribs. He was conveyed to his revidence.

28th August.-At 10.30 o'clock a.m., John Campbell, butcher on board the steamship "Corinthian," fell from the stage into the Queen's Basin and was drowned. The coroner held an inquest.

28th August.-At 3 o'dock, p.m, Gourge Gordon, Laborer, waskilled by a bucket falling on him while discharering coal from a barrue in the canal, opposite Molson's Iron Works. The coroner held an inquest.

29th August.-At 4 o'clock, p.m., the body of a man named Onesime Morin was found drowned in the canal. The coroner was notified.

31st Angust.-About 4 o'clock, p.m., Captain Roy, of the barque "Mary," fonnd the body of a drowned man floating in the river opposito Jacques (iurier Stwot, subsequently identitied as Tames Kehoe, fireman of the steanship "Nyanza." An inquest was held.

4th September:-At 8 o'clock, a.m., a borse and cart employed at, the Canal Works, Black's Bridge in backing to dump a load of stones, went over the embankment and the horse was killel.

4 th September.-About 2 o'clock, p.m., a child three years old, named Placide
$5-b 20 \frac{1}{2}$

Filibrault, residing with his parents on board No. 7 floating Elevator, fell into the King's Basin and was drowned. An inquest was held.

10th September.-At 6 o'clock, p.m., Randolph McDonald, son of Mr. McDonald, contractor, fell from a scow into the Canal Basin and was"sared by the hands of the scow.

13th Septomber.-Ai 7 o'clock, a.m., a man unknown fell from the revetment wall on to the wharf aud was severely injured. He was conveyed to the General Hospital.

2nd Seplember.--At 11 o'clock, p.m., the stewand of the steamship "Venezia," when gong up the gangway, fell into the Queen's Basin and was rescued by the hands on board and the constable on duty there.

23rd September.---About 12 o'clock, noon, a ship liner named Louis Moreau fell down thic hatchway of the steamship" "Palestine" and received severe injuries. He was removed to his residence.

27 th September.-About 12 o'clock, midnight, a seaman named Peter Logan, belouging to the brig "Cerdie," fell into the river and was saved by Constables Briand and Cuggy.

4th October.-At 5 o'clock, p.m., two men were in a skiff which was carried in by the current between the Longueuil Ferry Boat and the barge "Hanson," and capsized. Both men were saved.

4th October.-At 2 o'clock, p.m., John Guerin and. John Philips, employed oris board the barque "strathearn," fell from a stage into the river and were saved by the bands on board.

6th October.-A About 9 o'clock, p.m., William Martin, labourer, while in a state of intoxication, fell into the river at Yictoria Pier, and was saved by the exertions of Mr. Brennan, stevedore.

6 th October--The body of a man named Moses Riendeau, of Boucherville, was found drowned in the river, opposite Longuenil, at 2 o'clock, p.m. The coroner held an inquest.
yth October.-At $40^{\circ}$ clock, j.m., Maurice Beauchamp, first mate of the propeller "Montreal," fell overborard from the hurricane deck of his vessel on to the deck of the barge "America" lying alongside. He was removed to the General Hospital, wbere he died.

20 th October.-At 5 oclock p.m., John Malcomson, owner of the prope ller "Acadie," lying in the King's Basin, when going cn board his vessel fell between the wharf and the bark "Strathourn," and received injuries which caused his death. The coroner held on inquest.

27 th October:-At 10 oclock jp.m. Richard Lavine, seaman, of the brig "Ravenwood," fell into the lijgin basm, and was rescued by the constable on duty, assisted by J. Dowd, watchman.

28th October:-At 7 o'clock p.m. the mate of the bark "Churchill" fell into the river at Russell Pier, and was rescued ly the crew of his vessel.

29th October.-At 11 o'clock p.m. Thomas Simpson, seaman, of the steamship "Beamall," fell from the revelment wall to the wharf and broke his arm. He was taken to the General Hospital.

30th October:-At 5 o'clock p.in. Henry Turner, rosiding at St. Constant street, fell into the river at the Island wharf, and was saved by the constable on duty assisted by John Regan.

5th Novenber:-At 11 o'clock p.m. Caurent Clarlebois, captain of the barge "Princess," fell into the River at Iiusell Pier, and was saved by Ociave Bourbon. naire and Honore Norval.

5th November.-At 2 o'clock a.m. a man named Guedeny Auguste, a native of France, was run over by the Grand Trunk cars on the wharf; one leg was taken off a!d the other badly fracened. He was conveyed to the Goneral Hospital, where he di in in a few days.

15th November.-. 14 o'clock a.m., as the barge "Lacombe" was entering the first lock of the Cur: : one of the hands named Narcisse Gilbert fell in to the river and was rescued by the li:mds of the barge.

17th November.-At 6 o'clock p.m. a fire was discovered on board the barge "Montcalm," lying in the King's Basin, which was quickly extinguished by the hands of the barge.

19th November:-At half past 9 o'clock p.m. Constable Banville perceived the barge "Clara," lying in the Canal Basin, to be on fire. The constable gave the alarm, and the firemen were soon on the spot and extinguished it. The cabin was destroyed, and were it not for the timely discovery, probably the flour sheds would have been consumed.

29th January, 1876.-About 6 o'clock, p.m., as two habitants were returning home from Montreal after selling their loads of hay they drove into an opening in the ice on the river, and both men with their horses were drowned; a third farmer, who was driving in rear and escaped, returned to the city to warn others of the danger.

14th May.-At 4 o'clock p.m. two young men were out boating in a skiff, and one of them named Leonard Lymbary was drowned.

15th May.-At 8 o'clock p.m. the barge "Lightning," when taking in salt from. the steamsbip "Lake Champlain," in the King's Basin, sprung a leak and sank with 4,000 bags of salt.

23rd May.-At 9 o'clock p.m. an explosion took place on board the steamship "Sarmatian," caused by the gas igniting when the hatches were removed from the coal bunkers by the stevedores. Constable Isaac Lee gave the fire alarm, and the brigade were soon on the spot and extinguished the fire.

25th May.-At 1 o'clock a.m., a seaman named Robert Brown, of the slip Dumbartonshire, fell into the river, and was rescued by the watchinan on board.

25th May.-At 12 o'clock, noon, Patrick Lafferty, labourer, while working at pig iron on the wharf, got one of his legs broken. , Removed to the General Hospital.

26 th Miay. - When the steamboat "Laprairie" was returning from Montreal, she burst one of he: steam pipes, filling the boat with steam and greatly alarming the passengers, who procured life-preservers to use in case of emergency. She was got back to her berth with difficulty.

26th May.-At 10 o'clock p.m., Patrick McEvoy, labourer, had one of his legs broken by a bucket of coal falling on it while working on board the ship Swaledale.

31st May.-Thomas Sharkey, fireman on board the steamship "Moravian," fell down the main hatchway, at Point Levis, and sustained very severe injury of the spine. On afrival of the ship at Montreal, he was sent to the General Hospital.

1st June.-At 4 o'clock p.m., the body of a man named Patrick O'Connell was found drowned in the canal. The coroner held an inquest.

13th June.-At half-past 1 o'clock a.m., a sailor named James Hacking, belonging to the steamship "Texas," when going on board, fell into the bold of the vessel and was severely injured. He was conveyed to the General Hospital.

14th June.-At 1 o'clock p.m., a man named John Campbell divested himself of his hat, coat and boots and deliberately jumpod into the river at the Victoria Pier, and was swept away by the current and drowned before assistance could be rendered.

22nd June.-At 1 o'clock p.m., a labourer named Sames O'Loughlin, when going on board the ship "Thomas Hamlin," the ladder broke and he fell into the river, and was rescued by the hands on board.

29th June.-At halt-past 11 o'clock a.m., a boy named James Norton, while bathing in the canal, was struck on the head by the screw of the propellor "Lake Michigan " and killed. The coroner held an inquest.

JOHN McLAUGHLIN, Chief Constable, Montreal Water Police.

Retunv of Prisoners arrested by the Montreal Wiater Police for the Fiscal Year ended 30 th June, 1876.


Twenty persons were drowned in the harluur and canal during the ycar, and twenty-seven persons were savelfrom drowning during the same period.

## APPENDIX No. 66.

## REPORT OF THE CHTEF :OF THE QUEBEC RIVER POLICE FOR THE YEAR ENDED 31st DECEMBER, 1876.

Sir,-I have the honour to submit my Annual Report as Chief of the Quebec River Police for the year ending 31 st December, 1876 . Appended to this report is a statement giving the number of persons arrested by the River Police, the various offences committed by those persons, and their nationality.

On the 1st May the River Police were sworn in for daty, their number beingreduced, and also their pay 20 cents per day each man.

The Force consisted of :-

| One Chief, who is also whose payis...... | Port, and 20000 per annum. |
| :---: | :---: |
| One Assistant Chiof. | 260 per day. |
| One Steersma | 210 |
| Five Coxswain | 160 each perday. |
| Thirty-five Constab | 130 " " |
| One Engineer. | 5000 per mont |
| One Assistant Enginee | 2500 |

The steam yacht during the day performs two-thirds of the duty on the river* The Police boats have each a crew of one coxswan and six men, who keep a constant patrol on the river during the night. The Police execute warrants on board ships and on shore on both sides of the river.

They also go in search of timber, boats, and other articles lost from ships, rafts or booms.

The Harbour Master or his assistant is furnished with a boat or the steam yacht when ruquired.

The late Act, 36 Vic., chap. 129, has been strictly enforced, and masters of ships state that in no port either in England or elsewhere are they and their crews so well protected as in the Port of Quebec. Three seamen, who had been induced by crimps to act as mnners, arrested for going on board ships without permission, were tried, and, on conviction, sentenced to two years each in the Penitentiary.

A crimp, for harbouring a deserter from his ship, on conviction, was sent to gaol for three months with hard labour.

Seamen, when they sign ships' articles, are informed of the day and hour they are to be on board, which is stated on the articles; a register is kept of the houses where they board. They are also directed to come to the River Police Station with their effects at the hour stated, to be put on board in the Police yacht, without any expense, and any of them who may be absent are searched for, arrested, and put on board. Formerly, crimps put them on board and charged each seaman one dollar, and the same charge when they took seamen from their ships who deserted. This has all been put a stop to, and communication between captains and crimps no longer exists. When seamen from the shipping office are put on board ships lying at a wharf, the Police remain on board until the ship hauls out from the wharf, and if proceeding to sea, remain on board until off Point Levis, all well.

I have the honour to be, Sir,
Your most obedient servant,

> R. H. RUSSELL, Chief Constable River Police, and Shipping Master.
William Smith, Esqu,

> Deputy Minister of Marine and Fisheries, Ottawa.

A Stitement giving the Number of Persons Arrested by the Quebee River Police; the various Offences committed by these Persons, and their Nationality, during the Season of Navigation, 1876.

| Offence. |  | Of the 737 offences committed there belonged to |  |
| :---: | :---: | :---: | :---: |
| Desertion. | 46 | England............ ........ ......... | 166 |
| Desertion from " $B$ " Battery of Artillery......................... | 2 | Ireland ................................ | 143 |
| Absence without leave ............................................... | 220 | Scotland ............................ | 136 |
| Refusal of duty. | 121 | Wales ............................. | 22 |
| Refusal to proceed to sea | 45 | Canada ............... .............. | 60 |
| Neglecting to join ship | 33 | Ausiralia .......................... | 4 |
| Warrants for assaults | 18 | Jersey | 2 |
| Assaults on board ship... | 12 | Newfoundlanc ....... | 2 |
| Assaults by Captains on crew. | 4 | United States....................... | 24 |
| Assaults by Chief Mates on crew ... .......... ................. | 5 | France .............. ................ | 22 |
| Captrins assaulted by crew ...................... ........... ........ | 10 | Norway̧. .......... .................. | 57 |
| Chief Mates assaulted by crew ...................................... | 11 | Sweden ............ | 31 |
| Drunk on wharves and streets......... ............................ | 85 | Greece. ................................. | 2 |
| Drunk and fighting on board ............................................ | 48 | Belgium.................................... | 4 |
| Thefts on board ..... ......... .................. ....................... | 6 | Prussia ................................. | 6 |
| Thefts on siore............... .................... .... ................ | 4 | Russia ...................... ........ | 1 |
| Crimps' runners going on board without permission, two |  | Holland.................................... | 8 |
| years penitentiary each | 3 | Spain ........................ ........ | 2 |
| Crimps assaulting seamen.................... ....................... | 2 | Portugal ................... ............ | 4 |
| Crimps harbouring seamen...... .............................. ...... | 1 | Germanf .................... .......... | 11 |
| Cutting and wounding.... | 3 | Denmark................................... | 19 |
| Protection for the night | 58 | Finland............................. ....... | 11 |
|  |  | West Indies ............................ | 2 |
|  |  | Africa ............................... | 2 |
|  |  | Austria ....................... ...... | 1 |
|  |  | Brazil ...... ...... ........... ........ | 1 |
| Total.. | 737 | Total.. | 737 |

## APPENDIX No. 67.

## REPORT OF THE PORT-WARDEN OF MONTREAL FOR THE CALENDAR YEAR OF 1876.

## Port Wirdey's Ofeice, Montreal, 26th December, 1876.

Sir,-I have the honour to submit this my Annual Report of the affairs of the office during the past season.

I have not experienced any difficulty in carrying out the provisions of the Port Wardens' Act, or in the performance of my official duties generally, and during the season I have had no complaints lodged with me from ship-owners, ship-masters, shippers, or others, in regard to the operation of said Act.

Every British vessel that has arrived in this port from the United Kingdom had the load and deck lines marked on their sides, but the load-line mark is no guide in loading, as owners can place it as high up as they think proper. It is it matter of fact that no vessel during the past season has left this port loaded down to such mark (with the exception of one or two small vessels) for had they done so they would have been in an unseaworthy condition.

Those marks, then, for all practical purposes, are useless, or wows than useless; because they have a tendency to deceive those who are not tuquaintel with them.

Ship-masters generally have expressed their satisfuction that we have such a law as prevents unscrupulous masters overloading their vessels so as to gain favour with their owners for carrying larger cargoes than others who will not risk the lives of their crews and the interests of shippers and underwriters for any such dear-bought approbation.

On the 29th June last the steamship "Quebec," of the Dominion Line, bound to Liverpool, was reported to me as having completed her loading, when I proceeded on board to bold a final survey. On examination I found she was too deeply laden, and notified the master that before he could receive a certificate of seaworthiness to enable him to clear at the Custom House he would require to lighten his ship. This he declined to do, and left port soon afterwards without a certificate, in direct violation of the Port Wardens' Act. I immediately notified the Collector of Customs, who took the necessary steps to detain the ship at Quebec. It came to my knowledge afterwards that she was lightened at Quebec after some delay, received a certificate of seaworthiness from the Port Warden there, and proceeded on her voyage.

It is very satisfactory to be able to report that I have not heard of the loss of any vessel that loaded grain here this season. The woint case of partial damage that has come to my knowledge is that of the barque "Templar," which sailed from this Port on or about 30 th August last, laden with a full cargo, consisting of over 43,000 bushels grain. After leaving the Gulf of St. Lawrence she encountered heavy northeast gales, and was struck by a sea which threw her on her beam ends. In this time of great peril the foremast was cut away, when she righted. After drifting about on the ocean for some time she was picked up by a passing steamer, and towed into Halifaz. She was found to be leaking considerably, and her bottom was badly injured by the wreck of the spars, but on discharging the cargo to go into dock for repairs it was ascertaincd that the bulk grain had not shifted, and all that was damaged was about 1,000 bushels which got wet while the ship was lying helpless on her broadside and in danger of foundering.

The usual care was taken, and personal supervision given to this ship in seeing that her lining and shifting boards were what they ought to be before her cargo was put on board, and it is exceedingly satisfactory to know that they had stood the test so well under the trying ordeal through which the ship passed.

Navigation remained open this year later than usual; owing to this fact several vessels which arrived from Europe very late in the season were enabled to proceed to sea in safety. The last of these, the barque "Marie," with a general cargo from Antwerp, arrived on the 18th November. After discharging her inward cargo and Joading a tull cargo of grain, she sailed hence on the 22 nd November for the United Kingdom, and her safe arriral there has been reported.

Herewith I send you statement of the receipts and expenditure of the office during the year.

> I have the honour to be, Sir,
> Your obedient servant,

DAVID ROSS KERR, Port Warden.

The Hon. A. J. Smith,
Minister of Marine and Fisheries, Ottawa.

## PORT WARDEN'S OFFICE.

Tr.
Statement of (Guh Accume for Sumon of 1876


## APPENDIX No. 68.

## REPORT OF THE PORT WARDEN OF QUEBEC FOR THE CALENDAR YEAR ENDED 31sT DECEMBER, 1876.

Port Warden's Office, Victorta Chambers, Quebec, 27 th December, 1876.

Sir,-I have most respectfully to acknowledge the receipt of your letter of the 11th December; also your favour of the 14 th instant, containing the Imperial Merchant Shipping Act, 1876, 39 and 40 Vict., Chap. 80.

In reply, I have the honour to inform you that the new law amendment relating to Port Wardens, now three sessions in operation, have been found to worle most satisfattorily in the interests of our trade and commerce.

The attention exercised over the loading and stowage of cargoes with the attention to coaling of steam ships, and their seaworthiness when loaded and coaled, has added considerably to the safety of vessels generally. While the same policy is maintained, $[$ am of opinion the result will prove most attisfactory.

I beg to inform you that the screw steamship "Colombs," 1,260 tons, of Newcastle, McNabb, master, left this harbour, May 10th, 1876, withont having obtained $m y$ certificate in accordance with clause five of "An Act to amend the Acts relating to Port Wardens of Montreal and Quebec," November, 186.5. This vessel stranded in the River St, Lawrence while proceeding down the river from Montreal, laden with a cargo of graik; when stranded she discharged a portion of her cargo into lighters. floatod, and proceeded to Sorel; there she was laid up during the winter, and reloaded her cargo from the lighters. In May, 1876, she proceeded to Three Rivers, took on board a quantity of deals, 2,000 pieces, proceeded on to Quebec when she took a supply of coals, and left without reporting or obtaining any certiticate. Particulars were duly forwarded to the Dopartment of Marine and Fisheries, Ottawa, and to Mr. J. W. Dunscomb, Collector of Customs for this Port.

May 18th.-Ship "Gleniffer," 799 tons, of Glasgow, J. Cummings, arrived in Quebec with a general cargo from Glasgow, consigned to Allans, Rae \& Co., of Quebec. The eighth section of the Act to provide for the appointment of a Port Warden for the harbour of Quebec was duly complied with, and on the 19 th damage was noticed to the cargo. On being notified by the mastor I proceedod to the ship, and ascertained the cause of dimerge. My report having been drawn up accordingly, and delivered to the consignees of the ship, it boing in favour of the ship, the consignees of the goods contended that I had no right to act in such case. However, this matter was brought before the Board of Examiaers appointed for this office, who decided that in the performanco of the duties of the Port Warden it was not practicable in such cases where thore nre a large number of consignees interested in one cango. Any departure from the above named eighth section would seriously affect the intereste of the trade.

10th June.-The Norwerian barque "Pallas," 407 tons, of Porsground, No. 9, page 283, Norwegian Veritas Register. In this harbour with part cargo of coals, I found it necessary to initiate proceedings. I at once pat myself in communication with His Swedish and Norwegian Majesty's Consul for Canada, and Mr. Stansland, the master. I informed them that the suid vessel was not in a seaworthy condition,
owing to the defective state of the mainmast. This having been confirmed by the master, a new mast was ordered and put into the vessel, removing the cause of ber unseaworthiness.

20th June.-The Norwegian barque "Thyra," 588 tons, of Porsground, No. 84, Norwegian Veritas Register. In this harbour, full loaded with a cargo of wood goods, bound for London. I found it necessary to initiate proccedings. The vessel having been rendered unseaworthy from over-loading, causing her to be crank. I at once put myself in communication with Mr. Christensen, the master, and His Swedish and Normegian Majesty's Consul for Canada. And after due consideration, it was recommended to remove and land the deck load, and to send down fore topgallant yard with mast, also to send down the mizen topmast.

22 nd inst.-This recommendation having been completed, removing the cause of her unseaworthiness, the vessel did proceed on her voyage to London.

30th June and 1st July.-Having been notified by Mr. J. W. Dunscombe, Collector of Customs of this port, that the steamship "Quebec," Capt. Thearle, of the Dominion Line of Steamships, had left the harbour of Montreal without having obtained a certificato from the Port Wirden for the said harbour of Montreal. On her arrival in this harbour, it was found that after receiving her full quantity of coals on board, that the vessel would be overloaled. Consequently a portion of her cargo was recommended to be discharged and landed. This having been done, to the satisfaction of the Port Warden, a certificate was granted, when she proceeded on her voyage to Liverpool.

3rd July.-The British brig "Xanthus," 195 tons, of Dublin, official No. 54,233, Lloyd's Register of British and Foreign Shipping arrived in this harbour, and commenced loading a cargo of staves. I found it necessary to initiate proccedings. It being reported to me that the said brig "Xanthus," stranded at Matane, while on a voyage from Ayr to Quebec, I waited on Captain Wm. Redmond, and verbally notified him that I had learned that his vessel had stranded, as above-named, and requested to have the bottom of his vessel examined before proceeding farther with his cargo. This having been complied with, and the vessel placed on dry dock it was found that the false keel was badly bruised and broken, with part gone. Their being no serious damage done to the vessel from stranding, and being found perfectly tight, I considered her seaworthy to receive her cargo, and to proceed to Great Britain and there undergo the necusary repairs.

I have respectfully to inform you of the departure of the screw steamer "Langshaw," 1,187 tons, of Newcastle, Bain, master, who loaded at Montreal part of a cargo of grain, viz., wheat and oats. After leaving the Port of Montreal, proceeded down the river, and on Saturday, 5th August, came to anchor near Cape Rouge, River Su. Lawrence, and there took on board ten thousand bushels of oats as part of her cargo. On Monday, 7th inst;; passed Quebec without notice, having received the Lower St. Lawrence pilot while lying at Cape Ronge.

27th and 28th August.-The above facts were duly forwarded to you, Sir, and to Mr. J. W. Dunscomb, Collector of Customs, Quebec.

10th October.-The British ship "Eldorado," 829 tons, of Hull, official number 1,675, while in this harbour discharging a part cargo of coals, I found it necessary to initiate proceedings. I at once put myself in communication with Mr. C. Calledge, master, and his agents, Messrs. John Burstall \& Co., of this city, and verbally informed them that the mainmast of the said vessel "Eldorado" was in bad condition, rendering her unseaworthy; therefore I recommended survey to be held. On the 12th, a survey being held as recommended, the mast was found unsound and partly broken. It was removed, and replaced with new-removing the cause of unseaworthiness.

16th October.-The British ship "Epaminondas," 1,07: tons, of Newcastle, official number, 15,388 , now in this harbour discharging part cargo of coals. I found it necessary to initiate proceedings. I at once put myself in communication with Captain Sawer, master, and his agents, Messiss. John Burstall \& Co., of this city; and notified Captain Sawer of the apparent condition of the mainmast of said vessel "Epaminondas," at same time requesting a survey to be held as to her seaworthi
ness. On the 19th a survey was held in my presence by two experts appointed by Captain Sawer, who pronounced the aaid mast to be unsound, and at places defective; also to be in an unseaworthy condition. Recommended new mast. This having been done, the cause of unseaworthiness was removed,

30th October.-The Norwegian ship "Prinds Mauritz," 779 tons, of Tonsberg, No. 126, page 294, Norwegian Register, then in this harbour preparing to receive a timber cargo. I found it was necessary to initiate proceedings. I at once put myself in communication with Captain Zachariasen, master, and Mr. W. A. Schwartz, His Swedish and Norwegian Majesty's Consul for Canada, and verbally informed them that the said vessel "Prinds Manritz" was unseaworthy, owing to the general condition of the mainmast. I therefore recommended that a survey should bo held, the captain acknowledging that a personal examination and recommendation tion from myself was all that was required. On the 31 st an examination was held when the mainmast was found badly bent forward, and at places sprung and broken. A $n \in W$ mast was recommended. This having been agreed on, the original mast was removed, and replaced a new one, thus removing the cause of her unseaworthiness.

I beg to remark that on the 1 st day of November, 1876 , at the request of $\mathbf{M r}$. $\mathbf{G}$. I. Pemberton, agent at Quebec for the Merchants' Marine insurance Company of Canada, proceeded on board of the ship "Red Jacket," 2006 tons, of Newcastle, official number 25,758, then in this harbour loaded with a (argo of deals, ready for sea, and bound to London. Found her loaded with a portion of her cargo (cleals) on the third and upper deck, closely piled from aft forward bofore the foremast, and across the deck from stancheon to stancheon. This quantity I disapproved, taking into consideration her construction, that she was untit, and my opinion is, never intended to carry cargo on said third deck. For proof of this see the New York Maritime Register of December 15th, 1576, page $41:$ - ":Red Jacket' (Br.) from Quebec, at London, November 29th. Lost deck load on passage." Vessels constructed with awning or spar deck should be entirely excluded from carrying cargo on said deck and throse constructed with three decks. A fter the expiration of the time for which they are classed $A$ in red, they should be entirely excluded fiom carrying deck cargo, further than sture spars, horses, horned cattle, sheep, de. Tiking into consideration the height of any cargo stowed over the third deck of any vessel, its height above the centre of gravity is dangerous to life and property, and frequently torminates with the loss of oth.

I beg to state that during the past season no complaints have been officiaily received from masters of ships, British or Foreign. Numbers of masters have verbally expressed their opinion in support of the Port Wardens' Act, and affirm that it has resulted in the saving of a large amount of life and property.

With respect to the marking of a load line on British ships employed in this trade, I beg to remarls that all classes of vessels, both steam and sailing, that came under my notice have been marked on each side amidships with a disc and horizontal line drawn through its centre. Lines indicating the position of ships' decks 39 and 40 as prescribed in page 16 of the Imperial Merchant Shipping Act, 1876. 39 and 40 Vict., chap. 80.

As a rule nove of the ships thus marked, that came under my notice have been loaded fully up to their load lines.

With respect to the marking of a load line on British ships, I am of opinion it is erroneous for the owner to have the power to discriminate where the load line of his vessel should be placed. Jn many instances during the past season, it has come under my notice that if the vessels were loaded down as mariked, their spare buogancy would be entirely destroyed, thus rendering the ship unsafe and unseaworthy.

From the fact of this season now closed without accident, I am convinced that a safe policy has been maintained in the loading of vessels with grain from the ports
of Montreal and Quebec.

Free boards of vessels loaded, or partly loaded with grain, have been regulated firom the elaborate tables on Free Boards by Mr. Benjamin Martell, Chief Surveyor of Lloyds' Registry of British and Foreign Shipping.

I have the honour to be, Sir,
Your most obedient servant,

## JOHN DICK, Port Warden.

To the Hon. A. J. Smith,<br>Minister of Marine and Fisheries, Ottawa.

# APPENIDIX No. 69. 

# REPORT OF THE PORT WARDEN OF HALIFAX, N.S., FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1876. 

Port Warden's Office,<br>Halifax, N.S., 30th Dec., 1876.

Sir,-I have the honour to acknowledge the receipt of your letter of the 11the instant, and beg most respectfully to submit my Report of the affiairs of this office, accompanied by a statement of the feos collected and the expenses incurred during the year.

Enclosed will be found a list of the ressels that have arrived at this port in a damaged condition since lst January, 1876, upon which surveys have been held. In some instances part of the cargo, and in others, the whole when necessary was landed to repair the vessel. After the repairs were completed the cargoes were reloaded, and the vessels hare all subsequently arrived at their destination. Two ressels are still remaining in port under repairs. With the exception of the vessel referred to in my letter to the Department, in April last, no surveys have been held upon any vessel arriving at this port in a damaged condition, without the Port Warden being called thereon.

In regard to deck and load lines, I bave to state, that with the exception of the Cunard Branch Steamers, Fishwick's Express Line, and in a few instances sailing vessels, the deck line has not been marked, and in no case has the load line been marked upon vessels trading out of this port. All vessels arriving at this port from Great Britain had the deck and load lines marked upon their sides, and when such vessels where loadod here, they have generally been immersed to the load line, but in no case has this line been exceeded.

There is no grain shipped at this port, excepting in the case of vessels arriving in distress, discharging their cargoes for repairs, and re-shipping the same.

I bog to call your attention to the fact that considerable trade has recently been carried on in the shipment of potatoes in bulk from Prince Edward Island, and from ports in this Province to the United States, and in three cases within the present month, vessels have put in here with their cargoes shifted, seriously endangering their safety. It would, therefore, be a matter for consideration whether it would not be advisable that vessels loading cargoes of this description, should be 'provided with shifting boards, which would obviate the danger from the cause alluded to.

I have the honour to be, Sir,
Your obodient Servant,

DAVID HUNTER, Port Warden.

Deputy Minister of Marine and Fisheries, Ottawa.

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


Dr. Recerprs and Expenditure of the Port Warden, Halifax, N.S., from 1st January till 30th December, 1876. Cr.


## APPENDIX No. 70.

REPORT OF THE PORT WARDEN FOR PORT HAWKESBURY, N.S., FOR THE CALENDER YEAR ENDED 31st DECEMBER, 1876.

Port Warden's Office,<br>Port Hawkesbury, 6th January, 1876.

Sir,-I have the honour to acknowledge the receipt of your letter of the 11th December, 1876, and in accordance therewith, I beg to submit a report of the affairs of this office, and also a statement of the fees collected by me during the year ended 31st December, 1876.

The mercantile community have generally availed themselves of the services of the Port Warden when surveys have been required. It has been, however, contended in some instances that the Act does not render it compulsory to bold surveys on all receiving wreck or damage, or to call upon the Port Warden to attend on surveys, and many vesseis are only partially repaired and sent to sea without a certificate of seaworthiness. I would beg to state that to my knowledge none of the vessels entering at this port in the last year had their deck or load lines marked on their sides, except the brig "Blanche," of Swansea, of 268 tons, she having taken in here 15,000 bushels of oats for Charlottetown, which did bring her to or near her load line, that being the only vessel that was loaded with grain here in the last year.

I have the honour to be, Sir,
Your obedient servant,
DANIEL W. HENESEY, Port Warden.
"To William Smith, Esq.,
Deputy Minister Marine and Fisheries, Ottawa.

Receipts and Expenditdre of Port Warden, Port Hawkesbury, from 1st January to
De.
31st of Docember, 1876.
Cr.

|  | \$ cts. |  | \$ ets. |
| :---: | :---: | :---: | :---: |
| To Fees for valuation of damaged goods for duties | 1000 | Travelling expenses, \&c., to and at Port Hastings. <br> Horse hire, \&c., expenses. | 800 |
| Fees for surveys of hatches and $\square$ Horse hire, \&c., expenses.................. |  |  | 650 |
| Fees for survey of vessels damaged.. <br> Fees on grain landed and reshipped <br> Fees for surveys of damaged goods.. <br> Fees for separating sound from damaged portions of cargo of barkentine "Adeline" at Port |  |  |  |
|  |  |  |  |
|  |  |  |  |
| 4 Harstings services on board "...................; | 4000 2000 |  |  |  |
|  | \$12100 |  |  | 1450 |

E. \& O. E.

DANLEL W. HENESEY, Port Warden.

Port Hawkesbury, 6th January, 1877. $5-b \pm 1 \frac{1}{2}$

## APPENDIX No. 7r.

## REPORT OF THE PORT WARDEN FOR PORT MULGRAVE, N. S., FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1876.

## Port Warden's Office, Port Mularave, 7th February, 1877.

Sir,-I bave the bonour to acknowledge the receipt of your letter of December 11th, 1876, and in accordance beg to submit a statement of the receipts and expenses of my office for the year onded Decomber, 1876.

Very few vessels calling at this port have the deck and load line, and there were none loaded here with grain. All the vessels taking loadse (which were fish) from this port had no deck or load lines, they being of small size.

Receipts and Expenditure of the Port of Port Mulgrave, N.S., from 1st January, 1876, to 31st December, 1876 :-

## RECEIPTS.

To fees for holding surveys on schooner "Star of the Sea."... \$16 00
" " " "Sea Queen"......... 1600
" " Barquentine "Adeline" stranded at south entrance of Strait of Canso............ 1500
" for bolding surveys on damaged cargo of barquentine "Adeline"500
$\$ 5200$
EXPENDITURES.
By expenses incurred attending "Star of the Sea "......... \$200
" " " " "Sea Queen’................ 200
Office Rent "Adeline" ................... 500
(
$\begin{array}{ll}\text { I am, Sir, } & \$ 1900 \\ \text { Your obedient servant, } & \end{array}$

GEO. B. HADLEY, Port Warden.

Wm. Smitн, Esq.,
Deputy Minister of Marine and Fisheries, Ottawa.

## APPENDIX No. 72.

REPORT OF THE PORT WARDEN FOR THE PORTS OF VICTORLA AND ESQUIMALT, B.C., FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1876.

Victoria, 6th January, 1877.
Sir,-I have the honour to forward, for your information, the attested copy of the Port Warden's account for the year 1876.

I have the honour to be, Sir,
Your most obedient servant,
JEREMIAH NAGLE,
Port Warden for the Harbours of Victoria and Esquimalt.
Wm Smiti, Esq.
Deputy Minister of Marine and Fisheries, Ottawa.

Statement of Receipts and Expenditure in connection with the Office of Port Wauden for the Purts of Victoria aud Esquimalt, from the 31st December, 1875, to 31st December, 1876.


J. NAGLE,<br>Port Warden.

Sworn before me this seventh day of January, 1877, at Victoria, British Columbia. A. J. Lanaleey, J,P.

## Port Warden's Office, <br> Victoria, B.C., 8th February, 1877.

Sir,-I have the honour to acknowledge the receipt of your letter of the 10 th ultimo, and beg to inform you that on the 10 th ultimo I forwarded to your address certified copies of my accounts up to the 31st of December, 1876, including the Harbour Master's account.

Since the 25 th of January to the 1st of November, 1876, nine vessels arrived from England, having had their discs and load lines distinctly marked on their sides. No foreign vessels have entered with such distinctive marks on their sides.

Three vessels (named as follows),"Lady Head," "Lady Lampson" and "Blanche," left the Port of Victoria, B.C., with cargoes for England. They had the discs and load lines marked on their sides.

I have the honour to be, Sir,
Your most obedient servant,
JEREMIAH NAGLEE,
Port Warden of Victoria and Esquimalt, B.C.
Wm. Smith, Esq.,
Deputy Minister of Marine and Fisheries, Ottawa.

## APPENDIX No. 73.

Return of the amount of collections of Tonnage Dues at the Harbour of Cow Bay, and amount of Tolls collected on merchandize landed on the pier, during the year ended 31st December, 1876 .


## APPENDIX No. 74 .

## REPORT OF SHIPPING MASTER OF THE PORT OF QUEBEC FOR THE YEAR ENDING 30 TH JUNE, 1876.

## British Ships.

Number of ships that shipped seamen during the above period. ..... 164
Total number of seamen shipped ..... 574
Deduct those who engaged and did not join their vossels, and where substitutes were shipped without paying fees ..... 45
Number paying fees ..... 529
Total number of seamen discharged ..... 401
Shipwrecked seamen, where no fee was charged. ..... 145
Number paying fees ..... 256
Dominion Ships.
Number of ships that shipped seamen. ..... 109
New ships ..... 21130
Number of seamen shipped. ..... 1,042
Deduct substitutes and those who did not join their ships. ..... 49
Number paying fees. ..... 993
Total number of seamen discharged ..... 320
Foreign Ships.
Number of ships that shipped seamen ..... 58
Number of seamen shipped ..... 147
Seamen's Extension Act-38 Victoria, 1873.
Number of vessels that shipped seamen. ..... 6
Number of seamen shipped ..... 52
Do seamen discharged ..... 11



## R. H. RUSSELL, <br> Shipping Master.

Certified,
Quebec, 31st December, 1876,

## APPENDIX No. 75.

REPORT OF THE SHIPPING MASTER FOR THE PORT OF ST. JOHN ${ }_{v}$ N.B., FOR THE CALENDAR YEAR, ENDED 31st DECEMBER, 1876.

Shipping Office,<br>St. John, N.B., 15th July, 1876.

Sir,-I have the honour to hand you the returns of the Shipping Office at this port for the half year ended 30th June, 1876, showing an increase of 243 men shipped and discharged as compared with the corresponding half year ended 30th June, 1875. This result is owing to the increased number of vessels drawn to this port by the depression of freights abroad. Wages have averaged $\$ 18$ by the month, and $\$ 30$ by the run.

$$
\begin{aligned}
& \text { 1,967 men shipped at 50c.............................. } \$ 98350 \\
& 523 \text { men discharged at 30c........................... } 15690 \\
& \$ 1,14040 \\
& \text { Assistant's salary, } \$ 300 \text {; incidental expenses, } \$ 196 \ldots . . . .449600 \\
& \text { Net income of office........................................................ } 64440
\end{aligned}
$$

I am, Sir,
Your obedient servant,

ALLAN McLEAN,
Shipping Master.
Hon. A. J. Smith,
Minister of Marine and Fisheries, Ottawa.

Shipping Office,
St. John, N.B., 10th January, $187 \%$.

Sir,-I have the honour to hand you the returns of the Shipping Office at this port for the half year onded 31st December, 1876, showing a decrease of 687 men, shipped and discharged, as compared with the corresponding half year ended 31st December, 1875. In consequence of the large number of seamen bere, and the scarcity of vessels, wages have fallen from $\$ 20$ by the month, and $\$ 30$ by the run, to $\$ 18$ by the month, and $\$ 25$ by the run, and are still decreasing; and, unless business revives before spring, I anticipate much destitution among the seamen this winter, there being at presont only one barque, one barquentine, and two or three brigs in port, which are not provided with crews.

$$
\begin{aligned}
& \text { I am, Sir, } \\
& \quad \text { Your obedient servant, }
\end{aligned}
$$

Hon. A. J. Smith,
ALLAN McLEAN,
Shipping Master.
Minister of Marine and Fisheries, Ottawa.

Return to the Department of Marine and Fisheries, in accordance with the provisions of the Act 36 Vic., chap. 129, by the Shipping Master or officer acting in, that capacity, at the Port of St. John, N.B., for the half jear ended 31 st . December, 1876.

2,203 seamen shipped at 50c. each.

\$1,101 50

854 discharged at 30c. each
25620
Amount of fees received........................................... 1,357 70
From which deduct the following expenses, viz:-
Assistant's salary, $\$ 300$; incidental expenses, $\$ 12.76 \ldots . . \quad 31276$
Net income of office.......................... $\$ 1,04494$
ALLAN MoLEAN,
Shipping Master.

## APPENDIX No. 76.

Return to the Department of Marine and Fisheries in accordance with the provisions of the Act 36 Vic., chap. 129, by the Shipping Master, or Officer acting in that capacity, at the Port of Halifax, in the Province of Nova Scotia, for the half-year ended 30th June, 1876.

|  | \$ | cts. | Remarks. |
| :---: | :---: | :---: | :---: |
| 1,206 Seamen shipped, paying 50 cents each $\qquad$ <br> 720 do discharged, paying 30 cents each. $\qquad$ <br> Amount of faes received $\qquad$ | 603 | 00 | This Return shows a decrease of one hundred and fifty-six men as compared with the corresponding half-year ended 30th June, 1875. Owing to depression in trade and large number of seamen unemployed, wages have ruled low, never having been more than $\$ 19$, and during the first three months of the half-year never more then $\$ 14$. Runs to Britain, there has sot been any. |
|  | 216 | 00 |  |
|  | 819 | 00 |  |
| From which deduct the following expenses, viz.:Assistant, office rent and incidental expenses.. Amount reverting to Shipping Master | 490 | 00 |  |
|  | 329 | 00 |  |

Malifax, N.S., 2nd Jnly, ${ }^{\text {r }} 1876$.

JOHN D. CUMMINS,
Shipping Master.

Return to the Department of Marine and Fisheries in accordance with the provisions of the Act 36 Vic., chap. 129, by the Shipping Master, or Officor acting in that capacity, at the Port of Halifax, in the Province of Nova Scotia, for the half-year ended 31st December, 1876.

|  | \$ | cts. | Remarks. |
| :---: | :---: | :---: | :---: |
| 1,341 Seamen shipped, paying 50 cents each................... | 670 | 50 | During the months of July, |
| 1,087 do discharged, paying 30 cents each............... | 326 | 10 | August, Septamber and Octo- |
| Amount of fees received........................... | 996 | 60 | ruled at $\$ 19$, but the latter two months of this half-year |
| From which deduct the following expenses, viz :- |  |  | they fell to $\$ 17$, for the West |
| Clerk, office rent, fuel and incidental expenses........ | 545 | 00 | Indies and Britain or the con- |
| Amount reverting to Shipping Master.......... | 451 | 60 | them being lower before the Spring trade commences, owing in a great measure to the large number of wrecked seamen who have been landed here this season. |

JOHN D. CUMMINS, Shipping Master.
Halifax, N.S., 31st December, 1876.

## ArPENDIX No. 77.

Return to the Department of Marine and Fisheries in accordance with the provisions: of the Act 36 Vic., chap. 129, by the Shipping Master, or Officer acting in that capacity, at the Port of Yarmouth, N.S., in the Province of Nova Scotia, for the half year ended 31st June, 1876.

| - | \$ | cts. | Remarks. |
| :---: | :---: | :---: | :---: |
| 264 seamen shipped, paying 50 cents each | 132 | 00 |  |
| 184 seamen discharged, paying 30 cents each.................. | 55 | 20 |  |
| Amount of fees receiréd ........... .................. | 187 | 20 |  |
| From which deduct the following expenses, viz:-One-half year's office rent |  |  |  |
| One-half year's office rent......................... $\$ 3750$ <br> .Two blank books, at \$1 25......................... 250 |  |  |  |
|  | 40 | 00 |  |
| Amount reverting to Shipping Master ......... | 147 | 30 |  |

## C. W. CTEMENTS,

Shipping MIaster.
Yarmouth, N.S., 1st July, 1876.

Return to the Department of Marine and Fisheries in accordance with the provisions of the Act 36 Vic., chap. 129 , by the Shipping Master, or Officer acting in that capacity, at the Port of Yarmouth, in the Province of Nova Scotia, for the half year ended 31st December, 1876.

|  | \$ | cts. | Remarts. |
| :---: | :---: | :---: | :---: |
| 448 seamen shipped, paying 50 cents each 319 seamen discharged, paying 30 cents each | 294 95 | 00 70 |  |
| Amount of fees received... . ......................... | 319 | 70 |  |
| From which deduct the following expenses, viz.:- |  |  |  |
|  | 80 | 00 |  |
| Amount reverting to Shipping Master ......... | 339 | 70 |  |

Yarmoutif, N.S., 5th January, 1877.
Sre,-I have the honour to hand you Returns of the Shipping Office at this port, for the half year ended 31st Decomber, 1879, showing an increase of 184 men shipped and $13 \pm$ men discharged, over the first balf-year ended 30 th June, 1876. There have been ten large new ships, averaging 1,200 tons each, sailed from here this year. Runs to New Orleans, $\$ 25$; average rate of wages, $\$ 17$ per month; wages now, $\$ 15$; and the harbour about closed up with ice.

I am, Sir, your obedient servant,
C. W. CLEMENTS,

Shipping Master.
Hon. A. J. Smitie,
Minister of Marino and Fisherios, Ottawa.

## AI'PENDIX No. 78.

Statement showing results of certain Returns respecting shipping and discharging of Seamen, receivel 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 half years ended 30th June and 31st December, 1876.

QUEbEC.


NEW BRUNSWICK.


Statement showing renults of certain Returns respecting shipling and discharging of Seamen, ete-rontinued.
NEW BRUNSWICh-Continued.



Statenent shoming results of certain Returns respecting shipping and cliseharging of Seamen, etc.--Vontinucd.
nova scotia.-Continued.


| Main a Dieu ............................... | 2 |  | 100 |  | \|…............ ${ }^{\text {a }}$ | 200 | \| | \|…............| | 300 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Maitland ............................ ........ | 9 | 9 | 720 | No return. | No return. | . $\cdot$. | Deficient re | eturns. |  |
| Margarce ...... ......... .................... |  |  |  |  | ... | ............ ..... | ........ ....... |  |  |
| Margaretsville.......... ............... ..... | 19 |  | 950 | No retura. | No return. | ................ | Deficient re | eturns. |  |
| Merrigonish ......................... ........ | No returu. | No return. | ................. | No return. | No return. |  | No returns. | No returns. | . $\cdot$...... |
| New Glasgow | No return. | No return. |  | No return. | No return. |  | No returns. | No retnens. |  |
| North Sydney | 69 | 56 | 5130 | 318 | 191 | 21630 | 387 | 247 | 26760 |
| Parrsborougb ................ ............... | No return. | No return. |  | No return. | No return. | ......... ........ | No returns. | No returns. |  |
| Pictou | 182 | 103 | 12190 | 341 | 193 | 22840 | 523 | 296 | 35030 |
| Port Acadie | 26 | 7 | 1510 | 14 | 8 | 940 | 40 | 15 | 2450 |
| Port Caledonia. | 7 |  | 350 | 10 | 12 | 860 | 17 | 12 | 1210 |
| Port George . ..... | No return. | No return. |  | No return. | No return. |  | No returns. | No returns. |  |
| Port Gilbert ................ ........... .... | 33 | 1 | 1680 | 32 | 29 | 2470 | 65 | 30 | 4150 |
| Port Hawkesbury ....... ........ ........... | No return. | No return. |  | No return. | No return. |  | 'No returns. | No returns. |  |
| Port Hood ................................... | 9 | 1 | 480 | No retura. | No return. | ................. |  | eturns. |  |
| Port La Tour | 16 |  | 800 | No return. | No return. | ....... ........ | Deficient re | eturns. |  |
| Port Medway ................................ | 59 | 49 | 4420 | 44 | 18 | 2740 | 103 | 67 | 7160 |
| Port Mulgrave ..... ..... .................. | 7 |  | 350 |  |  |  | 7 | ...... ...... | 350 |
| Port Williams .............. ............. |  |  |  |  |  |  |  |  |  |
| Pubnico ....................................... |  |  |  | 5 |  | 250 | 5 |  | 250 |
| Pugwash ..................................... | 3 | 1 | 180 | 30 | 20 | 2100 | 33 | 21 | 2280 |
| Ratcbford's River | 23 |  | 1150 | No return. | No return. | . | Deficient ret | eturns. |  |
| Richmond.......... ........... ...... . ........ | 3 |  | 150 | , |  |  | 3 | .... | 150 |
| Sauly Cove ................................ | No return. | No ceturn. |  | No return. | No return. |  | No returns. | No returns. |  |
| St. Ann's .................... ................. | 3 | 3 | 240 |  |  |  | 3 | 3 | 240 |

Statement showing results of certain Retucns respecting shipping and discharging of Seamen, etc.-Contimed.
NOVA SOOTIA.-Continued.


tatement showing results of certain Returns respecting shipping and discharging of Seamen, etc.-Continued. bRITISH COLUNBIA.


Wm. SMITH, Deputy Minister of Marine.

ERRATUM.
For the word " F momerside," in the second line of page 258 , read " Vernon Ruver."
SUPPLEMENT No. 3to the ninth annual report of the
DEPARTMENT OF MARINE AND FISHERIES,
BEING FOR THE FISCAL YEAR ENDED 30th JUNE, 1876.

## REPORTS

ON THE

# METEOROLOGICAL, MAGNETIC 

OTHER OBSERVATORIES

OF THE
DOMINION OF CANADA,

FOR THE

CALENDAR YEAR ENDED 31st DECEMBER, 1876.


OTTAWA:
printed by madlean, roger \& Co., wellingTun Strect.

## ERRATA IN 5Th ANNUAL REPORT.

Page 22.-Third line of heading-for "absluote" read "absolute."
" 26.—Fifth line of heading—after 4.08 , for " p.m." read "a.m."
" 88.-Fifth line of heading—after 4.08 , for "p.m." read " a.m."
" $442 .-19$ th March, Min. temp.-for "-2.0" read " $2 \cdot 0$."
" 442.-Last line, Feb., Min. temp.-for "-5.1" read "-4.5."
" 442.-Last line, Mareh, Min. temp.-for " 12.8 " read " $9 \cdot 1$. ."
" 442 . -Last line, A pril, Max. tomp.-for " $33 \cdot 2$ " read " 46.6 ."
" 442.-Last line, April, Min. temp.-for " $9 \cdot 0$ " read " $26 \cdot 5$."
" 514.-Second line of heading—after "list" insert "on pp. IX, X, XI, XII and XIII."
In Tables I and II, the night observations at Brockville should have been omitted they not being synchronous with the others.
N.B.-It has been fonnd necessary to revise the table of Latitudes, Longitudes, \&c., on pp. 514 to 517 inclusive, a corrected list of which will be found in the 6th Annual Report.

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CONTAINED IN SUPPLEMENT No. 3, TO THE NLNTH ANNUAL RIEPORT OF THE DEPARTMENT OF MARLNE AND FISHERIES, BEING FOR THE FISCAL YEAR ENDED 30th JUNE, 1876.


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# METEOROLOGICAL OFFICE OF THE DOMINION OF CANADA, 

FOR THE YEAR ENDING DECEMBER 31st, 1876

BY
CHARLES CARPMAEL, M.A., F.R.A.S.,
Late fellow of St. Johns College, Cambridge.

## To the Honourable

The Minister of Marine and Fisheries.
Sir,-In the absence of Professor Kingston, through illness, I have the honour to submit the Sixth Annual Report of the Meteorological Office.

In former reports the Superintendent has very fully described the general objects of a meteorological system, as also, the means which should be employed for their accomplishment. In the present report I shall endeavour to shew to what extent, and with what success, these objects have been attained during the past year, and to point out such additional work as should be done in the immediate future. The objects of the system (as stated in the last report) are twofold.
I. The collection of Meteorological Statistics (including the statistics of storms), and their arrangement in forms suited for the discussion of sundry physical questions. The combination of materials collected in a series of years and the deduction therefrom of the climatic character of the soveral districts; and the furtherance in other respects, of a knowledge of the facts and principles of climatology, and cf Canadian climatology in particular.
II. The practical utilization of the facts and principles thus acquired, especially to the prognostication of the weather.

## COLLECTION OF METEOROLOGICAL STATISTICS.

The observations have been going on as in previous years, with a few alterations and various additions, the most important of which are the following :-

British Columbia.-Through the exertions of Mr. John Murray, of Spences Bridge, a number of volunteer observers have undertaken to keep a record of rain-filt, and for this purpose accurate glass measures have been forwarded from this office. Twenty stations have alroady been established with the prospect of still further increasing that number. At Esquimault the observer, Mr. Bevis, has been instructed to take an observation at $4: 29 \mathrm{a} . \mathrm{m}$. local time, to accord with the simultaneous observations throughout the northern hemisphere.

North-West Territories.-Through the co-operation of the Chief Commissioner of the North-West Mounted Police, observations have been taken at the various stations of the Force, and the records forwarded to this office. Returns of observations from Eort Rae, near the Great Slave Lake; Fort Simpson, on the Mackenzie River; and York Factory, Hudson's Bay, have aiso reached us through the Bishop of Rupert's Land. Observations are being taken at other places, but the records have not yet been received.

Manitoba and Keewatin.-Arrangements have been made through Mr. Taylor, the Icclandic agent, for taking observations at one or more stations in the Icelandic Reserve. Mr. Rogers has re-commenced taking observations at Kalmar Statiou, on the Canadian Pacific Railway.

Ontario.-Additional voluntary observations are now taken :-At Brantford, by the Rev. A. F. Kemp, LL.D.; at the Agricultural College, Guelph, under the Superintendent ; at Rosehill, Muskoka, by John Hollingworth, Esq. ; at Port Perry, by E. Worthington, Esq. Observations at Lakefield, North Douro, were stopped for some time, owing to the observer, the Rev. G. J. Everest, having removed to England. In Septembei; however, Mr. H. Le Fevre offered his services, and has since continued to send us reoords of the observations. Mr. E. M. Bigg, who had been taking observations at Vienua, has removed to Aylmer, and has there commenced a new series. The head masters of the High Schools at Belleville and Peterboro' in addition to those mentioned in the last report, now take observations in connection with the International synchronous series. By permission of Lieut.Colonel Irwin, R.A., readings of the temperature have since last summer, been talen at Kingston every two hou s, night and diy, by the non commissioned officers of the "A" Battery.

Duriag the past year, arrangements hare been made with the Iinister of Education for the Province, by which masters of the High Schools are placed in communication with, and their obsorvations under the supervision of this office. These observations are taken under an Act of the Ontario Provincial Legislature, which enacts: "That it shall be part of the duty of the master of every senior County Grammar School to make the requisite observations for keeping; and to keep, a meteorclosical journal, embracing such observations, anci lepet according to such form, as shall from time to time be directed by the Council of Public instruction."

At the end of the year a telegraph station was entablished at Iwekliffe to take the place of Ottawa, the telegraphic reports from which were diseontinued December 31st, 1876.

Quebec.-On the application of the President of the Quebec and Lake St. John Railway, instruments and forms were furnished for the establishment of six stations in the vicinity of Lake St. John, under the care of the cures of the various parishes. Four stations have already boen started.

It is to be regretted that olscrvations have been discontinuel at the Conventsat Charlesbourg, Lotbiniore and Pointe aux Trembles, as vers inadequate returns of the tall of rain and show are in consequence receired from this Province. These obscrrations are, throughout the Dominion, taken by voluntary unpaid observers.

The station at Cranbourne, undur the charge of P. Cassidy, Esq., a volunteer obsorver, has beon misen to the tirst class. The death of M. J. Bell, Evq., of Belvidere Road, Quebec, which ocrurred early in the jear, deprived us of the sorvices of a valuable obeerver.

On the death of $M_{1}$. Lawson, observer at the telograpl station at Father Point, Mr. J. Mu: Williams was appointed to take his place.

New Brunswi,k.-No aulditions have boen made in this Province. The observer at Bass River, the Rev. J. Fowler, has removed, and the observations have been discontinued in conseguence.

Nova Scotia.-Tho station at Port Hastings, C.B., under Mr. P. Grant, a voluntcer observer, has been raisel to the first class. The observations at Windsor, which were discontinued by Misy Fraser in 1875, have been resumed by J. E. Oram, Professor of Mathematics at King's College. A change has also heen made at Lonisbourg, the Drum Agent, T. Shewen, Diva., haviner left, has boen replaced by Mr. W. H. Tuwnsond.

Newfoundland. -In addition to the reports of oiservations formerly forwarded through J. Delaney, Esq., Postmaster-Geveral at St. Johns, this gentloman now forwards us returns of observations taken by Mr. ©. Weellon, at Heant's Cintent.

There are, altogether, in correxpondonco with this offico, obsorvers at about 120 stations within the Dominion, of whom more than 80 are unpaid. A complete list of observers and stations, including those of Newfoundland, is appended to this Report.

The Stations are classed as follows:---
Chief Stations.-Record is kept either by continuous automatic process or by observations taken day and night at equal intervals, not exceeding three hours.

Telegraph Stations.-Observations are here recorded and reported by telegraph to Toronto, three times a day, at 7:25 a.m., 4:25 p.m., and 10:50 p.m., Toronto mean time.

Reserve Telegraph Stations.-Observations are the same as at Telegraph Stations but are only reported by mail.

Ordinary Stations. - This term is applied to Stations where observers receive no salary orisubsidy from the Dominion Government. They are sub-divided as follows :-

Class I.-Stations at which observations of all the ordinary elements are made at least three times a day;

Class II.--Stations where records are kept of the temperature, the direction and velocity of the wind, the amount of rain and snow, and the general state of the weather, with notices of miscellaneous phenomena; the observations being made two or three times cach day;

Class III.--Stations where records are kept of the amount of rain and snow, with notices of miscellaneous phenomena.

## PROGNOSTICATION OF THE WEATHER.

The data on which predictions are based are received by telegraph three times a day from certain stations in the Dominion and the United States. The times at which these observations are taken are 7.25 a.m., $4.25 \mathrm{p} . \mathrm{m}$. and $10.50 \mathrm{p} . \mathrm{m}$., Toronto mean time.

Since the establishment of the Meteorological Service in 1871, a courteous interchange of reports of observations, , \&c., has been carried on, both by telegraph and by mail, with the Chief Signal Office at Washington; aud, in addition, notices of the probable approach of storms have heen, and still are, sent from Washington to this office. Early in the year arrangements were made with the Chief Signal Office, by which a considerable number of telegraphic reports are now handed, three times a day, to an agent of this office at Buffalo, U.S., and telegraphed to Toronto. After an interview with the Chief Signal Officer, arrangements were completed by which further additional reports of observations at United States stations have been furnished daily, since August, and forwarded direct from New York. Prior to the receipt of these reports, the Dominion was almost entircly dependent upon the Washington Offico for notices of approaching storms.

The information contained in the reports consist of:-The reading of the barometer, reduced to a temperiture of $32^{\circ}$ Fahrenheit and to sea level; the reading of the thermometer; the relative humidity; the direction and velocity of the wind; the state of the sky, whether clouded or clear-if clouded, the quantity, kind and direction of motion of cloud; and lastly, the quantity of rain or suow, if any. The morning reports contain a record of the minimum temperature recorded since last observation. Reports are now received trom the following number of stations:-In the morning, 39; in the afternoon, 26; and at night, 23.

## STORM WARNINGS.

Storm warnings, based on the information above mentioned, are despatched to the various cautionary storm signal stations throughout the Dominion; also, on the receipt of a storm warning from Washington, the warning is forwarded or not, at the discretion of this office.

A warning is sent to any port whenever, in the opinion of the person whose duty it is to attend to the prognostications of the weather, it is considered that a storm will probably occur within a distanco of 100 miles, by water, of that port; so that when a port is warned it is not intended to be unlerstood therefrom that the storm will necessarily rage at that port; but it is intended to warn those connected with
shipping that a storm will probably rage within such a distance, that ships leaving port might be affected by it.

It is of great importance that warnings should be issued with as little delay as possible, as, frequently in the past, owing to the closing of the telegraph offices throughout the Dominion at 8 p.m., warnings despatched in the evening have not reached thoir destination until the following morning.

Since the beginning of September, warnings have generally been issued from Toronto without waiting for the receipt of the telegram from Washington, and the result has been that scarcely any of the telegrams have reached their destination after the commencement of the storm.

The following is a table showing the number of storm warnings issued from this office since September, 1876, and the percentage verified:-

| District. | Number Issued. | Number <br> Verified. | Percentage Verited. |
| :---: | :---: | :---: | :---: |
| Lakes. | 153 | 118 | $77 \cdot 1$ |
| St. Lawrence River and Gulf.. | 71 | 45 | $63 \cdot 1$ |
| Ocean. | 117 | 103 | $88 \cdot 0$ |
| Total for the Dominion...... | 341 | 266 | $78 \cdot 0$ |

It will be noticed that the percentage of rerification of warnings for the St. Lawrence is considerably below that at other places. This is, in part, due to the want of sufficient telegraphic reports from the north.

In counection with storm warnings, the following resolution was passed by the Board of Inland Marine Exchange at Toronto :-
"The Marine Exchange cannot close its meetings for 1876 without putting on "record its appreciation of the services rendered by the Meteorological Department " during the past season in accurately forecasting the weather.
"This year has been marked by a very few marine disasters, and while it would "be too soon to say horv much of this is due to the confidence sailors are beginning "to place in the storm signals, it seems not unlikely this cause may have contributed "to immunity from shipwreck."

## Probabilities.

During the summer, ancl to the close of navigation, a chart of the weather with probabilities for the ensuing $2 t$ hours was issued from this office at 10 a.m. and furnished daily, Sundayn excepted, to the Narine Exchange Board, Toronto, for public inspection. Since Octuber, these probabilities have appeared in the Toronto afternoon papers, and in Decomber were furnished to the Telegraph Companies, and were forwarded by them for publication in the variows papers in Ontario and at Montreal. It is intended shortly to extend these probabilities so as to include the Maritime Provinces. The veritication of the probabilitios has been as follows:-In October, with two oxceptions, all were fully voritied. In November the number of predictions isisued was 130 ; of these 108 were fully, 12 partly and 10 not verified, or $92 \cdot 3$ per cent. verified and 88 per cent. completely so. In December the number of predictions iswal wat 151 ; of these 128 were fully, 19 partly and 4 not veritied, or 97.3 per cent. verified and $84 \cdot 8$ per cent. completely so.

## Central Office.

Owing to the very considerable increase in the various branches of the work, it has been with great difficulty that the prosont staff has been enabled to prevent arrcars flom accumulating. In order that the present work should be permanently and satisfactorily carried on, and in view of continued progress, it is necessary that there should be some increase in the staff.

As stated by the Superintendent in the last report, " this employment bocing special in its nature, and necding a special apprenticeship, and being one which in many respects does not afford a good introduction to other lines of business, persons who join this office are liable to leave it even for lower salaries, where the new employment offers prospects of greater permanence and future advancement." Much time has thus been spent in the past, in instructing those joining the office.

The worls in this office comprises:-
(1.) General superintendence and inspection of the stations in connection with the service; and the fixing of times and methods of observations.
(2.) Testing all instruments and apparatus before issue, supplying the same to the stations and keeping a record of the character, errors and destination of each instrument.
(3.) Supplying forms, tables, instruments, \&c., in connection with the registration of observations.
(4.) Examining, reducing, and compiling for publication and reference, the returns from the various observers throughout the Dominion.
(5.) Prognostication of the weather, comprising the issue of daily probabilities and occarional storm warnings.
(6.) Ascertaining the extent of verification of the probabilities, and receiving and recording the reports of storms.

The worls has been considerably increased in (3) and (4) by the introduction of new forms to secure greator accuracy, and through the large addition to the number of stations from which reports are received; (5) and (6), with the exception of recording reports of storms, were undertaken ly this office during the past year for the first time.

Inspecting Stations.-The Superintendent, in former reports, has urged the necessity for tho inspection of stations.

During the past year only 24 stations have been inspected. In several cases instrumental errors were found and corrected.

The necessity for more frequent inspection is urgent. In many cases systematic orrors have been committed which were detected on the station being inspected, and their occurrence prevented for the future, but which have, in several instances, made the past olservations entirely useless and in others seriously impaired the value.

The number of applications finm various parts of the Dominion for information with regard to past and probable weather has considerably increased. Some of these enquiries were of a statistical nature, and had for their object the removal of false impressions as to the climate of certain localities, with a view to the increase of immigration and of trade; others again, had reference to the facilities for agriculture, shewing the necessity for obtaining and diffusing an accurate knowledge of the climate of all parts of the Dominion.

There were also numerous enquiries as to probable weather from those connocted with shipping, and other's whose trade would bave been affected by sudden changes in the weither.

Applications having been received asking for daily weather maps with probabilities, it is rery desirable that a map similar to those published in other countries should be furnished daily by the Contral Office to subscribers for a small yearly or quarterly subscription. It is probable that there would be a sufficient number of subseriptions to pay for the greater part, if not the whole, of the cost of such a publication.

I cannot close this report without expressing my strong sense of the great obligations under which the Meteorological Service lies, to the fidelity and skill evinced by the numerous observers in correspondence with this office.

That portion of the subjoined list which contains the name of the ordinary stations, shews how much the service is indebted to unpaid, voluntary labour.

In estimating the results achieved by means of the appropriation, it is right to take into account the large amount of infurmation which, through the spirit of the
gentlemen in charge of ordinary stations, it has been the indirect means of calling forth.

The library in connection with this office has received numerous valuable additions, during the year, which have been individually acknowledged. It is proposed to publish a complete list of the works contained in the library, in the next report.

The above is respectfully submitted.
CHARLES CARPMAEL, Acting Suptrintendent of Meteorological Office.

## REMARKS ON TABLES.

## Table I.

The times of observations given in this table are those employed at all the tele graph 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 these some take observationsat all three hours, some omit the night hour, and some observe only in the morning. This observation correspouds in time with the international syachronous series.

For the morning observations at Cornwall, Stratford and Goderich this office is indebted to the Principals of the High Schools at those places, who, by permission granted by the Department of Education of Ontario, have kindly taken theso 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 Laplace, omitting the term which depends on the latitude, and that for the diminution of gravity with increased height above the sea.

There are a few stations which wero not supplied with barometers from the Toronto office, and which hare not been visited for vorifying either the errors of the instrument or the supposed height above sea-level.

At Toronto the standard barometer has a tube with an internal diameter of $\cdot 506$ incher. The correction for capillarity has, by frequent measurements of the meniscus, been determined as 007 of an inch. This correction has been applied in the tables. In making comparisons between readings of the barometer taken in Canada and those in the United States, it should be remembered that, as already stated in the Fourth Annual Report of this office, the standard barometer employed for the Dominion reads higher by 014 inches than that of the Signal Office.

Remarks on the Combinations employed for obtaining Mean Temperature.
Unless otherwise stated, the mean temperatures given are the arithmetic means of the temperature observed at $7 \mathrm{a} . \mathrm{m}$., 2 p.m. and 9 p.m., giving double weight to the latter hour.

At Welland and North Gwillimbury, where 8 a.m. has been used, they have been reduced to 7 a.m. by the application of corroctions obtained from the 'loronto bi-hourly series.

Halifax, N.S., equal intervals of three hours,
Sydney, N.S. do
Spence's Bridge, B.C. do
Woodstock, Ont. do
Fredericton, N.B. do
Montreal, Q. do
St. John's Coll., Manitoba do
Quebec, Lt.-Col. Strange, R.A., equal intorvals of two hours.
Fort Walsh, N.-W. Territory do
St. John, N.B. do
Kingston, Ont., Lieut.Col. Irwin, R.A. do
Toronto, at 6 and 8 a.m., 2, 4 and 10 p.m. and midnight
Newmarket, Ont., 7 a.m., and 1 and 9 p.m.
Ten Ontario High Schools, viz.:-Goderich, Stratford, Barrie, Windsos, Simcoe, Hamilton, Peterborough, Bolleville, Pembroke and Cornwall, 7 a.m., 1 and 9 a.m.

Channel, Newfoundland, at 8 a.m., 2 p.m. and 8 p.m.
Fort McLeod, N.-W. Territory do
Swan River Barrack do do
Fort Calgary do do
Battleford do do
Port Hastings, N.S., at 9 a.m. and 9 p.m.
Reporting and Reserve Telegraph Stations at:-Chatham, N.B.; Ottawa, Ont.; Kingston, Ont. ; Brockville, Ont. ; Kincardine, Ont. ; PortStanley, Ont.; Port Dover, Ont.; Stayner, Ont.; Saugeen, Ont. ; Parry Sound, Ont.; Quelec Observatory; St John; Heart's Content, Newfoundland, from the daily maximum and minimum,

Meteorological Stations in correspondence with the Central Metenrological Office, Toronto.

CHIEF STATIONS.


REPORTING TELEGRAPH STATIONS.

(1) also Chief Station; (2) also First Class Ordinary Station.

RESERVE TELEGRAPH STATIONS.

(2). Also first-class Ordinary Station.

DRUM STATIONS.

(1). Ohief Station. (a). Reporting Telegraph Station. (b). Reserve Telegraph Station. (c). Firstclass Ordinary Station. (d). Second-class Ordinary Station. (e). Third-class Ordinary Station.

ORDINARY STATIONS.

(b) Reserve Telegraph Station; ( $f$ ) Drum Station.

ORDINARY STATIONS-Continuei.

(f) also Drum Station. *Relieved by J. G. Kittson, M.U., from October. †Observations of Temperature have been made for a considerable time by the gentleman in charge, every second hour, day and night.

Stations from which Special Weekly Reports of Observations made at 7.25 a.m. Toronto time, are received.

(1) also Chief Stations; (c) also First Class Ordinary Station; (d) Second Class Ordinary Station
(f) Dram Station.

At Woodstock, Ontario, Fredericton and St. John, N.B., observations are regularly made at the other 5—c $2 \frac{1}{2}$

Instruments and Book: have also been supplied to the following Stations, but no returns have as yet been received.

| Station. | Observer. | Remerks. |
| :---: | :---: | :---: |
| Class I. |  |  |
| Athabascs........................... | Bishop of Athabasce.............. |  |
| 3 Stations ............................ | Officer in charge.................... |  |
| Class II. |  |  |
| Fort McPherson, Peele's River.. |  |  |
| Rampart House............-........ | J. McDougall, C.T................. |  |
| Fort Resolution.................. $\left.{ }_{\text {Great Slave Lake........ .... }}\right\}$ | F. Samison. |  |
| Freat Shave Lake................ |  |  |
| Edmonton ........................... | J. Bunn .................................... |  |
| Stanley, English River........... | Rev. J. McKay.............. . .......... |  |
| Devon, Cumberland................. | Rev. H. Budd............................ |  |
| Temiscamingae, Nipissing....... |  |  |
| Anticosti | Mr. Tetu...................... .......... |  |
| Lake St. John :- |  |  |
| St. Jerome ............... ...... | Rev. J. B. Vallée. |  |
| St. Prime......................... | Rev. E. St. Hilaire.................... |  |
| St. Louis............................ | Rev. Adolphe Girard ................\|| |  |

LATITUDE, LONGITUDE, and ELEVATION of Cistern of Barometer above Mean Sea Level, at
Meteorological Stations in Dominion of Canada and Newfoundland, shown in accompanying Map.

| No. <br> on <br> Map | S'IATIONS. | $\begin{gathered} \text { LAT. } \\ \text { N. } \end{gathered}$ | Lougitude West of Greenwich. Arc. Tine | $\begin{array}{\|c\|} \hline \text { Cis- } \\ \text { tern } \\ \text { of } \\ \text { Bar. } \\ \text { aboore } \\ \text { M.s.L } \end{array}$ |  | STATIONS. | $\begin{gathered} \text { LAT. } \\ \text { N. } \end{gathered}$ | Longitude West of Greenwich. Arc. Time | Cis- <br> tern <br> of <br> oar. <br> Babve <br> ab. <br> M.L |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | NEWFOUNDLAND |  | $\left\lvert\, \begin{array}{ll} \mathrm{ln} & \mathrm{~m} \\ \hline \end{array}\right.$ | Feet. |  | Peterborough | $\begin{array}{lll} 44 & 17 \end{array}$ | $\begin{array}{ccc} \circ & \mathrm{h} & \mathrm{~m} \\ 78 & 20 & 5 \\ \hline 13 \end{array}$ | $\begin{array}{r} \text { Feet. } \\ 688 \end{array}$ |
|  | St. Johns | 473 | 5242331 | 150 |  | Cobourg .... | 4357 |  |  |
|  | Harbor Gra | 4742 | $\begin{array}{lllllll}53 & 13 & 3 & 33\end{array}$ | 60 | 63 | Port Hope | 4356 | $\begin{array}{llllllllllll}78 & 20 & 5 & 13\end{array}$ |  |
|  | Heart's Cont | 4751 | $\begin{array}{lllll}53 & 21 & 33\end{array}$ | 53 | a63 | Port-Perry |  | $\begin{array}{lllllll}78 & 58 & 16\end{array}$ | 819 |
|  | Fogo | 4944 | $\begin{array}{llllll}54 & 11 & 3 & 37\end{array}$ | 28 | 64 | Toronto | 4339 | 7933518 | 350 |
|  | Bolle Isle | 5153 | 55.22314 |  |  | Brampton | 4341 | 7946519 |  |
|  | Amonr Point | 5128 | $\begin{array}{lllllll}56 & 51 & 47\end{array}$ |  | 66 | Newimarket |  | 7939518 |  |
|  | St. George | 4826 | 5830354 | 8 | 67 | North Gwil | 14 17 |  |  |
|  | Channel H | 4734 | 59 7 3 56 | $30)$ | 68 | Georgina | 4.118 | $\begin{array}{llllllll}79 & 20 & 5 & 17\end{array}$ |  |
|  | OVA |  |  |  | 69 | Barrie | 4422 |  | 779 |
|  | Sydney, |  | 60104 | 27 | 76 | Stayner | 4426 | 80 9 5 21 | 714 |
| 10 | Glace Bay | 1611 | 595740 | 30 | 71 | Collingwood | 4430 | 80815 |  |
|  | Cow Bay | 46 | $5955 \pm 0$ |  | 72 | Nottawasaga Island | 4432 | 8016521 |  |
| 12 | Louisisour | 4555 | 60 0 <br> 10  |  | 73 | Orillia | 44 34 | $\begin{array}{ll}79 & 35 \\ 5 & 18\end{array}$ |  |
| 13 | Baddeck |  | 60474 |  | 74 | Gravenhurst | 4457 |  |  |
| 14 | Port Hastin | 4540 | 61234 | 45 | 75 | Beatrice |  |  |  |
| 15 | Cranberry Islan | 4520 | 60554 |  |  | Seely | 4515 |  |  |
| $16$ | Sand Point | 4532 | 611545 |  | 77 | Parry Sound | 45 19 | 80 | 635 |
| 17 | North Canso | 4542 |  |  |  | Grifith I | 4451 | 8055524 |  |
| 18 | Pictou | 4542 |  |  | 79 | Presiq Ile. | 4442 | 8055524 |  |
| 19 | Truro | 15.21 | 6318413 | 40 | 80 | Little Current | 15 57 |  | 608 |
| 20 | Windsor (King's Coll.) | 4459 |  |  | 81 | Clapperton Isla |  |  |  |
| 21 | Woltville |  |  | 42 | 82 | Saugeen | 4430 | 8121525 | 641 |
| 22 | Digby | 4438 | 6547423 | $4!1$ |  | Chantry Island | 4429 | 8119525 |  |
| 23 | Liverpool | 44 | $\begin{array}{llllll}64 & 42 \\ 4 & 19\end{array}$ |  | $8 \pm$ | Kincarcline | 41 11 |  | 684 |
| 24 | Halifax.............. | 14 39 | 63 36 414 | 122 | 85 | Point Clar |  |  |  |
|  | NEW BRUNSWICK. |  |  |  | 86 | Golerich |  | 81325156 | 728 |
| 25 | Grand Manan Island, (Grand Harbor) |  | $6648 \pm 27$ |  | 87 88 | Granton Sti'atford | 43 <br> 12 | 8121.515 | ,015 |
| 26 | St. Andrew's ........ | 15 4! | 67 4 <br> 6 4 <br> 1  | 45 | $a ४ 8$ | Mount Fore | 43 58 |  |  |
| 27 | Point Leprea |  | 6628.26 |  | 89 | Brantford | 4310 | 8021515 |  |
| 28 | St. John | 4517 | $\begin{array}{llll}66 & 3 & \pm 24\end{array}$ | 150 | 90 | Hamilton | 4316 | $\begin{array}{lllllll}79 & 53 & 519\end{array}$ | 332 |
| 29 | Fredericto | 4557 | $\begin{array}{lllll}66 & 39 & 427\end{array}$ | 59 | 91 | Burlington Beach |  | $\begin{array}{ll}79 & 49 \\ 7 & 19\end{array}$ |  |
| 30 | Grindstone I | 4545 | $6 \pm 37$ <br> $6 \pm 19$ |  |  | Port Dalhousie | 4314 |  |  |
| 31 | Dorchester | 4555 | $6 \pm$ 32 <br> 18  |  | 93 | Welland | 4259 |  |  |
| 32 | Poiat du Chene | 4614 | 64. $33 \pm 18$ |  | 94 | Port Col | 4253 |  |  |
| 33 | Bass River | 4627 |  | 7 c | 95 | Port Dov | 4247 | 8013551 | 35 |
| 34 | Chatham | 473 | 6529422 | 56 | 96 | Si | 4250 | 8020521 | 724 |
| 35 | Bathurst | . 4739 | 6543433 | , | 97 | Aylner | 4247 |  | 7 |
| 36 | Dalhousie |  | 6621425 | $30^{\prime}$ | 98 | Port Stanley | 4240 | 8113525 | 592 |
|  | PRINCE ED. ISLAND |  |  |  | 99 | Woodstock |  | 80475 | 980 |
|  | 7 Oharlottet | 4614 | 6310414 | 38 | 100 | Inge:soll |  | 8057524 |  |
| 38 | George To | 4610 | 62350410 |  | 1101 | Pelee Island | 1149 | 8239531 |  |
| 39 | Bird Rocks Island .... QUEBEC. |  |  |  |  | Kindsor |  |  | 620 |
|  | Carleton |  | $\begin{array}{lllll}66 & 8 & 4 & 2 \overline{5}\end{array}$ |  | 103 | Kalmar | 4945 | $9 \pm 40620$ | 0 |
| 41 | Perce | 4831 | $\begin{array}{llllll}64 & 13 & 4 & 17\end{array}$ |  | 10.4 | Islingtou | 50 | 9440619 |  |
| 42 | Gaspe | 4850 | 64324418 |  |  | MANITOBA. |  |  |  |
| 43 | Anticosti Id., S. W. Pt. | 4924 |  |  | 105 | Wimipeg, -St. John's |  |  |  |
| 44 | Father Point | 4831 |  | 20 |  | College............. | 4953 | 97 7 68 <br> 97 28  | 740 |
| 45 | Chicoutimi | 4825 |  |  |  | Fort Garry | 4951 |  | 754 |
| 46 | St. Jerome | 4826 |  |  |  | Little Britaia | 5, 6 |  |  |
| 47 | St. Louis | 4826 |  |  |  | NOR'-W. TGRRITORY |  |  |  |
| 48 | St. Prim | 4836 | 7228450 |  |  | York Factory |  | $92 \quad 26610$ | 5 |
| 49 | Charlesbourg | 4 4 51 | $\begin{array}{ll}71 & 15445\end{array}$ |  | 18 | Riding Mountain House | 50) 46 | 10015641 | 1,756 |
| 50 | Quebec Observatory | 4648 | $\begin{array}{ll}7112 & 12 \\ 715\end{array}$ | 293 | 109 | Livingstono ........ | 5152 | 10157648 | 1,756 |
| '6 | " Citadel | 4648 |  | 312 | 11.1 | Devon Slission |  | 103306654 |  |
| 51 | Cranbourne | ${ }^{46} 23$ | 70454 |  |  | Stanley Mission | 56 | $105 \quad 470$ |  |
| 52 | Lotbiniere | 4636 | 71 56 4 <br> 7 48  |  |  | Fort Uhipewyan | 5843 | 11349735 |  |
| 53 | Danville | 4548 |  |  | 113 | Fort Resolution | 6110 | 11310733 |  |
| 54 | Brome | 4511 | 7234450 |  | 114 | Fort Rae | 6240 | 11510744 |  |
| 55 | Huntingdo | $45 \quad 3$ |  |  | 115 | Fort Simpson | 6162 | 12125.86 |  |
| 56 | Montreal $\begin{gathered}\text { ONTARIO. } \\ \text { O..... }\end{gathered}$ | 4531 | 7333454 | 182 |  | Rampart House Fort McPherso | $\left[\begin{array}{rr} 67 & 30 \\ 67 & 0 \end{array}\right]$ | $\left(\begin{array}{rr\|r} 134 & 30 & 58 \\ 135 & 0 & 9 \\ 13 \end{array}\right.$ |  |
| 57 | Cornwa |  | $7443 \mid 459$ | 175 | 116 | Edmonton | 5313 | 11348735 |  |
| $a 52$ | Ottawa | 4526 | 754335 | 250 | 117 | Battleford | 5241 | 10830714 |  |
| 463 | Fitzroy Harbor | \|45 27 | $\begin{array}{llllll}76 & 11 & 5 & 8 \\ 77 & 7 & 5 & 8\end{array}$ |  | 118 | Fort Walsh | 4932110 | 11031782 |  |
| a54 | Pembroke | 4548 | $\begin{array}{rrrrrr}77 & 7 & 5 & 8 \\ 77 & 48 & 5 & 11\end{array}$ | 389 | 119 | Fort McLeod |  | 11342735 |  |
| ${ }^{\text {a }} 55$ | Rockliffe | 46 44 | $\begin{array}{rrrrrr}77 & 48 & 5 & 11 \\ 15 & 44 & 5 & 3\end{array}$ | 418 278 | 120 |  |  | 11412737 |  |
| ${ }^{2} 56$ | Brockville Kingston | 444 44 |  | 278 |  | BRITISH COLUMBIA Spence's Bridge . |  | $\begin{array}{\|ll\|} 121 & 30 \\ \hline \end{array}$ |  |
| $\stackrel{\square}{57} 8$ | Kingston | 44444 4 | $\begin{array}{rrrrr}76 & 3.5 \\ 77 & 23 & 5 \\ 5 & 10\end{array}$ | 335 307 | 121 | Spence's Bridge . New Westminster | $\left\|\begin{array}{ll} 50 & 25 \\ 49 & 12 \end{array}\right\|$ | $\left\|\begin{array}{ll\|l\|} 121 & 30 & 8 \\ 122 & 53 & 8 \\ 12 \end{array}\right\|$ | 760 |
| 58 59 | Belleville Norwood | 44 10 | $\begin{array}{llllllll}77 & 23 & 5 & 10 \\ 77 & 59 & 5 & 12\end{array}$ | 307 | 123 | New Esquimault . . . . | $\left\|\begin{array}{ll} 49 & 12 \\ 48 & 20 \end{array}\right\|$ | $\left\lvert\, \begin{array}{lll} 12.2 & 53 & 8 \\ 123 & 12 \\ 123 & 27 & 8 \end{array}\right.$ |  |
| $\begin{aligned} & 59 \mathrm{~N} \\ & 60 \mathrm{~L} \end{aligned}$ | Lakefield | 4424 |  |  |  | These Stations are noten | ontered | in the Map. |  |



## METEOROLOGICAL TABLES.

## DOMINION OF CANADA.

1876. 

Table I.- Means for each month, and for the year, of the reduced Barom and Velocity of the Wind, from observations made at the same absolute 4:8 a.m. (of

| Stations. | January. |  |  | February. |  |  | March. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sydney .................. | 29.949 | 29924 | 29916 | $29 \cdot 922$ | $29 \cdot 879$ | 29.899 | $29 \cdot 952$ | 29914 | $29 \cdot 939$ |
| Halifax. | 29964 | 29.931 | 29969 | 29.958 | 29.898 | $29 \cdot 945$ | 29916 | $29 \cdot 906$ | 29.909 |
| St. John.. | 30.022 | 29993 | $30 \cdot 018$ | 30.007 | $29 \cdot 950$ | 30.028 | 29977 | 29924 | 29.955 |
| Fredericton | 30.010 | 29.990 | $30 \cdot 012$ | $30 \cdot 003$ | 29.979 | $30 \cdot 002$ | 29988 | 29037 | 29.948 |
| Charlottet | $29 \cdot 952$ | 29.922 | 29.935 | 29.939 | 29.896 | $29 \cdot 916$ | 29937 | 29.931 | 29.917 |
| Chatham. | 29.962 | 29.922 | 29.954 | $29 \cdot 948$ | $29 \cdot 880$ | $29 \cdot 924$ | 29.967 | $29 \cdot 926$ | 29.926 |
| Quebec ................... | $30 \cdot 007$ | 29.996 | $30.033^{\text {- }}$ | 30.021 | 29.998 | 30.005 | 29.976 | $29 \cdot 933$ | 29970 |
| Montreal | 30.031 | 30.000 | 30.000 | 30.063 | 30.015 | 30.025 | $29 \cdot 980$ | 29.947 | 29.974 |
| Ottawa... | $30 \cdot 051$ | 30.017 | 30.023 | 30.086 | 30.017 | $30 \cdot 041$ | $30 \cdot 006$ | $29 \cdot 973$ | $29 \cdot 996$ |
| Brockville | $30 \cdot 045$ | 30.013 | - | $30 \cdot 090$ | 30.030 | - | 30.010 | $29 \cdot 976$ | - |
| Kingston.................. | 30.098 | 30.060 | 30.067 | 30.133 | 30.081 | 30.087 | $30 \cdot 057$ | 30.016 | 30.031 |
| Toronto | $30 \cdot 069$ | 30.033 | 30.031 | 30.097 | 30.050 | 30.070 | 30.035 | $29 \cdot 989$ | $30 \cdot 012$ |
| Port Do | 30-082 | $30 \cdot 059$ | $30 \cdot 049$ | 30.092 | 30.046 | $30 \cdot 067$ | 30.036 | $29 \cdot 980$ | 30.009 |
| Port Stanley .... ....... | 30.098 | 30.066 | 30.069 | 30•100 | $30 \cdot 041$ | 30.083 | $30 \cdot 031$ | $29 \cdot 985$ | 30.02I |
| W oodstock.... | 30.079 | $30 \cdot 036$ | 30.045 | 30.089 | 30.042 | 30.077 | 30.003 | $29 \cdot 978$ | 30.008 |
| Sangeen ................. | 30.014 | $29 \cdot 978$ | 29.975 | 30.037 | 29.993 | 30.036 | 29.990 | 29.965 | 29.992 |
| Parry Sound | 30.031 | 30.018 | 30-015 | 30.092 | 30.047 | 30`089 | 30.035 | 29.994 | 30.040 |
| Fort Garry.............. | 30.111 | 30.096 | 30.115 | 30.233 | 30-202 | 30.217 | $30 \cdot 241$ | 30.223 | 30-212 |

RESULTANT DIRECTION.

| Sydaey | $\stackrel{\circ}{\mathrm{N}} 66 \mathrm{~W}$ | $\mathrm{N} 81 \mathrm{~W}$ | $\text { N } 73 \mathrm{~W}$ | $\stackrel{\circ}{\mathrm{S} 89 \mathrm{~W}}$ | $\text { N } 89 \mathrm{~W}$ | \$46 W | S 79 W | $\begin{gathered} \circ \\ \mathrm{N} 38 \mathrm{~W} \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Halifax | S 84 W | N 60 W | N 65 W | N 69 W | N 74 W | N 81 W | N 51 W | N 65 W | N 23 W |
| Charlottetown | N 55 W | S 40 E | N 77 W | N 45 W | N 63 W | N 78 W | N 4 E | N 36 E |  |
| Cluatham. | N 70 W | N 62 W | N 77 W | N 80 W | S 85 W | N 62 W | N 36 W | N 34 W | N 6 W |
| Quebec | N 21 W | N 55 W | N 9 W | S 71 W | S 80 W | N 74 W | $\mathrm{N} \pm 5 \mathrm{E}$ | N 39 E | N 34 E |
| Montreal | S 71 W | S 79 W | S 79 W | N 76 W | S 77 W | N 81 W | S 61 W | W | S 88 W |
| Ottawa. | S 80 W | N 65 W | W | N 69 W | S 80 W | N 57 W | N 37 W | N 56 W | N 55 W |
| Kingston | S 70 W | S 58 W | S 81 W | N 35 E | N 64 W | N 3 W | N 85 W | N 76 W | N 5 W |
| Toro | S 86 W | S 81 W | W | N 50 W | N 79 W | N 50 W | N 6 W | N 48 W | N 72 W |
| Port Dover | S 73 W | S 72 W | S 72 W | N 78 W | S 76 W | N 69 W | N 66 W | N 68 W |  |
| Port Stanley ........... | S 86 W | S 64 W | S 86 W | N 54 W | N 50 W | N 69 W | N 66 | N 68 W |  |
|  |  | S 64 W | S86 W | N 54 W | N 50 W | N 69 | N 46 W | N 56 W | N 63 W |
| Saugeen ........... .... | S 85 W | N61 W | N 70 W | N 26 W | N 72 W | N 66 W | N 49 E | N 53 W | 6 F |
| Parry Sound ............ | S 43 W | S 74 W | S 67 W | N61 E | S 78 W | N 69 W | N 67 E | N 69 Wr | N |
| Fort Garry.............. | N 57 W | N 72 W | N 65 W | N | N 20 W | N 48 W | N 4 E | N 5 E |  |

eter, and of the Temperature of the Air ; and also the Resultant Direction time as follows: Greenwich civil time, 0:43 p.m.; $9: 43$ p.m.; and mext day.)

| Stations. | January. |  |  | February. |  |  | March. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | - | - | - | - | - | - | - | - | - |
| Sydney ........ .......... | $15 \cdot 7$ | 18.4 | 10.2 | $17 \cdot 5$ | 21-5 | $16 \cdot 7$ | 27.7 | $28 \cdot 4$ | 248 |
| Halifax.................. | $20 \cdot 5$ | 22.5 | $19 \cdot 8$ | $20 \cdot 1$ | $25 \cdot 7$ | $20 \cdot 8$ | 28.5 | 306 | 270 |
| Si. John.................. | 16.1 | 20.7 | 17.5 | 17.6 | 236 | $17 \cdot 3$ | $24 \cdot 0$ | $30 \cdot 3$ | 26.7 |
| Fredericton............ | $9 \cdot 6$ | 16.8 | 109 | $10 \cdot 7$ | $21 \cdot 4$ | 11.4 | 219 | 28.8 | 23.6 |
| Charlottetown......... | 14.5 | 17.7 | $15 \cdot 9$ | $16 \cdot 3$ | 203 | $16 \cdot 7$ | 25.3 | 28-2 | $21 \cdot 3$ |
| Chatham..... ........... | 6.6 | $14 \cdot 3$ | $9 \cdot 1$ | 10.6 | 20.2 | $12 \cdot 5$ | 20.6 | 26.9 | $21 \cdot 6$ |
| Quebec | 11.0 | $15 \cdot 3$ | 11.8 | 9.0 | 14.2 | 11.5 | $20 \cdot 1$ | 26.4 | 22.0 |
| Montreal................. | 16.3 | $19 \cdot 5$ | 17.3 | 115 | 17.7 | 14.2 | 22.6 | $28 \cdot 3$ | 24.0 |
| (1) ttawa | 13.5 | $19 \cdot 4$ | 150 | 72 | 182 | $12 \cdot 6$ | 18.2 | 27.1 | 21.8 |
| Brockville............... | 198 | 24.9 |  | $11 \cdot 1$ | 20.0 | - | $22 \cdot 1$ | 27.7 | - |
| Kingston................ | $22 \cdot 8$ | 27-0 | $24 \cdot 4$ | 14.6 | $21 \cdot 1$ | $18 \cdot 7$ | $21 \cdot 4$ | $27 \cdot 9$ | 239 |
| Torinto............ | 27.5 | 30.6 | $28 \cdot 9$ | 21.4 | 26.8 | 22.7 | $22 \cdot 9$ | 29.4 | 255 |
| Port Dover.............. | $29 \cdot 3$ | $31 \cdot 4$ | $30 \cdot 0$ | $23 \cdot 1$ | 28.7 | $24 \cdot 4$ | 22.6 | $29 \cdot 9$ | 26.2 |
| Port Stanley ........... | 27.6 | 30.5 | 293 | $23 \cdot 2$ | 29.5 | 23.3 | $23 \cdot 5$ | $30 \cdot 8$ | 26.0 |
| Woodstock.............. | $26 \cdot 1$ | 29.7 | $28 \cdot 1$ | 21.5 | 26.4 | 21.2 | $22 \cdot 3$ | $29 \cdot 3$ | 24-4 |
| Saugeen ................. | $25 \cdot 8$ | $28 \cdot 3$ | 27.9 | $20 \cdot 7$ | $24 \cdot 8$ | $21 \cdot 8$ | 216 | 27.9 | $23 \cdot 4$ |
| Parry Sound ........... | $18 \cdot 7$ | 23.0 | 20.6 | $12 \cdot 3$ | $20 \cdot 2$ | $13 \cdot 9$ | 15.8 | 27.0 | 184 |
| Fort Garry.............. | $-9 \cdot 3$ | $1 \cdot 3$ | -5 5 | -132 | $0 \cdot 2$ | -7.8 | 06 | 17.2 | 69 |

RESOLTANT VELOCITY.

| Sydney . ................. | $3 \cdot 0$ | 35 | $4 \cdot 4$ | $3 \cdot 6$ | 3•1 | $3 \cdot 1$ | 1.2 | 0.8 | $1-5$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Halifax................... | $4 \cdot 3$ | $5 \cdot 7$ | $4 \cdot 5$ | $4 \cdot 9$ | $5 \cdot 5$ | $3 \cdot 3$ | $1 \cdot 4$ | $3 \cdot 1$ | 23 |
| Charlottetown ........ | 188 | $0 \cdot 4$ | $4 \cdot 3$ | 2.6 | $2 \cdot 2$ | $2 \cdot 1$ | 0.9 | $2 \cdot 4$ | $\because 5$ |
| Cbatham................ | 38 | 3.6 | 3.0 | $4 \cdot 1$ | $2 \cdot 9$ | $2 \cdot 5$ | $3 \cdot 3$ | 2.8 | 24 |
| Quebec . .................. | $4 \cdot 0$ | 1.5 | $4 \cdot 4$ | $3 \cdot 9$ | $4 \cdot 5$ | $2 \cdot 1$ | $5 \cdot 6$ | 37 | $4 \cdot 7$ |
| Montreal | $7 \cdot 1$ | 8.0 | $6 \cdot 1$ | 7•1 | 6.7 | 7.0 | 49 | $8 \cdot 3$ | 5.9 |
| Ottawa. ................. | 3.6 | $3 \cdot 3$ | 1.8 | $4 \cdot 5$ | $4 \cdot 7$ | 1.5 | $2 \cdot 5$ | 3.7 | $0 \cdot 3$ |
| Kingston......... ........ | 3.3 | $3 \cdot 8$ | $2 \cdot 4$ | 0.2 | $1 \cdot 1$ | 1.9 | $2 \cdot 3$ | $1 \cdot 9$ | $2 \cdot 3$ |
| Toronto .................. | $5 \cdot 2$ | $7 \cdot 4$ | $5 \cdot 7$ | 2.0 | 3.8 | $4 \cdot 3$ | $2 \cdot 5$ | $3 \cdot 9$ | $3 \cdot 4$ |
| Port Dover............. | 6.9 | 6.2 | $6 \cdot 7$ | $4 \cdot 3$ | 3.4 | $4 \cdot 2$ | $3 \cdot 5$ | $4 \cdot 4$ | $3 \cdot 6$ |
| Port Stanley ........... | $9 \cdot 8$ | $9 \cdot 6$ | $6 \cdot 3$ | 3.0 | 3.0 | $5 \cdot 0$ | $5 \cdot 6$ | 4.6 | 4.8 |
| Saugeen ......... ...... | $3 \cdot 4$ | 4.6 | 4.8 | $1 \cdot 2$ | $2 \cdot 6$ | $3 \cdot 6$ | 1.6 | $2 \cdot 9$ | $1 \cdot 1$ |
| Parry Sound............ | $3 \cdot 1$ | $4 \cdot 7$ | $2 \cdot 2$ | 1.0 | 4.8 | 4.0 | 3.2 | $3 \cdot 0$ | 26 |
| Fort Frartv.............. | 28 | $3 \cdot 3$ | 1.7 | 1.8 | $2 \cdot 4$ | 1.8 | $3 \cdot 3$ | 3.9 | 40 |

Table I.-Means for each month, and for the year, of the reduced Baromr and Velocity of the Wind, from observations made at the same absolute 4:8 a.m. (of

| Stations. |  | A pril. |  | May. |  |  | June. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sydney .................. | 29.884 | 29.878 | 29.879 | $29 \cdot 960$ | 29937 | $29 \cdot 970$ | 30.034 | 30.009 | 30.029 |
| Halifax. | 29.859 | $29 \cdot 834$ | 29.870 | 29932 | 29925 | 29.971 | 30.000 | 29.975 | 30.006 |
| St John. | 29.926 | $2 \theta \cdot 884$ | 29900 | 29.995 | 29.965 | 29.999 | 30.034 | $30 \cdot 000$ | 30.016 |
| Fredericton | 29.936 | 29.875 | 29.903 | $29 \cdot 985$ | 29.935 | 29.983 | 30.007 | 29.949 | $29.98 \%$ |
| Charlottetow | $29 \cdot 883$ | 29-866 | $29 \cdot 865$ | 29.950 | 29.931 | 29.953 | 29.996 | $29 \cdot 968$ | 29.986 |
| Chatham. | 29-916 | 29.875 | 29.882 | 29.951 | 29.913 | 29.938 | 29.962 | 29•919 | 29.940 |
| Quebec......... .......... | 29946 | 29.911 | 29.907 | 29.990 | 29.941 | 29.972 | 29.943 | $29 \cdot 882$ | 29.90' |
| Montreal | $29 \cdot 948$ | 29.888 | 29.923 | 29.998 | 29.938 | 29.979 | 29929 | $29 \cdot 865$ | 29.893 |
| Ottawa | 29.958 | 29901 | $29 \cdot 955$ | 30.013 | 20.956 | 30.002 | 29.924 | $29 \cdot 861$ | 29.886 |
| Brockville | $29 \cdot 960$ | 29.922 |  | 30.013 | 29.962 | - | 29.923 | $29 \cdot 868$ |  |
| Kingston | $30 \cdot 011$ | 29.970 | $30 \cdot 010$ | 30062 | $30 \cdot 015$ | $30 \cdot 051$ | $29 \cdot 976$ | $29 \cdot 925$ | $29 \cdot 949$ |
| Toronto | 29999 | 29968 | 29.997 | 30.042 | 30.004 | 30.032 | $29 \cdot 941$ | 29.8911 | 29.920 |
| Port Dove | $30 \cdot 007$ | 29-967 | 30.007 | 30.634 | 30.006 | 30.031 | 29.944 | $29 \cdot 900$ | $29 \cdot 924$ |
| Port Stanley .. | 30.002 | 29972 | 30.014 | 30.034 | $30 \cdot 015$ | 30.031 | 29.931 | 29898 | 29.924 |
| Woodstock. | 29.983 | 29.941 | 29.997 | 30.016 | 29.988 | $30 \cdot 012$ | 29.902 | 29871 | 29.893 |
| Sangeen ................. | 29.953 | 29.934 | $29 \cdot 969$ | $30 \cdot 00]$ | 29.977 | 29987 | 29865 | 29-844 | 29.869 |
| Parry Sound .. | 29.982 | 29948 | 29.980 | 30.038 | 29.994 | 30.028 | 29.903 | $29 \cdot 866$ | 29905 |
| Fort Garry ............. | 29.972 | 29.916 | 29.945 | 29.975 | $29 \cdot 901$ | 29.939 | $29 \cdot 827$ | 29-786 | 29.825. |

RESULTANT DIRECTION.

| Sydney.. | $\stackrel{\circ}{\mathrm{N}} \mathbf{6 7 \mathrm { W }}$ | $\text { N } 84 \text { E }$ | N $27 \mathrm{~W}^{\prime}$ | N 84 W | N 87 W | S 58 W | S 52 W | 58 W | $\text { S } 39 \text { W }$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Halifax. | N 24 W | N 86 W | N 28 W | N | S 80 W | N 67 W | S 28 T | S 42 W | S 31 W |
| Char | N 23 E | N25 E | N 33 E | S 49 W | N | S 45 W |  |  |  |
| Cbr | N | N 11 | N 45 E | N 70 W | N 57 W | N 75 W | S 58 W | S 44 W | S 48 W |
| Q | N 3 | N 13 E | N 5 W |  | N 13 E | N12 E | E | N 29 E | N 53 E . |
| M | S 69 W | S 68 W | S | S 61 W | 7 W | S 78 W | S 25 W | S 35 W | S 47 W |
| O | N 55 W | N 79 W | N 66 | N 30 W | N 77 W | N 34 W | S 45 W | S 37 W | S $34 \mathrm{~W}^{-}$ |
| K | S 82 W | S | N 63 W | N 64 W | S 67 W | N 87 W | S 24 W | S 59 W | S 77 W |
| Toronto.................. | N 65 W | N | N 66 | N 1 E | N 85 W | N 19 W | S 25 W | S 34 W | N 17 E |
| Port Dov | S 86 W | S 82 W | N 72 W | N 12 W | S 48 W | N 21 W | S 52 W |  |  |
| Port Stanle | N 58 W | N 74 W | N 3:3 W | N 23 E | S 70 W | N 38 E | S 4 |  |  |
| Saugeen ...... .......... | S 52 W | S 87 W |  | S 6 W | S 47 W | S 37 E |  |  |  |
| Parry Sound ........... | S 85 W | S 73 W | S 5 W | S 71 E | N 47 W | S 37 E | S 17 | S 67 W | S 33 W |
| Forl Garry..... ........ | S 86 W | N 81 W \| | N 14. | S 71 E | N43 E | N 60 E | N 7 E | N 6 E | N33 E |

eter, and of the Temperature of the Air ; and also the Resultant Direction time as follows: Greenwich civil time, 0:43 p.m.; !!:43 p.m.; and next day.)

| Stations. | April. |  |  | May. |  |  | June. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | - | $\bigcirc$ | - | ${ }^{\circ}$ | ${ }^{\circ}$ | $\bigcirc$ | ${ }^{\circ}$ | $\bigcirc$ | $\bigcirc$ |
| Sydney ................... | $36 \cdot 7$ | 35-4 | 31.4 | $44 \cdot 5$ | 45•7 | $38 \cdot 4$ | 62.6 | $64 \cdot 9$ | 56.1 |
| Halifax.................. | $37 \cdot 1$ | $38 \cdot 9$ | $32 \cdot 8$ | $45 \cdot 6$ | $49 \cdot 9$ | $40 \cdot 8$ | $59 \cdot 9$ | $65 \cdot 9$ | 56.5 |
| 8t. John .................\| | $35 \cdot 3$ | $40 \cdot 9$ | $34 \cdot 8$ | $43 \cdot 8$ | $48 \cdot 2$ | $42 \cdot 1$ | 54.5 | 59.0 | 53.5. |
| Fredericton ............ | $34 \cdot 9$ | $42 \cdot 3$ | 33.9 | $45 \cdot 2$ | 54.0 | 42.4 | $59 \cdot 7$ | 692 | 56.6 |
| Charlottetorn. ........ | $34 \cdot 4$ | $36 \cdot 9$ | $32 \cdot 6$ | $43 \cdot 8$ | $46 \cdot 9$ | $40 \cdot 3$ | $60 \cdot 3$ | 65.0 | $57 \cdot 1$ |
| Chatham | 33.4 | $39 \cdot 2$ | $31 \cdot 3$ | $45 \cdot 8$ | 52.8 | 41.6 | 61.2 | 68.9 | 57.5. |
| Quebec................... | $34 \cdot 7$ | $38 \cdot 1$ | 33.5 | $46 \cdot 1$ | 52.4 | $45 \cdot 1$ | 63.2 | 70.4 | 61.4 |
| Montreal | $35 \cdot 2$ | $43 \cdot 7$ | $36 \cdot 9$ | $48 \cdot 8$ | 56.8 | 49.8 | 64.7 | $73 \cdot 3$ | $64 \cdot 9$ |
| Ottama. | 33.4 | $43 \cdot 4$ | $34 \cdot 0$ | $48 \cdot 8$ | 58.9 | $49^{\prime} 2$ | $66 \cdot 3$ | 76.1 | 64.8 |
| Brockville ...... ........ | 37.8 | $43 \cdot 5$ |  | 51.8 | 57.3 |  | 69.0 | $73 \cdot 3$ | - |
| Kingston | $36 \cdot 4$ | $42 \cdot 3$ | $36 \cdot 1$ | $48 \cdot 6$ | 56.0 | $48 \cdot 1$ | $65 \cdot 0$ | 71.1 | $63 \cdot 3$ |
| Toronto.. | $37 \cdot 0$ | 43.2 | 36.4 | $49 \cdot 4$ | $57 \cdot 7$ | $48 \cdot 6$ | 63.7 | 70.9 | $62 \cdot 4$ |
| Port Dover | $36 \cdot 5$ | $44 \cdot 7$ | $37 \cdot 7$ | $49 \cdot 1$ | $58 \cdot 3$ | 509 | 64.2 | $71 \cdot 7$ | $64 \cdot 6$ |
| Port Stanley ........... | $37 \cdot 4$ | $44 \cdot 1$ | 37.1 | 50.8 | 56.3 | 49.6 | 65.1 | 71.6 | $62 \cdot 7$ |
| Woodstock.. | $36 \cdot 8$ | $44 \cdot 4$ | $35 \cdot 4$ | $52 \cdot 2$ | 60.6 | $50 \cdot 1$ | 66.2 | 74.5 | $63 \cdot 4$ |
| Saugeen .. .............. | $35 \cdot 7$ | 41.0 | 33.2 | $47 \cdot 6$ | 53.4 | 46.8 | $64 \cdot 3$ | $69 \cdot 3$ | 58.7 |
| Parry Sound ...... ..... | $32 \cdot 6$ | 41.8 | $32 \cdot 2$ | $45 \cdot 6$ | 56.0 | $44 \cdot 1$ | 64.0 | $70 \cdot 7$ | 58.7 |
| Fort Garry .............. | 273 | 44.8 | $33 \cdot 7$ | $44 \cdot 9$ | 63.5 | 48.8 | $52 \cdot 9$ | $68 \cdot 7$ | $56 \cdot 3$ |

RESULTANT VELOCITY.

| Sydney ............. ..... | 1.0 | 0.7 | 0.6 | 2.0 | 2.6 | 2.5 | $5 \cdot 7$ | 5•7 | $3 \cdot 7$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Halifax .................. | $2 \cdot 2$ | 0.9 | 1.8 | $1 \cdot 5$ | $4 \cdot 3$ | $3 \cdot 3$ | $2 \cdot 5$ | 4.6 | $2 \cdot 2$ |
| Charlottetown ......... | $3 \cdot 0$ | $3 \cdot 2$ | 1.5 | 0.4 | $1 \cdot 1$ | 0.4 | $4 \cdot 3$ | $2 \cdot 9$ | 3-1; |
| Chatham...... .......... | $4 \cdot 4$ | 1.8 | $2 \cdot 4$ | $3 \cdot 4$ | $2 \cdot 1$ | $0 \cdot 7$ | 4.0 | $4 \cdot 1$ | 3-1 |
| Quebec ................... | $4 \cdot 2$ | $5 \cdot 0$ | 3.4 | $2 \cdot 1$ | $3 \cdot 8$ | $4 \cdot 0$ | $3 \cdot 3$ | $3 \cdot 7$ | 3.8 |
| Montreal | 3.0 | $4 \cdot 3$ | $5 \cdot 8$ | $3 \cdot 1$ | 39 | $4 \cdot 1$ | $3 \cdot 5$ | $4 \cdot 3$ | $5 \cdot 5$ |
| Ottawa | $2 \cdot 1$ | $5 \cdot 4$ | 3.6 | $2 \cdot 7$ | 27 | $1 \cdot 4$ | $2 \cdot 1$ | $2 \cdot 0$ | $2 \cdot 4$ |
| Kingston................. | $2 \cdot 3$ | 4.0 | $2 \cdot 0$ | 0.7 | $3 \cdot 9$ | $1 \cdot 4$ | $2 \cdot 4$ | $3 \cdot 6$ | 1.6 |
| Toronto.. | 4.0 | $3 \cdot 4$ | $2 \cdot 5$ | $2 \cdot 5$ | 2•1 | $1 \cdot 3$ | 0.9 | 2.4 | $1 \cdot 4$ |
| Port Dover. | $2 \cdot 9$ | $4 \cdot 7$ | $2 \cdot 7$ | 1.9 | $3 \cdot 6$ | 1.6 | $2 \cdot 7$ | $5 \cdot 3$ | 1.8 |
| Port Stanley ........... ${ }^{\text {I }}$ | 19 | $4 \cdot 3$ | $3 \cdot 7$ | 1.6 | $4 \cdot 4$ | 1.4 | $2 \cdot 3$ | $3 \cdot 7$ | $1 \cdot 1$ |
| Saugeen ................. | 2.0 | $2 \cdot 4$ | 2.5 | $2 \cdot 1$ | 24 | 1.8 | $2 \cdot 2$ | 1.9 | 0.9 |
| Parry Sound ........... | 2.2 | 8.2 | $3 \cdot 3$ | $1 \cdot 1$ | $5 \cdot 4$ | 0.2 | $3 \cdot 8$ | 6.3 | $2 \cdot 1$ |
| Fort Garry | $3 \cdot 2$ | $6 \cdot 6$ | 0.8 | 1.9 | $2 \cdot 2$ | $4 \cdot 1$ | 1.8 | $3 \cdot 7$ | 1.6 |

Table 1-Means for each month, and for the year. of the reduced Barom and Velocity of the Wind, from obscrations, made at the same absolute 4:8 a.m (of

| Stations. | July. |  |  | August. |  |  | September. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sydney................... | $29 \cdot 928$ | 29912 | 29.924 | 29.948 | 29.926 | 29.941 | 29954 | $29 \cdot 941$ | $29 \cdot 940$ |
| Halifax... | 29925 | 29879 | 29.932 | 29.966 | 29.930 | 29.963 | 29.930 | 29912 | $29 \cdot 959$ |
| St. John | $29 \cdot 958$ | 29 29 | 29964 | $30 \cdot 033$ | 29988 | 30.025 | $30 \cdot 010$ | 29.967 | 30.033 |
| Fredericton | $29 \cdot 942$ | 29.886 | 29.925 | 30.018 | 29.953 | 29998 | 30.004 | $29 \cdot 949$ | 29.992 |
| Charlottetown ......... | 29.921 | 29886 | 29905 | $29 \cdot 962$ | 29.929 | $29 \cdot 914$ | 29.964 | $29 \cdot 935$ | 29-948 |
| Chatham | $29 \cdot 902$ | $29 \cdot 847$ | 29.865 | 29.918 | 29.904 | $29 \cdot 930$ | 29.947 | 29.912 | 29.938 |
| Quebec | 29.929 | $29 \cdot 861$ | 29.893 | $30 \cdot 032$ | 29.972 | 29.980 | 29.974 | 29.945 | 29.959 |
| Montreal | 39.934 | $29 \cdot 873$ | 29.899 | 30.051 | 29.970 | 29.993 | 29.964 | 29.936 | $29 \cdot 958$ |
| Ottawa | 29.950 | 29883 | $29 \cdot 919$ | 30.068 | 29.976 | 30013 | 29.978 | 29.949 | 29.979 |
| Brockville | $29 \cdot 953$ | 29.892 |  | 30.043 | 29.968 |  | $29 \cdot 968$ | 29.935 | - |
| Kingston................. | 30.019 | 29918 | 29.975 | 30-106 | 30.028 | 30.057 | 30.0:3 | 29.983 | 30.001 |
| Toronto | 30.001 | $29 \cdot 93$ | $29 \cdot 978$ | 30.079 | 30.012 | 30.043 | 29.999 | 29-971 | 29-989 |
| Port Dov | 30.011 | $29 \cdot 945$ | 29.992 | 30.085 | $30 \cdot 017$ | 30.048 | 29993 | 29.958 | $29 \cdot 983$ |
| Port Stanley | 30.011 | 29.958 | 30.003 | 30.080 | 30.026 | 30.053 | 30.001 | 29.971 | $29 \cdot 994$ |
| Woodstock. | 29.998 | 29939 | 29.984 | 30.078 | 30.000 | 30.053 | 30.001 | 29.959 | 29993 |
| Saugeen...... ........... | 29.962 | 29.927 | 29.957 | 30.038 | 29997 | 30.014 | 29.980 | 29.947 | 29.971 |
| Parry Sound........... | 29.982 | 29.931 | 29.962 | $30 \cdot 069$ | 30.009 | 30.033 | 30.012 | 29-969 | 29.992 |
| Fort Garry.............. | 29.878 | 29.830 | 29.840 | $29 \cdot 864$ | 29.824 | 29.845 | 30.040 | 29994 | $30 \cdot 015$ |

RESULTANT DIREOTION.

| dn | W | $\mathrm{S}$ | S | S 70 W | S 56 W | S |  | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| , | W |  |  | S 70 W | S 56 W | S 39 W | S 89 W | N 63 W | S 56 W |
| Halifax. | S 79 W | S 38 W | S 76 W | N 60 / | S 82 W | N 80 W | N17E | S 71 W | N 77 W |
| Charlottetown | S 67 W | S 10 E | S 17 W | W | N 61 W | S 85 W | N 47 W | W | N 89 W |
| Chatham | N 67 W | S 67 W | S 30 W | S 76 W | N 86 W | S 83 W | N 33 W | N 83 W |  |
| Quebec. .................. | N 69 W | S 70 Tr | S 58 W | S 11 W | N 79 W | N 39 W | N 21 E | N 32 E | N 2 E |
| Montreal. | S 39 W | S 60 W | S 49 W | N 84 W | S 76 W | S 47 W | S 40 W | N 53 W | S 77 W |
| Otta | S 79 W | S 77 W | S 42 W | N 66 W | S 62 T | S 74 W | N 15 W | N 62 W | N 16 W |
| Kingston | S 41 W | S 61 W | N 86 W | S 68 W | S 77 W | S 82 W | N 26 W | S 79 W |  |
| Toron | N 50 W | S 65 TV | N 61 W | S 81 W | S 34 W | N 14 W | N 4 W | N 36 W | S 41 W |
| Port Dover. | N 51 W | S 59 W | N 83 IV |  | S 34 | N14 W | N 4 W |  |  |
|  | - 51 | 小 59 W | N 83 W | N 4 | S 41 W | N 49 W | N 18 W | N 33 W | N 24 W |
| Port Stanley ........... | N 69 W | S 85 W | N 72 W | N 18 E | S 59 W | N 18 W | N 53 W | N 81 |  |
| Saugeen.................. | S 44 W | S 88 W | S 74 W | S 27 E | N 51 W | N 1 E | N 2 E |  |  |
| Parry Sound ............ | S 56 W | N 89 W | S 56 W | S 40 W |  | N 1 E | N 2 E |  | N 15 E |
| Pary Sound........... | S 56 W | N 89 W | S 56 W | S 40 W | N | S 66 | S 80 E | S 66 W | N 28 E |
| Fort Garry .............. | S 62 W | S 84 W | S 17 E | S 58 W | S 61 W | S 51 W | N 79 W | N 63 |  |

eter, and of the Temperature of the Air ; and also, the Resultant Direction time, as follows:-Greenwich Civil time, 0:43 p.m., 9:43 p.m., and next day.)

| Stations. | July. |  |  | August. |  |  | September. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | - | - | $\bigcirc$ | - | - | - | - | $\bigcirc$ | - |
| Sydney ................... | $66 \cdot 0$ | $66 \cdot 4$ | $57 \cdot 1$ | $67 \cdot 8$ | $69 \cdot 0$ | $58 \cdot 7$ | $55 \cdot 1$ | 54.7 | $48 \cdot 2$ |
| Halifax | 63.9 | 69.5 | 59.6 | 65•1 | $69 \cdot 6$ | $59 \cdot 1$ | 54* | $58 \cdot 3$ | $50 \cdot 2$ |
| St. Jobn ........ ...... | 614 | $65 \cdot 5$ | 589 | 58.8 | $64 \cdot 4$ | $57 \cdot 4$ | $52 \cdot 2$ | $58 \cdot 7$ | 51.5 |
| Fredericton ............. | 66.9 | $74 \cdot 3$ | 612 | $63 \cdot 1$ | 74.8 | $59 \cdot 1$ | $50 \cdot 5$ | $58 \cdot 6$ | $48 \cdot 5$ |
| Charlottetown ........ | $64 \cdot 6$ | $68 \cdot 1$ | 61.6 | $64 \cdot 3$ | $69 \cdot 9$ | 61.4 | 54.4 | 56.8 | 51.4 |
| Chatham................. | $64 \cdot 9$ | 71-8 | 605 | $64 \cdot 0$ | 75.0 | $59 \cdot 3$ | $50 \cdot 2$ | 59•7 | $49 \cdot 1$ |
| Quebec | $66 \cdot 3$ | $74 \cdot 3$ | $65 \cdot 1$ | 66.2 | $74 \cdot 4$ | $64 \cdot 1$ | 52.7 | 59.0 | 52.0 |
| Montreal. | 68.5 | $75 \cdot 7$ | $69 \cdot 1$ | 66.7 | T-1 | $68 \cdot 1$ | 53.7 | $60 \cdot 8$ | 54-5 |
| Ottawa......... .......... | $68 \cdot 2$ | $80 \cdot 8$ | 671 | $66 \cdot 0$ | $82 \cdot 5$ | 66.6 | $52 \cdot 1$ | 64.3 | 53.3 |
| Brockville | $70 \cdot 3$ | 756 |  | $71 \cdot 1$ | 781 | - | 54.7 | 62.2 | - |
| Eingston................. | $68 \cdot 1$ | 73.5 | 664 | $68 \cdot 9$ | $77 \cdot 9$ | $67 \cdot 0$ | 55.8 | 61.7 | 55•1 |
| Toronto. | $67 \cdot 6$ | 747 | 64.9 | $68 \cdot 1$ | $77 \cdot 0$ | 664 | 561 | $61 \cdot 3$ | $54 \cdot 9$ |
| Port Dover | $66 \cdot 8$ | 78.0 | $67 \cdot 0$ | $65 \cdot 8$ | 793 | 67.7 | $54 \cdot 1$ | 63.4 | $55 \cdot 6$ |
| Port Stanley ........... | 67.6 | $77 \cdot 1$ | 64.8 | $65 \cdot 8$ | $77 \cdot 8$ | $65 \cdot 1$ | $54 \cdot 4$ | $62 \cdot 3$ | 54.7 |
| Woodstock | 67.9 | 76.9 | $64 \cdot 3$ | 64-8 | 77.2 | 62.2 | 53.0 | 61.7 | 52-3 |
| Saugeen ......... ........ | ${ }^{6} 6.6$ | $69 \cdot 5$ | $60 \cdot 5$ | 66.9 | $72 \cdot 4$ | 627 | 53.9 | $59 \cdot 2$ | 53.0 |
| Parry Sound ...... ..... | $66 \cdot 1$ | $73 \cdot 6$ | $62 \cdot 6$ | 66.0 | 758 | $62 \cdot 8$ | 52.6 | $60 \cdot 4$ | 52.7 |
| Fort Garry.............. | 57.4 | 77.2 | $63 \cdot 6$ | $55 \cdot 9$ | 73.5 | $60 \cdot 9$ | 43.9 | 62.5 | 50-4 |

RESULTANT VELOCITY.

| Sydney .................. | $4 \cdot 4$ | $3 \cdot 1$ | $1 \cdot 4$ | 3.8 | $4 \cdot 3$ | 26 | 2.9 | 2.5 | 1.6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Halifax...... ............. | 1.8 | $3 \cdot 4$ | $2 \cdot 4$ | 4.6 | $5 \cdot 3$ | $3 \cdot 5$ | 0.6 | 2.9 | 1.7 |
| Charlottetown ........ | $3 \cdot 7$ | 1.2 | 3.2 | $2 \cdot 7$ | 2.5 | $2 \cdot 2$ | 2.2 | 0.5 | 26 |
| Chatham.. | $2 \cdot 9$ | $2 \cdot 1$ | 1.6 | $3 \cdot 3$ | $2 \cdot 4$ | 1.7 | $2 \cdot 2$ | 1.4 | $1 \cdot 2$ |
| Quebec ................... | 1.0 | 22 | 12 | 1.6 | 1.2 | 0.9 | 32 | 3.0 | 3-8 |
| Montreal ........ ........ | 4.0 | $5 \cdot 5$ | $4 \cdot 4$ | $2 \cdot 9$ | 2.5 | 3.0 | 0.8 | $2 \cdot 7$ | 1.7 |
| Ottawa. | 29 | $5 \cdot 1$ | $1 \cdot 3$ | 1.9 | 3.2 | 1.8 | $2 \cdot 5$ | 2.6 | 0.8 |
| Kingston ............... | 07 | $3 \cdot 5$ | $2 \cdot 2$ | 1.0 | $2 \cdot 7$ | 0.8 | $1 \cdot 5$ | $1 \cdot 7$ | 0.6 |
| Toronto................... | 1.9 | $2 \cdot 1$ | 2.5 | $1 \cdot 1$ | 1.4 | $1 \cdot 9$ | $3 \cdot 3$ | 2.2 | 2.8 |
| Port Dover.............. | 2.0 | 4.6 | $2 \cdot 4$ | 16 | 3.5 | $2 \cdot 3$ | 4.8 | 1.5 | 28 |
| Port Stanley........... | $1 \cdot 1$ | $5 \cdot 4$ | $2 \cdot 7$ | 14 | 25 | 0.5 | $2 \cdot 5$ | $3 \cdot 7$ | $2 \cdot 2$ |
| Saugeen ................ | $2 \cdot 2$ | $2 \cdot 0$ | 05 | 05 | $1 \cdot 1$ | 0.6 | 0.8 | $2 \cdot 2$ | $1 \cdot 4$ |
| Parry Sound ............ | $2 \cdot 4$ | $7 \cdot 0$ | $2 \cdot 1$ | 1.8 | 6.9 | $0 \cdot 4$ | 0.3 | $2 \cdot 7$ | 0.6 |
| Fort Garry ............. | 3.7 | $4 \cdot 7$ | 1.4 | $4 \cdot 3$ | 60 | 2.2 | 1.5 | $3 \cdot 3$ | 1.6 |

Table I.-Means for each month, and for the year, of the reduced Barom and Velocity of the Wind, from observations made at the same absolute

4:8 a.m. (of

| Stations. | Octoter. |  |  | November. |  |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sy | $29 \cdot 823$ | 29.800 | 29783 | $29 \cdot 918$ | 29-902 | 29.891 | $29 \cdot 675$ | 29.675 | 29-679 |
| Halif | $29 \cdot 817$ | 29.801 | 29.829 | 29.892 | 29881 | 29-887 | 29•757 | 29•741 | $29 \cdot 764$ |
| St. John. | 29•897 | 29.836 | 29873 | 29.966 | 29937 | 29.948 | 29841 | $29 \cdot 792$ | 29.814 |
| Fredericton | 29875 | 29.807 | $29 \cdot 849$ | 29.989 | 29952 | 29.956 | $29 \cdot 837$ | $29 \cdot 792$ | 29-820 |
| Charlottetown. | 29.816 | 29.770 | $29 \cdot 779$ | 29.926 | 29.909 | 29-910 | $29 \cdot 721$ | $29 \cdot 707$ | 29-708 |
| Chatham. | 29-774 | 29-742 | 29,759 | 29,939 | 29.924 | 29.922 | $29 \cdot 723$ | 29•705 | 29•723 |
| Quebec | 29.833 | 29.816 | 29830 | 30013 | 29.995 | 29.984 | $29 \cdot 876$ | 29.879 | 29-893 |
| Montreal. | 29.871 | $29 \cdot 842$ | 29.871 | $30 \cdot 006$ | 29.967 | 29971 | 29.947 | $29 \cdot 955$ | 29.933 |
| Ottaw | 29880 | 29853 | 29899 | 30008 | 29.964 | 29983 | 29.944 | 29.952 | 29.97T |
| Brock ville. | 29906 | $29 \cdot 867$ |  | 30.004 | 29.955 | - | 29.988 | 29.989 |  |
| Kingston ................ | 29961 | $29 \cdot 914$ | 29.959 | 30.036 | 29.978 | $30 \cdot 001$ | 30.046 | 30.032 | 30.015 |
| Toronto................... | 29-950 | 29.922 | 29.941 | 29.999 | 29.963 | 28978 | $30 \cdot 006$ | 30.004 | 29.999 |
| Port Dover...... ........ | 29-964 | 29.932 | 29.958 | 29.991 | 29.954 | 29.977 | 30.059 | 30-018 | $30.010^{\circ}$ |
| Port Stanley | 29.969 | 29.944 | 29959 | 29-992 | $29 \cdot 951$ | 29.979 | 30055 | 30.038 | 30.030 |
| Woodstock | 29959 | 29.930 | 29.951 | 29.998 | 29.952 | 29984 | 30.033 | 30006 | 30.029 |
| Saugeen............ ..... | 29-893 | 29.867 | $29 \cdot 866$ | 29.945 | $29 \cdot 914$ | 29.939 | 29.974 | 29967 | 29.960 |
| Parry Sound............ | $29 \cdot 903$ | 29.882 | 29.890 | 29.985 | 29.957 | 29.976 | 30-004 | 30.009 | $30 \cdot 004$ |
| Fort Garry .............. | 29.862 | 29.856 | 29.875 | $30 \cdot 141$ | $30 \cdot 116$ | $30 \cdot 150$ | 30.185 | $30 \cdot 189$ | $30 \cdot 195$ |

RESULTANT DIRECTION.

|  | ${ }^{\circ}$ | ${ }^{\circ}$ | ${ }^{\circ}$ |  |  | $\bigcirc^{\prime}$ | ${ }^{\circ}$ |  | ${ }^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sydney | N 61 W | S 60 W | S 49 W | N | N 4 W | N 37 W | S $59 . \mathrm{W}$ | N 89 W | S 79 W |
| 1 | S 84 W | S 65 W | S 89 W | N 17 | N 21 W | N 26 W | N 79 W | N 71 W | S 88 W |
| arlottetown | S 73 W | S 70 W | S | N 6 E | N 13 E | N13 E | N 57 W | N 59 W | N 60 W |
| Chat | S 61 W | S 83 | S 55 |  |  | N 16 W | S 63 W | S 81 W | S 67 W |
| Quebec | S 71 W | S 52 W | S 46 W | N 33 E | N 37 E | N 43 E | N 49 W | N 89 W | S 62 W |
| Montreal | S 6 | S | S 83 W | N 20 W | N | N 6 E | N 87 W | S 83 W | N 85 W |
| Ottawa. | S 6 | S 84 W | S 44 W | N 55 E | N 16 | N 60 E | N 89 W | N 78 W | S 74 W |
| King | S 64 W | S | S | N | N 76 E | Calm. | N 88 W | N 56 W | N 53 W |
| Toron | N | N 85 | S 56 W | N 28 W | S 30 E | N 9W | N 70 W | N 79 W | S 82 W |
| Port D | N 80 W | S 74 W | S 77 W | N 69 W | N 76 W | N 55 W | N 72 W | N 78 W | N 88 W |
| Port | S 80 W | S 77 W | $\mathrm{B}_{6} 67 \mathrm{~W}$ | N 88 | N 82 W | S 79 W | N 54 W | N 66 W | N 34 W |
| Sauge | N 61 W | N 86 W | S 76 W | N 44 W | N 85 W | N 59.0 | N 81 W | N 84 W | N 66 W |
| Parry Sound. | S 81 W | S 84 W | S 17 W | N 81 E | S 85 E | N 27 E | N 8 E | S 3 W | N 30 W |
| Fort Garry.............. | N 79 W | N 80 W | N 88 W | N 8 W | N 56 W | N 19 W | W | S 68 W | S 69 W |

eter, and of the Temperature of the Air ; and also the Resultant Direction time as follows: Greenwich civil time, 0:43 p.m.; $9: 43$ p.m.; and next day.)

| Stations. | October. |  |  | November. |  |  | December. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | - | - | - | $\bigcirc$ | - | - | $\bigcirc$ | - | $\bigcirc$ |
| Syduey........... ........ | 46.1 | $45 \cdot 1$ | 422 | 38.6 | 37.9 | 375 | 24.7 | 26•1 | $23 \cdot 8$ |
| Halifax ........ .......... | $44 \cdot 7$ | $47 \cdot 6$ | $43 \cdot 2$ | 38.4 | 39.1 | 37-4 | $20 \cdot 3$ | 24.8 | 21.5 |
| St. John. ................. | $42 \cdot 2$ | $47 \cdot 1$ | $43 \cdot 1$ | 35.2 | 37.9 | $35 \cdot 9$ | $15 \cdot 9$ | 20.8 | 18.6 |
| Fredericton. ............ | $40 \cdot 1$ | $45 \cdot 4$ | $38 \cdot 7$ | $33 \cdot 9$ | $36 \cdot 5$ | $33 \cdot 7$ | $9 \cdot 1$ | $15 \cdot 8$ | 115 |
| Charlottetown......... | 44.2 | $46 \cdot 4$ | $43 \cdot 9$ | $37 \cdot 1$ | $37 \cdot 0$ | 36.5 | $18 \cdot 6$ | 22.0 | $19 \cdot 3$ |
| Chatham.......... ...... | $39 \cdot 0$ | $45 \cdot 1$ | $39 \cdot 1$ | 32.0 | 34.4 | $32 \cdot 0$ | $9 \cdot 2$ | 156 | 12.5 |
| Quebec............. ...... | $38 \cdot 8$ | $42 \cdot 6$ | $39 \cdot 1$ | $31 \cdot 0$ | 33.2 | 31.0 | 8.9 | 11.8 | 10.7 |
| Montreal.................. | $39 \cdot 6$ | $45 \cdot 7$ | $41 \cdot 1$ | 32.5 | 36.1 | 32.5 | 8.9 | $12 \cdot 3$ | 10.5 |
| -Ottawa | $37 \cdot 6$ | $45 \cdot 6$ | $39 \cdot 7$ | 32.0 | $36 \cdot 7$ | $32 \cdot 3$ | $5 \cdot 1$ | $11 \cdot 1$ | $8 \cdot 1$ |
| Brockrille ..... . | 40.8 | $46 \cdot 7$ |  | $32 \cdot 7$ | 37.7 |  | $8 \cdot 7$ | $13 \cdot 3$ | - |
| Kingston................. | 41.4 | 471 | $42 \cdot 3$ | $34 \cdot 8$ | $39 \cdot 0$ | $35 \cdot 8$ | 10.9 | $15 \cdot 3$ | 14.0 |
| 'Toronto. ................. | $39 \cdot 7$ | $45 \cdot 8$ | $41 \cdot 0$ | $35 \cdot 5$ | $39 \cdot 0$ | 36.5 | $14 \cdot 3$ | $19 \cdot 0$ | $18 \cdot 1$ |
| Port Dover.............. | $40 \cdot 0$ | $47 \cdot 9$ | 43.0 | 36.1 | $39 \cdot 9$ | 36.9 | $15 \cdot 6$ | $20 \cdot 7$ | 186 |
| Port Stanley ............ | 40.6 | 47.5 | 43:5 | 36.3 | $40 \cdot 7$ | $37 \cdot 1$ | 14.7 | $20 \cdot 9$ | 18.9 |
| Woodstock.............. | 38.3 | $49 \cdot 0$ | $40 \cdot 2$ | $34 \cdot 4$ | 38.4 | 34•1 | $13 \cdot 9$ | 17.5 | 18.7 |
| Saugeen.................. | 41.4 | $45 \cdot 3$ | $42 \cdot 5$ | $36 \cdot 1$ | 38.2 | $35 \cdot 1$ | $15 \cdot 9$ | 193 | 176 |
| Parry Sound............ | 37.8 | $44 \cdot 3$ | 39.7 | 33.3 | $36 \cdot 4$ | 33.6 | $5 \cdot 3$ | 13.9 | 10.0 |
| diort Garry.............. | 313 | 45.0 | 35.1 | 11.7 | $20 \cdot 3$ | 12.4 | -8.1 | -0.4 | $-74$ |

RESULTANT VELOCITY.

| :Sydney ........ ........... | 6.4 | $4 \cdot 1$ | $3 \cdot 9$ | $3 \cdot 1$ | 2.8 | $2 \cdot 9$ | $4 \cdot 5$ | $5 \cdot 5$ | 5.9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Halifax ................... | 4.9 | 48 | $5 \cdot 6$ | 3.6 | $2 \cdot 9$ | 1.4 | $7 \cdot 3$ | 6.9 | $8 \cdot 2$ |
| Cha-lottetown......... | $3 \cdot 1$ | $2 \cdot 3$ | 4.6 | 2.6 | 4.7 | 2.8 | 3.7 | 3.8 | $2 \cdot 8$ |
| Chatham................. | 39 | $4 \cdot 1$ | 3.2 | $2 \cdot 4$ | $3 \cdot 3$ | $2 \cdot 6$ | 2.2 | $2 \cdot 9$ | $2 \cdot 3$ |
| Quebec................... | 1.4 | 0.9 | 1.5 | 5.1 | $5 \cdot 1$ | $5 \cdot 5$ | $3 \cdot 3$ | $2 \cdot 9$ | $2 \cdot 3$ |
| Montreal. | $7 \cdot 1$ | 7.9 | 6.8 | $2 \cdot 3$ | 2.4 | $3 \cdot 2$ | 71 | 9.7 | 8.9 |
| Ottawn.............. ..... | $3 \cdot 1$ | $4 \cdot 6$ | 3.8 | $1 \cdot 6$ | $2 \cdot 1$ | 1.7 | $4 \cdot 3$ | 4.2 | 3.5 |
| Kingaton................. | $3 \cdot 3$ | $4 \cdot 3$ | $3 \cdot 7$ | 0.9 | 0.5 | 00 | $3 \cdot 5$ | $3 \cdot 7$ | 2.5 |
| Toronto. ................ | $3 \cdot 7$ | 6.3 | $2 \cdot 9$ | 1.6 | 0.8 | 04 | 6.0 | $5 \cdot 7$ | 4.6 |
| Port Dover.............. | 4.9 | 66 | 5.8 | 3.5 | 1.6 | $3 \cdot 8$ | 6.8 | $5 \cdot 7$ | 67 |
| Port Stanlpy ........ ... | 8.8 | 90 | 6.8 | $4 \cdot 2$ | $2 \cdot 3$ | 3.9 | $7 \cdot 6$ | 46 | $6 \cdot 8$ |
| Sagageen.................. | 30 | $3 \cdot 3$ | $3 \cdot 4$ | 10 | 1-2 | 23 | $3 \cdot 0$ | $2 \cdot 8$ | $8 \cdot 9$ |
| Parry Sound............ | $5 \cdot 0$ | $7 \cdot 6$ | $2 \cdot \theta$ | $3 \cdot 2$ | 177 | 1.0 | 36 | 0.7 | $1 \cdot 3$ |
| Fort Garry..... ......... | $3 \cdot 7$ | $3 \cdot 2$ | $2 \cdot 7$ | $3 \cdot 7$ | 3.3 | 16 | $2 \cdot 0$ | 3.0 | 2.1 |

Table I. (Continued.)-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 time, 0:43 p.m.; $9: 43 \mathrm{p} . \mathrm{m}$. ; and $4: 8 \mathrm{a} . \mathrm{m}$. (of next day.)

| Stations. | Barometer. |  |  |  | Temperature. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | Year. | 1 | 2 | 3 | Year. |
|  |  |  |  |  | 0 | $\bigcirc$ | $\bigcirc$ | - |
| Sydney ............... . ............. | 29.914 | $29 \times 21$ | 29.899 | 29.902 | 41.9 | $42 \cdot 8$ | $37 \cdot 6$ | $40 \cdot 8$ |
| Halifax .............................. | 29.914 | 29.887 | 29.917 | 29905 | 415 | $45 \cdot 2$ | $39 \cdot 0$ | $41 \cdot 9$ |
| St. Jobn.............................. | 29.972 | 29930 | 29962 | 29955 | $38 \cdot 1$ | $43 \cdot 1$ | $38 \cdot 1$ | $39 \cdot 8$ |
| Fredericton......................... | 29.966 | 29.917 | 29.948 | $29 \cdot 944$ | $37 \cdot 1$ | $44 \cdot 8$ | $36 \cdot 0$ | $39 \cdot 3$ |
| Charlottetown..................... | $29 \cdot 915$ | 29.857 | 29.897 | 29.600 | 39.8 | 429 | 38.4 | $40 \cdot 4$ |
| Chatham............................ | 29.914 | 29872 | 29-¢92 | 29.893 | $36 \cdot 5$ | $43 \cdot 7$ | 35-5 | 38.5 |
| Quebec .............................. | 29.961 | 29.927 | 29-944 | 29.944 | 373 | 42•7 | $37 \cdot 2$ | $39 \cdot 1$ |
| Montreal..... ........................ | 29975 | 29.933 | 29.952 | 29.454 | $39 \cdot 1$ | $45 \cdot 6$ | $40 \cdot 2$ | $41 \cdot 6$ |
| Ottawa ..... ......................... | 29.989 | 28.912 | 29.973 | 29.968 | $37 \cdot 4$ | 47.0 | $38 \cdot 7$ | 41.0 |
| Brock ville ........................... | $29 \cdot 992$ | 29.948 |  |  | $40 \cdot 8$ | 467 | . | - |
| Kingston ............................ | 30.043 | 29996 | 30.017 | 30019 | 40.7 | $46 \cdot 6$ | $41 \cdot 3$ | $42 \cdot 9$ |
| Toronto.............................. | 30.018 | 29.979 | 29909 | 29.999 | $41 \cdot 9$ | $48 \cdot 0$ | $42 \cdot 2$ | $44 \cdot 0$ |
| Port Dover.......................... | 30.026 | $29 \cdot 982$ | 30.005 | 30.004 | $41 \cdot 9$ | $49 \cdot 5$ | 43.6 | $45 \cdot 0$ |
| Port Stanley ................ ..... | 30.026 | 29.988 | 30-013 | $30 \cdot 009$ | $42 \cdot 5$ | 49•1 | $42 \cdot 7$ | $44 \cdot 7$ |
| Woodstock. | $30 \cdot 012$ | 29.969 | 30.002 | 29.943 | $41 \cdot 4$ | $48 \cdot 8$ | $40 \cdot 9$ | $43 \cdot 7$ |
| Saugeen ........ ...................... | 29.970 | $29 \cdot 942$ | 29.961 | 29.958 | $41 \cdot 4$ | $45 \cdot 6$ | $40 \cdot 3$ | $42 \cdot 4$ |
| Parry Sound........ ....... ........ | 30.004 | 29.968 | 29.993 | 29088 | 37.5 | 45.3 | $37 \cdot 4$ | $40 \cdot 1$ |
| Fort Garry .................... .... | 30.028 | 29.995 | $30 \cdot 014$ | 30.012 | 24.6 | $39 \cdot 6$ | $29 \cdot 0$ | $31 \cdot 1$ |
|  | Resultant Direction. |  |  |  | Resultant Yelocity. |  |  |  |
| Sydney ................................. | $\begin{array}{c\|c\|c\|c} \circ & \circ \\ \mathrm{S} 77^{\circ} \mathrm{W} & \mathrm{~S} 83 \mathrm{~W} & \mathrm{~S} 71^{\circ} \mathrm{W} & \mathrm{~S} 777^{\circ} \mathrm{W} \end{array}$ |  |  |  | 30 | $2 \cdot 6$ | $2 \cdot 2$ | 2.6 |
| Halifax ............................... | N 72 W | N | N 79 W | N81 W | $2 \cdot 7$ | $3 \cdot 6$ | $3 \cdot 0$ | $3 \cdot 1$ |
| Charlottetown..................... | N 71 W | N 40 W | W | N 69 W | $1 \cdot 4$ | $1 \cdot 1$ | $1 \cdot 3$ | $1 \cdot 2$ |
| Chatham............................. | N 77 W | N 78 W | N 83 W | N 79 W | $2 \cdot 9$ | $2 \cdot 2$ | $1 \cdot 3$ | $2 \cdot 1$ |
| Quebec ............... ................ | S $\mathrm{S}_{\text {N }}$ | N 5 W | N 6 E | N | 2.0 | $1 \cdot 7$ | $2 \cdot 0$ | $1 \cdot 9$ |
| Montreal.............................. |  | S 80 W | S 81 W | S 79 W | 3.9 | $5 \cdot 2$ | $4 \cdot 6$ | $4 \cdot 6$ |

Table I. (Continued)-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 time, 0:43 p.m., 9:43 p.m., and $4: 8 \mathrm{a} . \mathrm{m}$. (of next day).

| Stations. | Resultant Direction. |  |  |  | Resultant Velocity. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | Year. | 1 | 2 | 3 | Year. |
|  | - | $\bigcirc$ | 8 | 9 |  |  |  |  |
| Ottama .... | N 73 W | N 85 W | S 83 W | N 83 W | $2 \cdot 2$ | 3.2 | 1.4 | $2 \cdot 2$ |
| Kingston | S 78 W | S 79 W | N 78 W | S 85 W | $1 \cdot 4$ | 26 | 1.4 | 1.8 |
| Toronto | N 52 W | N 77 W | N 55 W | N 62 W | $2 \cdot 4$ | $2 \cdot 9$ | $2 \cdot 3$ | 2.5 |
| Port Dover.......................... | N 73 W | S 71 W | N 80 W | N 88 W | $3 \cdot 3$ | $3 \cdot 9$ | 3•1 | $3 \cdot 3$ |
| Port Stanleg.......... .... ........ | N 70 W | S $84 W$ | N 70 W | N 81 W | 31 | $4 \cdot 4$ | 3.1 | $3 \cdot 4$ |
| Saugeen..............................\| | S 81 W | N 78 W | N 77 W | N 83 W | $1 \cdot 1$ | $2 \cdot 1$ | 1.5 | $1 \cdot 6$ |
| Parry Sound....................... | S 49 W | S 81 W | S 50 W | S 77 W | 0.6 | $4 \cdot 5$ | $0 \cdot 7$ | $1 \cdot 9$ |
| Fort Garry ........ | N 65 W | N 66 W | N 39 W | N 61 W | $1 \cdot 7$ | 2.7 | 0.9 | $1 \cdot 7$ |

Table II.-Means for the month at certain additional stations, of the reduced Barometer and of the Temperature of the Air, at 0:43 p.m. of Greenwich Mean Time.

BAROMETER.


TEMPERATURE.

| Nova Scotia. |  |  | $\bigcirc$ | - | - | - | c | $\bigcirc$ | 0 | 0 | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Port Hastingr............ | $23 \cdot 5$ | $19 \cdot 8$ | $26 \cdot 8$ | $35 \cdot 3$ | $38 \cdot 9$ | $57 \cdot 0$ | 64.2 | $65 \cdot 1$ | $56 \cdot 1$ | 45•7 | 37.8 | 24.9 |
| Glace Bay. <br> New Brunswick. |  |  |  |  |  | $62 \cdot 3$ | $64 \cdot 6$ | 67.0 | 54.5 | 156 | 38.2 | $24 \cdot 7$ |
| thurst |  |  |  |  |  |  |  |  |  |  |  |  |
| thurst |  | $1 \cdot 5$ | 21\% | 33.6 | $43 \cdot 3$ | 61.9 | $66 \cdot 6$ | 68.1 | 53.6 | $40 \cdot 5$ | $32 \cdot 8$ | 11.5 |
| Dalhousie Ontario. | $8 \cdot 1$ | 47 | $18 \cdot 6$ | $32 \cdot 8$ | 41.8 | 59.8 | $62 \cdot 8$ | 62.1 | $50 \cdot 5$ | $37 \cdot 4$ | 31.2 | $13 \cdot 2$ |
| Oornwall ................... | 16.9 | $10 \cdot 9$ | $23 \cdot 2$ | 38.7 | 52.2 | 70.8 | 73•1 | 71.0 | 64.4 |  |  |  |
| Granton .................... | $28 \cdot 7$ | $20 \cdot 8$ | 21.7 | 36.7 |  | 64.4 | 67.7 | 810 | 64.4 | $40 \cdot 2$ | $32 \cdot 8$ | 8-5 |
|  |  | 20.8 | 217 | 36.7 |  | $64 \cdot 4$ | $67 \cdot 7$ | 65.2 | 52.9 | $38 \cdot 1$ | 33.8 | 12.8 |
| Stratford................... | 28.5 | 204 | 21.6 | $35 \cdot 5$ | 48.6 | 63.2 | 65. 5 | $62 \cdot 4$ | 51.2 | 37•1 | 33.5 |  |
| Goderich ................... | $27 \cdot 7$ | 23.6 | $24 \cdot 7$ | $37 \cdot 6$ |  |  |  | 70.8 | 57.2 | $37 \cdot 1$ | $33 \cdot 5$ | 11.8 |
|  |  | 12.2 | 24.7 | 37.6 | $50 \cdot 7$ | $67 \cdot 3$ | 69:5 | 70.8 | 57.2 | $43 \cdot 3$ | 37-1 | 17.1 |
| Little Current.............. | $18 \cdot 3$ | 12.2 | $17 \cdot 9$ |  | . | . | - | - |  |  |  |  |
| Brilish Columbia. |  |  |  |  |  |  |  |  |  |  |  |  |
| Esquimalt.................. | 33.8 | 36.3 | 37.9 | 41.7 | $47 \cdot 0$ | 83-4 |  | - | $50 \cdot 7$ | 48.2 | 42•3 | 5 |

Nots.-At some of these stations no observations were taken on Suadaye and Holidays.

Tabie III.-Mean Temperatures of the several Months, and the Year, at Stations in the Dominion of Canada, during the year 1876.


Table III．－Mean temperatures，of the several Months，and the Year，\＆c for 1876．－－－Continued．

| Provinces． | $\stackrel{\dot{\hat{y}}}{\stackrel{y}{3}}$ |  | 立 | 安 | 家 | $\stackrel{\text { ¢ }}{\text { ¢ }}$ | $\frac{\stackrel{3}{5}}{5}$ |  |  |  | 它 | 首 | Year． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ontario．－Continued． | － | c | － | － | － | － | 10 | － | 0 | － | c | － |  |
| Aylmer ．．．．．．．．．．．．．．．．．．．．．．．．． | 30•1 | $23 \cdot 1$ | ：23．0 | ＇38．4 | 52．6 | $67 \cdot 3$ | $66 \cdot 8$ | $65 \cdot 1$ | $154 \cdot 6$ | 40.5 | $35 \cdot 7$ | 16.2 | 42－78 |
| Ingersoll ．．．．．．．．．．．．．．．．．．．．．．．． | 28.7 | $24 \cdot 1$ | $25 \cdot 7$ | $39 \cdot 2$ | 53．1 | 65.1 | $69 \cdot 4$ | 67．9 | 55•8 | $42 \cdot 1$ | 36．3 | $16 \cdot 4$ | 43.67 |
| Simcoe， | 29－7 | 24.8 | 27.7 | $42 \cdot 5$ | $55 \cdot 4$ | $70 \cdot 6$ | 72.6 | 71.8 | －58．2 | $45 \cdot 6$ | $39 \cdot 1$ | $19 \cdot 8$ | 46．48 |
| Welland ．．．．．．．．．．．．．．．．．．．．．．．．． | $28 \cdot 9$ | $25 \cdot 0$ | 27.9 | 398 | $55 \cdot 4$ | 70.8 | $70 \cdot 2$ | 71－0 | ｜ 57.2 | 42．2 | 36．6 | 17.2 | $45 \cdot 18$ |
| Windsor．．．．．．．．．．．．．．．．．．．．．．．．． | 31．0 | $27 \cdot 4$ | 29.2 | $46 \cdot 1$ | 57.2 | 70.8 | $74 \cdot 4$ | $75 \cdot 1$ | $59 \cdot 5$ | $46 \cdot 4$ | $38 \cdot 3$ | $18 \cdot 9$ | $47 \cdot 69$ |
| Port Staniey．．．．．．．．．．．．．．．．．．． | $30 \cdot 3$ | $25 \cdot 1$ | $25 \cdot 6$ | $41 \cdot 1$ | $52 \cdot 9$ | 67.2 | $70 \cdot 3$ | 70.0 | $59 \cdot 6$ | $44 \cdot 0$ | $38 \cdot 6$ | $18 \cdot 1$ | 45：23 |
|  | $17 \cdot 7$ | 14.2 | 1240 | 38.4 | $50 \cdot 8$ | $67 \cdot 5$ | $70 \cdot 8$ | $70 \cdot 1$ | 56.0 | $42 \cdot 6$ | $34 \cdot 1$ | $12 \cdot 7$ | $41 \cdot 62$ |
| Quebec Observatory．．．．．．．．． | $13 \cdot 1$ | $13 \cdot 3$ | $25 \cdot 3$ | $34 \cdot 9$ | 47.8 | 65.3 | 68.5 | 66.6 | 538 | 40.2 | $32 \cdot 2$ | $10 \cdot 5$ | 39．29 |
| ebec Citadel ．．．．．．．．．．．．．．．． | $12 \cdot 2$ | 10.6 | $22 \cdot 1$ | $34 \cdot 4$ | $46 \cdot 3$ | 64．4 | $68 \cdot 3$ | $66 \cdot 6$ | 53.3 | $39 \cdot 0$ | 31.9 | $9 \cdot 2$ | 38．19 |
| Huntingdon．．．．．．．．．．．．．．．．．．． | 18.7 | 14.8 | $24 \cdot 3$ | $37 \cdot 1$ | 51.8 | 67－8 | $69 \cdot 8$ | 68．7 |  | $41 \cdot 5$ | 33.6 | $10 \cdot 4$ |  |
| Cranbourne |  |  |  |  |  |  |  |  |  |  | 336 | $10 \pm$ | 41.11 |
|  | $12 \cdot 2$ | $9 \cdot 5$ | $20 \cdot 9$ | $33 \cdot 4$ | $45 \cdot 8$ | $62 \cdot 4$ | 63.2 | $62 \cdot 1$ | $49 \cdot 8$ | $33 \cdot 6$ | $29 \cdot 4$ | $8 \cdot 6$ | 35．91 |
|  |  |  |  |  |  | $62 \cdot 1$ | 667 | $65 \cdot 2$ | 52.5 | 38.2 | 30－1 | $7 \cdot 1$ | － |
|  | 22.9 | $23 \cdot 2$ | $129 \cdot 9$ | $37 \cdot 7$ | $46 \cdot 8$ | $60 \cdot 6$ | 67．0 | 62.6 | 56.6 | $46 \cdot 6$ | $40 \cdot 1$ | $24 \cdot 8$ | $3 \cdot 23$ |
| Wolfville | $22 \cdot 1$ | $22 \cdot 8$ | － | － |  |  |  | ． |  |  |  |  |  |
| Halifax．．．．．．．．．．．．．．．．．．．．．．．．．． | 21－7 | 22.8 | $28 \cdot 9$ | $36 \cdot 3$ | $45 \cdot 4$ | $60 \cdot 5$ | 65.7 | 64.2 | $54 \cdot 1$ | $45 \cdot 5$ | $38 \cdot 7$ | $23 \cdot 0$ | 42.04 |
| Sydney ．．．．．．．．．．．．．．．．．．．．．．．．．． | 17.8 | 18.8 | $126 \cdot 9$ | $3+4$ | 43•1 | 61.0 | $62 \cdot 7$ | 64.6 |  |  |  | 25.6 | 40．87 |
| Truro |  |  |  |  |  |  | 627 | 646 | $52 \cdot 4$ | $44 \cdot 8$ | $38 \cdot 3$ | $25 \cdot 6$ | $40 \cdot 87$ |
|  | $18 \cdot 9$ | 21－2 | $27 \cdot 3$ |  | 45.2 | $62 \cdot 3$ | 64.2 | C2．4 | 51.6 | 44.4 | 37.8 | 19 |  |
| Baddeck．．．．．．．．．．．．．．．．．．．．．．．．． | $15 \cdot 9$ | 17.2 | $26 \cdot 1$ | 33－5 | 42.0 | $59 \cdot 5$ |  |  |  |  |  |  |  |
|  |  |  |  | 335 | 420 | 59.5 | 66.8 | $65 \cdot 2$ | 51.6 | 41.6 | $37 \cdot 5$ | $18 \cdot 6$ | 39.63. |
|  | $22 \cdot 8$ | $20 \cdot 2$ | 27－4 | $34 \cdot 5$ | $39 \cdot 3$ | 57.3 | $63 \cdot 9$ | 64.6 | $55 \cdot 4$ | $46 \cdot 3$ | $36 \cdot 1$ | 256 | 41.12 |
|  |  | $20 \cdot 0$ | $27 \cdot 0$ | 368 | 44.6 | $55 \cdot 6$ | 61.8 | $60 \cdot 0$ | 54.2 | 44．5 | $36 \cdot 6$ | $18 \cdot 4$ | $39 \cdot 84$ |
| Bass River．．．．．．．．．．．．．．．．．．．．．．． | 12.3 |  | $24 \cdot 1$ | 34．6 | 456 |  |  |  | 53 |  |  |  |  |
|  |  |  |  |  |  |  |  | 64 | 531 |  |  |  |  |
| Fredericton ．．．．．．．．．．．．．．．．．． | $12 \cdot 8$ | 15－7 | 24－6 | $36 \cdot 9$ | 469 | 63－1 | $67 \cdot 0$ | $65 \cdot 1$ | 52.9 | 41．8 | $34 \cdot 6$ | $12 \cdot 9$ |  |
| Bathurst ．．．．．．．．．．．．．．．．．．．．．．．．． | $8 \cdot 7$ | 125 | $22 \cdot 5$ |  |  |  |  |  |  |  | 346 | $12 \cdot 3$ | $39 \cdot 53$ |
|  |  |  |  |  | $42 \cdot 0$ | $61 \cdot 2$ | $66 \cdot 1$ | $65 \cdot 1$ | $152 \cdot 8$ | $40 \cdot 7$ | $33 \cdot 5$ | 15.2 | 37.80 |
| usie．．．．．．．．．．．．．．．．．．．．．．．． | 6.4 | 5.8 | $19 \cdot 7$ | $33 \cdot 3$ | 42.8 | $62 \cdot 2$ | 64＊0 | $64 \cdot 0$ | $50 \cdot 9$ |  |  |  |  |
| Chatham |  | $15 \cdot 0$ |  |  |  |  |  |  |  |  | $30 \cdot 5$ | 112 | 35．5T |
|  |  | 15 | 23. | 35.2 | $46 \cdot 8$ | $160 \cdot 3$ | 66.2 | 67.2 | 53.7 | 141.9 | 33.6 | $13 \cdot 6$ | 39．03 |

Table III.-Mean Temperatures of the several Months, and the Year, \&c., for 1876.-Contiuued.


## Table IV．－Highest Temperature in each Month at several Stations in the Dominion of Canada，during the Year 1876.

| Provinces． |  |  | $\begin{aligned} & \text { 总 } \\ & \text { 雨 } \end{aligned}$ | $\begin{aligned} & \text { 菏 } \\ & \text { 品 } \end{aligned}$ | 垵 | $\stackrel{\stackrel{\oplus}{\Xi}}{\Xi}$ | $\stackrel{\square}{\square}$ |  | ｜ | $\begin{aligned} & \dot{0} \\ & \stackrel{0}{8} \\ & \stackrel{+}{0} \\ & 0 \end{aligned}$ | $\begin{aligned} & \dot{\Delta} \\ & \text { 另 } \\ & \text { B } \\ & 0 \\ & \text { B } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ontario． | － | $\bigcirc$ | － | － | 0 | 0 | $\bigcirc$ | － | － | － | － | － |
| Parry Sound ．．．．．．．．．．．．．．．．．．．．．．．．． | $49 \cdot 7$ | 44.5 | $52 \cdot 3$ | $60 \cdot 3$ | 86.0 | $90 \cdot 7$ | 88.7 | 89.0 | 738 | 68.8 | 57－8 | $41 \cdot 3$ |
| Pembroke ．．．．．．．．．．．．．．．．．．．．．．．．．．． |  | $49 \cdot 1$ | 56.1 | $68 \cdot 5$ | 80.9 |  | 99.0 | 962 | 863 | T－2 | $54 \cdot 5$ | $40 \cdot 1$ |
| Little Current．．．．．．．．．．．．．．．．．．．．．．．． | $49 \cdot 6$ | 41－5 | 496 | 54.4 | 76.6 | 856 | 886 | 856 | 696 | 60.6 | 616 | 37.0 |
| Fitzroy Harbor | 51.0 | 46.0 | $49 \cdot 5$ | $64 \cdot 8$ | 84.0 | 95．0 | 970 | 94．6 | 73.8 | 61．8 | $48 \cdot 7$ | $39 \cdot 9$ |
| Ottawa | $52 \cdot 1$ | 41.7 | $55 \cdot 1$ | $65 \cdot 7$ | $85 \cdot 3$ | 90．2 | 95.9 | 98.5 | $85 \cdot 7$ | $66 \cdot 7$ | 477 | $38 \cdot 7$ |
| Cornwall ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 59.3 | $43 \cdot 3$ | $60 \cdot 0$ | 56.3 | $80 \cdot 3$ | 90.3 | $92 \cdot 3$ | 96.7 | 83.0 | 61.7 | 56.0 | 46－7 |
| Gravenhurst ．．．．．．．．．．．．．．．．．．．．．．．．． | 48.0 | 42.0 | $47 \cdot 0$ | 60.0 | 83.0 | $90 \cdot 0$ | $90 \cdot 0$ | 92.0 | $7+0$ | 68.0 | 58.0 | $36 \cdot 0$ |
| Seely ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 47.9 | $43 \cdot 4$ | $53 \cdot 3$ | $58 \cdot 1$ | $89 \cdot 7$ | 955 | 90.8 | 101.0 | 95.0 | $75 \cdot 8$ | $57 \cdot 7$ | 35－0 |
| Beatrice |  | － | 46.0 | 57.5 | 82.5 | 86.0 | 87.0 | 88．0 | $72 \cdot 5$ | $67 \cdot 0$ | 55.5 | 33.0 |
| Barrie | $46 \cdot 6$ | $44 \cdot 6$ | $55 \cdot 9$ | $53 \cdot 6$ | 790 | $81 \cdot 7$ | $90 \cdot 1$ | 868 | 76.4 | $68 \cdot 0$ | 58.6 | 35．7 |
| Peterborough | 48.1 | $43 \cdot 8$ | $50 \cdot 1$ | 63.0 | 885 | 93.1 | $93 \cdot 3$ | 97.3 | 850 | 58.7 | 60.2 | 357 |
| Kingston． | 52.4 | $48 \cdot 9$ | 51.6 | $60 \cdot 4$ | $76 \cdot 1$ | 866 | 86.4 | $89 \cdot 6$ | $79 \cdot 3$ | $64 \cdot 0$ |  |  |
| Norwood | $54 \cdot 9$ | $49 \cdot 2$ |  |  |  |  | 864 | 896 | 793 | $64 \cdot 0$ | 638 | $42 \cdot 4$ |
|  | 54 | $49 \cdot 2$ | 49.9 | $59 \cdot 1$ | 81 | 89.7 | 91.5 | 90.7 | $80 \cdot 7$ | $67 \cdot 7$ | 57.4 | $51 \cdot 1$ |
| Belle | 56.0 | $43 \cdot 3$ | $49 \cdot 0$ | $59 \cdot 3$ | 78.9 | 847 | 92.0 | $90 \cdot 0$ | $79 \cdot 4$ | $64 \cdot 7$ | $60 \cdot 0$ | 44 |
| Brockville | $57 \cdot 8$ | $42 \cdot 8$ | 57.8 | $63 \cdot 1$ | $78 \cdot 6$ | 876 |  |  |  |  |  |  |
|  | 578 | 428 | 578 | $63 \cdot 1$ | 78.6 | 876 | 92.6 | 93．1 | $85 \cdot 1$ | $70 \cdot 6$ | 57.6 | 42.6 |
| North Gwillimbury | 48.0 | 44.0 | $54 \cdot 5$ | $62 \cdot 0$ | 82.0 | 86.5 | 90.5 | 92.0 | 76.0 | 71.5 | 64．0 | 42－5 |
| Point Clark | $49 \cdot 0$ | $49 \cdot 0$ | 65．0 | 55.0 | 74.0 | 79.0 | 84.0 | 84.0 | $72 \cdot 0$ |  |  |  |
| Kincardi |  |  |  |  | \％ |  | 840 | 84.0 | $72 \cdot 0$ | 66 | 54.0 | $36 \cdot 0$ |
| Kincardine | $58 \cdot 6$ | $63 \cdot 6$ | 55.4 | 68.6 | 91.8 | 94.1 | 95.8 | $90 \cdot 3$ | 76.8 | 68.2 | 62.4 | $37 \cdot 9$ |
| Goderich | $58 \cdot 9$ | $52 \cdot 9$ | 57.2 | $65 \cdot 3$ | 84．9 | 86.2 | $89 \cdot 4$ | 87.4 | $75 \cdot 2$ | $67 \cdot 3$ |  |  |
| Saugeen | $65 \cdot 0$ | $56 \cdot 0$ | $64 \cdot 0$ | 63.0 | $85 \cdot 0$ |  | 89.0 | 874 | 752 | $67 \cdot 3$ | $62 \cdot 1$ | 38．7 |
|  |  | 56 | 640 | 630 | 85.0 | 85.0 | $89 \cdot 0$ | 85.0 | 79.0 | 690 | 61.0 | 42.0 |
| Brampton | $47 \cdot 0$ | 42.0 | $60 \cdot 0$ | $57 \cdot 0$ | 83.0 | 87.0 | $93 \cdot 0$ | 92.0 | 75．0 | $69 \cdot 0$ | 670 | 38 |
| Newmarket | $50 \cdot 1$ | $47 \cdot 0$ | $54 \cdot 7$ | 60.0 | $83 \cdot 7$ | 87.6 | 96．0 |  |  | 68．1 | 65.0 | 38 |
| Toronto |  |  |  |  | 83 | 87.6 | $96 \cdot 0$ | 91.4 | 78.7 | 68－1 | 65.0 | 38.2 |
| Toron | $57 \cdot 5$ | $44 \cdot 1$ | 50.5 | $57 \cdot 2$ | 84.9 | 87.2 | $92 \cdot 9$ | 88.8 | 77.8 | 64.6 | 58.8 | $40 \cdot 1$ |
| Stratford | 57.5 | 45•8 | 50.0 | $60 \cdot 2$ | 82.7 | $88 \cdot 7$ | 91•7 |  |  |  |  |  |
| Qranton ．．．． |  |  |  |  |  | 887 | 91．7 | $90 \cdot 5$ | $80 \cdot 5$ | 67.8 | 64.5 | $38 \cdot 2$ |
| Granton | 60.0 | $46 \cdot 0$ | $55 \cdot 9$ | $62 \cdot 8$ | $82 \cdot 8$ | $90 \cdot 8$ | $92 \cdot 5$ | 91.0 | 78.4 | $68 \cdot 3$ | 66.2 | $37 \cdot 0$ |
| Hamilton | 59.8 | $56 \cdot 1$ | 67.8 | 65．2 | 87.8 | 90.4 | 96.3 |  |  |  |  |  |
| Woodstock | $60 \cdot 4$ | 51.7 |  |  | 83.4 | 00.4 | $96 \cdot 3$ | $95 \cdot 3$ | 83.0 | $75 \cdot 8$ | $73 \cdot 3$ | $43 \cdot 3$ |
|  |  | 51.7 |  | $62 \cdot 9$ | $83 \cdot 4$ | $90 \cdot 4$ | 92.2 | $89 \cdot 4$ | 78.9 | $69 \cdot 4$ | $65 \cdot 6$ | $40 \cdot 0$ |
| Brantford ．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | $60 \cdot 4$ | $44 \cdot 0$ | 42.8 | $65 \cdot 3$ | 87－8 | 97.8 | 961 | $90 \cdot 1$ | 820 |  |  |  |
| Port Dover． | 63．8 | $45 \cdot 9$ | 48.8 |  |  | 88.9 | 92.9 | 91－9 | 820 | $73 \cdot 0$ | 65.4 | $40 \cdot 2$ |
|  | 63． | 45 | 48.8 | 59.8 | $85 \cdot 0$ | $88 \cdot 9$ | $92 \cdot 9$ | 91.9 | $77 \cdot 8$ | $68 \cdot 7$ | 55.8 | 39.9 |

Table IV－Highest Temperature in each Month at several Stations in the Nominion of Canada，during the Year 1876 ．

| Provinces． |  |  | 兑 |  | 坴 | 号 | $\stackrel{\text { ¢ }}{3}$ |  |  | $\begin{aligned} & \dot{4} \\ & \stackrel{0}{0} \\ & \stackrel{U}{U} \end{aligned}$ | $\begin{aligned} & \dot{4} \\ & \text { 景 } \\ & 0 \\ & \text { 己 } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ontario．－Continued． | － | － | － | － | － | － | － | － | 0 | － | － | 0 |
| Aylmer | 48．0 | 52.0 | 53.8 | $64 \cdot 8$ | 83.8 | 89.8 | 92.5 | $87 \cdot 1$ | $79 \cdot 3$ | $70 \cdot 3$ | 65.8 | $40 \cdot 5$ |
| Ingersoll．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 61．5 | 52．5 | $57 \cdot 5$ | 65.5 | $87 \cdot 5$ | 91.5 | 94.0 | $90 \cdot 5$ | 77.5 | 69.5 | 65.5 | 41.0 |
| Simae | $60 \cdot 8$ | $52 \cdot 8$ | 66.8 | 67－8 | $86 \cdot 9$ | 94.4 | 98.5 | 90.9 | $79 \cdot 9$ | 71.8 | $65 \cdot 8$ | 44.2 |
| Welland | $50 \cdot 0$ | 50.0 | 57.0 | 65.0 | 86.0 | $90 \cdot 0$ | 93.0 | 92.0 | 80.0 | 79.0 | 680 | $41 \cdot 0$ |
| Windsor | 66.9 | 56.2 | $64 \cdot 7$ | 72.5 | $88 \cdot 1$ | 90.4 | 93.5 | 93.4 | $80 \cdot 0$ | 76.8 | 76.8 | $41 \cdot 7$ |
| Port Stanley ．．．．．．．．．．．．．．．．．．．．．．．．．． | 51.4 | 48.5 | $51 \cdot 2$ | $62 \cdot 0$ | 77－4 | 90.0 | 93.8 | 88.6 | 78.2 | 66.0 | 59.0 | 41.6 |
| Stayner．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 52.7 | $48 \cdot 7$ | $59 \cdot 7$ | $64 \cdot 7$ | $88 \cdot 7$ | 92.7 | $93 \cdot 7$ | 91.7 | $74 \cdot 8$ | 70.8 | $62 \cdot 7$ | $39 \cdot 7$ |
| Quebee． |  |  |  |  |  |  |  |  |  |  |  |  |
| Montreal ．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 54.0 | 41.2 | 52.0 | $55 \cdot 2$ | $80 \cdot 5$ | 85.0 | 87.6 | 92.2 | 81．7 | $67 \cdot 8$ | 54.0 | 38.0 |
| Quebec（Observatory） | 45.0 | $43 \cdot 0$ | $47 \cdot 0$ | 58.0 | 75.0 | 87.0 | 87.0 | 96.0 | 68.0 | 65.0 | 51.0 | 41.0 |
|  | 42.5 | 35．0 | $40 \cdot 0$ | 47.0 | 76.0 | $87 \cdot 5$ | 88.0 | 96.0 | 68.0 | 61.5 | $49 \cdot 0$ | $36 \cdot 5$ |
|  | 58.0 | $43 \cdot 0$ | $59 \cdot 0$ | 600 | 81.0 | 91.0 | 92.0 | 960 | 83.0 | 65.0 | 55.0 | 36.0 |
|  |  |  |  |  |  |  |  |  |  |  | $47 \cdot 0$ | 32－0 |
| Cranbourne ．．．．．．．．．．．．．．．．．．．．．．．．． | 47.0 | 340 | 410 | $57 \cdot 0$ | 79.0 | $88 \cdot 0$ | 84.5 | 90.0 | 73.0 | 63.0 | 47.0 | 32－0 |
| C | － | － | － | － | ¢ | 87.0 | 94.0 | 94.0 | 75.0 | 57.0 | $50 \cdot 4$ | $32 \cdot 7$ |
|  |  |  |  | － |  |  |  | $79 \cdot 8$ | 68.9 | $60 \cdot 4$ | $48 \cdot 8$ | $33 \cdot 4$ |
| Father Point．．．．．．．．．．．．．．．．．．．．．．．． | － |  |  |  |  |  |  | 7 |  |  |  |  |
| Nova Scotia． |  |  |  |  |  |  |  |  |  |  |  |  |
| Digby．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | $46 \cdot 0$ | 44－0 | $52 \cdot 0$ | 61.0 | 70．0 | 81.0 | 81.0 | 83.0 | $69 \cdot 0$ | $66 \cdot 0$ | 630 | $40 \cdot 0$ |
| Wolfville | $49 \cdot 3$ | $45 \cdot 2$ |  |  | － |  |  |  |  |  |  |  |
| Halifax | $48 \cdot 6$ | $48 \cdot 0$ | 51.0 | 566 | 70.0 | 84.8 | $86 \cdot 7$ | 90.2 | $72 \cdot 2$ | $70 \cdot 0$ | 62.8 | 43.0 |
|  | 46．0 | $44 \cdot 5$ | $48 \cdot 3$ | $52 \cdot 9$ | 78.5 | 82.8 | 82.2 | 90.0 | $69 \cdot 0$ | 667 | 60.2 | 41.0 |
|  |  |  |  |  |  |  |  |  | 73.6 | 66.0 | $63 \cdot 3$ | 41.2 |
| Truro | $46 \cdot 1$ | $49 \cdot 9$ | 49.2 |  | 78.0 | 83.0 | 85．2 | 88.0 | 73.6 | 66.0 | $63 \cdot 3$ | 41. |
|  | $46 \cdot 0$ | 45.0 | 45.0 | 52.0 | 76.0 | $83 \cdot 0$ | 86.0 | 92.0 | $69 \cdot 0$ | 67.0 | 63.0 | 43.0 |
|  |  |  |  | 43.7 | 65•7 | 82．1 | $80 \cdot 5$ | 88.2 | $69 \cdot 9$ | $70 \cdot 8$ | 61.8 | $44 \cdot 9$ |
| Purt Hastings ．．．．．．．．．．．．．．．．．．．．．．． | $50 \cdot 3$ | $42 \cdot 8$ | $45 \cdot 4$ | $43 \cdot 7$ | 657 |  |  | 88 |  |  |  |  |
| New Brunswick． |  |  |  |  |  | $79 \cdot 0$ | 83.0 | 76.0 | $70 \cdot 0$ | 60.0 | 58.0 | $44 \cdot 0$ |
| St．John ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | $48 \cdot 1$ | 44.0 | 43.0 | $53 \cdot 0$ | $64 \cdot 0$ | 79.0 | 83.0 | 760 | 70 |  |  |  |
| Bass River | 453 | 43.0 | $45 \cdot 5$ | 55.2 | 80.2 | － |  | 95.2 |  |  |  |  |
|  |  |  |  |  | 84.2 | $86 \cdot 2$ | $89 \cdot 3$ | 93.3 | $71 \cdot 1$ | $65 \cdot 4$ | 55.3 | 37－0 |
| Fredericton ．．．．．．．．．．．．．．．．．．．．．．．．．．．． | $48 \cdot 0$ | $42 \cdot 1$ | $47 \cdot 1$ | 543 | 842 | 8 | 893 |  |  |  |  |  |
| Bathurst ．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 39.0 | 420 ？ | 45.0 | 50.0 | 74.0 | 87.0 | $90 \cdot 0$ | 98.0 | 69.0 | $64 \cdot 0$ | 48.0 | 380 |
|  |  |  |  | $49 \cdot 0$ | 62.0 | 85.0 | 81.5 | 92.0 | 71.0 | 55．0 | $4+5$ | $46 \cdot 0$ |
| Dalhousie．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | $39 \cdot 1$ | $32 \cdot 5$ |  |  |  |  |  |  |  |  |  |  |
| Chatham ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | $40 \cdot 5$ | 513 | $47 \cdot 3$ | $53 \cdot 3$ | $83 \cdot 3$ | 883 | $90 \cdot 3$ | $97 \cdot 9$ | $76 \cdot 3$ | ， 66.5 | 523 | 363 |

## Table IV.-Highest Temperature in each Month at several Stations in the Dominion of Canada, during the Year 1876.—Continued-



Table V．－Lowest Temperature in each Month at several Stations in the Dominion of Canada，for the year 1876.

| Provinces． |  |  |  | 苞 | 空 | $\begin{aligned} & \dot{\square} \\ & \text { 口丂 } \end{aligned}$ | $\underset{y}{3}$ |  |  | ¢ <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 | 这 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ontario． | － | － | － | － | － | － | － | － | － | － | － | － |
| Parry Sound．．．．．．．．．． | $-12.2$ | －22．9 | $-19.2$ | $5 \cdot 7$ | $25 \cdot 3$ | 40.2 | $42 \cdot 2$ | 43.2 | $37 \cdot 1$ | $18 \cdot 5$ | －5．0 | $-30 \cdot 4$ |
| Pembrol | $-14.7$ | $-32.7$ | $-12.5$ | 8.8 | 272 | $48 \cdot 3$ | $45 \cdot 2$ | $41 \cdot 8$ | $34 \cdot 7$ | $21 \cdot 3$ | 1.8 | $-333$ |
| Little Curren | －4．3 | －21．8 | $-11.3$ | 16.0 | $30 \cdot 7$ | $43 \cdot 7$ | $44 \cdot 3$ | 42.7 | 36．8 | 22.6 | －4．7 | －21．4 |
| Fitzroy Harbour．．．． | $-18 \cdot 4$ | －33．0 | $-12.0$ | 10.0 | $27 \cdot 4$ | 445 | $39 \cdot 2$ | $35 \cdot 7$ | 30.5 | 16.8 | $3 \cdot 4$ | －31．5 |
| Ott | －10．9 | －25．9 | －6．4 | $15 \cdot 0$ | 27.8 | $46 \cdot 3$ | $44 \cdot 4$ | $49 \cdot 6$ | 33.7 | 22.0 | 35 | $-30.0$ |
| Cornwall． | $-2.7$ | －18．0 | $2 \cdot 7$ | 16.0 | $29 \cdot 0$ | 460 | 44.0 | 42.0 | 36.7 | $19 \cdot 1$ | 6.6 | －20．1 |
| Gravenhurst．．．．．．．．． | $-11.8$ | －24．2 | $-18.0$ | $1 \cdot 0$ | 26.0 | $40 \cdot 0$ | 39.0 | $42 \cdot 0$ | 34.0 | $20 \cdot 0$ | 0.0 | －26．7 |
| Seely ．．．．．．．．．．．．．．．．． | $-10 \cdot 7$ | －27．6 | $-18.2$ | 4.9 | $23 \cdot 0$ | $38 \cdot 1$ | $33 \cdot 1$ | $33 \cdot 6$ | $30 \cdot 0$ | 16.0 | $-4.5$ | $-31 \cdot 6$ |
| Beatrice． |  |  | $-18.5$ | 10.8 | $29 \cdot 3$ | $45 \cdot 7$ | 48.0 | $46 \cdot 0$ | $35 \cdot 0$ | $21 \cdot 0$ | $-3.2$ | －28．5 |
| Barrie． | －2．9 | $-10 \cdot 2$ | $-4 \cdot 9$ | 9.5 | 259 | $44 \cdot 0$ | 44.5 | $45 \cdot 3$ | 38.0 | $22 \cdot 9$ | 33 | $-8 \cdot 1$ |
| Stayner．．．．．．．．．．．．．．．． | 1.0 | －11．0 | －9．0 | 11.1 | 24.0 | 38.4 | 44.4 | 41.4 | 32.5 | $21 \cdot 5$ | $0 \cdot 5$ | －9．4 |
| Peterborough．．．．．．．． | －9．3 | $-13 \cdot 7$ | 5.4 | 8.0 | 22.3 | 44.3 | $43 \cdot 3$ | 44.2 | $34 \cdot 6$ | $21 \cdot 1$ | $3 \cdot 0$ | －185 |
| Kingston．．．．．．．．．．．．．． | －4．4 | $-18.2$ | －2．7 | 13.2 | 27.3 | $48 \cdot 2$ | 45.8 | $48 \cdot 4$ | 398 | $22 \cdot 6$ | 5.8 | $-17.2$ |
| Norwood | $-8.3$ | $-18.2$ | $-12.1$ | 4.6 | 28.0 | 41.0 | $33 \cdot 1$ | $34 \cdot 8$ | $29 \cdot 4$ | 19.9 |  | $-16.7$ |
| Belle | －3．5 | $-12.5$ | $-1.2$ | $24 \cdot 1$ | $29 \cdot 4$ | $44 \cdot 4$ | 47.7 | 44.2 | $40 \cdot 5$ | $24 \cdot 3$ | $7 \cdot 4$ | $-16.5$ |
| Brockville．．．．．．．．．．．．． | －6．8 | －22．2 | －6．7 | 14.7 | 27.5 | 461 | 45.1 | 41.1 | 36.1 | $20 \cdot 8$ | 6.4 | $-18.9$ |
| North Gwillimbury | 0.5 | $-10.0$ | －4．0 | 15.5 | 28.5 | $49 \cdot 5$ | 560 | 53.0 | $40 \cdot 0$ | 26.0 | 120 | －8．0 |
| Point Clark． | 15.0 | $5 \cdot 0$ | －1．0 | 18.0 | 31.0 | 52.0 | 50.0 | $48 \cdot 0$ | 44.0 | 31.0 | $15 \cdot 0$ | －1．0 |
| Kincardine | $12 \cdot 3$ | 4.5 | $6 \cdot 5$ | 16.0 | 28.0 | 42.5 |  | $40 \cdot 9$ | 39.9 | $25 \cdot 6$ | 11.5 | 0.0 |
| Goderic | 13.6 | $2 \cdot 8$ | －5．7 | 17.0 | $29 \cdot 6$ | $43 \cdot 1$ | 46.6 | $44 \cdot 8$ | 42.9 | $27 \cdot 1$ | 11.5 | $-1.6$ |
| Saugeen．．．．．．．．．．．．．．． | $5 \cdot 1$ | －5．1 | －－8．1 | $10 \cdot 3$ | 24.6 | 36．1 | 38.3 | $39 \cdot 1$ | $32 \cdot 8$ | $25 \cdot 1$ | 7.6 | $-4.1$ |
| ＇Brampton．．．．．．．．．．．．． | 7.0 | －6．0 | 1.0 | 12.0 | 33.0 | 510 | 54.0 | 52.0 | 41.0 | 24.0 | $5 \cdot 0$ | $-12.0$ |
| Newmarket．．．．．．．． | －2．0 | $-17 \cdot 0$ | $-8.1$ | －1．0 | $25 \cdot 2$ | $42 \cdot 0$ | $37 \cdot 2$ | $34 \cdot 0$ | 32.0 | $15 \cdot 4$ | 2.0 | $-20.0$ |
| Toronto． | $5 \cdot 1$ | $-3 \cdot 9$ | －2．9 | 17.0 | $30 \cdot 4$ | $44 \cdot 2$ | 46.2 | 45.0 | 38－5 | 23.0 | $5 \cdot 4$ | －9．5 |
| Stratford． | $6 \cdot 0$ | ＇9．2 | $8 \cdot 7$ | 157 | $27 \cdot 3$ | 37.8 | $39 \cdot 5$ | 33.8 | 32.0 | $19 \cdot 1$ | 65 | $-16.0$ |
| nton | $9 \cdot 8$ | ｜$-1 \cdot 6$ | －2．0 | $20 \cdot 0$ | $26 \cdot 0$ | $40 \cdot 0$ | 41.0 | $32 \cdot 5$ | $35 \cdot 1$ | 21.6 | 10.0 | $-6.6$ |
|  |  |  | $1 \cdot 9$ | 24.0 | 32．1 | 43.2 | 45.3 | 44.5 | $40 \cdot 6$ | 23.0 | 8.8 | －25 |
| Hamilton．．．．．．．．．．．．． | $1 \cdot 6$ | 06 |  |  |  |  |  |  |  |  |  |  |
| Woodstock． | $6 \cdot 0$ | $-135$ | －4．0 | 16.0 | $26^{\circ} 0$ | 43.0 | 43.0 | 39．0 | $36 \cdot 0$ | $19 \cdot 0$ | 7.0 | $-10.6$ |
|  |  | $5 \cdot 0$ | $-10$ | 22.0 | $29 \cdot 0$ | 43.0 | 52.0 | $42 \cdot 0$ | 40.0 | 12.5 | $13 \cdot 3$ | －6．8 |

Table V.-Lowest Temperature in each Month at several Stations in the Dominion of Canada, during the year 1876.-Continued.


Table V.-Lowest Temperature in each Month at several Stations in the Dominion of Canada, during the Year 1876.-Continued.


Table VI.-Mean Temperature in each Quarter and for Year, with the Highest and Lowest Temperatures in the Year 1876, and the dates of their occurrence.

＇Table VI．－Mean Temperature in each Quarter，and for the Year，\＆c．－ Concinued．

|  | $\begin{aligned} & \text { 岕 } \\ & \hline . \end{aligned}$ | $$ | 芯晰$\vec{\square}$ |  | 晨 | Highest Temperature． |  | Lowest Temperature． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Time of Occurrence． |  | Time of Occurrence． |
| Ontario．－Continued． | c | － | － | c | － | － |  | － |  |
| Brantford ．．．．．．．．．．．．．．．．．．．． | $27 \cdot 3$ | $54 \cdot 2$ | $66 \cdot 4$ | $33 \cdot 7$ | $45 \cdot 40$ | 97.8 | 12th July．．．．．．．．．． | －6．8 | 16th December． |
| Port Dover．．．．．．．．．．．．．．．．．．． | 28.0 | $53 \cdot 4$ | $66 \cdot 5$ | $33 \cdot 1$ | $45 \cdot 23$ | 92.0 | 19th July．．．．．．．．．． | －4．4 | 20th December． |
| Aylmer ．．．．．．．．．．．．．．．．．．．．．． | 25.4 | 52.8 | 62.2 | $30 \cdot 8$ | 42．78 | 92.5 | th July．．．．．．．．．．．． | －10．8 | 5th February． |
| Ingersoll．．．．．．．．．．．．．．．．．．．．． | 26.2 | 52.5 | 64.4 | 31.6 | $43 \cdot 67$ |  | 8th July．．．．．．．．．．． | －6．3 | 5th February． |
| Simcoe．．．．．．．．．．．．．．．．．．．．．． | 27.4 | 56.2 | $67 \cdot 5$ | $34 \cdot 8$ | $46 \cdot 23$ | 98.5 | 9th Julj．．．．．．．．．．．． | $-10 \cdot 0$ | 5th February． |
| Welland ．．．．．．．．．．．．．．．．．．．．． | 27.3 | $55 \cdot 3$ | $66 \cdot 1$ | 32.0 | 45－18 | 93.0 | 9th July ．．．．．．．．．．．． | $-7.0$ | 5th February． |
| Wiadsor | $29 \cdot 2$ | 58.0 | 69.0 | $34 \cdot 5$ | 4769 | 93.5 | 12th July．．．．．．．．．． | －14．5 | 16th December． |
| Port Stanley．．．．．．．．．．．．．．． | 27.0 | 53.7 | 66． 6 | $33 \cdot 6$ | 45－23 | 93.8 | 15th July．．．．．．．．．． | －8．5 | 5th February． |
| ．Stayner ．．．．．．．．．．．．．．．．．．．．．．． | $22 \cdot 6$ | $51 \cdot 3$ | 632 | $30 \cdot 9$ | 41－99 |  | 10th July．．．．．．．．．．． | －11．0 | 5th February． |
| Quebec． |  |  |  |  |  |  |  |  |  |
| Montreal ．．．．．．．．．．．．．．．．．．．．． | 18.8 | $52 \cdot 2$ | 65.6 | 298 | 41.62 | 92.2 | 6th August．．．．．．．． | $-21.8$ | 17th December． |
| －Quebec（Observatory）．．． | 17.2 | $49 \cdot 3$ | 63.0 | $27 \cdot 6$ | 39－29 | 96.0 | 12th August | 23.0 | 17th December． |
| Quebec（Citadel）．．．．．．．．．． | 15.0 | 48.4 | 62.7 | 26.7 | $38 \cdot 19$ | 96.0 | 13th August．．．．．．． | $-22.5$ | 17th December． |
| Huntingdon ．．．．．．．．．．．．．．．． | $19 \cdot 3$ | 52－2 | $64 \cdot 4$ | $28 \cdot 5$ | 41＇11 | 96.0 | 6th August．．．．．．． | －24．0 | 17th December． |
| Cranbourne．．．．．．．．．．．．． | 14．2 | $47 \cdot 2$ | 58.4 | $23 \cdot 9$ | 35－91 |  | ［13th August．．．．．． | －270 | 17th December． |
| Chicoutimi．．．．．．．．．．．．．．．．．． |  |  | 61.5 | $25 \cdot 5$ |  |  | $\left\{\begin{array}{l} \text { 10th July ... } \\ \text { 1lth August } \end{array}\right\}$ | $-22.0$ | 17th December． |
| Digby | $25 \cdot 3$ | $48 \cdot 4$ | $62 \cdot 1$ | 37.2 | $43 \cdot 23$ | 83.0 | 10th August．．．．．． | －10．0 | 24th February． |
| Halifax．．．．．．．．．．．．．．．．．．．．．． | 24.5 | 47－4 | 60.7 | $35 \cdot 7$ | $42 \cdot 07$ |  | 7th August．．．．．．．． | －16．9 | 25th February． |
| Sydney．．．．．．．．．．．．．．．．．．．．．．． | $21 \cdot 2$ | 46.2 | $59 \cdot 9$ | 36.2 | 40.87 |  | ＇11th August．．．．． | $-15.0$ | 26th January． |
| Traro ．．．．．．．．．．．．．．．．．．．．．．．．． | 22.5 | － | $59 \cdot 4$ | 339 |  |  | 7th August．．．．．．． | －14 | 25th February． |
| Baddeck．．．．．．．．．．．．．．．．．．．．． | 197 | $45 \cdot 0$ | 61．2 | $32 \cdot 6$ | $39 \cdot 63$ |  | 11th August ．．．．． | $-11 \cdot 0$ | 25th February． |
| Port Hastings．．．．．．．．．．．．．． | 235 | $43 \cdot 7$ | 61.3 | 36.0 | $41 \cdot 12$ | 88.2 | 8th August．．．．．．． | －9．0 | 25th February． |
| St．John ．．．．．．．．．．．．．， | $21 \cdot 9$ | $45 \cdot 7$ | 58.7 | $33 \cdot 2$ | 39.84 | 83.0 | 16th July | $-19.0$ | 21st February． |
| Bass River |  |  |  |  |  |  | ｜llth August．．．．．．． | －18．6 | 27th February－ |

## Table VI.-Mean Temperature in each Quarter, and for the Year, \&c.Continued.



Table VII．－January，1876．Daily Mean Temperature．

| $\begin{aligned} & \dot{\Delta} \\ & \dot{\oplus} \end{aligned}$ | 葸 息 品 |  |  |  |  | 宮 |  |  |  | $\begin{aligned} & \dot{\circ} \\ & \text { i } \\ & \text { 㤩 } \\ & \dot{E} \end{aligned}$ | $\begin{aligned} & \text { 号 } \\ & \text { 号 } \\ & 0 \end{aligned}$ |  |  | $\begin{aligned} & \dot{0} \\ & 8 \\ & \text { 日 } \\ & \dot{B} \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | － |  | － |  | ${ }^{\circ}$ |  | 101 |  | ${ }^{\circ}$ | ${ }^{\circ}$ | ${ }^{\circ}$ | $\stackrel{\circ}{\square}$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | ${ }^{\circ}$ |
| 1 |  | 26.7 |  | $3 \cdot 5$ |  | 11.4 | －14－1 | $32 \cdot 5$ | $47 \cdot 0$ | $50 \cdot 4$ | 486 | 47.7 | 436 | $49 \cdot 8$ | $48 \cdot 3$ | $46 \cdot 0$ |
| 2 | 41. | 26.0 |  | 0 |  | －11 | － $3 \cdot 1$ | 32.8 | 39.5 |  |  | $40 \cdot 8$ |  |  | 39.0 | $43 \cdot 1$ |
| 3 | $40 \cdot 2$ | $25 \cdot 6$ |  | 6 | －20 | －19．6 | －30．5 | $10 \cdot 2$ | $26 \cdot 7$ | 32.8 | 28.2 | 25.6 | 26.8 | 31.8 | 26.5 | $30 \cdot 1$ |
| 4 | $41 \cdot 4$ | $27 \cdot 1$ | － | 0 | $0-11.5$ | － 9.0 | －30．0｜ | $4 \cdot 4$ | 18.5 | 20.2 | $20 \cdot 3$ | 16.5 | 14.5 | $17 \cdot 4$ | 175 | 157 |
| ． 5 | $42 \cdot 3$ | 31 |  | $35 \cdot 0$ | $-5 \cdot 4$ | － 8.0 | －17．0 | $21 \cdot 1$ | $34 \cdot 5$ | $41 \cdot 6$ | $36 \cdot 4$ | 34：8 | 32.9 | 36.4 | $35 \cdot 3$ | 32.0 |
| 6 | 35•8 | $20 \cdot 8$ |  |  | $0 \quad 4 \cdot 2$ | 1 | －5．4 | $8 \cdot 9$ | $27 \cdot 5$ | $30 \cdot 4$ | $27 \cdot 4$ | 25.7 | 25.6 | $30 \cdot 3$ | 26.5 | 26.7 |
| 7 | 32．0 | 10 |  |  | － 2.0 |  | 8 | 28.9 | 31.3 | 35.8 | 33.5 | 31.0 | $29 \cdot 3$ | 33.7 | 31.8 | 30.6 |
| 8 | $34 \cdot 4$ | $5 \cdot 8$ |  | $2 \cdot 0$ | － 5 | － 7 | $9 \cdot 5$ | $34 \cdot 9$ | $38 \cdot 2$ | 47．1 | $42 \cdot 3$ | 29.5 | $37 \cdot 8$ | 427 | 42.0 | $38 \cdot 4$ |
| 9 |  | 6 |  | $0 \cdot 0$ | 0 | －12．4 | －13．4 | $35^{\circ} 0$ | $41 \cdot 5$ |  |  | 46 |  |  | $47 \cdot 0$ | $46 \cdot 0$ |
| 10 | 34•1 | 9.0 |  | 22.0 | $-11 \cdot 3$ | －8．8 | －22．3 | 2.6 | $19 \cdot 3$ | $13 \cdot 8$ | $15 \cdot 4$ | $13 \cdot 3$ | $12 \cdot 9$ | $15 \cdot 9$ | $13 \cdot 3$ | $15 \cdot 3$ |
| 11 | $34 \cdot 0$ | 10.6 |  | $27 \cdot 0$ | $0-8.4$ | －10．2 | $2-14 \cdot 3$ | $7 \cdot 7$ | $19 \cdot 0$ | $17 \cdot 4$ | $16 \cdot 1$ | $13 \cdot 7$ | 13.2 | 16.9 | 12.8 | $13 \cdot 1$ |
| 12 | 31.5 | 12.6 |  | 32.0 | $0-13 \cdot 9$ | － 8.0 | －$-17 \cdot 1$ | 1.9 | $19 \cdot 8$ | $16 \cdot 3$ | $17 \cdot 6$ | 13.0 | $12 \cdot 3$ | $15 \cdot 9$ | 135 | $13 \%$ |
| 13 | $35 \cdot 8$ | 176 |  | 33.0 | 018 | 11.4 | $4-9 \cdot 1$ | $7 \cdot 4$ | $19 \cdot 7$ | 18.2 | 17.7 | $14 \cdot 9$ | 15.0 | 17.5 | 13.2 | $14 \cdot 4$ |
| 14 | $40 \cdot 9$ | $23 \cdot 9$ |  | $34 .$ | 5 | 9 | $9 \mid-5 \cdot 1$ | $14 \cdot 1$ | 26.7 | $26^{1}$ | $25 \cdot 2$ | 21.5 | $20 \cdot 4$ | 20.9 | 22.5 | 20.0 |
| 15 | $47 \cdot 8$ | $28 \cdot 7$ |  | 36.0 | ${ }^{-14}$ | $14 \cdot 1$ | $1-3.0$ | 26.3 | $33 \cdot 3$ | $35 \cdot 6$ | $31 \cdot 2$ | $31 \cdot 1$ | $30 . \mathrm{C}$ | $32 \cdot 2$ | 32.0 | 31.8 |
| 16 | $47 \cdot 0$ | $31 \cdot 6$ | ． | $31!$ | 5 | $25 \cdot 6$ | 6 6．1 | $33 \cdot 7$ | $34 \cdot 0$ |  |  | 33.5 |  | － | $35 \cdot 2$ | $34 \cdot 3$ |
| 17 | $42 \cdot 8$ | $28 \cdot 0$ |  | 28. | 012 | $26 \cdot 9$ | 9｜ 14.5 | $37 \cdot 6$ | 353 | 42.2 | $38 \cdot 1$ | $37 \cdot 3$ | 36.0 | $39 \cdot 4$ | 39.0 | $36 \cdot 9$ |
| 18 | 38.5 |  |  | 21 | 8 | 6.6 | $-0.1$ | ＋33．5 | 40.0 | $49 \cdot 0$ | 43.8 | $43 \cdot 3$ | $40 \cdot 9$ | $45^{\circ} 0$ | $45 \cdot 3$ | $42 \cdot 2$ |
| 19 | $32 \cdot 0$ |  |  |  |  | $0 \cdot 4$ | $4-14 \cdot 1$ | $30 \cdot 6$ | 31.8 | $32 \cdot 7$ | 32.6 | $32 \cdot 1$ | 33.6 | $39 \cdot 5$ | $34 \cdot 3$ | 357 |
| 20 |  |  |  |  |  | －19．6 | 6 |  | 24.0 | 26．1 | $23 \cdot 4$ | 22.5 | 22.0 | $25 \cdot 4$ | 24.0 | 23.0 |
|  |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |
| 21 | 25.3 | $-6.4$ |  | －19． | 5－21 7 | －18．2 | $2-11 \cdot 0$ | $0 \cdot 9$ | 16.7 | 22. |  |  | $17 \cdot 1$ | $19 \cdot 9$ | $17 \cdot 7$ | $17 \cdot 0$ |
| 22 |  |  |  | －21 | － 6.6 | － $7 \cdot 2$ | 3 |  | 25.5 | 32.7 | 24.5 | 24.0 | $21 \cdot 3$ | $24 \cdot 9$ | $25 \cdot 3$ | 209 |
| 23 |  |  |  | － | .5 | －19．0 | ｜－25．5 | $22 \cdot 3$ | $29 \cdot 7$ |  |  | $30 \cdot 1$ |  |  | 31 | 31.8 |
| 23 | $28 \cdot 3$ | $-0.9$ |  | $-24:$ | $\cdot 5$ | －19．3 | －25．5 | 22.3 11.5 | $24 \cdot 0$ |  |  | 23.0 |  |  |  |  |
| 24 | $27 \cdot 5$ | －4．3 |  | 21.5 | 5＇－20．2 | －17．9 | $9-22 \cdot 0$ | $11 \cdot 5$ | 24.0 | 27.0 | $23 \cdot 6$ | 23.0 | $22 \cdot 5$ | 26.2 | 24.7 | 23.7 |
| 25 |  |  |  | $12 \cdot$ | 5－6．0 | $0-4.0$ | 0）－20．5 | $10 \cdot 6$ | 22.5 | 26.6 | 23.5 | 196 | $22 \cdot 0$ | 26.6 | 23.0 | 22.6 |
|  |  |  |  |  | $9 \cdot$ | 310 | － $0 \cdot 9$ |  |  |  |  |  |  |  |  |  |
| 26 | $36 \cdot 8$ | 9.8 |  |  | 5193 | 310.0 | 0－9•1 | 18.2 | $24 \cdot 3$ | 25.5 | $24 \cdot 9$ | $21^{\circ} 0$ | $19 \cdot 7$ | 24.8 | 24.0 | $20 \cdot 6$ |
|  |  |  |  | 20.5 | 5－0．3 | $3-1.6$ | $6,-35 \cdot 3$ | 33.5 | 32 | 42.5 | 35.8 | 36.8 | $36 \cdot 3$ | 41.5 | $33 \cdot 8$ | $36 \cdot 9$ |
| 27 | 26 | 3 |  |  |  |  | － 12.4 |  |  |  |  |  | $35 \cdot 9$ | $38 \cdot 7$ | 400 | $35 \cdot 3$ |
| 28 | 34．2 | 1．9 |  |  | $0-15$ | $2-17 \cdot 4$ | $4-32 \cdot 4$ | 33.6 | $38 \cdot 0$ | $41 \cdot 9$ | $41 \cdot 6$ | 40.0 | 35.9 | $38 \cdot 7$ | 400 | 353 |
| 29 |  |  |  | $19$ | 0－15． | $4-12.9$ | $9-42 \cdot 4$ |  | 19.3 | 18.8 | 21.2 | 191 | $\because 0.8$ | 25.4 | 19.5 | 26.7 |
| 29 |  |  |  |  | － | － | － 30 |  |  |  |  |  |  |  | 18 | 17.9 |
| 30 | 36.6 | $18 \cdot 8$ |  | －18． | $\cdot 5$ | － $10 \cdot$ | $2-30 \cdot 1$ |  | 21 |  |  | 17. |  |  | 18 | 179 |
|  |  |  |  | －23． | ． 0 －28． | 8－28．8 | $8-37 \cdot 5$ | $30 \cdot 6$ | $32 \cdot 3$ | $33 \cdot 3$ | 31.4 | $30 \cdot 3$ | 29.5 | 33.4 | 32.0 | 296 |
| 31 | $33 \cdot 3$ | $7 \cdot 4$ |  | －23 | － |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 14 |  | 6 | ．8－5． | ． 0 － 4.3 | $3-16.4$ | 20.0 | $28 \cdot 9$ | 31.0 | $28 \cdot 6$ | $27 \cdot 8$ | $25 \cdot 9$ | $29 \cdot 7$ | 28.7 | 27.9 |

Table VII．－Continued．－January，1876．Daily Mean Temperature．

| 亩 | $\begin{aligned} & \text { 它 } \\ & \text { 寻 } \\ & 4 \end{aligned}$ | $\begin{aligned} & \text { 苞 } \\ & \text { 哥 } \\ & \text { 出 } \end{aligned}$ | 号 荡 菏 |  | $\begin{aligned} & \dot{8} \\ & \text { 邑 } \\ & \text { 合 } \\ & \text { E } \end{aligned}$ |  | $\begin{aligned} & \stackrel{\rightharpoonup}{0} \\ & \text { 卒 } \\ & \text { d } \\ & \text { E } \\ & \text { Z } \end{aligned}$ |  |  | $\begin{aligned} & \dot{3} \\ & \stackrel{\rightharpoonup}{3} \\ & \underset{\sim}{0} \end{aligned}$ |  | ． | $\begin{aligned} & \text { in } \\ & \text { Be } \\ & 0 \\ & 0 \\ & 0 \\ & \vdots \\ & \vdots \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |  | 官 | $\dot{E}$ E E Cob O |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\cdots$ | － | － | － | 0 | $\bigcirc$ | － | $\bigcirc$ | － | － | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | －： |
| 1 | ． | $43 \cdot 8$ | $41^{\circ} 0$ | 44．1 | $40 \cdot 3$ | $46 \cdot 0$ | $32 \cdot 2$ | 38.2 |  | 38.5 | $42 \cdot 3$ | $39 \cdot 5$ | $39 \cdot 9$ | 38.8 | $42 \cdot 7$ | $42 \cdot 1$ |
| 2 | － | $41 \cdot 6$ | $42 \cdot 0$ | － | $42 \cdot 0$ | $40 \cdot 7$ | 37．2 | $34 \cdot 9$ | － | 35.8 | $43 \cdot 3$ |  |  | $40 \cdot 7$ |  |  |
| 3 | － | 28.1 | 28.0 | 32.4 | 30．0 | $29 \cdot 3$ | $28 \cdot 3$ | $19 \cdot 9$ | － | 14.5 | 28.3 | 31.2 | 26.6 | $28 \cdot 5$ | 26.3 | $32 \cdot 1$ |
| 4 | － | 18.8 | 18.5 | $18 \cdot 4$ | $17 \cdot 9$ | $17 \cdot 0$ | $12 \cdot 4$ | $3 \cdot 7$ | － | 1.5 | $12 \cdot 7$ | 12.5 | 9.6 | 6.8 | 12.4 | $6 \cdot 0$ |
| 5 | － | $37 \cdot 7$ | $37 \cdot 3$ | 37.7 | 34－7 | $36 \cdot 7$ | $33 \cdot 5$ | $28 \cdot 3$ | － | 22.5 | 34－2 | 31•1 | $29 \cdot 8$ | $24 \cdot 9$ | $30 \cdot 6$ | 11.4 |
| 5 | － | $26 \cdot 1$ | 26.5 | $30 \cdot 3$ | 27.2 | 26.7 | 20.5 | $12 \cdot 1$ | ， | $4 \cdot 8$ | $19 \cdot 8$ | 22.5 | $19 \cdot 1$ | 16.9 | 21.2 | 15.2 |
| 7 |  | 339 | $30 \cdot 5$ | 31．3 | 30.5 | $30 \cdot 7$ | $29 \cdot 3$ | $29 \cdot 1$ |  | $25 \cdot 5$ | $33 \cdot 0$ | $30 \cdot 5$ | 26.8 | $20 \cdot 6$ | $25 \cdot 4$ | 10.2 |
| 8 | － | $42 \cdot 8$ | $37 \cdot 5$ | 336 | 35．5 | 39－3 | $35 \cdot 9$ | 34.3 | － | 32.4 | 38.8 | $35 \cdot 2$ | $29 \cdot 6$ |  | $35 \cdot 1$ | $21 \cdot 3$ |
| 9 | － | 48.5 | $47 \cdot 0$ |  | 43.7 | $46 \cdot 7$ | 41.6 | 41.0 | － | 38.8 | 44.5 |  |  | $41 \cdot 9$ | － |  |
| 10 | － | 15.0 | $15 \cdot 8$ | 183 | $18 \cdot 4$ | $16 \cdot 0$ | 15.5 | $5 \cdot 5$ |  | 3.9 | $18 \cdot 5$ | $19 \cdot 0$ | $15 \cdot 5$ | 12.5 | 19.2 | 22.2 |
| 11 | － | 14.6 | 14.8 | $17 \cdot 3$ | $15 \cdot 9$ | $15 \cdot 0$ | $12 \cdot 4$ | 1.0 |  | $4 \cdot 0$ | 13.7 | 14.7 | $9 \cdot 4$ | 10.5 | $13 \cdot 2$ | $4 \cdot 8$ |
| 12 | － | 15．1 | $15 \cdot 0$ | 17.8 | $14 \cdot 9$ | $15 \cdot 7$ | $9 \cdot 2$ | $2 \cdot 9$ |  | $-1.0$ | 8.2 | 12.7 | $9 \cdot 2$ | $7 \cdot 6$ | $11 \cdot 1$ | $1 \cdot 8$ |
| 13 | － | 17.8 | 15.5 | 15.5 | $13 \cdot 9$ | $14 \cdot 3$ | $5 \cdot 3$ | $2 \cdot 8$ | － | $2 \cdot 5$ | 8.8 | $8 \cdot 0$ | $3 \cdot 3$ | $7 \cdot 0$ | $6 \cdot 1$ | $-1.2$ |
| 14 |  | 24．2 | $25 \cdot 0$ | 24.5 | 245 | $21 \cdot 7$ | 17.9 | 17.4 |  | 175 | 23.8 | 22.9 | $21 \cdot 9$ | $20 \cdot 4$ | 24.9 | 19－4 |
| 15 |  | 32－8 | 34.8 | $32 \cdot 6$ | 33．0 | 31－3 | $31 \cdot 9$ | 27.7 |  | 25.5 | $32 \cdot 3$ | 30.6 | 29.2 | 28.8 | 31.7 | $18 \cdot 0$ |
| 16 |  | $35 \cdot 9$ | $36 \cdot 3$ |  | 34.8 | $33 \cdot 3$ | $35 \cdot 2$ | $31 \cdot 1$ |  | 28.8 | $36 \cdot 7$ |  |  | $30 \cdot 9$ |  | 24．1 |
| 17 | $38 \cdot 7$ | $38 \cdot 7$ | $37 \cdot 8$ | $42 \cdot 6$ | 37－2 | 35．3 | $36 \cdot 7$ | 35.6 |  | 33.3 | $39 \cdot 0$ | $37 \cdot 2$ | $35 \cdot 6$ | 35.0 | 36.5 | $24 \cdot 1$ |
| 18 | 44.8 | 46．1 | $43 \cdot 3$ | $46 \cdot 7$ | $41 \cdot 4$ | $45 \cdot 7$ | $33 \cdot 7$ | 35.9 |  | $35 \cdot 0$ | $40 \cdot 3$ | $37 \cdot 2$ | 36.8 | 37.2 | 39.9 | $35 \cdot 4$ |
| 19 | 350 | 33.7 | 36.0 | $42 \cdot 9$ | 35．9 | $36 \cdot 7$ | $34 \cdot 1$ | 31.8 |  | 30.8 | 36.8 | $35 \cdot 5$ | $36 \cdot 6$ | 32.9 | 37.8 | $42 \cdot 7$ |
| 20 | 25.5 | 23.6 | 25.3 | $25 \cdot 5$ | 26.4 | $24 \cdot 3$ | 21.4 | $19 \cdot 2$ |  | $15 \cdot 0$ | 23.2 | 23.6 | 22.5 | 328 | $24 \cdot 8$ | 25.2 |
| 21 | $19 \cdot 7$ | $19 \cdot 1$ | $16 \cdot 5$ | 21.5 | 17•5 | 17.7 | $12 \cdot 9$ | 3.1 |  | $-1.5$ | $12 \cdot 0$ | 13.6 | $11 \cdot 1$ | 10.4 | $12 \cdot 9$ | $8 \cdot 7$ |
| 22 | $25 \cdot 7$ | 25.1 | 22.8 | $25 \cdot 0$ | $23 \cdot 4$ | $24 \cdot 3$ | 22.7 | 13.0 | － | $11 \cdot 3$ | 18.5 | 13.8 | 12.0 | 12.0 | $15 \cdot 3$ | $6 \cdot 7$ |
| 23 | 322 | $32 \cdot 9$ | 32.8 | － | 32.7 | $34 \cdot 3$ | 26.6 | $25 \cdot 4$ | － | 22.3 | 31－3 |  |  | 26.6 |  |  |
| 24 | $24 \cdot 2$ | $25 \cdot 1$ | 26.0 | 27 | $25 \cdot 1$ | 243 | $17 \cdot 4$ | 12.2 | － | $8 \cdot 3$ | $19 \cdot 3$ | $20 \cdot 7$ | 18.0 | $17 \cdot 5$ | 20.6 | $10 \cdot 4$ |
| 25 | $25 \cdot 0$ | 22.8 | 23.5 | 28.3 | 24.6 | $25 \cdot 7$ | 17.4 | 16.4 | － | 13.5 | $22 \cdot 5$ | $22 \cdot 6$ | 196 | $18 \cdot 4$ | $18 \cdot 8$ | $8 \cdot 1$ |
| 26 | 27.3 | 23.0 | 26.0 | $23 \cdot 6$ | $24 \cdot 7$ | $23 \cdot 7$ | $27 \cdot 6$ | $18 \cdot 1$ |  | 11.0 | 22.0 | $19 \cdot 3$ | $19 \cdot 1$ | $10 \cdot 3$ | $16 \cdot 3$ | $3 \cdot 6$ |
| 27 | 36.7 | $38 \cdot 1$ | 37.0 | $39 \cdot 3$ | $37 \cdot 6$ | $39 \cdot 0$ | $35 \cdot 6$ | $33 \cdot 5$ |  | $30 \cdot 3$ | 38.5 | 36－1 | $36 \cdot 3$ | 34．8 | 37．0 | $29 \cdot 2$ |
| 28 | $41 \cdot 3$ | 43．1 | 44.8 | $36 \cdot 3$ | 36.2 | 35．3 | 36.5 | 34.7 | － | 30.9 | 36．5 | $35 \cdot 3$ | 34.0 | $33 \cdot 4$ | $35 \cdot 5$ | 34.6 |
| 29 | $19 \cdot 8$ | $18 \cdot 8$ | 24.5 | 31.3 | 26.7 | $26 \cdot 7$ | $18 \cdot 7$ | $17 \cdot 9$ |  | 12.4 | $24 \cdot 3$ | $25 \cdot 7$ | 28.9 | $23 \cdot 3$ | 28.8 | $35 \cdot 7$ |
| 30 | 21.8 | 22.0 | 19.0 | － | $20 \cdot 9$ | 16.3 | 16.4 | $12 \cdot 3$ |  | 9.5 | $15 \cdot 5$ |  | － | 10.9 |  | － |
| 31 | 33.0 | 335 | 31.0 | $33 \cdot 6$ | $32 \cdot 5$ | $33 \cdot 3$ | 30.7 | 29.6 |  | 26.6 | 35.2 | 30．0 | 27.7 | 24.6 | $29 \cdot 7$ | 23.2 |
|  | $30 \cdot 1$ | 29.8 | 28.5 | $29 \cdot 9$ | 29.0 | 28.9 | $25 \cdot 3$ | 21.9 | － | 18.7 | 27.5 | $25 \cdot 4$ | $23 \cdot 3$ | 23.2 | $25 \cdot 1$ | $18 \cdot 9$ |

Table VII.---January, 1876. Daily Mean Temperature.----Continued.

|  | $\frac{\dot{B}}{\stackrel{0}{0}}$ |  |  |  | $\begin{aligned} & \dot{8} \\ & \stackrel{\rightharpoonup}{\circ} \\ & \stackrel{0}{0} \\ & \stackrel{\rightharpoonup}{\infty} \end{aligned}$ |  |  | . |  | $\begin{gathered} \dot{8} \\ \stackrel{\rightharpoonup}{\nabla} \\ \dot{8} \dot{\Delta} \end{gathered}$ | 它 | $\square$ | $\begin{gathered} \dot{\text { i }} \\ \stackrel{5}{6} \\ \stackrel{0}{0} \\ \stackrel{0}{6} \\ \stackrel{0}{0} \\ 0 \\ 0 \end{gathered}$ |  |  | 宊 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | - | $\bigcirc$ |  |  |  |  |  |  | - | - | $\bigcirc$ | - | 0 | $\bigcirc$ | - |  |
| $40 \cdot 5$ | $35 \cdot 7$ | $40 \cdot 8$ | $36 \cdot 3$ | 35*0 | $40 \cdot 4$ | $38 \cdot 4$ | - | $30 \cdot 8$ | 37.9 | $29 \cdot 4$ | 33.2 | $34 \cdot 0$ | 30.5 | 30.7 | $36 \cdot 7$ | 1 |
| $41 \cdot 3$ |  |  | 329 | $40 \cdot 5$ | $37 \cdot 1$ |  |  | 23.0 | $36 \cdot 2$ | $28 \cdot 5$ | 35.8 | $33 \cdot 8$ | $33 \cdot 5$ | $24 \cdot 3$ | 16.0 | 2 |
| $29 \cdot 8$ | $25 \cdot 6$ | $33 \cdot 4$ | $32 \cdot 0$ | $27 \cdot 8$ | $36 \cdot 3$ | $34 \cdot 2$ | 32.0 | 27.5 | 37-4 | 37.4 | 33;4 | $34 \cdot 8$ | $34 \cdot 5$ | $33 \cdot 7$ | 39.0 | 3 |
| $5 \cdot 5$ | $1 \cdot 3$ | $8 \cdot 5$ | $9 \cdot 9$ | $-0.3$ | 18.5 | 14.4 | 11.8 | 10.0 | 21-1 | $20 \cdot 9$ | $15 \cdot 0$ | 16.0 | 16.5 | 24,7 | 21.5 | 4 |
| 11.0 | 10.2 | $6 \cdot 1$ | 0.7 | 0.7 | 70 | $4 \cdot 7$ | 3.6 | $-0.2$ | $9 \cdot 4$ | $9 \cdot 0$ | 6.6 | $6 \cdot 4$ | 6.7 | $10 \cdot 3$ | $9 \cdot 7$ | 5 |
| 13.5 | $8 \cdot 9$ | 13.5 | $9 \cdot 4$ | $7 \cdot 3$ | 255 | $12 \cdot 0$ | 11.5 | $8 \cdot 5$ | $28 \cdot 6$ | $18 \cdot 6$ | $25 \cdot 1$ | 21-8 | 22.0 | $12 \cdot 3$ | 9•7 | 6 |
| 11.2 | $9 \cdot 9$ | $10 \cdot 2$ | $7 \cdot 9$ | $5 \cdot 8$ | $9 \cdot 7$ | $9 \cdot 3$ | $2 \cdot 3$ | $5 \cdot 7$ | $16 \cdot 5$ | $20 \cdot 3$ |  | $12 \cdot 1$ | $11 \cdot 3$ | 12.7 | $15 \cdot 7$ | 7 |
| $20 \cdot 0$ | 21.5 | $17 \cdot 3$ | $14 \cdot 9$ | 16.0 | 12.5 | 8.0 | $9 \cdot 4$ | 6.7 | 14.7 | 13.0 | 8.1 | 9.8 | 9.2 | $16 \cdot 3$ | $19 \cdot 7$ | 8 |
| 25.7 |  |  | 17.6 | $21 \cdot 3$ | $22 \cdot 7$ |  |  | 12.5 | 31-4 | 22.4 | $27 \cdot 6$ | $22 \cdot 1$ | $22 \cdot 3$ | 20.0 | 19.5 | 9 |
| 17.5 | 12.4 | $24 \cdot 6$ | 18.7 | 17.7 | 289 | $20 \cdot 2$ | 23.8 | $18 \cdot 5$ | $32 \cdot 1$ | 30.9 | 34.0 | $30 \cdot 9$ | 33.0 | $26 \cdot 0$ | 27.0 | 10 |
| $4 \cdot 3$ | $2 \cdot 0$ | $2 \cdot 4$ | -2 | -5.3 | $5 \cdot 7$ | 1.5 | $2 \cdot 9$ | -0.5 | $12 \cdot 4$ | $16 \cdot 3$ | $10 \cdot 7$ | $3 \cdot 1$ | $2 \cdot 2$ | $17 \cdot 7$ | 28.5 | 11 |
| $-0.8$ | $3 \cdot 3$ | 0.2 | $-3 \cdot 2$ | $-6.5$ | 7.7 | $2 \cdot 0$ | 05 | -3.3 | 14.2 | $8 \cdot 4$ | $14 \cdot 7$ | $5 \cdot 4$ | $5 \cdot 0$ | $7 \cdot 3$ | $8 \cdot 7$ | 12 |
| 1.2 | $-1 \cdot 1$ | -1. | -1.3 | -5.5 | 2.6 | -1 | $1 \cdot 3$ | 0.7 | $8 \cdot 9$ | 4.5 | 6.5 | $4 \cdot 8$ | $4 \cdot 0$ | $10 \cdot 7$ | $11 \cdot 0$ | 13 |
| $23 \cdot 5$ | $17 \cdot 4$ | $12 \cdot 1$ | $3 \cdot 9$ | $4 \cdot 4$ | $5 \cdot 0$ | $6 \cdot 1$ | $-2 \cdot 8$ | $-2 \cdot 0$ | $9 \cdot 6$ | $5 \cdot 6$ | $6 \cdot 1$ | $5 \cdot 3$ | 5-7 | $11 \cdot 3$ | $9 \cdot 7$ | 14 |
| $18 \cdot 5$ | 14.5 | $16 \cdot 0$ | $10 \cdot 3$ | 11.7 | 19•1 | $7 \cdot 7$ | $8 \cdot 6$ | $3 \cdot 3$ | $21 \cdot 9$ | 11.8 | $15 \cdot 3$ | 17.9 | 20.0 | $21 \cdot 3$ | $16 \cdot 7$ | 15 |
| $29 \cdot 2$ |  |  | 13.9 | 12.7 | $26 \cdot 2$ |  |  | $7 \cdot 0$ | $27 \cdot 3$ | $22 \cdot 3$ | $25 \cdot 0$ | $23 \cdot 3$ | $24 \cdot 5$ | $22 \cdot 3$ | $23 \cdot 7$ | 16 |
| $25 \cdot 0$ | $29 \cdot 1$ | 20.8 | 14.1 | $15 \cdot 3$ | 14 | $6 \cdot 8$ | 170 | 2.7 | 16.2 | $19 \cdot 6$ | 13.9 | $10 \cdot 4$ | $9 \cdot 7$ | 22.0 | 15.0 | 17 |
| $34 \cdot 0$ | $38 \cdot 1$ | 37.2 | 26.9 | $33 \cdot 4$ | 31•8 | $24 \cdot 3$ | $21 \cdot 8$ | 14.5 | $29 \cdot 9$ | 24.1 | 31.0 | $29 \cdot 1$ | $29 \cdot 3$ | $25 \cdot 7$ | $15 \cdot 3$ | 18 |
| $42 \cdot 0$ | $35 \cdot 9$ | $41 \cdot 9$ | $31 \cdot 6$ | $40 \cdot 5$ | 38.0 | 42.0 | $32 \cdot 3$ | 307 | $40 \cdot 2$ | $38 \cdot 9$ | $42 \cdot 7$ | 38.2 | $41 \cdot 3$ | 32-3 | $41 \cdot 7$ | 19 |
| $22 \cdot 8$ | 12.4 | $25 \cdot 1$ | 19.5 | $19 \cdot 0$ | $31 \cdot 3$ | 29.5 | 25.5 | 22.5 | 37-1 | $36 \cdot 6$ | 34.3 | 30.2 | 36.0 | 35-3 | 38.0 | 20 |
| $5 \cdot 7$ | 3.6 | $9 \cdot 2$ | 1.7 | -2'1 | 13.2 | $8 \cdot 4$ | $8 \cdot 5$ | -1.5 | 18.9 | $15 \cdot 7$ | $13 \cdot 1$ | $8 \cdot 2$ | $8 \cdot 5$ | $14 \cdot 7$ | $15 \cdot 7$ | 21 |
| $5 \cdot 3$ | $4 \cdot 4$ | 4•1 | -1.8 | $-5 \cdot 3$ | $4 \cdot 2$ | $0 \cdot 3$ | $3 \cdot 0$ | $-5.7$ | 8.7 | $4 \cdot 3$ | $5 \cdot 1$ | $2 \cdot 7$ | $3 \cdot 3$ | 3.3 | $5 \cdot 7$ | 22 |
| 18.2 | - | - | 10.7 | 11.9 | $14 \cdot 8$ |  | - | $-1.2$ | $18 \cdot 2$ | 12.8 | 15.7 | 139 | 13.7 | 14.0 | 173 | 23 |
| 10.0 | $11 \cdot 6$ | 12.0 | $6 \cdot 4$ | $-0.4$ | $11 \cdot 0$ | $8 \cdot 5$ | $4 \cdot 3$ | 1.5 | 15-7 | 13.0 | $10 \cdot 7$ | 6.8 | $9 \cdot 0$ | $10 \cdot 7$ | 14.3 | 24 |
| $10 \cdot 5$ | $10 \cdot 0$ | 8.9 | $-3 \cdot 0$ | -1.0 | $3 \cdot 9$ | $-0.7$ | $-3 \cdot 3$ | -22 | $7 \cdot 5$ | 5.5 | 42 |  | -1.3 | $6 \cdot 0$ | 7.7 | 25 |
| $1 \cdot 3$ | $5 \cdot 0$ | $8 \cdot 0$ | 3.8 | -0.2 | $9 \cdot 2$ | $4 \cdot 6$ | 0.5 | -1.0 | 14.2 | $4 \cdot 0$ | $7 \cdot 7$ | $4 \cdot 1$ | 4.7 | 3.0 | $7 \cdot 7$ | 26 |
| 31.5 | $25 \cdot 6$ | $23 \cdot 9$ | $12 \cdot 7$ | $17 \cdot 7$ | $18 \cdot 4$ | 7.9 | -2.8 | $-2 \cdot 3$ | 14.9 | 11.6 | $15 \cdot 5$ | $12 \cdot 9$ | $11 \cdot 7$ | $0 \cdot 3$ | 21.0 | 27 |
| 33.0 | 333 | 31.2 | $20 \cdot 6$ | $27 \cdot 0$ | $25 \cdot 9$ | $19 \cdot 2$ | 5.0 | $10 \cdot 3$ | $28 \cdot 5$ | 16.6 | $20 \cdot 7$ | 14.6 | $15 \cdot 2$ | $16 \cdot 3$ | 23.0 | 28 |
| $4 \cdot 8$ | - | - | $29 \cdot 1$ | 31.5 | $32 \cdot 2$ | $30 \cdot 3$ | 17.9 | 18.2 | $33 \cdot 3$ | $27 \cdot 0$ | $34 \cdot 8$ | $32 \cdot 1$ | $32 \cdot 7$ | $24 \cdot 7$ | $17 \cdot 0$ | 29 |
| 31-5 | 27•1 | 34.6 | -5•7 | -80 | $8 \cdot 8$ |  |  | -6 | $15 \cdot 3$ | 15.2 | $8 \cdot 0$ | $5 \cdot 5$ | $5 \cdot 2$ | $4 \cdot 3$ | $14 \cdot 7$ | 30 |
| 19.0 | $25 \cdot 7$ | 21.0 | $11 \cdot 1$ | $16 \cdot 7$ | 15.1 | 6.5 | 2.2 | -6.2 | $15 \cdot 0$ | $8 \cdot 0$ | 10.9 | $11 \cdot 4$ | $11 \cdot 7$ | $10 \cdot 7$ | 24.0 | 31 |
| 18.7 | $16 \cdot 3$ | $17 \cdot 7$ | 12.2 | 12.2 | 186 | 12.8 | $8 \cdot 7$ | 6.5 | 21.7 | 17.8 | $18 \cdot 9$ | $15 \cdot 6$ | $16 \cdot 5$ | 17.0 | 1971 |  |

Table VIII.-.--February, 1876. Daily Mean Temperature.


Table VIII.-February, 1876. Daily Mean Temperature.-Continued.


Table VIII.-February, 1876. Daily Mean Temperature.-Continued.


Table IX.-March, 1876. Daily Mean Temperature.


Table IX-Continued. March, 1876. Daily Mean Temperature.


Table IX.-March, 1876. Daily Mean Temperature.-Concluderl.


Table X．－April 1876．Daily Mean Temperature．

|  | $\begin{aligned} & \text { 苐 } \\ & \text { 胃 } \\ & \text { 品 } \\ & \text { 品 } \end{aligned}$ |  |  |  |  | 究 |  |  |  | $\begin{aligned} & \dot{\circ} \\ & \text { 句 } \\ & \vec{E} \end{aligned}$ | $\begin{aligned} & \text { i. } \\ & \text { 웅 } \\ & \stackrel{\rightharpoonup}{0} \\ & 0 \end{aligned}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | － | $\bigcirc$ | 0 | － | － | － | $\bigcirc$ | － |  | $\bigcirc$ | － | － |  | － | － | － |
| 1 | 44.6 | $44 \cdot 4$ | $30 \cdot 0$ | $40 \cdot 5$ | 22.5 | $23 \cdot 2$ | 22.5 | 26.2 | 21.5 | 29.8 | $25 \cdot 1$ | $23 \cdot 2$ | 25.5 | $29 \cdot 5$ | $27 \cdot 5$ | 28.5 |
| 2 | 39 | 41 | 29.0 | $30 \cdot 0$ |  | 300 | 136 |  | 33.2 |  |  | 31.5 |  |  | 32.0 | $27 \cdot 6$ |
| 3 | 42 | $38 \cdot 9$ | 24.5 | 21.0 | 31.0 | 30.2 | $34 \cdot 6$ | $32 \cdot 8$ | 35．0 | $38 \cdot 4$ | 38.2 | 34－5 | $37 \cdot 1$ | $37 \cdot 8$ | $38 \cdot 0$ | $37 \cdot 2$ |
| 4 | $42 \cdot 2$ | $42 \cdot 5$ | 32.5 | $31 \cdot 5$ | 28.9 | $29 \cdot 6$ | 208 | $33 \cdot 3$ | 3 | $39 \cdot 2$ | $34 \cdot 8$ | 34.5 | $34 \cdot 5$ | 37.6 | $36 \cdot 3$ | $36 \cdot 3$ |
| 5 | 42.5 | $46 \cdot 2$ | 37 | 41.5 | 26.6 | 28 | $8 \cdot 1$ | $33 \cdot 8$ | $35 \cdot 2$ | $39 \cdot 6$ | $37 \cdot 1$ | 35．7 | $35 \cdot 9$ | 38.8 | $37 \cdot 0$ | $35 \cdot 5$ |
| 6 | 45.8 | 47 | 35 | 48 | $28 \cdot 3$ | 28 | －2．9 | $34 \cdot 4$ | $35 \cdot 7$ | $43 \cdot 9$ | 36.8 | 38.2 | $36 \cdot 2$ | $40^{\circ} 1$ | $40 \cdot 5$ | $38 \cdot 1$ |
| 7 | $43 \cdot 4$ | 45 | $34 \cdot 0$ | $37 \cdot 5$ | $20 \cdot 7$ | 22 | －7．2 | $32 \cdot 8$ | $34 \cdot 2$ | 41 | $34 \cdot 2$ | $35 \cdot 0$ | 34.0 | 36.3 | 34.2 | 36．1 |
| 8 | 42 | $43 \cdot 6$ | 33.0 | 35.0 | $35 \cdot 8$ | 36 | $4 \cdot 9$ | 23.8 | 24 | $39 \cdot$ | 29.1 | 28.7 | $30 \cdot 0$ | $39 \cdot 8$ | 31.5 | $31 \cdot 4$ |
| 9 | $38 \cdot 9$ | $42 \cdot 6$ | 33 | 36.0 |  | 37 | $12 \cdot 1$ | 28.2 | $27 \cdot 7$ |  |  |  |  |  | 30.5 | 34－2 |
| 10 | 43 | 42 | 32.0 | 30 | $35 \cdot 6$ | 34 | $25 \cdot 4$ | $32 \cdot 8$ | $35 \cdot 0$ | 40•7 | 38.4 | 36.5 | 35．7 | $37 \cdot 9$ | 37－3 | $34 \cdot 5$ |
| 11 | 45 | 45 | 37－5 | 34 | 31.7 | $33 \cdot 3$ | $25^{\circ} 1$ | $36 \cdot 7$ | $40 \cdot 5$ | $50 \cdot 7$ | 51.6 | $45 \cdot 0$ | 44＇2 | $49 \cdot 2$ | 46.2 | $43 \cdot 5$ |
| 12 | $44 \cdot 4$ | $47 \cdot 1$ | 41.0 | 31．5 | $31 \cdot 7$ | 31 | $31 \cdot 6$ | $36 \cdot 6$ | 457 | $59 \cdot 0$ | 53.1 | 48.2 | $42 \cdot 8$ | $43 \cdot 7$ | $43 \cdot 5$ | 43.0 |
| 13 | 47－0 | $49 \cdot 4$ | 38 | 38.0 | $32 \cdot 8$ | 34 | $36 \cdot 0$ | $39 \cdot 1$ | 37.8 | 54.5 | $48 \cdot 7$ | $49 \cdot 0$ | $46^{\prime} 7$ | 47.4 | $43 \cdot 7$ | $45 \cdot 8$ |
| 14 | 48 | 51 | 38 | $47 \cdot 0$ |  | $33 \cdot 3$ | 239 | $37 \cdot 5$ | 37．7 | 47．0 | $41 \cdot 7$ | $45 \cdot 0$ | 47.1 | $45 \cdot 6$ | $46 \cdot 0$ | $48 \cdot 6$ |
| 15 | 48 | 46 | $36 \cdot 5$ | 36.5 | 31.5 | 32.8 | 18.7 | $35 \cdot 0$ | 36．5 | $44 \cdot 8$ | 39＇7 | $40 \cdot 5$ | $39 \cdot 2$ | $46 \cdot 0$ | 408 | $40 \cdot 9$ |
| 16 | 48 | $43 \cdot 7$ | 41－5 | $46 \cdot 5$ |  | 30.0 | $13 \cdot 7$ | $32 \cdot 5$ | 34.5 |  |  | $34 \cdot 3$ |  |  | 35．5 | 36.4 |
| 17 | 47－3 | 49 | 42.0 | 52 | $37 \cdot 1$ | $37 \cdot 5$ | $12 \cdot 1$ | $29 \cdot 6$ | $29 \cdot 8$ | $39 \cdot 2$ | 30．7 | 30.2 | $30 \cdot 2$ | $33 \cdot$ | $31 \cdot 0$ | $30 \cdot 9$ |
| 18 | $42 \cdot 9$ | 45.3 | 38.0 | $40^{\circ} 0$ | 43 | $44 \cdot 8$ | $10 \cdot 3$ | $32 \cdot 6$ | $30 \cdot 8$ | $39 \cdot 6$ | 32.0 | 31.5 | $30 \cdot 9$ | $32 \cdot 9$ | $31 \cdot 7$ | $32 \cdot 0$ |
| 19 | 44 | 44 | $32 \cdot 0$ | 360 | 45 | 47：0 | 20.8 | 36.2 | 34．5 | $42 \cdot 7$ | 35－7 | 36.5 | $34 \cdot 3$ | 36.8 | $35 \cdot 0$ | 37.6 |
| 20 | 49.0 | $47 \cdot 5$ | 37.5 | $40 \cdot 5$ | $44 \cdot 6$ | $44 \cdot 5$ | $31 \cdot 2$ | 33.6 | 41－3 | 54.0 | $43 \cdot 0$ | 44.2 | 41－5 | $41 \cdot 3$ | $47 \cdot 3$ | 38.6 |
| 21 |  |  |  |  |  |  |  |  |  | 53.5 | 38.8 | 44.5 | 415 | 413 | 47.3 | $38 \cdot 6$ |
| 21 | 53.3 | 54.4 | 41.0 | 41．0 | 40 | 41 | 33.6 | $39 \cdot 0$ | 35．7 | 53.5 | 38.8 | $40 \cdot 5$ | $41 \cdot 9$ | $48 \cdot 1$ | $42 \cdot 5$ | 450 |
| 22 | 55.8 | $53 \cdot 3$ | $46^{\prime}$ | 470 | $40 \cdot 7$ | 41.5 | $33 \cdot 3$ | 38.6 | 37－7 | $52 \cdot 7$ | 45•7 | $42 \cdot 5$ | $43 \cdot 1$ | $44 \cdot 7$ | $44^{\circ} 0$ | 42•1 |
| 23 | 47 | 51.1 | 36.0 | $48 \cdot 0$ |  | $43 \cdot 7$ | 31.2 | 39.2 | 34．5 |  | ． | $39 \cdot 0$ |  |  | $41 \cdot 7$ | 41.8 |
| 24 | 47 | 54.5 | $41 \cdot 0$ | 51－5 | 46•1 | 49•2 | $19 \cdot 0$ | $43 \cdot 1$ | 35．5 | 47．3 | $43 \cdot 2$ | 41.2 | $42 \cdot 3$ | $45 \cdot 9$ | $42 \cdot 8$ | $41 \cdot 9$ |
| 25 | $50 \cdot 2$ | 56.0 | 49.0 | 50.5 | $48 \cdot 3$ | $49 \cdot 4$ | 34.2 | $44 \cdot 5$ | 36.7 | 46 | $40 \cdot 7$ | $40 \cdot 5$ | $40 \cdot 6$ | 45 | 42.8 | 42.6 |
|  |  |  |  |  |  |  |  | 38.7 | 43．5 | 46．4 | 40.7 50.5 | $40 \cdot 5$ | $40 \cdot 6$ | $43 \cdot 4$ | $40 \cdot 3$ | $42 \cdot 6$ |
| 26 | $50 \cdot 8$ | $54 \cdot 7$ | $43 \cdot 0$ | 45.0 | $54 \cdot 3$ | $55 \cdot 3$ | $40 \cdot 8$ | $38 \cdot 7$ | $43 \cdot 5$ | $54 \cdot 4$ | 50.5 | $49 \cdot 0$ | $46 \cdot 2$ | $50 \cdot 8$ | 478 | $46 \cdot 2$ |
| 27 | $50 \cdot 3$ | $55 \cdot 9$ | $32 \cdot 0$ | 30.5 | $39 \cdot 5$ | 37．5 | $30 \cdot 1$ | 41.2 | $50 \cdot 0$ | $60 \cdot 5$ | 56.4 | 53.5 | 53－1 | $55 \cdot 0$ | $54 \cdot 3$ | $52 \cdot 7$ |
| 28 | $51 \cdot 9$ | 58.0 | 37．0 | 35．5 | $27 \cdot 1$ | $28 \cdot 6$ | 10.0 | $35 \cdot 3$ | 37.0 | $52 \cdot 2$ | 41 | $44 \cdot 5$ | $45 \cdot 8$ | $51 \cdot 3$ | $46 \cdot 2$ |  |
| 29 | $49 \cdot 9$ | $57 \cdot 1$ | $34 \cdot 5$ | $40 \cdot 5$ | $26 \cdot 2$ | 27.4 | 13.3 | $35 \cdot 8$ | $36 \cdot 3$ | $42 \cdot 3$ | 39.5 | $39 \cdot 3$ | 458 | $51 \cdot 3$ 47.6 | $46 \cdot 2$ $41 \cdot 7$ | $49 \cdot 6$ $40 \cdot 4$ |
| 30 | 50.2 | 57.9 | $39 \cdot 0$ | 50.5 |  | 33.2 | 18.7 | $35 \cdot 8$ 33.9 | $36 \cdot 3$ $31 \cdot 0$ | $42 \cdot 3$ | $39 \cdot$ | $39 \cdot 3$ $29 \cdot 0$ | 39 | $47 \cdot 6$ | $41 \cdot 7$ $30 \cdot 0$ | $40 \cdot 4$ $30 \cdot 5$ |
| 31 | － |  |  | － |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 46.6 | $48 \cdot 6$ | 36.7 | $39 \cdot 8$ | $35 \cdot 4$ | $35 \cdot 9$ | 20.7 | ｜ 347 | $35 \cdot 4$ | 461 | 40.2 | 38.4 | $39^{1} 1$ | 42.5 | $39 \cdot 2$ | $38 \cdot 8$ |

Table X.-April, 1876. Daily Mean Temperature.-Continued.

| $\begin{aligned} \text { 炭 } \\ \hline \end{aligned}$ |  |  | $\begin{aligned} & \frac{5}{5} \\ & \frac{1}{3} \\ & \text { B } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 28.7 | 29.9 | 238 | $\stackrel{\circ}{3+3}$ |  | 21.7) $24 \cdot 4$ | ${ }^{\circ} \cdot 14.42{ }^{\circ}$ | $22^{\circ} 0^{\circ} 2$ | ${ }_{240}^{\circ}$ | 26.5 | 29.4 | ${ }^{4} 28.1$ | - 319 |  |  |
| ${ }_{32} \cdot 3$ | 338 | 27.5 |  | 31.6-33.7 | 28:4 29.6 | $29.6{ }^{\text {20.1 }}$ | 30.229 | 29 |  |  |  |  |  |  |
| 38.9 | 39.9 | 36.5 | $36 \cdot 3$ | 35.7/45-3 | 34.1) $35 \cdot 9$ | $35 \cdot 9$ | 37 | ${ }_{37}{ }^{1}{ }^{37}$ | 37-4 | ${ }^{36 \cdot 2}$ | 2.343 | ${ }^{36} 6$ |  |  |
| 365 | 36-6 | ${ }^{37} \cdot 3$ | 38.7 | 37.0) 37.3 |  | $\left.{ }_{346}\right\|_{32 \cdot 2}$ | ${ }_{33 \cdot}{ }^{1}$ | 38335 | 350 | 38.7 | ${ }_{7}{ }^{36}$ |  |  |  |
| 26. | 37. | 36.8 | 38.8 | ${ }^{37} 4{ }^{38} 3$ | 326355 | 35.5 ${ }_{32 \cdot 0}$ | [30.9 38 | ${ }^{385}{ }^{\text {\% }}$ |  | ${ }^{34 \cdot 3}$ | ${ }^{3} 3^{33} 5$ | $35 \cdot 7$ |  |  |
| 38. | 39 | 375 | 12.2 | 38.5 | 36. | 36.2 328 8, | 8.33.1 38 | $381{ }^{37}$ |  |  | $8{ }^{365}$ \| |  |  |  |
| 33.7 | ${ }_{35}$ | $36 \cdot 3$ | 38.0 |  | 33.2 | ${ }_{33 \cdot 2} 31{ }^{31}$ | 629.3 35 | $35 \cdot 1.35$ | 35 |  | 6 | ${ }_{33}{ }^{6}$ | $635^{5}$ |  |
| 31.0 | ${ }^{32}$ | 308 | 398 | ${ }_{30 \cdot 2}{ }_{32}$ | ${ }_{25} 1^{27}$ |  | 512:8128 | 28.5 | ${ }^{30 \cdot 1}$ | ${ }^{299}$ | 927.5 | 34.1 |  |  |
| 31.7 | 33.7 | 23.0 |  | 2961290 | ${ }^{23}$ | ${ }^{23 \cdot 7}{ }^{25 \cdot 9}$ | ${ }^{23} 23139$ | 39.3 |  |  | ${ }^{28 \cdot 6}$ |  |  |  |
| ${ }^{37} \cdot 8$ | 38.2 | 36.0 | 38.1 | $\left\|\begin{array}{lll} 36 & 1 & 38 \cdot 3 \end{array}\right\|$ | 347 | 5 2361 |  | ${ }^{43 \cdot 6}$ /35 | 35 |  | 333 | 33:5 |  |  |
|  | $45 \cdot$ | 40 | 43.8 | ${ }^{34 \cdot 5}{ }^{45}$ |  | 3781 | $8{ }^{1}$ | ${ }^{44 \cdot 0}$ | 38 |  |  | $44 \cdot 7$ |  |  |
| $48 \cdot 1$ | 39.8 | ${ }^{37} 3$ | $38 \cdot 4$ | ${ }_{39 \cdot 9}{ }^{43} 3$ | 38.3 ${ }^{\text {22 }}$ | 42. | $0 \cdot 41 \cdot 4$ | $45 \cdot 139$ | 39.2 |  |  | 42-4 |  |  |
| 51.9 | 41.1 | 41.5 | 398 | $\left.{ }_{41} \cdot 7\right\|_{46 \cdot 3}$ | ${ }^{3} \cdot{ }^{\prime} 43$ | 43.545 | $3{ }^{42} 0^{47}$ | ${ }^{47.1}{ }^{40}$ | $40 \cdot 7$ | $45 \cdot 6$ | 6426 | $45 \cdot 7$ |  |  |
| $46 \cdot 1$ | $46 \cdot 4$ | 44.8 | $42 \cdot 2$ | $1{ }^{1} 493$ | ${ }^{45} 3$ | $4{ }^{4} 4$ | 239651 | 51.340 | $40.7{ }^{4}$ |  | 542.6 | ${ }^{42} 3$ |  |  |
| $42 \cdot 2$ | 41.4 | 42.0 | 458 | $38 \cdot$ |  | 31.2 | 231640 | 40.035 | 35 | 8 |  | $42 \cdot 6$ |  |  |
| ${ }^{38 \cdot}$ | ${ }_{36}$ | ${ }_{36} 8$ |  | 37.239 |  | 33.2297 | 37 | 37 |  |  | ${ }^{35 \cdot 2}$ |  |  |  |
| $32.8$ | 32. | 32.3 | ${ }^{34} 7{ }^{3}$ | ${ }^{33 \cdot 8}, 32 \cdot 7$ | ${ }^{505} \mid 29$ | $29.3{ }^{272}$ | 32 |  |  | ${ }^{32} 7$ | 7322 | \% |  |  |
|  | 32 | 328 | $36 \cdot 3$ | 31.3 | $31.2{ }^{31}$ | ${ }^{31} 3$ |  |  |  |  |  |  |  |  |
| $34 \cdot 6$ | 36 |  | ${ }^{118}{ }^{3}$ | 35.3 | 318131 | 6 |  | 366 |  |  |  |  |  |  |
| $48 \cdot 7$ | 42.8 | 37 |  | 38.1 38.0 | $33 \cdot 6$ | $33 \cdot 1$ | $1{ }^{32} \mathbf{3} 0$ | $\left.{ }^{42} \mathbf{3}\right\|^{34}$ | ${ }^{3,7}$ | 414 | 4383 | $38 \cdot$ |  |  |
| $42 \cdot 3$ | 44 | \| 410 | 47.9 | ${ }_{41-9.9}^{42 \cdot 3}$ |  | $3+7$ | $7{ }^{3+5}$ | 40.038 | 38.23 | $36 \cdot 3$ | ${ }_{3} 3.38 .7$ |  |  |  |
| 44.6 | 44.5 | 1403 | 146 | ${ }^{38 \cdot 2}, 4{ }^{43 \cdot 3}$ | $40 \cdot 4$ | 35.8 | $8{ }^{35 \cdot 5} 45$ | 450 | 41.5 |  |  |  |  |  |
|  | $46 \cdot 5$ | 40:8 |  |  |  |  | $3{ }^{37.3} 43$ | 43 |  |  |  |  |  |  |
| 43.5 | 448 |  |  | 44.8 |  |  | ${ }^{384} 46$ | $46^{\circ} \mathrm{O}$ |  |  |  |  |  |  |
|  | 46 |  |  | ${ }^{44 \cdot 8} 84 \cdot 7$ | 428, 4 | ${ }_{436}{ }^{45} 2$ | $2$ | \% |  |  |  |  |  |  |
| ${ }_{48 \cdot 8}$ | 4 | 473 | $45 \cdot 8$ | $47 \cdot 4{ }^{45 \cdot 7}$ | 46 |  | 4 4215 | $52 \cdot 34$ |  | 52 | ${ }^{3} \cdot 46$ |  |  |  |
| 53.5 | 54 |  |  | 46.3 | $45 \cdot 249$ | 548.0 | 0 | 5 | 45.2 | 50.1 | ${ }_{1}{ }_{4} 2$ | $49 \cdot 7$ |  |  |
|  | 47 | $45^{\circ}$ | 54.0 | $46 \cdot 2$ | 0.9 39 | $5{ }^{36} 8$ |  | ${ }^{45} 1{ }^{42}$ | 42:1 ${ }^{4}$ | 46:2 | $4{ }^{42} 2$ |  |  |  |
| $41 \cdot 4$ | 414 | 36 . | $45 \cdot 8$ | $45 \cdot 7$ | 37.5 33'4 | ${ }^{4} 431$ | $7{ }^{32 \cdot 3}{ }^{4} 4$ | $40 \cdot 639$ | ${ }_{39} \cdot 3$ |  |  |  |  |  |
| $32 \cdot 6$ | ${ }^{32 \cdot 1}$ | 32:5 |  | 33.933 .3 | 32 | 3281308 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 40 |  |  | 998 | 35.8 ${ }^{\text {\% }}$ |  |  |  |  |  |  |  |  |  |

Table X．—April，1876．Daily Mean Temperature－Continued．

| 宅 |  |  |  |  |  |  |  | 宮 |  |  | $\begin{aligned} & \text { 首 } \\ & \text { 合 } \end{aligned}$ | 定 | Charlottetown | $\dot{8}$ <br> B <br>  <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 | 官 号 霜 | 9 0.0 0 0 0 0 0 0 0 0 0 0 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | － | － | － | － | $\bigcirc$ |  |  |  | － | － | $\bigcirc$ | － | － | $\bigcirc$ | － | － |
| 1 | 28.0 | 27.0 | $32 \cdot 0$ | $27 \cdot 1$ | 22.7 | $32 \cdot 8$ | 32.2 | $30 \cdot 8$ | $26 \cdot 7$ | 31－5 | 130．4 | － | 29.5 | 28.7 | $31 \cdot 0$ | $34 \cdot 0$ |
| 2 | $25 \cdot 3$ | － |  | 28.2 | $25 \cdot 5$ | $36 \cdot 2$ | ． |  | 26.5 | $35 \cdot 2$ | $29 \cdot 2$ | － | $30 \cdot 3$ | $29 \cdot 8$ | 28.0 | $33 \cdot 3$ |
| $?$ | 36.5 | $33 \cdot 2$ | $32 \cdot 5$ | $28 \cdot 1$ | $31 \cdot 0$ | 35•7 | $33 \cdot 9$ | $25 \cdot 6$ | $25 \cdot 3$ | 34．0 | $26 \cdot 1$ | ． | $25 \cdot 1$ | 25.0 | $28 \cdot 3$ | 31.0 |
| 4 | $33 \cdot 3$ | 36．7 | $32 \cdot 8$ | 28.5 | 28.0 | $31 \cdot 7$ | 29.5 | 22.0 | 23.0 | $28 \cdot 4$ | $25 \cdot 4$ | ． | $28 \cdot 4$ | 27.2 | $30 \cdot 0$ | 28.0 |
| 5 | $36 \cdot 3$ | 352 | $35 \cdot 3$ | $31 \cdot 4$ | $30 \cdot 1$ | 31.8 | $31 \cdot 8$ | $26 \cdot 5$ | $25 \cdot 2$ | $30 \cdot 2$ | 27－8 | ， | $31 \cdot 1$ | $30 \cdot 7$ | $26 \cdot 3$ | $32 \cdot 3$ |
| 6 | 36.5 | 36.8 | $36 \cdot 9$ | $34 \cdot 9$ | 31.5 | 31.6 | 33．1 | 309 | $28 \cdot 5$ | $31 \cdot 6$ | $31 \cdot 6$ | － | $32 \cdot 6$ | $131 \cdot 5$ | $32 \cdot 7$ | 37－5 |
| 7 | $34 \cdot 7$ | 31－4 | $34 \cdot 9$ | 33.7 | 33．4 | 36.2 | $36 \cdot 2$ | $32 \cdot 7$ | 33.0 | $36 \cdot 0$ | 34－2 | － | 34－8 | 34－5 | 31.0 | 38.5 |
| 8 | 25.5 | $21 \cdot 7$ | 26.5 | $29 \cdot 0$ | $23 \cdot 5$ | 33.6 | $32 \cdot 7$ | $30 \cdot 0$ | $30 \cdot 7$ | 34.4 | 33.2 | － | 34.3 | 33－0 | 30.0 | $39 \cdot 5$ |
| 9 | $25 \cdot 3$ |  |  | 31－1 | $24 \cdot 7$ | 34.6 |  |  | $32 \cdot 7$ | 35•1 | 33.9 | ． | 34.0 | 33．7 | $33 \cdot 0$ | $37 \cdot 3$ |
| 10 | $34 \cdot 5$ | 33．1 | 35.2 | 37.7 | 33.8 | $35 \cdot 8$ | $36 \cdot 4$ | $36 \cdot 3$ | $36 \cdot 7$ | 37．2 | $34 \cdot 8$ | － | $33 \cdot 6$ | $34 \cdot 5$ | $34 \cdot 3$ | $39 \cdot 2$ |
| 11 | $38 \cdot 3$ | $39 \cdot 9$ | 43.2 | $39 \cdot 4$ | 38.7 | $38 \cdot 5$ | $39 \cdot 0$ | $38 \cdot 3$ | 38.0 | $55 \cdot 6$ | $32 \cdot 6$ | － | 32．2 | 32．0 | 34－3 | $40 \cdot 5$ |
| 12 | $40 \cdot 5$ | 42.6 | 44.0 | $34 \cdot 4$ | 31.5 | $39 \cdot 7$ | $39 \cdot 1$ | $32 \cdot 5$ | $35 \cdot 0$ | 35－5 | 33.7 | ． | 32－1 | 33．5 | 32.0 | 35•7 |
| 13 | 43.5 | $45 \cdot 6$ | $42 \cdot 9$ | $37 \cdot 6$ | $42 \cdot 4$ | 36.8 | 38.2 | 37．5 | 38.7 | 38.9 | 138．8 | － | $40 \cdot 2$ | $39 \cdot 3$ | 33．7 | $36 \cdot 3$ |
| 14 | $44 \cdot 5$ | $41 \cdot 7$ | $39 \cdot 2$ | $32 \cdot 9$ | 43.0 | $42 \cdot 7$ | $39 \cdot 6$ | $33 \cdot 3$ | $32 \cdot 7$ | $39 \cdot 8$ | $136 \cdot 6$ | ． | 37－6 | $36 \cdot 5$ | $33 \cdot 7$ | 35•7 |
| 15 | 39.0 | $39 \cdot 8$ | 387 | $37 \cdot 9$ | $35 \cdot 3$ | $39 \cdot 3$ | $39 \cdot 2$ | 39.0 | $36 \cdot 5$ | $39 \cdot 0$ | $36 \cdot 9$ | － | $37 \cdot 5$ | $39 \cdot 0$ | $32 \cdot 7$ | 41.0 |
| 16 | 37 |  |  | $36 \cdot 6$ | $32 \cdot 3$ | $39 \cdot 6$ |  |  | $39 \cdot 2$ | 42． 2 | $41 \cdot 6$ |  | $42 \cdot 7$ | 43.0 | ＇35•7 | $41 \cdot 5$ |
| 17 | $35 \cdot 3$ | $33 \cdot 4$ | $35 \cdot 4$ | 35.9 | $32 \cdot 0$ | $39 \cdot 1$ | $41 \cdot 4$ | $41 \cdot 1$ | $40 \cdot 7$ | $40 \cdot 7$ | $41 \cdot 7$ |  | 39.9 | ，43．0 | 35－3 | $144 \cdot 0$ |
| 18 | $35 \cdot 2$ | $33 \cdot 5$ | 35.8 | $35 \cdot 5$ | 315 | $38 \cdot 3$ | $39 \cdot 3$ | $36 \cdot 4$ | 39.0 | 38.4 | $38 \cdot 5$ | － | $36 \cdot 1$ | $39 \cdot 3$ | 34•7 | $44 \cdot 3$ |
| 19 | 36.0 | 35．6 | $38 \cdot 4$ | 36．3 | $34 \cdot 3$ | $40 \cdot 3$ | $39 \cdot 9$ | 36.7 | $42 \cdot 0$ | $39 \cdot 8$ | $39 \cdot 7$ |  | 38.6 | 37•7 | 36.3 | $41 \cdot 3$ |
| 20 | 40．0 | $39 \cdot 1$ | $41 \cdot 4$ | 37.8 | $35 \cdot 9$ | 404 | 40.0 | $40 \cdot 4$ | 39.2 | 42.0 | 37－1 |  | $40 \cdot 2$ | 393 | 31.7 | 380 |
| 21 | 36.5 | $39 \cdot 8$ | $37 \cdot 7$ | 37.0 | 36.0 | $40 \cdot 5$ | 41.0 | $37 \cdot 3$ | $39 \cdot 3$ | 41.6 | $38 \cdot 9$ |  | 38．1 | 38.0 | 39.0 | 37•0 |
| 22 | 43.5 | 38.7 | $43 \cdot 8$ | 37.5 | 363 | 38．7 | $39 \cdot 8$ | $35 \cdot 2$ | $34 \cdot 0$ | $40^{\circ} 1$ | 346 |  | $135 \cdot 5$ | 37.0 | 44.7 | 38－7 |
| 23 | 41．0 |  |  | $35 \cdot 8$ | 35.6 | $38 \cdot 3$ |  |  | $32 \cdot 0$ | $38 \cdot 9$ | $35 \cdot 0$ |  | 36.5 | ${ }^{1} 35 \cdot 0$ | $37 \cdot 3$ | $\mid 37 \cdot 7$ |
| 24 | 41－5 | 46.2 | $43 \cdot 1$ | $34 \cdot 0$ | 35．4 | 36．9 | 368 | $28 \cdot 9$ | $31 \cdot 7$ | 34＊3 | $31 \cdot 4$ |  | $29 \cdot 1$ | $29 \cdot 0$ | 33.0 | $30 \cdot 3$ |
| 25 | $42 \cdot 3$ | 46.0 | 435 | $36 \cdot 2$ | $38 \cdot 7$ | 35．3 | 36.3 | $30 \cdot 0$ | $31 \cdot$ |  | $33 \cdot 1$ |  | ｜ 121 | 29 | 330 | $30 \cdot 3$ |
|  |  |  |  | 36 |  | 35 | 363 | 30.0 | $31 \cdot$ | $38 \cdot 1$ | 33.1 |  | ｜317 | $31 \cdot 3$ | 31－7 | $34 \cdot 7$ |
| 26 | 41.0 | 50.4 | $44 \cdot 7$ | 36.7 | $40 \cdot 3$ | $34 \cdot 1$ | $35 \cdot 0$ | $29 \cdot 3$ | $30 \cdot 7$ | $31 \cdot 4$ | $31 \cdot 6$ |  | $32 \cdot 4$ | 32－5 | 34.0 | 400 |
| ${ }^{27}$ | $43 \cdot 3$ | 51.9 | $44 \cdot 1$ | 34.0 | $35 \cdot 1$ | $33 \cdot 5$ | $33 \cdot 3$ | $32 \cdot 9$ | 37－7 | $35 \cdot 4$ | $32 \cdot 4$ |  | 33－1 | 33.5 | 33.7 | $40 \cdot 5$ |
| 28 | $40 \cdot 2$ | $39 \cdot 5$ | $39 \cdot 4$ | 31.8 | 37.5 | $37 \cdot 6$ | $39 \cdot 0$ | $34 \cdot 4$ | $35 \cdot 3$ | 35•7 | $34 \cdot 6$ |  | 133.0 | 33.7 | 136．0 | $\left.\right\|_{39.5} ^{405}$ |
| 29 | $39 \cdot 5$ | 37.0 | $39 \cdot 7$ | $37 \cdot 9$ | 337 | 37.7 | 39.5 | $35 \cdot 5$ | 39.7 | $37 \cdot 3$ | $\left\lvert\, \begin{aligned} & 38 \\ & 38\end{aligned}\right.$ |  | 330 | ${ }_{36} 3$ | 36.0 39.0 |  |
| 30 | 37.8 | ． |  | 339 | 326 | $36 \cdot 3$ |  |  |  | 36.1 | 383 |  | ${ }^{35} 5$ |  |  |  |
|  |  |  |  |  |  |  |  |  |  | $36 \cdot 1$ | $39 \cdot 4$ |  | 1349 | 13．0 | ， 397 | 43.0 |
|  | $37 \cdot 1$ | 38.2 | 38.4 | 2.41 | 33.4 | 30.8 | 369 | 33： | 333 | 363 | $34 \cdot 4$ |  | 130 | 3.4 | 338 | 1：80 |

Table XI．—May，1876．Daily Mean Temperature．

| $\begin{aligned} & \text { 总 } \\ & \text { 怘 } \\ & \text { 品 } \\ & \text { 品 } \end{aligned}$ | $\begin{aligned} & \text { m } \\ & 00 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |  |  | 家 | 宗 |  | Little Current | 守 | 盛 | 93 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 |  |  | ¢ |  |  | － |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| － | － | $\bigcirc$ | $\bigcirc$ | － | $\bigcirc$ | 0 | 0 | $\bigcirc$ | 0 | 0 | $\bigcirc$ | $\bigcirc$ | 0 | $\bigcirc$ | 0 |  |
| $55 \cdot 2$ | 58．1 | $47 \cdot 0$ | $48 \cdot 5$ | 34＇1 | $33 \cdot 7$ | $34 \cdot 0$ | $40 \cdot 5$ | 338 | $43 \cdot 0$ | $34 \cdot 0$ | $35 \cdot 0$ | 36.4 | 41．8 | $37 \cdot 0$ | $38 \cdot 0$ | 1 |
| 50.9 | $56 \cdot 5$ | $53 \cdot 0$ | $45 \cdot 5$ | $32 \cdot 1$ | 326 | 29.5 | $40 \cdot 8$ | $36 \cdot 0$ | $43 \cdot 2$ | $38 \cdot 8$ | 38．0 | 40.5 | $43 \cdot 7$ | $37 \cdot 2$ | $41 \cdot 4$ | 2 |
| $49 \cdot 5$ | 54.6 | － | 51.5 | $39 \cdot 0$ | $39 \cdot 0$ | $27 \cdot 2$ | $42 \cdot 4$ | $40 \cdot 3$ | 50.9 | $44 \cdot 2$ | $40 \cdot 5$ | $43 \cdot 4$ | $38 \cdot 7$ | $43 \cdot 5$ | $44 \cdot 0$ | 3 |
| $46 \cdot 4$ | $50 \cdot 9$ | － | 46．5 | $40 \cdot 2$ | $40 \cdot 2$ | $28 \cdot 0$ | $38 \cdot 6$ | $37 \cdot 7$ | 51．7 | $40 \cdot 2$ | $45 \cdot 2$ | $44 \cdot 7$ | $52 \cdot 4$ | $48 \cdot 2$ | $46 \cdot 9$ | 4 |
| 473 | $48 \cdot 8$ | ． | $47 \cdot 5$ | $44 \cdot 8$ | 44.8 | $40 \cdot 3$ | $40 \cdot 3$ | $47 \cdot 3$ | 51.8 | $49 \cdot 4$ | $48 \cdot 2$ | $44 \cdot 7$ | $48 \cdot 2$ | 50．0 | $44 \cdot 5$ | 5 |
| $46 \cdot 6$ | $51 \cdot 1$ | － | 46.0 | $46 \cdot 4$ | $46 \cdot 6$ | $44 \cdot 7$ | 44.2 | 39.0 | $49 \cdot 6$ | $46 \cdot 7$ | 50.2 | $48 \cdot 5$ | $56 \cdot 3$ | 54.3 | 51．6 | 6 |
| $50 \cdot 9$ | 59.2 | － | $52 \cdot 0$ |  | $45 \cdot 8$ | $45 \cdot 8$ | $43 \cdot 5$ | $52 \cdot 0$ | － | － | $59 \cdot 5$ | － | － | $59 \cdot 8$ | $57 \cdot 6$ | 7 |
| 51.6 | $62 \cdot 6$ | － | 67．5 | $48 \cdot 5$ | $46 \cdot 8$ | $38 \cdot 0$ | $42 \cdot 7$ | $41 \cdot 8$ | 53.6 | 47.4 | $51 \cdot 7$ | 51.0 | $56 \cdot 3$ | $33 \cdot 0$ | $54 \cdot 5$ | 8 |
| $54 \cdot 2$ | $61 \cdot 5$ | － | $66 \cdot 0$ | $44 \cdot 2$ | $45 \cdot 2$ | $33 \cdot 7$ | $43 \cdot 8$ | 37－7 | $50 \cdot 7$ | $43 \cdot 3$ | $43 \cdot 0$ | $43 \cdot 7$ | $47 \cdot 4$ | $43 \cdot 0$ | 45．0 | 9 |
| $51 \cdot 8$ | $62 \cdot 0$ | － | 51.5 | 45－7 | $48 \cdot 1$ | 31.5 | $48 \cdot 0$ | 383 | $49 \cdot 2$ | $40 \cdot 9$ | $43 \cdot 5$ | $44 \cdot 2$ | $50 \cdot 2$ | $44 \cdot 5$ | $44 \cdot 7$ | 10 |
| $52 \cdot 1$ | $62 \cdot 1$ | $44^{\circ} 0$ | $57 \cdot 5$ | $48 \cdot 8$ | $46 \cdot 2$ | $34 \cdot 2$ | $46 \cdot 8$ | 40.5 | $52 \cdot 0$ | $44 \cdot 9$ | 47.0 | 46．1 | 53.0 | 46.2 | $47 \cdot 0$ | 11 |
| $48 \cdot 6$ | 57.0 | － | 60.5 | $48 \cdot 6$ | $49 \cdot 8$ | $26 \cdot 7$ | 43•1 | $39 \cdot 8$ | $49 \cdot 6$ | $44 \cdot 8$ | $45 \cdot 8$ | $46 \cdot 4$ | 47.2 | $47 \cdot 0$ | $46 \cdot 3$ | 12 |
| $46 \cdot 8$ | $53 \cdot 2$ | $50 \cdot 0$ | 56.0 | 506 | $52 \cdot 0$ | $27 \cdot 0$ | $42 \cdot 7$ | $36 \cdot 0$ | $52 \cdot 7$ | 39.4 | $41 \cdot 7$ | $44 \cdot 0$ | $50 \cdot 7$ | 44.0 | $44 \cdot 9$ | 13 |
| $47 \cdot 6$ | 52－5 | $34 \cdot 5$ | $38 \cdot 5$ |  | $50 \cdot 4$ | $33 \cdot 7$ | $46 \cdot 2$ | $43 \cdot 0$ |  | － | $50 \cdot 3$ |  | － | $48 \cdot 3$ | $47 \cdot 4$ | 14 |
| 44＇1 | $49 \cdot 2$ | $43 \cdot 0$ | $47 \cdot 0$ | $50 \cdot 8$ | $52 \cdot 1$ | $46^{\circ} 0$ | $44 \cdot 2$ | 44－5 | 576 | $45 \cdot 8$ | $43 \cdot 7$ | 438 | $46 \cdot 4$ | $45 \cdot 0$ | $44 \cdot 0$ | 15 |
| $49 \cdot 8$ | $55 \cdot 5$ | $49 \cdot 0$ | $53 \cdot 5$ | $48 \cdot 2$ | $45 \cdot 3$ | 56.2 | $46 \cdot 3$ | $50 \cdot 0$ | 52.8 | $50 \cdot 2$ | $47 \cdot 0$ | $44 \cdot 5$ | $46 \cdot 6$ | $45 \cdot 8$ | 44.4 | 16 |
| $50 \cdot 2$ | $57 \cdot 0$ | 490 | $44 \cdot 5$ | $54 \cdot 7$ | $53 \cdot 1$ | $45^{-3}$ | $46 \cdot 2$ | 520 | 70－5 | $61 \cdot 4$ | 59.0 | $59 \cdot 7$ | $60 \cdot 4$ | 58．5 | $57 \cdot 8$ | 17 |
| $50 \cdot 3$ | $56 \cdot 1$ | $49 \cdot 0$ | $50 \cdot 5$ | $64 \cdot 1$ | $65 \cdot 6$ | $42 \cdot 7$ | 55.5 | $44 \cdot 5$ | $62 \cdot 5$ | $51 \cdot 3$ | 56.2 | $57 \cdot 6$ | $64 \cdot 7$ | 58.2 | $60 \cdot 5$ | 18 |
| $65 \cdot 2$ | $61 \cdot 0$ | 50.0 | 55.0 | $62 \cdot 2$ | $62 \cdot 2$ | $53 \cdot 3$ | 55－8 | 56.0 | $62 \cdot 4$ | 60.4 | $59 \cdot 7$ | $61 \cdot 8$ | $63 \cdot 7$ | $60 \cdot 0$ | $59 \cdot 8$ | 19 |
| $52 \cdot 8$ | $64 \cdot 3$ | 56.5 | $58 \cdot 0$ | $59 \cdot 8$ | 58－2 | $39 \cdot 8$ | $49 \cdot 3$ | $58 \cdot 3$ | $73 \cdot 1$ | 68 | $69 \cdot 2$ | 66.8 | $68 \cdot 8$ | 63.5 | 67－4 | 20 |
| $53 \cdot 3$ | 62.5 | 57.5 | $59 \cdot 0$ | － | $53 \cdot 2$ | 31.0 | $59 \cdot 5$ | $59 \cdot 3$ |  | － | 67－5 |  |  | $68 \cdot 5$ | $70 \cdot 7$ | 21 |
| $58 \cdot 8$ | $66 \cdot 1$ | 65.5 | 63.0 | $54 \cdot 3$ | $55 \cdot 2$ | $48 \cdot 2$ | $46 \cdot 1$ | $41 \cdot 7$ | $52 \cdot 3$ | $43 \cdot 6$ | 53.0 | $50 \cdot 1$ | 54 | $51 \cdot 5$ | 53.8 | 22 |
| 57.9 | $73 \cdot 7$ | $67 \cdot 5$ | $60 \cdot 5$ | $63 \cdot 4$ | $63 \cdot 2$ | $32 \cdot 2$ | $51 \cdot 3$ | $43 \cdot 7$ | 51.8 | $45 \cdot 1$ | 44．0 | $45 \cdot 4$ | $49 \cdot 2$ | 47．7 | $46 \cdot 4$ | 23 |
| 50.2 | $63 \cdot 6$ | 68.0 | $61 \cdot 0$ | － | $69 \cdot 4$ | $38 \cdot 5$ | $58 \cdot 3$ | $53 \cdot 5$ | $61 \cdot 7$ | 59.0 | $59 \cdot 7$ | $58 \cdot 1$ | $62 \cdot 1$ | $56 \cdot 3$ | 56.3 | 24 |
| $51 \times 5$ | $57 \cdot 1$ | 57.5 | $54 \cdot 0$ | $67 \cdot 8$ | $64 \cdot 4$ | $57 \cdot 3$ | $48 \cdot 8$ | $44 \cdot 5$ | $62 \cdot 0$ | $53 \cdot 7$ | 57•7 | 60.2 | $64 \cdot 7$ | 60.2 | 60.5 | 25 |
| 53.5 | $58 \cdot 1$ | 57．5 | $56 \cdot 0$ | 71－2 | 71．8 | $40 \cdot 0$ | $58 \cdot 0$ | $60 \cdot 0$ | $66 \cdot 3$ | 62.9 | 62.8 | 59.9 |  | $62 \cdot 0$ | $60 \cdot 7$ | 26 |
| $51 \cdot 7$ | $55 \cdot 4$ | $63 \cdot 0$ | $56 \cdot 0$ | $66 \cdot 4$ | 68.0 | $34 \cdot 8$ | $65 \cdot 9$ | $58 \cdot 3$ | $71 \cdot 3$ | $67 \cdot 0$ | 6 | $67 \cdot 8$ | 73.0 | $66 \cdot 5$ | $67 \cdot 4$ | 27 |
| $53 \cdot 2$ | 58.0 | 51.0 | $54 \cdot 5$ | － | 64．9 | $34 \cdot 5$ | $61 \cdot 9$ | $58 \cdot 2$ |  |  | 69.0 | － |  | $65 \cdot 7$ | $67 \cdot 6$ | 28 |
| $48 \cdot 3$ | $54 \cdot 9$ | $52 \cdot 0$ | $52 \cdot 0$ | 60.1 | $62 \cdot 6$ | $50 \cdot 3$ | $50 \cdot 0$ | $50 \cdot 5$ | 71．1 | 56.6 | $61 \cdot 0$ | $63^{\prime} 6$ | 63．7 | $63 \cdot 0$ | $62 \cdot 9$ | 29 |
| 53.0 | $53 \cdot 5$ | $42 \cdot 5$ | $43 \cdot 0$ | 62＇1 | 63.4 | $32 \cdot 5$ | $48 \cdot 5$ | $52 \cdot 0$ | $57 \cdot 6$ | 56.6 | $50 \cdot 3$ | $48 \cdot 5$ | $50 \cdot 0$ | $48 \cdot 5$ | $48 \cdot 3$ | 30 |
| $51 \cdot 9$ | $54 \cdot 9$ | 36.0 | 41.0 | 41．6 | $44 \cdot 0$ | $29 \cdot 3$ | 54．9 | 69.5 | 726 | $73 \cdot 5$ | 74.0 | 66 | $70 \cdot 1$ | $68 \cdot 8$ | $63 \cdot 1$ | 31 |
| 51.1 | 57－8 | 51．8 | 53.3 | $52 \cdot 1$ | $52 \cdot 8$ | $38 \cdot 3$ | $48 \cdot 5$ | 47•1 | 57.2 | $50 \cdot 7$ | 52．9 | 51.4 | $55 \cdot 4$ | $53 \cdot 1$ | 53.0 |  |

Table XI.-May, 1876. Daily Mean Temperature. -Continued.


Table XI.-May, 1876. Daily Mean Temperature.-Continued.

|  |  | 安 |  |  |  |  |  | Dalhousie. |  | $\begin{gathered} \text { i } \\ \underset{y}{0} \\ \text { \& } \end{gathered}$ |  |  |  |  |  | 守 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | 0 | - | - | $\bigcirc$ | 0 | - | - | - | $\bigcirc$ | $\bigcirc$ |  |
| $36 \cdot 7$ | $37 \cdot 8$ | 36.9 | $35 \cdot 2$ | 31.8 | $37 \cdot 3$ | 35.9 | $34 \cdot 2$ | 33.5 | $36 \cdot 7$ | 336 | 380 | $35 \cdot 9$ | $34 \cdot 5$ | $34 \cdot 3$ | 44•7 | 1 |
| $46 \cdot 0$ | $44^{4} 0$ | $46 \cdot 3$ | 362 | $36 \cdot 5$ | 38•7 | $37 \cdot 6$ | 34.0 | $37 \cdot 0$ | $37 \cdot 4$ | 35'7 | $36 \cdot 1$ | $34 \cdot 9$ | $36 \cdot 5$ | $35 \cdot 7$ | 42•7 | 2 |
| $42 \cdot 5$ | $44 \cdot 8$ | $43 \cdot 2$ | 37-2 | 37.0 | $37 \cdot 9$ | 38•1 | 35-7 | 378 | $38 \cdot 7$ | $34 \cdot 5$ | $36 \cdot 5$ | $34 \cdot 3$ | 355 | $42 \cdot 0$ | $35 \cdot 5$ | 3 |
| $44 \cdot 3$ | $41 \cdot 8$ | 43'7 | $35 \cdot 6$ | $41 \cdot 0$ | 380 | $37 \cdot 4$ | $33 \cdot 4$ | $32 \cdot 3$ | $35 \cdot 4$ | 33.9 | 34.9 | $35 \cdot 7$ | $35 \cdot 5$ | $44 \cdot 0$ | $42 \cdot 0$ | 4 |
| 48.0 | $44^{\cdot 1}$ | $45 \cdot 6$ | $37 \cdot 6$ | $39 \cdot 4$ | $40 \cdot 1$ | 41.6 | 37-1 | $36 \cdot 0$ | $39 \cdot 3$ | 38.4 | $41 \cdot 8$ | $39 \cdot 4$ | $40 \cdot 0$ | $48 \cdot 3$ | 39.5 | 5 |
| 55.5 | 52.5 | $48 \cdot 8$ | 37-3 | $38 \cdot 6$ | $42 \cdot 8$ | $41 \cdot 0$ | $37 \cdot 6$ | $40 \cdot 0$ | $38 \cdot 0$ | 45.1 | $40 \cdot 6$ | 41-5 | $43 \cdot 5$ | $47 \cdot 0$ | $39 \cdot 3$ | 6 |
| $48 \cdot 0$ | - | - | 36.6 | $44 \cdot 0$ | 45-8 |  |  | - | $48 \cdot 5$ | $40 \cdot 7$ | $46 \cdot 6$ | 430 | 413 | $36 \cdot 0$ | $45 \cdot 0$ | 7 |
| 57.3 | $49 \cdot 9$ | $50 \cdot 4$ | 37-5 | 50.5 | $47 \cdot 8$ | 47•4 | $36 \cdot 0$ | $36 \cdot 7$ | $42 \cdot 5$ | $35 \cdot 9$ | $48 \cdot 2$ | $43 \cdot 5$ | $1 \cdot 5$ | $38 \cdot 7$ | $46 \cdot 7$ | 8 |
| 51.5 | $46 \cdot 9$ | $52 \cdot 2$ | $46 \cdot 2$ | 47-3 | 44*3 | 51.3 | $39 \cdot 3$ | $38 \cdot 5$ | $39 \cdot 8$ | $40 \cdot 8$ | $46 \cdot 7$ | $44^{\circ} 0$ | $43 \cdot 0$ | $37 \cdot 0$ | 48.3 | 9 |
| $50 \cdot 0$ | $43 \cdot 8$ | $50 \cdot 8$ | $44 \cdot 4$ | $46 \cdot 2$ | 433 | 49'8 | $39 \cdot 0$ | $44 \cdot 0$ | $47 \cdot 3$ | $51 \cdot 1$ | 51.0 | $47 \cdot 1$ | $53 \cdot 0$ | $35 \cdot 3$ | 51.0 | 10 |
| $50 \cdot 2$ | $46 \cdot 4$ | 50.0 | $41 \cdot 8$ | 405 | $44 \cdot 1$ | $43 \cdot 5$ | 39•1 | $40^{\circ} 7$ | 46.5 | $45 \cdot 4$ | $49 \cdot 2$ | $37 \cdot 2$ | $39 \cdot 5$ | $42 \cdot 0$ | $46 \cdot 5$ | 11 |
| 45.3 | 48 | $48^{\circ}$ | $44 \cdot 3$ | $42 \cdot 3$ | $43 \cdot 7$ | $49 \cdot 0$ | $41 \cdot 3$ | $47 \cdot 0$ | $49 \cdot 6$ | $42 \cdot 5$ | $44 \cdot 5$ | $43 \cdot 5$ | $42 \cdot 5$ | $41 \cdot 3$ | $40 \cdot 3$ | 12 |
| $46 \cdot 0$ | $43 \cdot 8$ | $46 \cdot 6$ | $48 \cdot 4$ | $42 \cdot 2$ | $42 \cdot 5$ | $45 \cdot 6$ | 365 | 37.0 | 46.3 | $38 \cdot 9$ | 46.2 | $43 \cdot 0$ | 40.7 | $36 \cdot 3$ | $39 \cdot 3$ | 13 |
| 45•7 | - | - | $41 \cdot 9$ | 37'7 | $43 \cdot 3$ |  |  |  | $46 \cdot 5$ | $38 \cdot 4$ | 41.8 | $37 \cdot 9$ | 37-7 | $43 \cdot 7$ | $45 \cdot 0$ | 14 |
| $44 \cdot 3$ | $46 \cdot 3$ | $45 \cdot 8$ | $40 \cdot 9$ | 36.6 | $41 \cdot 5$ | $41 \cdot 3$ | 394 | 410 | 43'7 | $40 \cdot 1$ | $42 \cdot 4$ | $41 \cdot 0$ | $42 \cdot 5$ | $41 \cdot 0$ | $45 \cdot 0$ | 15 |
| $48 \cdot 5$ | 51 | 49 | $43 \cdot$ | $40 \cdot 0$ | $43 \cdot 1$ | $39 \cdot 4$ | $40 \cdot 6$ | $41 \cdot 5$ | 43.8 | $39 \cdot 0$ | $40 \cdot 8$ | $39 \cdot 1$ | $39 \cdot 5$ | $42 \cdot 0$ | 41.0 | 16 |
| 56.0 | 55.4 | $53 \cdot 5$ | 50.8 | $52 \cdot 8$ | $43 \cdot 7$ | $44 \cdot 8$ | $41 \cdot 4$ | $44 \cdot 5$ | $44 \cdot 3$ | $36 \cdot 3$ | $40 \cdot 5$ | $42 \cdot 2$ | $40 \cdot 7$ | $42 \cdot 3$ | $41 \cdot 8$ | 17 |
| $56 \cdot 5$ | $53 \cdot 3$ | $54 \cdot 8$ | 50.8 | 47.3 | $42 \cdot 9$ | 45•1 | $45 \cdot 6$ | 47'5 | $45 \cdot 0$ | 47•8 | $47 \cdot 4$ | $48 \cdot 5$ | $49 \cdot 0$ | $42 \cdot 3$ | 51.0 | 18 |
| $55 \cdot 5$ | $57 \cdot 4$ | $58 \cdot 2$ | $51 \cdot 6$ | $44 \cdot 9$ | 495 | $50 \cdot 6$ | 466 | $50 \cdot 5$ | $49 \cdot 6$ | $45 \cdot 9$ | $49 \cdot 6$ | $45 \cdot 8$ | $46 \cdot 0$ | $42 \cdot 3$ | $45 \cdot 5$ | 19 |
| 58.5 | $59 \cdot 4$ | $60 \cdot 0$ | $55 \cdot 2$ | 51.0 | $53 \cdot 4$ | 55.3 | $46 \cdot 0$ | $50 \cdot 0$ | $51 \cdot 1$ | $39 \cdot 7$ | 45.6 | $40 \cdot 8$ | $42 \cdot 0$ | $46 \cdot 7$ | $45 \cdot 0$ | 20 |
| $68 \cdot 3$ | * | - | 55.8 | $62 \cdot 1$ | 48•1 |  |  | - | $46 \cdot 6$ | $42 \cdot 9$ | $44 \cdot 7$ | $49 \cdot 1$ | $47 \cdot 5$ | 47.0 | $54 \cdot 3$ | 21 |
| $50 \cdot 0$ | $45 \cdot 9$ | 54-3 | $52 \cdot 2$ | 51.0 | $48 \cdot 7$ | 51.7 | $52 \cdot 7$ | 457 | $42 \cdot 8$ | $43 \cdot 7$ | $48 \cdot 4$ | $48 \cdot 6$ | $49 \cdot 5$ | $39 \cdot 0$ | $54 \cdot 0$ | 22 |
| $46 \cdot 3$ | $51 \cdot 1$ | $45 \cdot 0$ | 45•7 | 40.8 | $15 \cdot 3$ | 46.4 | $44 \cdot 6$ | 45.8 | $43 \cdot 3$ | 44'7 | $38 \cdot 6$ | 36-3 | $36 \cdot 0$ | $39 \cdot 7$ | 45•7 | 23 |
| $57 \cdot 3$ | $55 \cdot 6$ | $55 \cdot 8$ | $50 \cdot 4$ | $52 \cdot 3$ | 47'9 | 53.4 | - | 47.7 | $48 \cdot 8$ | $47 \cdot 0$ | $46 \cdot 5$ | $50 \cdot 5$ | $49 \cdot 5$ | $49 \cdot 7$ | $43 \cdot 7$ | 24 |
| $47 \cdot 5$ | $44 \cdot 5$ | $49 \cdot 6$ | $46 \cdot 6$ | $41 \cdot 1$ | $45 \cdot 7$ | 50.0 | $41 \cdot 3$ | $42 \cdot 3$ | $50 \cdot 2$ | $53 \cdot 0$ | $49 \cdot 4$ | $46 \cdot 5$ | $48 \cdot 3$ | $45 \cdot 7$ | $51 \cdot 5$ | 25 |
| 64.5 | $61 \cdot 1$ | 54.8 | 486 | $50 \cdot 7$ | $45 \cdot 3$ | $49 \cdot 1$ | 47-7 | $42 \cdot 7$ | $50 \cdot 5$ | $43 \cdot 9$ | $46 \cdot 0$ | 46.9 | $47 \cdot 0$ | $45 \cdot 0$ | $40 \cdot 7$ | 26 |
| $70 \cdot 5$ | $7 \ell \cdot 1$ | 68.4 | 618 | $66 \cdot 5$ | $46 \cdot 3$ | 64'6 | $54 \cdot 1$ | $52 \cdot 3$ | 52'1 | 54.3 | $53 \cdot 7$ | $55 \cdot 1$ | 53' 7 | 45.0 | $42 \cdot 0$ | 27 |
| 68•7 | . |  | 63.9 | $61 \cdot 4$ | $46 \cdot 7$ |  | . | . | 56.5 | $60 \cdot 3$ | $57 \cdot 0$ | $61 \cdot 6$ | $64 \cdot 5$ | $46 \cdot 0$ | $50 \cdot 7$ | 28 |
| 51.5 | 51.0 | $53 \cdot 4$ | 510 | $46 \cdot 4$ | 50.6 | $54 \cdot 1$ | $45 \cdot 5$ | $49 \cdot 3$ | 53'1 | $55 \cdot 8$ | 54.5 | 47•8 | $49 \cdot 8$ | $42 \cdot 3$ | $52 \cdot 2$ | 29 |
| 46.7 | $52 \cdot 3$ | $46 \cdot 2$ | $47 \cdot 9$ | $42 \cdot 4$ | 48-1 | $49 \cdot 2$ | $43 \cdot 9$ |  | $44 \cdot 4$ | $39 \cdot 5$ | $39 \cdot 8$ | $39 \cdot 8$ | $38 \cdot 5$ | $44 \cdot 7$ | 42-3 | 30 |
| $57 \cdot 5$ | 67.6 | 59.9 | $59 \cdot 4$ | 590 | $47 \cdot 4$ | 52.1 | 59.1 | 52.8 | 476 | 47'9 | $48 \cdot 4$ | $51 \cdot 9$ | $50 \cdot 7$ | $44 \cdot 0$ | - | 31 |
| 51.8 | 60.7 | 50.8 | $46 \cdot 3$ | 458 | $44 \cdot 6$ | 46.9 | 420 | 428 | $45 \cdot 4$ | $43 \cdot 1$ | 45.2 | $41 \cdot 5$ | $43 \cdot 8$ | $42 \cdot 1$ | 45•7 |  |

Table XII.-June, 1876. Daily Mean Temperature


Table XII.-June, 1876. Daily Mean Temperature-Continued.

| $\begin{aligned} & \dot{4} \\ & \text { g } \\ & \text { B } \\ & \text { B } \end{aligned}$ |  |  |  | $\begin{aligned} & \dot{\text { d }} \\ & \text { 品 } \\ & \text { 응 } \\ & \text { He } \end{aligned}$ | $\underset{\sim}{\underset{\sim}{c}}$ |  |  |  |  |  |  | 0. 000 3 0 0 0 0 0 0 0 0 0 | $\begin{aligned} & 80 \\ & 8 \\ & 0 \\ & 0 \\ & 0 \\ & \text { B } \end{aligned}$ | 家 | -8 <br>  <br>  <br> 0 <br> 0 <br> 0 <br> 0 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | - | $\bigcirc$ | 0 |  |
| 71-7 | $74 \cdot 1$ | $70 \cdot 3$ | $62 \cdot 9$ | $62 \cdot 4$ | 74.0 | $67 \cdot 8$ | $70 \cdot 1$ | $70 \cdot 4$ | $70 \cdot 1$ | $74 \cdot 5$ | $67 \cdot 9$ | $74 \cdot 9$ | 71.6 | $71 \cdot 3$ | $74 \cdot 2$ | 1 |
| - | $70 \cdot 6$ | 73.0 | $73 \cdot 7$ | $64 \cdot 9$ | $70 \cdot 7$ | $63 \cdot 8$ | $65 \cdot 6$ | $63 \cdot 1$ | $64 \cdot 9$ | $72 \cdot 2$ | $67 \cdot 5$ | $72 \cdot 3$ | $71 \cdot 3$ | $67 \cdot 8$ | $77 \cdot 3$ | 2 |
| - | $60 \cdot 1$ | 61.0 | 60.9 | $58 \cdot 8$ | 64'7 | 61.0 | $56 \cdot 9$ | $55 \cdot 8$ | $54 \cdot 7$ | $61 \cdot 3$ | $59 \cdot 4$ | $65 \cdot 6$ | $61 \cdot 6$ | 639 | 66.8 | 3 |
| $60 \cdot 0$ | $58 \cdot 8$ | $59 \cdot 3$ | - | $58 \cdot 5$ | $61 \cdot 7$ | $57 \cdot 6$ | $57 \cdot 1$ | 509 | 51.6 | $59 \cdot 1$ |  |  | $60 \cdot 8$ | - |  | 4 |
| 52.9 | 52.8 | $54 \cdot 0$ | 56.8 | $53 \cdot 7$ | $58 \cdot 0$ | 51.1 | $49 \cdot 2$ | 47-8 | $48 \cdot 3$ | 54-5 | 51.5 | 57.4 | $53 \cdot 7$ | $55 \cdot 6$ | $64 \cdot 0$ | 5 |
| $55 \cdot 8$ | $57 \cdot 9$ | $59 \cdot 5$ | 61.8 | $55 \cdot 3$ | 57•7 | $51 \cdot 3$ | $55 \cdot 2$ | $53 \cdot 3$ | 53.1 | 56.0 | $59 \cdot 8$ | 61.8 | $57 \cdot 7$ | 55.5 | $59 \cdot 5$ | 6 |
| $60 \cdot 2$ | 67-8 | $60 \cdot 5$ | 57.8 | $58 \cdot 2$ | $65 \cdot 7$ | $48 \cdot 3$ | $59 \cdot 6$ | $58 \cdot 5$ | $58 \cdot 3$ | 61.5 | 58.4 | 61.2 | 57.8 | 61.5 | $55 \cdot 6$ | 7 |
| $70 \cdot 5$ | 71.6 | $74 \cdot 3$ | $71 \cdot 5$ | $62 \cdot 5$ | $73 \cdot 3$ | $50 \cdot 6$ | $65 \cdot 2$ | $64 \cdot 6$ | 64 | 73.4 | $68 \cdot 4$ | 697 | 66.8 | $66 \cdot 9$ | $61 \cdot 2$ | 8 |
| 673 | $72 \cdot 0$ | $74 \cdot 0$ | $75 \cdot 5$ | $67 \cdot 1$ | $74 \cdot 0$ | 57.9 | $69 \cdot 6$ | $66 \cdot 0$ | $67 \cdot 9$ | $71-5$ | $68 \cdot 8$ | 75.0 | $68 \cdot 3$ | $69 \cdot 2$ | $75 \cdot 1$ | 9 |
| $70 \cdot 4$ | 75.4 | $74 \cdot 5$ | $75 \cdot 1$ | $68 \cdot 1$ | 71.3 | $64 \cdot 1$ | $65 \cdot 7$ | $62 \cdot 8$ | $65 \cdot 1$ | $70 \cdot 7$ | $67 \cdot 6$ | $74 \cdot 1$ | $73 \cdot 1$ | $69 \cdot 2$ | 70.5 | 10 |
| 74.5 | 75 | 75 | - | $66 \cdot 8$ | $78 \cdot 7$ | $69 \cdot 7$ | $73 \cdot 2$ | $72 \cdot 4$ | $74 \cdot 7$ | $70 \cdot 3$ | - |  | $70 \cdot 9$ | - | - | 11 |
| $76 \cdot 2$ | $77 \cdot 1$ | $74 \cdot 3$ | 702 | $69 \cdot 3$ | $79 \cdot 3$ | $74 \cdot 3$ | $73 \cdot 9$ | $73 \cdot 3$ | $79 \cdot 1$ | $75 \cdot 0$ | $72 \cdot 6$ | $78 \cdot 6$ | 79.5 | $74 \cdot 3$ | $72 \cdot 2$ | 12 |
| $72 \cdot 6$ | - | $73 \cdot 5$ | -8.1 | $68 \cdot 6$ | $76 \cdot 7$ | 71.8 | $78 \cdot 5$ | $72 \cdot 7$ | $80 \cdot 1$ | $72 \cdot 9$ | 733 | $74 \cdot 7$ | $71 \cdot 3$ | 74.5 | 766 | 13 |
| 75:9 | $77 \cdot 0$ | $75 \cdot 0$ | $76 \cdot 6$ | $70 \cdot 9$ | $77 \cdot 0$ | 71.7 | $69 \cdot 5$ | $67 \cdot 1$ | 68-4 | $69 \cdot 9$ | $69 \cdot 4$ | $75 \cdot 6$ | $69 \cdot 5$ | 730 | $7.3 \cdot 9$ | 14 |
| $74 \cdot 2$ | 75.2 | $73 \cdot 5$ | $69 \cdot 3$ | $68 \cdot 7$ | $75 \cdot 3$ | 72.4 | $70 \cdot 9$ | 679 | $70 \cdot 4$ | $73 \cdot 0$ | $70 \cdot 8$ | $76 \cdot 3$ | $77 \cdot 0$ | $76 \cdot 9$ | $74 \cdot 2$ | 15 |
| $73 \cdot 1$ | $74 \cdot 3$ | $75 \cdot 8$ | $76 \cdot 8$ | $70 \cdot 3$ | $81 \cdot 7$ | $72 \cdot 6$ | 76.0 | $73 \cdot 3$ | 7\%7 | 75.1 | $73 \cdot 7$ | 786 | 76.5 | $76 \cdot 0$ | $79 \cdot 6$ | 16 |
| $69^{\circ} 0$ | $71 \cdot 4$ | $68 \cdot 8$ | $72 \cdot 7$ | 66.0 | 730 | $69 \cdot 7$ | 74.0 | $67 \cdot 9$ | $60^{2} 2$ | $70 \%$ | $69 \cdot 1$ | $70 \cdot 3$ | 68.1 | 73.7 | 78.4 | 17 |
| 61.4 | $64 \cdot 5$ | $66 \cdot 8$ | - | $64 \cdot 3$ | $72 \cdot 3$ | $67 \cdot 9$ | $66 \cdot 3$ | 64.2 | 65.1 | $67 \cdot 4$ | - | - | $66 \cdot 7$ |  |  | 18 |
| $66 \cdot 5$ | $63 \cdot 5$ | $66 \cdot 0$ | - $70 \cdot 3$ | $63 \cdot 1$ | $67 \cdot 0$ | $63 \cdot 3$ | $62 \cdot 9$ | 60.0 | $65 \cdot 2$ | $62 \cdot 7$ | 64.8 |  | 61.6 | 682 | 71.5 | 19 |
| $60 \cdot 5$ | $60 \cdot 4$ | $62 \cdot 3$ | 65.6 | $63 \cdot 1$ | $65 \cdot 3$ | $65 \cdot 4$ | $57 \cdot 9$ | 55.2 | $56 \cdot 3$ | $63 \cdot 3$ | 622 | $64 \cdot 0$ | $57 \cdot 9$ | 653 | $70 \cdot 4$ | 20 |
| $60 \cdot 4$ | $60 \cdot 6$ | $61 \cdot 3$ | $65 \cdot 5$ | $60 \cdot 8$ | $62 \cdot 0$ | 58.5 | $57 \cdot 9$ | $52 \cdot 2$ | $53 \cdot 3$ | $60 \cdot 1$ | $58 \cdot 3$ | $62 \cdot 9$ | 59.4 | 661 | $64 \cdot 0$ | 21 |
| 64'3 | 67.6 | 64.0 | $69 \cdot 7$ | $63 \cdot 3$ | 65.7 | 60.5 | 62.5 | 58.0 | $59 \cdot 5$ | $66 \cdot 6$ | $61 \cdot 7$ | $67 \cdot 4$ | 61.5 | 698 | $65 \cdot 4$ | 22 |
| 68-5 | $69 \cdot 8$ | $74 \cdot 8$ | $76 \cdot 4$ | $68 \cdot 4$ | $70 \cdot 0$ | $68 \cdot 6$ | $72 \cdot 6$ | $67 \cdot 9$ | 66.6 | $77 \cdot 7$ | $70 \cdot 3$ | $74 \cdot 9$ | $65 \cdot 7$ | $72 \cdot 4$ | $70 \cdot 5$ | 23 |
| $71 \cdot 5$ | $71 \cdot 3$ | $77 \cdot 9$ | $79 \cdot 1$ | $74 \cdot 2$ | $73 \cdot 0$ | $72 \cdot 1$ | $71 \cdot 7$ | $67 \cdot 7$ | $68 \cdot 8$ | 76.1 | $72 \cdot 4$ | 768 | 73.2 | 73.8 | $75 \cdot 1$ | 24 |
| $71 \cdot 7$ | 77.4 | $75 \cdot 5$ | * | $75 \cdot 2$ | $74 \cdot 7$ | $70 \cdot 7$ | $68 \cdot 8$ | $66 \cdot 8$ | $67 \cdot 7$ | $73 \cdot 0$ | - | - | 70.5 | - | - | 25 |
| $73 \cdot 4$ | $75 \cdot 1$ | $76 \cdot 0$ | 73.4 | $68 \cdot 8$ | $76 \cdot 7$ | 71.0 | $76 \cdot 7$ | 71.5 | $72 \cdot 7$ | 74.4 | 70.1 | 71.1 | $71 \cdot 1$ | 723 | 71.6 | 26 |
| $70 \cdot 3$ | . | $75 \cdot 5$ | $74 \cdot 6$ | $73 \cdot 8$ | $72 \cdot 7$ | $73 \cdot 3$ | 66.8 | $62 \cdot 0$ | $63 \cdot 5$ | 74 | $73 \cdot 7$ | $78 \cdot 8$ | $75 \cdot 8$ | $75 \cdot 8$ | $77 \cdot 0$ | 27 |
| $63 \cdot 4$ | $75 \cdot 6$ | 675 | $70 \cdot 1$ | $67 \cdot 4$ | $7.3 \cdot 3$ | $64 \cdot 3$ | $62 \cdot 3$ | 61-5 | $58 \cdot 6$ | 166.9 | $65 \cdot 9$ | $69 \cdot 1$ | $54 \cdot 7$ | 71.0 | 720 | 28 |
| $68 \cdot 7$ | $67 \cdot 6$ | $71 \cdot 3$ | $73 \cdot 9$ | 67•2 | $71 \cdot 3$ | $64 \cdot 0$ | $64 \cdot 4$ | $50 \cdot 0$ | $62 \cdot 7$ | $67 \cdot 8$ | $65 \cdot 7$ | $70 \cdot 8$ | $67 \cdot 2$ | 71•7 | $72 \cdot 4$ | 29 |
| $65 \cdot 6$ | $67 \cdot 4$ | $66 \cdot 5$ | 74.4 | 66.1 | $66 \cdot 7$ | $63 \cdot 5$ | 61.4 | $57 \cdot 6$ | $57 \cdot 9$ | 66.0 | $64 \cdot 2$ | $69 \cdot 9$ | 65.9 | 71.2 | $71 \cdot 1$ | 30 |
| $68 \cdot 4$ | $69 \cdot 0$ | $69 \cdot 3$ | $70 \cdot 1$ | $65 \cdot 5$ | $70 \cdot 8$ | 639 | 66'1 | $63 \cdot 0$ | 64.4 | $68 \cdot 5$ | $66 \cdot 3$ | $70 \cdot 7$ | 65.1 | $69 \cdot 5$ | 70.8 |  |

Table XII．－June，1876．Daily Mean Temperature．－Continued．

| $\stackrel{F}{8}$ | $\begin{aligned} & \dot{\theta} \\ & \therefore \\ & \therefore \\ & \vdots \\ & \ddot{\Xi} \end{aligned}$ | $\begin{aligned} & \dot{シ} \\ & \vdots \\ & \vdots \\ & E \\ & シ \end{aligned}$ |  |  |  |  | 号 |  |  |  | $\begin{aligned} & \dot{\circ} \\ & \text { 号 } \\ & \text { N } \end{aligned}$ | 号 | Charlottetown |  | 灾 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | － | － |  | c |  |  |  | － |  | － | － | － | － | － | － | － |
| 1 | $70 \cdot 7$ | $72 \cdot 6$ | $67 \cdot 6$ | $70 \cdot 1$ | $69 \cdot 6$ | 50．5 | $57 \cdot 9$ | 636 | $64 \cdot 0$ | 50•1 | 55.6 | 57.8 | 56.3 | $59 \cdot 3$ | $48 \cdot 0$ | $43 \cdot 5$ |
| 2 | 70.0 | 736 | $73 \cdot 8$ | 74－3 | 74.3 | 53.6 | 61.6 | 64．0 | 69•7 | 56.8 | $62 \cdot 8$ | $64 \cdot 3$ | 63. | $67 \cdot 3$ | 45.0 | 55.5 |
| 3 | $69 \cdot 0$ | 58.6 | 67－1 | 56.4 | 627 | 55．0 | $64 \cdot 6$ | 50.4 | 54.3 | $53 \cdot 6$ | 66.9 | 67.9 | 56.3 | 63.3 | $45 \cdot 7$ | 63.5 |
| 4 | 55 |  |  | 46 | $46 \cdot 8$ | $44 \cdot 4$ |  |  |  | 55.9 | $48 \cdot 9$ | $47 \cdot 4$ | 41.8 | 43.2 | $45 \cdot 7$ | $60 \cdot 3$ |
| 5 | $60 \cdot 3$ | 54.4 | $58 \cdot 8$ |  | 52.0 | $47 \cdot 1$ | 46.4 | 443 | $45 \cdot 0$ | 54•1 | 53.2 | $61 \cdot 1$ | 56.2 | $58 \cdot 5$ | $42 \cdot 3$ | $42 \cdot 7$ |
| 6 | 58.0 | $58 \cdot 6$ | $59 \cdot 6$ | － | 51.4 | 545 | 57.8 | $47 \cdot 3$ | 50.7 | $56 \cdot 1$ | 60.4 | 619 | 56.4 | 55.2 | 4.3 | $51 \cdot 3$ |
| 7 | $58 \cdot 5$ | $59 \cdot 3$ | 56.0 |  | 48.9 | 56.3 | 59.6 | $50 \cdot 9$ | $54 \cdot 7$ | 56.2 | $51 \cdot 2$ | 53.2 | $48 \cdot 5$ | $48 \cdot 7$ | $48 \cdot 7$ | $52 \cdot 7$ |
| 8 | 58.7 | $65 \cdot 4$ | 57.6 | $52 \cdot 8$ | $52 \cdot 3$ | 53.3 | 56.4 | 50.6 | $57 \cdot 3$ | 55.8 | 533 | $53 \cdot 1$ | 49.9 | 48.8 | $49 \cdot 7$ | $50 \cdot 3$ |
| 9 | 70.0 | $67 \cdot 5$ | 64•1 | 52.7 | 59.5 | 52.9 | 53.1 | $53 \cdot 6$ | $50 \cdot 3$ | $54 \cdot 7$ | 47.8 | 58.4 | 56.3 | $47 \cdot 5$ | $52 \cdot 3$ | $55 \cdot 0$ |
| 10 | $70 \cdot 0$ | 69.1 | 67.6 | $51 \cdot 2$ | 61.5 | 51.9 | 55.8 | $47 \cdot 4$ | 48.0 | $59 \cdot 8$ | 45.5 | $60 \cdot 3$ | 53.6 | 500 | $45 \cdot 0$ | $59 \cdot 7$ |
| 11 | 68.5 |  |  | 52.9 | $64^{\circ}$ | 56 |  |  |  | 54.7 | 45.7 | 58.0 | $52 \cdot 3$ | $50 \cdot 0$ | 467 | 66.5 |
| 12 | 72.5 | $79 \cdot 1$ | 69．0 | 66.0 | $67 \cdot 0$ | $55 \cdot 9$ | $62 \cdot 2$ | 587 | $61 \cdot 7$ | 55.8 | $60 \cdot 5$ | 63.9 | 571 | $56 \cdot 3$ | $46 \cdot 0$ | 58.7 |
| ． 13 | 73 | $77 \cdot 4$ | $71 \cdot 7$ | 73.6 | 69.6 | $53 \cdot 4$ | $65 \cdot 1$ | 68. | $68 \cdot 5$ | 62.2 | 67.5 | 86．3 | 64．0 | $66 \cdot 7$ | 507 | 57.5 |
| 14 | 70.5 | $66 \cdot 0$ | 68.5 | 68.4 | 6＋3 | 56.7 | $67 \cdot 1$ | 71.8 | $70 \cdot 3$ | 586 | $66 \cdot 6$ | 66.8 | $64 \cdot 5$ | 67.8 | 49. | 59.5 |
| 15 | 74.0 | $74 \cdot 9$ | $71 \cdot 7$ | 67.5 | $65 \cdot 0$ | 53.7 | $62 \cdot 7$ | $63 \cdot 8$ | $65 \cdot 7$ | 6 | 667 | 63.3 | $63 \cdot 2$ | $63 \cdot 3$ | 52 | 620 |
| 16 | $77 \cdot 5$ | $77 \cdot 9$ | 765 | $69 \cdot 0$ | 74.0 | $55 \cdot 3$ | 64.8 | $62 \cdot 6$ | 55\％ | 652 | 58.6 | 64. | $62 \cdot$ | 59.5 | $52 \cdot 0$ | 615 |
| 17 | $73 \cdot 7$ | 72.7 | $72 \cdot 3$ | $77 \cdot 2$ | 73.0 | 54•1 | 68.8 | 71 | 74.0 | 1659 | $68 \cdot 1$ | 64.8 | 66.0 | 67.0 | $58 \cdot 0$ | $61 \cdot 3$ |
| 18 | 713 |  |  | 75.7 | 71.6 | $5 \pm 3$ |  |  | 78 | 0 | 72 | 657 | $68 \cdot$ | 70.0 | 57.0 | 610 |
| 19 | 687 | $70 \cdot 2$ | 689 | 68.4 | 65.5 | $62 \cdot 3$ | 71 | $72 \cdot 3$ | 6951 | $65 \cdot 8$ | 73.2 | $70 \cdot 2$ | 68.6 | 71.5 | 64.7 | $62 \cdot 3$ |
| 20 | 608 | $65 \cdot 2$ | 68.8 | 67.8 | $60 \cdot 3$ | 56.5 | 704 | 74.8 | 723 | $67 \cdot 1$ | 71.8 | $69 \cdot 3$ | $69 \cdot 4$ | 71.7 | $5 \cdot 3$ | $64 \cdot 5$ |
| 21 | 61.0 | $60 \cdot 4$ | （32） 0 | 627 | 59.5 | 54.4 | 61 | 67.8 | 115 | 64 | 67.6 | 67.1 | 63.2 | $68 \cdot 3$ | 520 | 68．2 |
| 22 | $58 \cdot 5$ | 61.7 | 61.5 | 608 | 5． 3 | $54 \cdot 2$ | 63.4 | 634 | $62 \cdot 0$ | $62 \cdot 2$ | 63.9 | $61 \cdot 9$ | $64 \cdot 8$ | 65.0 | 507 | 63.0 |
| 23 | 66.7 | 63．0 | 676 | 63 | $53 \cdot 7$ | $58 \cdot 7$ | 61.1 |  | 61.7 | 59.6 | 63.6 | 58.8 | 59.5 | $60 \cdot 5$ | 52．0 | $61 \cdot 3$ |
| 24 | 73.8 | $73 \cdot 7$ | 729 | 6 | 60 | 543 | 611 | 63.3 |  | 60.0 | （1）＇0 | 61 | 612 | 62．5 | $57 \cdot 0$ | 610 |
| 25 | 72．0 | ． |  | $63 \cdot 7$ | 6i 5 | 58 |  |  | 58.7 | 60.2 | 59.3 | 61.8 | 61.6 | 598 | $51 \cdot 7$ | $63 \cdot 5$ |
| 27 | $69 \cdot 3$ | $72 \cdot 5$ | $70 \cdot 5$ | 66．1 | 590 | 63.7 |  |  |  |  | $63 \cdot 9$ | 623 | $62 \cdot 4$ | $62 \cdot 7$ | $50 \cdot 7$ | 61．5 |
| 27 | 735 | $72 \cdot 3$ | 72 | 65\％ | 693 | $60 \cdot 5$ | 68 | 623 | $72 \cdot 3$ | 65•1 | $63 \cdot 1$ |  | $5 \cdot$ | 62.5 | 58.3 | $55 \cdot 8$ |
| 28 | $67 \cdot 7$ | 698 | 71.8 | 710 |  |  |  | 71.9 | 695 | 636 | 651 | 68.2 | 66.9 | $68 \cdot 3$ | $53 \cdot 3$ | 67.8 |
| 29 | $69 \cdot 3$ | $69 \%$ | ${ }^{7} 706$ | 70 | 655 |  |  | $65 \cdot 9$ | 5.58 | $72 \cdot 5$ | 1：1．3 | $65 \cdot 8$ | 66 | 65 | 58 | $53 \cdot 7$ |
| 30 | 66.2 | 67. | 667 | 63.6 | t；1．8 | 62 |  |  |  | $56 \cdot 1$ | 57.0 | $\therefore 9$ | $59 \cdot 3$ | 58.7 | 577 | 59.2 |
|  | 67.8 | 6 | $7 \cdot 5$ |  | $42 \cdot 4$ |  |  | 61.2 | 62.2 | $60 \cdot 5$ |  | 1623 | 61．1 | 61.1 | 522 | 594 |

Table XIII．－Júly，1876．Daily Mean Temperature．

|  |  |  | Fort MacLeod. | $\begin{aligned} & \dot{8} \\ & 0 \\ & 0 \\ & \dot{D} \\ & \dot{\theta} \end{aligned}$ |  |  |  |  | 安 | $\begin{aligned} & \text { ? } \\ & 0 \\ & \text { d } \\ & 0 \\ & 0 \\ & 0 \\ & \hline \end{aligned}$ | 号 | $\begin{aligned} & \text { Di } \\ & \text { Q } \\ & \text { 霍 } \end{aligned}$ | $\begin{aligned} & 0 \\ & 0 \\ & \dot{0} \\ & \text { ian } \end{aligned}$ |  |  | －¢ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| － | － | － | － | $\bigcirc$ | － | $\bigcirc$ | － | － | 0 | － | － |  | 0 | － | － |  |
| 61.2 | $76 \cdot 4$ | 58．5 | 75.0 | － | $69 \cdot 5$ | 52.5 | 64.6 | 63.5 | $67 \cdot 9$ | 64．7 | $68 \cdot 3$ | 60.0 | 63.2 | 62.2 | 58.9 | 1 |
| $58 \cdot 5$ | 70 | 62 | 69 | － | 637 | 64. | $63 \cdot 3$ | $65 \cdot 0$ |  |  | $69 \cdot 6$ |  | － | 72.5 | $72 \cdot 7$ | 2 |
| $60 \cdot 1$ | $70 \cdot 8$ | 65．0 | 68 | 63 | 62．0 | 44.9 | 67．2 | $66 \cdot 0$ | $73 \cdot 4$ | 68.9 | 71.2 | 70.0 | $74 \cdot 6$ | $72 \cdot 2$ | $70 \cdot 7$ | 3 |
| $56 \cdot 7$ | $73 \cdot 4$ | 64．5 | $68 \cdot 5$ | 61．9 | $62 \cdot 5$ | 54．5 | 61.2 | 61．8 | $69 \cdot 9$ | $67 \cdot 7$ | 64.7 | 64.6 | 66.9 | 69 | $67 \cdot 1$ | 4 |
| $55 \cdot 3$ | $60 \cdot 9$ | 55.0 | $67 \cdot 5$ | $65 \cdot 9$ | 67.6 | $62 \cdot 3$ | $61 \cdot 1$ | $62 \cdot 7$ | $69 \cdot 9$ | 71.2 | 61．5 | 66.0 | 69.6 | $65 \cdot 5$ | 65.4 | 5 |
| 57 | $59 \cdot 3$ | $54 \cdot 0$ | $49 \cdot 5$ | 67 | $68 \cdot 7$ | 58 | 67.5 | $69 \cdot 5$ | 75.8 | $70 \cdot 5$ | 68.8 | $67 \cdot 7$ | 72.6 | $68 \cdot 7$ | 68.2 | 6 |
| 56.2 | 65．1 | $49 \cdot 0$ | $48 \cdot 5$ | $67 \cdot 9$ | 66.4 | $56 \cdot 5$ | $72 \cdot 6$ | 72.2 | 81.3 | 74.0 | $77 \cdot 7$ | 75.2 | 78.4 | $75 \cdot 5$ | $75 \cdot 2$ | 7 |
| 54．2 | 64． | 51.0 | $47 \cdot 0$ | 69.6 | $70 \cdot 9$ | $50 \cdot 1$ | 75 | $74 \cdot 7$ | 85．1 | $79 \cdot 4$ | $80 \cdot 3$ | 79.3 | 85.3 | 77.8 | $80 \cdot 8$ | 8 |
| 66．9 | 65.1 | 51 | 59 |  | 62.4 | 47.5 | $79 \cdot 4$ | $75 \cdot 8$ |  |  | $81 \cdot 4$ |  |  | $80 \cdot 5$ | $81 \cdot 3$ | 9 |
| 55．4 | $60 \cdot 3$ | $55 \cdot 0$ | 61.0 | 62.0 | $62 \cdot 0$ | 55.8 | 67.8 | $65 \cdot 0$ | $80 \cdot 7$ | $72 \cdot 1$ | $74 \cdot 7$ | 77.9 | 78.8 | $75 \cdot 3$ | $76 \cdot 3$ | 10 |
| 56.8 | 62.4 | 56 | 56.0 | 65 | $66 \cdot 2$ | 54.5 | $71 \cdot 4$ | $65 \cdot 3$ | 74.0 | 71.3 | 72.8 | 73.6 | $76 \cdot 7$ | 74.0 | $75 \cdot 1$ | 11 |
| 599 | 65•5 | 54－ | 55.0 | $63 \cdot 3$ | 65.0 | $57 \cdot 3$ | 74.9 | 71.0 | 82.0 | 78．5 | $78 \cdot 0$ |  | $80 \cdot 1$ | 77.8 | 75.6 | 12 |
| 61.4 | 68. | $55 \cdot 0$ | 59.0 | 65.6 | 633 | 54.5 | 72.8 | 70.0 | $83^{\circ} 0$ | 76.9 | 75.8 | 76.8 | 79.5 | 77.0 | $76 \cdot 3$ | 13 |
| $60 \cdot 2$ | 65.4 | $62 \cdot 0$ | $56 \cdot 0$ | 67 | 670 | 55.1 | $70 \cdot$ | 61.5 | 73.8 | $69 \cdot 9$ | $73 \cdot 8$ | 71.7 | 74 | 73.2 | 74.8 | 14 |
| $54 \cdot 1$ | 68.6 | 53 | $57 \cdot 0$ | 67.6 | 68.2 | $57 \cdot 6$ | $72 \cdot 1$ | 58.5 | 72.4 | 62.4 | 66.0 | 66.3 | 733 | $68 \cdot 8$ | $67 \cdot 8$ | 15 |
| $54 \cdot 7$ | 66.0 | 57.0 | 51.0 |  | 74.5 | 52 | $72 \cdot 9$ | $65 \cdot 2$ |  |  | 68.5 |  |  | 69 | 68.9 | 16 |
| 56.3 | 65 | 58 | $61 \cdot 5$ | 63.2 | $62 \cdot 8$ | 52.0 | 74. | $68 \cdot 0$ | $80 \cdot 6$ | 79.2 | 75．6 | 74 | 81.8 | $74 \cdot 8$ | 72.3 | 17 |
| $57 \cdot 4$ | $70 \cdot 3$ | 61. | 63.5 | 70.2 | 72.6 | 55.9 | 74，5 | $66 \cdot 7$ | 81.2 | 74．1 | 75.0 | 73 | $75 \cdot 5$ | 74.7 | $75 \cdot 9$ | 19 |
| 59.5 | 73.6 | $62 \cdot 0$ | 61.0 | $63 \cdot 4$ | 64.3 | $47 \cdot 4$ | $76 \cdot 4$ | $74 \cdot 2$ | $81 \cdot 1$ | 77.9 | $75 \cdot 1$ | 74 | 71.4 | $75 \cdot 5$ | 74.6 | 19 |
| $61 \cdot 3$ | $75 \cdot 9$ | 64 | $54 \cdot 0$ | 56.9 | 57 | 45－5 | $66 \cdot 1$ | 64.5 | 77.9 | 69．5 | $68 \cdot 0$ | 69 | $77 \cdot 1$ | $70 \cdot 0$ | 72.8 | 20 |
| 69•7 | 76.5 | 51.0 | 71.5 | 55.4 | 56 | $49 \cdot 5$ | 61．2 | 57．5 | $66 \cdot 7$ | $61 \cdot 4$ | $59 \cdot 8$ | $60 \cdot 9$ | 67.2 | 62.2 | $62 \cdot 7$ | 21 |
| $64 \cdot 1$ | $77 \cdot 8$ | 60.5 | $71 \cdot 5$ | 60.5 | 57.7 | 536 | 56.8 | 55.0 | $68 \cdot 4$ | $60 \cdot 4$ | 59.5 | 58.3 | 66.6 | 58．7 | $60 \cdot 4$ | 22 |
| 59.4 | 765 | 63 | 75 |  | 61.8 | 55.4 | $61 \cdot 6$ | 5 |  |  | 55．1 |  |  | $57 \cdot 3$ | 593 | 23 |
| 59.8 | 74.0 | $73 \cdot 5$ | $74 \cdot 0$ | 646 | $65 \cdot 9$ | $65 \cdot 9$ | 58.8 | 56.0 | $66 \cdot 1$ | 57.8 | 55.8 | 57．1 | 61.6 | $56 \cdot 7$ | 57 | 24 |
|  |  |  | 71 | 67 | $69 \cdot 9$ | 66 | 54.6 | $56 \cdot 0$ | 62.0 | 58.7 | 57.8 | 572 | 63.9 | 57.7 | 57.9 | 25 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | $63 \cdot 5$ | 57.6 |  |
| $60 \cdot 9$ | 715 | 68.5 | $65 \cdot 5$ | 654 | $64^{\circ}$ | 67.8 | $61 \cdot 3$ | 56.3 | 66.8 | 62.8 | 58.2 | 58.2 | 69 | $63 \cdot 5$ | 57.6 | 26 |
|  |  | $65 \cdot 0$ | 64． | 68 | 68.9 | $58 \cdot 8$ | 62.9 | $64 \cdot 3$ | $75 \cdot 3$ | 72.8 | 65.2 | 66.9 | 72. | 68.7 | $66 \cdot 3$ | 27 |
|  |  |  | 69.5 | 71.2 | $71 \cdot 2$ | 53．1 | 63.0 | $58 \cdot 5$ | 75.0 | 65.6 | $65 \cdot 1$ | 65 | 71.3 | 67.0 | 68.2 | 28 |
|  |  |  |  |  | $72 \cdot 9$ | 56.3 | 67.0 | 62.0 | $70 \cdot 8$ | $68 \cdot 7$ | $65 \cdot 2$ | $64 \cdot 9$ | $68 \cdot 1$ | 66.5 | $65 \cdot 7$ | 29 |
| 57.8 | $70 \cdot 9$ | 65 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $60 \cdot 3$ | $63 \cdot 8$ |  | 72.5 |  |  | 693 | 70.9 | $62 \cdot 0$ |  |  | 67. |  |  | 67.7 | 67－1 | 30 |
| 59.9 | 67.0 | － | $61 \cdot 0$ | 78.6 | 81．5 | 77.0 | 72.2 | 62.5 | 73.0 | $70 \cdot 8$ | $70 \cdot 6$ | 68.8 | 71.6 | $69 \cdot 5$ | $69 \cdot 1$ | 31 |
| 58.4 | 692 | 59.0 | $63 \cdot 3$ | 658 | 66.6 | 56.6 | $67 \cdot 5$ | 61.0 | $74 \cdot 4$ | 69.5 | $68 \cdot 6$ | $68 \cdot 3$ | 72 | 69 | 68.7 |  |

Table XIII．－－－July，1876．Daily Mean Temperature．－－－Continued．

| $\dot{\Delta}$ | $\begin{gathered} \dot{U} \\ \stackrel{4}{a} \\ \stackrel{y}{4} \end{gathered}$ | $\begin{aligned} & \text { 莒 } \\ & \text { Q } \\ & \text { 品 } \\ & \text { M } \end{aligned}$ | $\stackrel{\dot{E}}{\stackrel{E}{\Xi}}$ | $\begin{aligned} & \text { 吴 } \\ & \text { ت } \\ & \text { 苗 } \end{aligned}$ | $\begin{aligned} & \dot{8} \\ & \text { 弟 } \\ & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & \text { 䔍 } \\ & \vec{~} \\ & \end{aligned}$ |  |  | ¢ | $\begin{gathered} \dot{\Delta} \\ \stackrel{\rightharpoonup}{\otimes} \\ \stackrel{\rightharpoonup}{2} \end{gathered}$ |  | 荡 | $\begin{aligned} & \text { i } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Bं } \\ & 0 \\ & 0 \\ & 8 \\ & 8 \\ & 8 \end{aligned}$ |  | 安 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | － |  |  |  |  |  |  |  | 。 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | 0 | $\bigcirc$ | $\bigcirc$ |
| 1 | $61 \%$ | $62 \cdot 1$ | $62 \cdot 0$ | $62 \cdot 4$ | $61 \cdot 1$ | $63 \cdot 5$ | 61．5 | 68.4 | 63.2 | $65 \cdot 3$ | $65 \cdot 3$ | 62.0 | 67.4 | $63 \cdot 6$ | $69 \cdot 5$ | $73 \cdot 5$ |
| 2 | 71.2 | $72 \cdot 6$ | $66 \cdot 1$ |  | $65 \cdot 3$ | 74.3 | $64 \cdot 6$ | $66 \cdot 0$ | $62 \cdot 8$ | 63.0 | $68 \cdot 3$ |  |  | $66 \cdot 1$ |  |  |
| 3 | 704 | 72.0 | 74．0 | $72 \cdot 6$ | $72 \cdot 6$ | 71.2 | $70 \cdot 4$ | $68 \cdot 3$ | 64.2 | $63 \cdot 7$ | $74 \cdot 3$ | $70 \cdot 8$ | 73.6 | $72 \cdot 7$ | $69 \cdot 8$ | 73.5 |
| 4 | 663 | $66 \cdot 6$ | $69 \cdot 5$ | $67 \cdot 4$ | 54＊ 4 | $65 \cdot 0$ | $65 \cdot 9$ | 6 | $62 \cdot 3$ | $64 \cdot 0$ | $71 \cdot 3$ | $65 \cdot 5$ | 70.8 | 66.5 | 68.8 | $72 \cdot 1$ |
| 5 | $65 \cdot 7$ | $65 \cdot 7$ | $68 \cdot 3$ | 74.3 | $64 \cdot 5$ | $71 \cdot 3$ | 63.5 | $67 \cdot 6$ | $62 \cdot 1$ | 63.2 | 66.8 | 64－8 | $67 \cdot 7$ | 66.6 | 70.5 | 73.6 |
| 6 | $63 \cdot 1$ |  | $70 \cdot 5$ | 723 | 66.6 | 71 | $69 \cdot 8$ | $63 \cdot 4$ | 60.6 | 62.6 | 70.0 | 67•3 | 71.1 | $64 \cdot 7$ | $70 \cdot 8$ | $70 \cdot 2$ |
| 7 | $72 \cdot 3$ |  | $76 \cdot 0$ | 86.7 | 67 | $75 \cdot 0$ | 67.5 | $71 \cdot 3$ | 69.2 | $64 \cdot 9$ | $74 \cdot 6$ | $71 \times 8$ | $70 \cdot 5$ | 71.9 | $72 \cdot 8$ | $72 \cdot 5$ |
| 8 | $75 \cdot 9$ | 74－6 | 84 | 73.6 | $80 \cdot 6$ | $80 \cdot 5$ | $78 \cdot 7$ | 75－2 | 72.5 | $75 \cdot 6$ | $81 \cdot 3$ | 78．7 | 81.2 | $79 \cdot 7$ | 78．8 | $80 \cdot 2$ |
| 9 | 81－1 | $83 \cdot 5$ | 86.3 |  | $82 \cdot 7$ | $79 \cdot 8$ | 82．7 | $78 \cdot 3$ | 77.8 | $78 \cdot 1$ | $84 \cdot 3$ | － |  | 82.3 |  |  |
| 10 | 74 | $78 \cdot 5$ | 77.0 | $85 \cdot 1$ | 76.5 | 79.0 | $81 \cdot 6$ | $76 \cdot 8$ | 72.5 | $74 \cdot 6$ | $84 \cdot 3$ | $76 \cdot 8$ | $85 \cdot 6$ | $80 \cdot 2$ | $80 \cdot 7$ | $79 \cdot 4$ |
| 11 | 74．0 | $76 \cdot 1$ | 72.0 | $73 \cdot 1$ | 71.2 | $72 \cdot 2$ | $79 \cdot 1$ | $75 \cdot 1$ | $72 \cdot 1$ | 74.6 | $76 \cdot 3$ | $74 \cdot 8$ | $75 \cdot 2$ | 72.4 | $72 \cdot 1$ | $73 \cdot 2$ |
| 12 | 79 | $79 \cdot 9$ | 79.0 | $80 \cdot 7$ | 74.9 | $77 \cdot 8$ | $75 \cdot 2$ | $73 \cdot 5$ | 71.5 | $75 \cdot 2$ | $80 \cdot 8$ | －6．7 | $81 \cdot 1$ | 77.9 | $76 \cdot 6$ | 78•1 |
| 13 | 78 | $81 \cdot 1$ | $77 \cdot 5$ | $79 \cdot 7$ | 76 | 78.5 | 78.1 | $69 \cdot 8$ | $69 \cdot 2$ | $70 \cdot 6$ | 77.6 | $75 \cdot 2$ | 81.7 | $73 \cdot 9$ | $80 \cdot 4$ | $80 \cdot 4$ |
| 14 | $75 \cdot 7$ | $73 \cdot 1$ | $72 \cdot 5$ | 77.8 | $73 \cdot 3$ | 74.7 | $7: 7$ | 72.7 | $68 \cdot 9$ | $68 \cdot 8$ | $75 \cdot 3$ | $72 \cdot 2$ | $75 \cdot 4$ | 72．5 | $78 \cdot 1$ | $76 \cdot 9$ |
| 15 | $69 \cdot 7$ | $70 \cdot 2$ | $70 \cdot 0$ | $72 \cdot 0$ | $70 \cdot 4$ | $70 \cdot 3$ | 69．0 | $68 \cdot 9$ | $66 \cdot 0$ | $62 \cdot 3$ | $72 \cdot 8$ | $69 \cdot 2$ | $75 \cdot 3$ | $72 \cdot 3$ | 759 | 73－2 |
| 16 | 71.7 | $74 \cdot 1$ | $72 \%$ |  | 70.2 | 69.7 | 65.2 | $69 \cdot 8$ | $63 \cdot 8$ | $71 \cdot 4$ | $75 \cdot 8$ |  |  | 68.6 |  |  |
| 17 | $77 \cdot 3$ | 77.9 | $77 \cdot 5$ | 76.8 | $73 \cdot 8$ | $76 \cdot 5$ | 68.0 | 82．1 | $71 \cdot 7$ | 73.0 | 79.8 | $75 \cdot 8$ | $78 \cdot 5$ | $76 \cdot 3$ | $77 \cdot 4$ | $77 \cdot 5$ |
| 18 | $72 \cdot 9$ | $76 \cdot 3$ | $77 \cdot 1$ | $73 \cdot 8$ | $73 \cdot 7$ | $73 \cdot 0$ | $76 \cdot 0$ | $73 \cdot 0$ | 69 | $71 \cdot 9$ | 79.3 | 74－7 | $77 \cdot 5$ | 74.4 | $77 \cdot 0$ | 81.0 |
| 19 | $73 \cdot 1$ | 77 | $78 \cdot 3$ | 76.8 | $75 \cdot 0$ | 75．0 | $73 \cdot 9$ | $78 \cdot 9$ | 73.9 | $70 \cdot 9$ | $80 \cdot 5$ | $73 \cdot 7$ | $80 \cdot 6$ | 74.5 | 78.4 | $80 \cdot 5$ |
| 20 | $70 \cdot 0$ | $70 \cdot 7$ | $79 \cdot 5$ | $77 \cdot 0$ | 72.2 | $70 \cdot 0$ | 71.3 | 71.5 | $69 \cdot 0$ | $68 \cdot 0$ | 73.8 | $70 \cdot 9$ | 74. | $70 \cdot 4$ | 76.0 | $79 \cdot 8$ |
| 21 | $62 \cdot 4$ | $66 \cdot 0$ | 63.0 | $66 \cdot 1$ | 65.0 | 62.5 | $61 \cdot 8$ | 59.4 | $57 \cdot 1$ | $60 \cdot 9$ | $63 \cdot 1$ | 63•1 | $66 \cdot 4$ | $60 \cdot 4$ | $68 \cdot 9$ | $63 \cdot 2$ |
| 22 | 62 | $64 \cdot 4$ | $62 \cdot 3$ | $67 \cdot 5$ | $61 \cdot 0$ | 67 | $60 \cdot 7$ | $56 \cdot$ | $54 \cdot 2$ | $52 \cdot 3$ | 66.5 | 59.2 | $62 \cdot 8$ | 59.5 | 67＊ 4 | $65^{\circ} 0$ |
| 23 | $56 \cdot 4$ | $59 \cdot 7$ | $59 \cdot 5$ |  | 61.7 | $57 \cdot 7$ | 56.9 | $60 \cdot 3$ | $54 \cdot 4$ | $55 \cdot 3$ | $64 \cdot 8$ |  |  | 57．7 |  |  |
| 24 | $59 \cdot 2$ | － | $59 \cdot 8$ | 63.6 | $59 \cdot 8$ | $58 \cdot 5$ | $55 \cdot 9$ | 61.7 | $5: 5$ | 532 | $62 \cdot 8$ | 61.0 | $61 \cdot 2$ | $57 \cdot 9$ | 63•1 | 66.6 |
| 25 | $56 \cdot 9$ | － | 57.8 | 62.9 | 57.8 | $55 \cdot 3$ | 55.5 | $54 \cdot 9$ | 50.5 | $48 \cdot 8$ | $61 \cdot 6$ | $59 \cdot 1$ | $60 \cdot 4$ | 56.8 | 62．1 | 57.4 |
| 26 | $58 \cdot 5$ |  | 61.0 | 63.3 | $58 \cdot 5$ | 58.2 | 56.3 | 54.0 | $52 \cdot 8$ | 54•1 | $61 \cdot 1$ | $59 \cdot 9$ | $61 \cdot 9$ | $57 \cdot 9$ | $68 \cdot 9$ | $59 \cdot 9$ |
| 27 | $68 \cdot 2$ |  | 64：5 | $69 \cdot 6$ | $62 \cdot 8$ | $72 \cdot 6$ | $61 \cdot 9$ | $63 \cdot 8$ | $60 \cdot 9$ | 58.2 | 68．5 | $66 \cdot 1$ | 657 | 62．9 | 69•1 | 66．2 |
| 28 | $68 \cdot 3$ | － | 66.0 | 72.7 | 67.3 | 69.5 | 62.6 | 61.9 | 58.5 | $58 \cdot 9$ | 68.5 | $62 \cdot 8$ | $69 \cdot 2$ | 65.2 | $70 \cdot 6$ | $68 \cdot 4$ |
| 29 | $66 \cdot 5$ |  | 67.8 | 71.2 | $65 \cdot 8$ | 66.5 | 64.6 | $65 \cdot 8$ | 63.0 | $61 \cdot 1$ | 73．1 | 67•7 | 71.2 | $65 \cdot 7$ | $68 \cdot 6$ | $6{ }^{6} 8$ |
| 30 | $69 \cdot 7$ | － | $70 \cdot 3$ |  | $68 \cdot 3$ | $70 \cdot 0$ | $70 \cdot 3$ | $69 \cdot 0$ | $65 \cdot 1$ | $65 \cdot 1$ | 72. |  |  | 66.8 |  |  |
| 31 | $68 \cdot 3$ |  | 72.8 | 706 | 71．4 | $66 \cdot 2$ | 66.5 | $68 \cdot 3$ | $66 \cdot 3$ | 62.9 | $73 \cdot 0$ | $70 \cdot 0$ | $75 \cdot 0$ | $70 \cdot 5$ | $74 \cdot 1$ | 73.0 |
|  | 69.0 | $72 \cdot 4$ | 70.8 | 72．7 | 68.8 | $70 \cdot 2$ | 68.1 | $68 \cdot 1$ | 64．5 | 64.9 | $72 \cdot 3$ | 68.8 | $72 \cdot 3$ | 68.7 | $72 \cdot 3$ | 72.4 |

Table XIII．－July，1876．Daily Mean Temperature．－Continued．

|  |  |  |  | 0 0 0 0 0 0 0 0 | 号 | 足 | \％ | 号 | 嵳 | 宫 | $\dot{2}$ L L |  |  | （1） |  | 守 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc 1$ | － | $\bigcirc$ |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | － | $\bigcirc$ | $\bigcirc$ |  | 0 | $\bigcirc$ |  |
| $69 \cdot 7$ | $70 \cdot 3$ | $70 \cdot 4$ | $66 \cdot 7$ | $61 \cdot 0$ | 629 | $65 \cdot 1$ |  | 61.5 | $63 \cdot 5$ | 59.2 | $62 \cdot 0$ | 579 | $57 \cdot 3$ | $52 \cdot 0$ | $61 \cdot 2$ | 1 |
| $66^{\circ} 0$ |  |  | 670 | 61.9 | $59 \cdot 5$ |  |  | － | 567 | $53 \cdot 3$ | $60 \cdot 4$ | $61 \cdot 0$ | $60 \cdot 5$ | $53 \cdot 7$ | 61.5 | 2 |
| 73.0 | $73 \cdot 3$ | $72 \cdot 1$ | $68 \cdot 7$ | $67 \cdot 1$ | 57.8 | $63 \cdot 7$ | $6 \mathrm{~B} \cdot 0$ | $58 \cdot 0$ | $60 \cdot 3$ | $62 \cdot 3$ | $63 \cdot 8$ | $63 \cdot 3$ | 62.0 | 550 | 632 | 3 |
| $69 \cdot 5$ | $70 \cdot 5$ | 71.0 | 758 | $68 \cdot 0$ | $60 \cdot 7$ | 73.9 | $74 \cdot 9$ | 728 | 720 | $72 \cdot 9$ | $66 \cdot 7$ | $72 \cdot 0$ | $73 \cdot 3$ | 587 | $61 \cdot 0$ | 4 |
| $71 \cdot 3$ | 68.9 | $70 \cdot 3$ | $76 \cdot 2$ | $67 \cdot 3$ | $64 \cdot 1$ | $72 \cdot 3$ | $67 \cdot 7$ | $63 \cdot 3$ | 67－8 | 67－3 | $65 \cdot 1$ | $67 \cdot 8$ | 68．5 | $60 \cdot 3$ | 590 | 5 |
| $68 \cdot 3$ | $70 \cdot 7$ | $70 \cdot 2$ | $63 \cdot 9$ | $59 \cdot 8$ | 588 | 59.6 | $56 \cdot 9$ | 58.0 | 60.2 | 577 | $60 \cdot 0$ | $59 \cdot 7$ | 58.3 | $54 \cdot 0$ | 58.8 | 6 |
| $70 \cdot 0$ | 68.4 | $71 \cdot 3$ | $67 \cdot 9$ | $66 \cdot 4$ | $59 \cdot 4$ | $64 \cdot 3$ | $68 \cdot 8$ | $63 \cdot 3$ | $62 \cdot 9$ | $66 \cdot 0$ | $59 \cdot 7$ | 63.9 | $64 \cdot 3$ | $59 \cdot 3$ | 60.5 | 7 |
| 77.3 | $81 \cdot 7$ | 76.5 |  | $64^{3} 3$ | $61 \cdot 6$ | $71 \cdot 5$ | $68 \cdot 9$ | $70 \cdot 0$ | 58 | 56.9 | $60 \cdot 0$ | 58.4 | 59.5 | $51-7$ | $58 \cdot 3$ | 8 |
| $76 \cdot 5$ |  |  | $70^{\circ} 7$ | $67 \cdot 0$ | $67 \cdot 7$ | ＊ |  |  | $64^{-2}$ | 54•7 | 60.0 | $56 \cdot 1$ | $55 \cdot 5$ | 63－3 | $53 \cdot 3$ | 9 |
| 76.7 | 79.0 | $77 \cdot 9$ | 748 | 71.3 | 58.9 | $66 \cdot 7$ | $65 \cdot 8$ | $58 \cdot$ | 58.0 | 58.9 | $59 \cdot 0$ | $60 \cdot 1$ | $59 \cdot 5$ | 617 | $51 \cdot 8$ | 10 |
| 74.0 | $83 \cdot 7$ | 74 | $76 \cdot 1$ | 6 | $62 \cdot 6$ | $71 \cdot 3$ | $67 \cdot 0$ | 71.0 | 65.8 | $60 \cdot 9$ | $63 \cdot 3$ | $62 \cdot 8$ | $61 \cdot 7$ | $63 \cdot 3$ | 60.5 | 11 |
| $77 \cdot 3$ | $80 \cdot 1$ | 76.6 | 76.7 | 71.8 | $59 \cdot 7$ | 71.6 | 74 | $69 \cdot 8$ | $60 \cdot 8$ | $65 \cdot 7$ | 69.6 | $69 \cdot 6$ | 70.5 | $60 \cdot 0$ | $64 \cdot 5$ | 12 |
| $77 \cdot 3$ | $78 \cdot 0$ | $77 \cdot 0$ | 76.5 | $67 \cdot 3$ | 65.2 | 726 | $71 \cdot 9$ | $73 \cdot 8$ | $68 \cdot 7$ | $70 \cdot 5$ | 68.8 | $71 \cdot 6$ | $73 \cdot 0$ | $66 \cdot 0$ | $65 \cdot 5$ | 13 |
| $73 \cdot 8$ | $74 \cdot 7$ | $75 \cdot 6$ | $67 \cdot 6$ | 65 | $67 \cdot 6$ | 687 | $64 \cdot 1$ | 64.5 | $70 \cdot 6$ | 64.6 | $70 \cdot 5$ | $65 \cdot 8$ | $64 \cdot 5$ | $67 \cdot 0$ | $62 \cdot 0$ | 14 |
| $68 \cdot 8$ | 70.2 | $69 \cdot 8$ | 69 | 61.6 | $68 \cdot 0$ | $66 \cdot 1$ | $62 \cdot 2$ | $66 \cdot 3$ | 70.2 | 6． 29 | 66 | 649 | $64 \cdot 3$ | $61 \cdot 0$ | $61 \cdot 3$ | 15 |
| $72 \cdot 3$ | － | － | $71 \cdot 5$ | 661 | $68 \cdot 3$ |  |  |  | 69 | $62 \cdot 1$ | 62 | 64.6 | $62.7{ }^{\prime}$ | 637 | 60－2 | 16 |
| 77.8 | 79.8 | 76.6 | $74 \cdot 7$ | 71.1 | 647 | $72 \cdot 7$ | 70.5 | 620 | 64－7 | $62 \cdot 5$ | 67.5 | 669 | $66 \cdot{ }^{\prime}$ | 66．7 | $62 \cdot 7$ | 17 |
| 77.5 | $77 \cdot 8$ | $79 \cdot 0$ | $79 \cdot 0$ | 71.4 | $59 \cdot 6$ | 74.2 | 73.4 | $76 \cdot 5$ | $65 \cdot 6$ | $67 \cdot 0$ | 66.8 | $69 \cdot 0$ | 697 | $65 \cdot 0$ | 660 | 18 |
| 780 | 77.9 | 77.0 | 75.0 | $69 \cdot 9$ | $69 \cdot 1$ | 73.4 | 66.0 | 64 | $67 \cdot 1$ | $67 \cdot 6$ | 71.5 | 68.6 | $67 \cdot 3$ | $62 \cdot 0$ | $63 \cdot 5$ | 19 |
| 74.5 | 76.7 | $76 \cdot 3$ | 76.6 | 71.0 | $60 \cdot 7$ | 74.3 | 746 | $68 \cdot 3$ | $63 \cdot 8$ | $67 \cdot 0$ | 69 | 699 | 71 \％ | 567 | 71.0 | 20 |
| $62 \cdot 3$ | 61. | 66.6 | 64.5 | 58.1 | $64 \cdot 3$ | 716 | $64 \cdot 3$ | 64.7 | $64 \cdot 6$ | 65.9 | $63 \cdot 0$ | 63.5 | 63.0 | $59 \cdot 3$ | $63 \cdot 5$ | 21 |
| $60 \cdot 0$ | $58 \cdot 3$ | 62.5 | $58 \cdot 9$ | $54 \cdot 4$ | $64 \cdot 9$ | $83 \cdot 1$ | $62 \cdot 7$ | $59 \cdot 8$ | $62 \cdot 4$ | 58.4 | $62 \cdot 8$ | $63 \cdot 6$ | 62.5 | $68 \cdot 3$ | $61 \cdot 3$ | 22 |
| $59 \cdot 5$ | － | － | $56 \cdot 1$ | $52 \cdot 5$ | 597 |  |  |  | 61.0 | 561 | $62 \cdot 7$ | 62.7 | $62 \cdot 7$ | 576 | $65 \cdot 5$ | 23. |
| 600 | 55.5 | 619 | 59.2 | $54 \cdot 8$ | 57.6 | $55 \cdot 6$ | $60 \cdot 0$ | 54.0 | 57.8 | $57 \cdot 4$ | $61 \cdot 1$ | $60 \cdot 3$ | $59 \cdot 0$ | 560 | $62 \cdot 3$ | 24 |
| 56.0 | 56.7 | $58 \cdot 0$ | $57 \cdot 9$ | $53 \cdot 3$ | 57．5 | $61 \cdot 3$ | $60 \cdot 4$ | 59.5 | 62.0 | 64．5 | $62 \cdot 7$ | $65 \cdot 9$ | 64.0 | $59 \cdot 7$ | 61.5 | 25 |
| $58 \cdot 5$ | $57 \cdot 8$ | $59 \cdot 6$ | 58.4 | 47－7 | 57•1 | E8．6 | $62 \cdot 3$ | $61 \cdot 0$ | $63 \cdot 6$ | $62 \cdot 9$ | 67.0 | $64 \cdot 1$ | 65 | 657 | 65.0 | 26 |
| $64 \cdot 8$ | 64.0 | $64 \cdot 6$ | 61.0 | $55 \cdot 3$ | $58 \cdot 7$ | $60 \cdot 5$ | $62 \cdot 9$ | $60 \cdot 7$ | 61.4 | 61.0 | $60 \cdot 0$ | $62 \cdot 1$ | $62 \cdot 5$ | 59.0 | $61 \cdot 5$ | 27 |
| 67.5 | 66.4 | $66 \cdot 6$ | $61 \cdot 9$ | $61 \cdot 8$ | $57 \cdot 3$ | $62 \cdot 9$ | $61 \cdot 2$ | 57－5 | $60 \cdot 7$ | 640 | 631 | $63 \cdot 3$ | $65 \cdot 0$ | 627 | 660 | 28 |
| 65.8 | 676 | 666 | $64 \cdot 0$ | 59.9 | $59 \cdot 5$ | $62 \cdot 8$ | $63 \cdot 1$ | $60 \cdot 2$ | 612 | 61.0 | $66 \cdot 4$ | 658 | $62 \cdot 2$ | 653 | $63 \cdot 3$ | 29 |
| 68．5 | ． | ． | 67.5 | $63 \cdot 2$ | $63 \cdot 0$ | － |  | － | $67 \cdot 8$ | 649 | $64 \cdot 1$ | 67.9 | 65.7 | $61 \cdot 0$ | $64^{\circ} 0$ | 30 |
| 68．7 | 71.9 | $72 \cdot 2$ | $64 \cdot 1$ | $63 \cdot 6$ | 60.2 | $62 \cdot 8$ | 63.6 | $65 \cdot 0$ | 621 | $63 \cdot 2$ |  | 62.2 | 623 | $63 \cdot 7$ | $67 \cdot 3$ | 31 |
| 69．8 | 70.8 | 70.8 | $68 \cdot 3$ | 63.2 | $61 \cdot 8$ | 67－0 | 66.7 | $64 \cdot 0$ | $63 \cdot 7$ | $62 \cdot 7$ | 642 | $65 \cdot 2$ | 638 | $60 \cdot 6$ | $62 \cdot 2$ |  |

[^2]Table XIV．－August，1876．Daily Mean Temperature．

| $E$ |  |  | －Kibsivo flod |  | 它 | 官 | 宮 | 莒 | 艺 | 会 | 家 |  | 喜 | ¢ O E did |  | 3 0 8 8 8 8 8 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\cdots$ | $\bigcirc$ | $\bigcirc$ | 0 | $\bigcirc$ | 0 | 0 | 0 | Q | － | Q | $\bigcirc$ | Q |  | Q | 0 |
| 1 | 59.4 | 665 | $65 \cdot 5$ | 67－5 | 72.0 | $72 \cdot 6$ | 67.9 | $65 \cdot 3$ | 655 | $74 \cdot 5$ | $74 \cdot 0$ | $70 \cdot 5$ | $68 \cdot 7$ | 72.6 | $68 \cdot 7$ | 67－9 |
| 2 | 589 | $65^{\prime} 0$ | 53.5 | $62 \cdot 0$ | 70 | 69 | 72.4 | $69 \cdot 8$ | $65 \cdot 3$ | $73 \cdot 7$ | 77 4 | $72 \cdot 0$ | $70 \cdot 9$ | 749 | $70 \cdot 5$ | 68－0 |
| 3 | 614 | $69 \cdot 4$ | $62 \cdot 0$ | $6 t^{\circ} 0$ | $67 \cdot 9$ | 67.0 | 71.1 | $70 \cdot 7$ | $10 \cdot 0$ | $71 \cdot 6$ | 72.5 | $67 \cdot 6$ | 68．2 | $72 \cdot 1$ | 69 | $69 \cdot 3$ |
| 4 | 56 | 638 | $52 \cdot 5$ | $59 \cdot 0$ | 71．4 | 754 | $56 \cdot 0$ | $75 \cdot 5$ | ． 5 | 75.4 | $78 \cdot 1$ | $7 \pm 7$ | ＇3•1 | 776 | 75.0 | 73.0 |
| 5 | 570 | $67 \cdot 4$ | 60 | 560 | $67 \cdot 8$ | 66.0 | 50.5 | 74 | 73.3 | $72 \cdot 8$ | $75 \cdot 9$ | 737 | 72.9 | 799 | 747 | $76 \cdot 3$ |
| 6 | 604 | 609 | $64 \cdot 0$ | $69 \cdot 5$ | － | $65 \cdot 3$ | 58. | $7 \pm 0$ | $73 \cdot 8$ |  | ＊ |  |  | － | 72.8 | 74.2 |
| 7 | \％6． | $62 \cdot 9$ | 675 | 71.0 | $70 \cdot 8$ | $73 \cdot 4$ | 65 |  | 660 | 748 | $71 \cdot 3$ | $67 \cdot 0$ | 675 | 78.6 | 69．5 | $72 \cdot 2$ |
| 8 | 56 | 60.9 | EE 5 | $63 \cdot 0$ | $77 \cdot 0$ | $81 \cdot 4$ | $71 \cdot 3$ | $69 \cdot 1$ | 637 | 726 | $71 \cdot 0$ | $6 \cdot 6$ | $64 \cdot 2$ | $74 \cdot 0$ | $68 \cdot 0$ | 67.0 |
| 9 | 52 | 596 | $56 \cdot 5$ | 590 | $73 \cdot 7$ | 77.3 | $52 \cdot 0$ | 738 | 71.5 | 73.4 | $75 \cdot 6$ | $69 \cdot 5$ | $69 \cdot 3$ | $73 \cdot 3$ | $68 \cdot 8$ | 686 |
| 10 | 53.4 | $62 \cdot 1$ | E65 | $59 \cdot 0$ | $59 \cdot 9$ | 593 | 41.0 | 74.1 | 778 | $77 \cdot 2$ | $79 \cdot 7$ | ． 6 | 714 | $73 \cdot 8$ | 705 | $70 \cdot 5$ |
| 11 | 56 | 598 | 51.5 | 54.5 | $64 \cdot 3$ | $66^{3} 2$ | $42 \cdot 8$ | 718 | $73 \cdot 8$ | $75 \cdot 6$ | 77.5 | 741 | 739 | 76.4 | 73.2 | $72 \cdot 8$ |
| 12 | 572 | $61 \cdot 3$ | $48 \cdot 5$ | 47．5 | $61 \cdot 1$ | 612 | 450 | 720 | 71.5 | $74 \cdot 7$ | $75 \cdot 51$ | 73.6 | 731 | $76 \cdot 3$ | 735 | $73 \cdot 1$ |
| 13 | $57 \cdot 2$ | $63 \cdot 2$ | $52 \cdot 5$ | $46 \cdot 0$ | － | 536 | $56 \cdot 6$ | 74．7 | 747 | － |  | $74^{\circ} 6$ | ． | － | 740 | $73 \cdot 7$ |
| 1 | 60.9 | $67 \cdot 2$ | $58 \cdot 5$ | $56 \cdot 5$ | 53.4 | $54 \cdot 7$ | 60.5 | $74 \cdot 3$ | $77 \cdot 0$ | $80 \cdot 2$ | 81.3 | 74.2 | $74 \cdot 1$ | 77－1 | $73 \cdot 0$ | $73 \cdot 6$ |
| 15 | 58.4 | 70.4 | $50 \cdot 0$ | 51.0 | $54 \cdot 4$ | $52 \cdot 8$ | 54.4 | 61．7 | 658 | $70 \cdot 6$ | $66 \cdot 6$ | $66 \cdot 5$ | $69 \cdot 5$ | 736 | $69 \cdot 0$ | $69 \cdot 4$ |
| 6 | 58 | $72 \cdot 5$ | 675 | 585 | 56.9 | 57.5 | $53 \cdot 1$ | 66－1 | $62 \cdot 5$ | $67 \cdot 5$ | 674 | 624 | 64.2 | $66 \cdot 5$ | $64 \cdot 5$ | $64 \cdot 6$ |
| 17 | 60 | $73 \cdot 4$ | $6 \pm 0$ | 625 | 622 | 642 | 57.8 | $64 \cdot 9$ | 64．5 | $73 \cdot 0$ | $72 \cdot 3$ | $1 \cdot 7$ | $69 \cdot 8$ | $71 \cdot 7$ | 69.5 | $69 \cdot 3$ |
| 18 | 544 | $71 \cdot 3$ | $5 \pm 0$ | $58 \cdot 5$ | $64 \cdot 0$ | $64^{\cdot 2}$ | $48 \cdot 5$ | $66 \cdot 4$ | 68.7 | $76 \cdot 7$ | $72 \cdot 4$ | 70.0 | $70 \cdot 5$ | $73 \cdot 5$ | $71 \cdot 3$ | 71.9 |
| 19 | 54 | 63.0 | $53 \cdot 5$ | 59•5 | 53.3 | 58.6 | $48 \cdot 8$ | $66 \cdot 7$ | $66 \cdot 7$ | $73 \cdot 2$ | $69 \cdot 5$ | $67 \cdot 8$ | $69 \cdot 6$ | 73.9 | $68 \cdot 7$ | 70－4 |
| 20 | 55 | 619 | 55.0 | 63.0 |  | 63.0 | 56.5 | 57．5 | 53.3 | － | ＊ | $65 \cdot 8$ | － |  | $2 \cdot 7$ | － 4 |
| 21 | $54 \cdot 5$ | 61－7 | 520 | $54 \cdot 5$ | $67 \cdot 7$ | 68.1 | 66.1 | $61 \cdot 3$ | $54 \cdot 0$ | 64．4 | $59 \cdot 2$ | $57 \cdot 2$ | 54．7 | $62 \cdot 5$ | $56 \cdot 0$ | $56 \cdot 1$ |
| 22 | 52 | $55 \cdot 0$ | $43 \cdot 5$ | $59 \cdot 0$ | 68.8 | $69 \cdot 0$ | 705 | $66 \cdot 3$ | $63 \cdot 0$ | $68 \cdot 3$ | $68 \cdot 2$ | $65 \cdot 0$ | $62 \cdot 3$ | 64．4 | $63 \cdot 2$ | 61.9 |
| 23 | $50 \cdot 3$ | $57 \cdot 7$ | $41 \cdot 0$ | $40 \cdot 0$ | $63 \cdot 7$ | 64.0 | $55 \cdot 9$ | $65 \cdot 3$ | $64 \cdot 7$ | $76 \cdot 5$ | 64.8 | $64 \cdot 3$ | $63 \cdot 6$ | $67 \cdot 4$ | $65 \cdot$ | 65.0 |
| 24 | 54.4 | $60 \cdot 6$ | 45•5 | 570 | $53 \cdot 0$ | 54.0 | 44.2 | $70 \cdot 0$ | $68 \cdot 3$ | 8 | $75 \cdot 2$ | $70 \cdot 8$ | $73 \cdot 4$ | $73 \cdot 1$ | $67 \cdot 5$ | $70 \cdot 8$ |
| 25 | $56 \cdot 6$ | 61.5 | $47 \cdot 5$ | 54.0 | $50 \cdot 8$ | $51 \cdot 7$ | $43 \cdot 5$ | $61 \cdot 3$ | $58 \cdot 0$ | $73 \cdot 4$ | 65.2 | $63 \cdot 3$ | $65 \cdot 31$ | $70 \cdot 8$ | 64．0 | 679 |
| 26 | $53 \cdot 1$ | $60 \cdot 0$ | $50 \cdot 0$ | $55 \cdot 0$ | $53 \cdot 7$ | $55 \cdot 9$ | $47 \cdot 3$ | 57．5 | 60.5 | $64 \cdot 2$ | 613 | 58.0 | $57 \cdot 9$ | $62 \cdot 1$ | $59 \cdot 0$ | $58 \cdot 4$ |
| 27 | 56．3 | $59 \cdot 7$ | $63 \cdot 0$ | $57 \cdot 0$ |  | $62 \cdot 9$ | 461 | 61．5 | $57 \cdot 3$ |  |  | 543 |  |  | $5 \pm^{\prime} 0$ | 55.9 |
| 28 | $53 \cdot 7$ | 58．8 | $48 \cdot 5$ | $47 \cdot 0$ | $63 \cdot 9$ | $64 \cdot 3$ | $58 \cdot 6$ | $67 \cdot 1$ | $60 \cdot 0$ | $68 \cdot 2$ | $63 \cdot 2$ | 606 | 59.4 | 63.5 | $60 \cdot 8$ | $60 \cdot 3$ |
| 29 | $54 \cdot 5$ | 65.0 | $52 \cdot 0$ | $59 \cdot 0$ | 66.6 | 65.6 | $58 \cdot 9$ | $66 \cdot 3$ | $65 \cdot 5$ | 70.6 | 680 | $62 \cdot 5$ | $66 \cdot 9$ | 68.4 | 65．8 | $65 \cdot 4$ |
| 30 | $56 \cdot 0$ | 64.4 | 41.0 | $48 \cdot 0$ | $63 \cdot 6$ | 641 | 54．5 | $65 \cdot 9$ | $68 \cdot 7$ | $72 \cdot 1$ | $70 \cdot 7$ | $66 \cdot 0$ | $66 \cdot 5$ | $63 \cdot 8$ | $66 \cdot 7$ | 6911 |
| il | 56.6 | $62 \cdot 4$ | $47 \cdot 0$ | $50 \cdot 0$ | $54 \cdot 6$ | 54•7 | $48 \cdot 9$ | 71－9 | 71.5 | $78 \cdot 4$ | 75•7 | 72.2 | 75.2 | $75 \cdot 0$ | $73 \cdot 5$ | $75 \cdot 1$ |
|  | $\therefore \cdot 3$ | 639 | $53 \cdot 5$ | 570 | 63．3 | 638 | $55 \cdot 6$ | 67．9 | 66.8 | $73 \cdot 1$ | 71.5 | $67 \cdot 4$ | 68.0 | 71.8 | 67.9 | 67－3 |

Table XIV．－August，1876．Daily Mean Temperature．－Continued．

| $\begin{aligned} & \stackrel{\Delta}{\circ} \\ & \frac{B}{D} \\ & \square \end{aligned}$ |  |  |  | $\begin{aligned} & \text { 宫 } \\ & \text { 品 } \\ & \hline \end{aligned}$ |  |  |  |  | $\begin{aligned} & \stackrel{\Phi}{\Phi} \\ & \dot{\sim} \end{aligned}$ |  | － | 安 | ¢ 0 8 8 8 8 | $\begin{aligned} & \stackrel{ভ}{\leftrightharpoons} \\ & \stackrel{\rightharpoonup}{\leftrightarrows} \\ & \stackrel{\sim}{\leftrightarrows} \end{aligned}$ | 立 | ¢ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\bigcirc$ | 0 | $\bigcirc$ | － | $\bigcirc$ | $\bigcirc$ | － | $\bigcirc$ | ${ }^{\circ}$ |  | Q | －1 |  |  | $\bigcirc$ | $\bigcirc$ |  |
| $66 \cdot 8$ | － | 71.5 | 73.9 | 699 | $74 \cdot 8$ | 68.0 | $69 \cdot 1$ | 65.0 | $6) 6$ | 71.6 | 70－7 | 74.1 | 683 | 739 | 71.1 | 1 |
| 707 | － | 74.8 | 71.1 | 71－1 | 73.5 | 68.1 | 67－5 | 68.7 | 67.5 | 71.9 | 71.2 | 797 | 687 | 74.2 | 742 | 2 |
| 70．2 |  | 73－3 | 73.2 | $70 \cdot 2$ | 74.5 | 72.6 | 73.2 | 70.3 | $70 \cdot 9$ | 75＇1 | 73.6 | 757 | 71．9 | $73 \cdot 7$ | 754 | 3 |
| 74.6 | － | $78 \cdot 8$ | $75 \cdot 7$ | 737 | 77.0 | $7 \pm 3$ | 737 | 70.5 | 71.4 | 776 | $75 \cdot 9$ | 77.6 | $72 \cdot 1$ | 78.4 | 78.2 | 4 |
| J69 |  | $81 \cdot 0$ | 81.0 | 77.6 | $80 \cdot 0$ | 79.5 | $77 \cdot 2$ | 744 | $79 \cdot 8$ | 79.5 | 76.6 | 81－5 | $76 \cdot 1$ | 738 | 81.9 | 5 |
| $73 \cdot 1$ | － | 790 |  | 778 | 78.0 | 76.4 | $76 \cdot 3$ | 72.9 | $75 \cdot 0$ | $79 \cdot 1$ |  |  | $78 \cdot 7$ |  |  | 6 |
| $70 \cdot 7$ | － | $78 \cdot 3$ | $78 \cdot 1$ | 73.3 | 76.0 | 71.1 | $69 \cdot 1$ | 655 | $66 \cdot 9$ | 759 | $73 \cdot 2$ | 76.2 | 726 | 79.5 | 797 | 7 |
| 66.5 |  | $75 \cdot 0$ | 77.3 | 68.6 | 690 | $68 \cdot 7$ | $68 \cdot 9$ | 66.5 | $66 \cdot 2$ | 71.5 | 71－3 | 76.2 | $70 \cdot 9$ | 73.5 | $71 \cdot 4$ | 8 |
| ． 68.5 | $72 \cdot 0$ | 72.5 | 77.6 | 72.0 | 72.5 | 71.1 | $71 \cdot 3$ | 66.5 | 690 | $7 \pm 0$ | 72.0 | 79.5 | $67 \cdot 3$ | 736 | 75.5 | 9 |
| 71.0 | 78.6 | $73 \cdot 5$ | $75 \cdot 4$ | $73 \cdot 9$ | 76.7 | 71.7 | 78.0 | 70．8 | 73.4 | 78.5 | 74.2 | 81.5 | 72.5 | 79.7 | 79.6 | 10 |
| $74 \cdot 5$ | 75．5 | 77－3 | 77.4 | $75 \cdot 4$ | 76.0 | 74.9 | 779 | 72.4 | 74.9 | 76.5 | $75 \cdot 3$ | 82.0 | $76 \cdot 4$ | 81.8 | 79.4 | 11 |
| $73 \cdot 4$ | 75．4 | 77－3 | $79 \cdot 3$ | 76.0 | $74 \cdot 5$ | $76 \cdot 3$ | $74 \cdot 8$ | $71 \cdot 7$ | 71．0 | 76.5 | 762 | 772 | 74.3 | 82.0 | 83.8 | 12 |
| 756 | 77－3 | $76 \cdot 3$ |  | 76.4 | 775 | 762 | 78.5 | $74 \cdot 9$ | 746 | 78.8 |  |  | $75 \cdot 1$ |  |  | 13 |
| 73.8 | 753 | 80.8 | 82.1 | $76 \cdot 8$ | $76 \cdot 5$ | $74 \cdot 9$ | $78 \cdot 7$ | 73.9 | 72.8 | 80.2 | 77.7 | 81.6 | $74 \cdot 7$ | 73.7 | $82 \cdot 4$ | 14 |
| $69 \cdot 2$ | $68 \cdot 7$ | 69－8 | 73.8 | 70.4 | 72.5 | 689 | 66. | 60.6 | $57 \cdot 4$ | 76.3 | 70.1 | 73.9 | $66 \cdot 1$ | 72.8 | $2 \cdot 4$ | 15 |
| $64 \cdot 7$ | $67 \cdot 8$ | $68 \cdot 5$ | $68 \cdot 9$ | 66.0 | 65.8 | $63 \cdot 1$ | 61.6 | $57 \cdot 3$ | 60.0 | 70.0 | $65 \cdot 4$ | 66.8 | 61.0 | 71.9 | $66 \cdot 1$ | 16 |
| ．68．3 | 72.3 | 713 | $69 \cdot 9$ | $69 \cdot 8$ | 68.5 | 66.4 | $62 \cdot 1$ | $60 \cdot 2$ | 61．1 | 67.9 | 68.0 | 63.3 | $62 \cdot 6$ | 72 | $68 \cdot 7$ | 17 |
| 71.7 | $72 \cdot 9$ | $76 \cdot 3$ | $74 \cdot 0$ | 70.5 | 74.0 | $70 \cdot 3$ | 68.0 | $65 \cdot 0$ | 69.7 | 71.9 | $69 \cdot 8$ | 725 | 69.6 | $71 \cdot 4$ | 70.9 | 18 |
| 70.2 | 71－3 | 71．3 | $76 \cdot 2$ | $72 \cdot 8$ | $75 \cdot 0$ | 71.1 | 65.0 | 65.8 | $65 \cdot 9$ | 73.4 | 71.5 | 73.3 | 70.2 | 63.6 | $73 \cdot 9$ | 19 |
| $60 \cdot 5$ | 60.6 | 58.0 |  | 61．3 | 58.7 | 574 | 58.4 | 57.8 | 506 | 62.4 |  |  | 54．1 |  |  | 20 |
| $58 \cdot 1$ | 62.6 | $58 \cdot 3$ | $64 \cdot 4$ | $59 \cdot 4$ | $60 \cdot 3$ | 53.7 | 55.9 | 51.5 | $50 \cdot 6$ | 64.0 | $58 \cdot 9$ | 618 | 57－4 | 53.9 | $59 \cdot 7$ | 21 |
| ．64．9 | $65 \cdot 9$ | $69 \cdot 5$ | $67 \cdot 6$ | $64 \cdot 4$ | 66.7 | 63.2 | 65.0 | $60 \cdot 5$ | 58.0 | $69 \cdot 2$ | 64.7 | $69 \cdot 8$ |  | 56.2 | 66.6 | 22 |
| $\cdot 66 \cdot 7$ | $68 \cdot 8$ | 74.5 | 71.5 | $70 \cdot 8$ | $70 \cdot 3$ | 66.4 | 69.0 | 65.0 | 63.2 | 71.3 | 70.9 | 73.5 | $60 \cdot 4$ | 599 | 66.6 | 23 |
| 71.0 | 73•1 | $72 \cdot 3$ | $73 \cdot 3$ | $69 \cdot 6$ | 73.5 | $69 \cdot 6$ | $69 \cdot 5$ | 67.7 | 68.0 | 756 | 71．1 | $71 \cdot 1$ | 68.8 | 60.9 | $67 \cdot 9$ | 24 |
| 66.3 | 67－5 | 67－8 | $75 \cdot 3$ | 69.4 | $69 \cdot 0$ | 69•1 | 62.7 | 59.8 | $59 \cdot 2$ | $65 \cdot 8$ | 663 | $68 \cdot 1$ | $64 \cdot 3$ | 66.9 | 72.0 | 25 |
| ．56．7 | $62 \cdot 1$ | 62.0 | $68 \cdot 9$ | 61．6 | 59.0 | $60 \cdot 4$ | $60 \cdot 0$ | 56.0 | $52 \cdot 9$ | $65 \cdot 2$ | $59 \cdot 3$ | 63.8 | $60 \cdot 7$ | $70 \cdot 1$ | 652 | 26 |
| 55.6 | ． | 68.8 |  | 60.7 | $60 \cdot 7$ | 58.0 | 54．8 | 52•1 | 53.6 | 62．0 |  |  | $59 \cdot 6$ |  |  | 27 |
| －56．9 | － | 67．5 | $69 \cdot 1$ | 636 | 59.8 | $56 \cdot 7$ | $57 \cdot 9$ | $5 \pm \cdot 4$ | 60.8 | 61.9 | $62 \cdot 3$ | $63 \cdot 3$ | $59 \cdot 5$ | $61^{\cdot 7}$ | 59.5 | 28 |
|  |  | 72 | $72 \cdot 0$ | 677 | 66.7 | 62.1 | 64．3 | $62 \cdot 5$ | $63 \cdot 9$ | 67 ＇4 | $68 \cdot 0$ | $67 \cdot 3$ | 66.4 | $63 \cdot 5$ | 60.5 | 29 |
|  |  |  |  | $71 \cdot 1$ | 690 | $63 \cdot 6$ | 61.9 | $66 \cdot 1$ | $65 \cdot 2$ | 71.0 | 68.5 | 69.2 | 66.5 | $62 \cdot 1$ | 62.0 | 30 |
| $65 \cdot 1$ | $68 \cdot 5$ | $74 \cdot 0$ | $75 \cdot 2$ | 71.1 | 690 | 636 | 61. |  |  |  |  |  |  |  |  |  |
| $74 \cdot 8$ | $75 \cdot 9$ | $80 \cdot 5$ | $78 \cdot 1$ | $75 \cdot 2$ | 73.5 | $72 \cdot 6$ | 71.8 | 69.6 | $69 \cdot 6$ | $77 \cdot 3$ | $73 \cdot 8$ | $77 \cdot 0$ | 74.2 | $62 \cdot 1$ | 71.9 | 31 |
| 68.2 | 706 | 72．2 | 74．1 | $70 \cdot 2$ | 71.0 | 68.4 | 68.0 | 65．0 | 65－2 | $72 \cdot 2$ | 70.2 | 734 | 68.0 | 70.2 | 71.8 |  |

Table XIV．－August，1876．Daily Mean Temperature．－Continucd．

| $\begin{aligned} & \text { が } \\ & \text { ه́ } \end{aligned}$ |  |  |  | $\begin{aligned} & \dot{0} \\ & \text { 区 } \\ & \stackrel{0}{3} \end{aligned}$ |  |  |  |  |  |  | $\begin{aligned} & \text { 宫 } \\ & \text { 号 } \\ & \stackrel{y}{\circ} \end{aligned}$ | 宫 |  | 星 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 |  | Bey St．George． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | － | $\bigcirc$ | － |  |  |  | － | $\bigcirc$ |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | ${ }^{\circ}$ | $\bigcirc$ | － | $\bigcirc$ |
| 1 | 67.0 | 68.6 | $69 \cdot 5$ | 68.7 | 62.4 | 64.5 | $65 \cdot 9$ | $64 \cdot 3$ | 68.0 | $64 \cdot 0$ | 62.8 | $63 \cdot 5$ | $64 \cdot 8$ | 63.5 |  | $63 \cdot 7$ |
| 2 | 69 | 71 | 72 | $77 \cdot 3$ | 64 | $67 \cdot 3$ | $68 \cdot 1$ | $69 \cdot 4$ | $61 \cdot 5$ | $65 \cdot 2$ | 61.3 | $63 \cdot 7$ | $65 \cdot 7$ | $65 \cdot 7$ | － | $66 \cdot 3$ |
| 3 | $70 \cdot 3$ | $76 \cdot 5$ | $73 \cdot 6$ | $73 \cdot 3$ | 69.0 | $63 \cdot 8$ | 69 | $72 \cdot 8$ | 74．8 | $66 \cdot 0$ | 66.5 |  | $70 \cdot 2$ | $70 \cdot 0$ |  | 64.5 |
| 4 | $76 \cdot 7$ | 780 | $75 \cdot 4$ | 73.6 | 68.5 | 61.4 | 72.0 | 73.3 | $76 \cdot 7$ | $66 \cdot 6$ | $72 \cdot 0$ | 64．8 | 70.9 | $71 \cdot 7$ | － | 66．5． |
| 5 | $79 \cdot 2$ | 79.6 | 80.0 | 81.7 | 735 | $59 \cdot 9$ | $74 \cdot 8$ | 762 | $76 \cdot 3$ | 67.5 | 71.9 | $66 \cdot 3$ | $70 \cdot 5$ | $72 \cdot 7$ | － | $66 \cdot 2$ |
| 6 | $80 \cdot$ |  |  |  | $72 \cdot 3$ | $62 \cdot 1$ |  |  | 76.7 | 74.8 | $74 \cdot 1$ | $70 \cdot 5$ | $73 \cdot 7$ | 76.5 | － | 70－3： |
| 7 | 80.0 | 78. | 79 | $70 \cdot 2$ | 72 | 64 | 19．1 | $76 \cdot 2$ |  | 75． | 73.3 | $75 \cdot 2$ | $75 \cdot 0$ | $75 \cdot 5$ | － | 66－3： |
| 8 | $69^{\circ} \mathrm{C}$ | 72 | 74 | $70 \cdot 3$ | 64．3 | $63 \cdot 4$ | 73：5 | $70 \cdot 7$ | $74 \cdot 0$ | 71 | 74.0 | $70 \cdot 9$ | 73.8 | 74.5 | － | 7－ |
| 9 | $72 \cdot 5$ | 75 | 75 | 78.3 | 65 | 68 | $71 \cdot 8$ | $75 \cdot 4$ | $73 \cdot 3$ | $72 \cdot 2$ | $71 \cdot 5$ | 67.5 | $73 \cdot 9$ | $72 \cdot 5$ | － | $67 \cdot 2$ |
| 10 | 74．5 | $77 \cdot 5$ | 77－4 | $75 \cdot 5$ | $69 \cdot 8$ | 65 | $75 \cdot 1$ | $77 \cdot 6$ | 73 | $72 \cdot 3$ | $75 \cdot 1$ | $68 \cdot 1$ | $75 \cdot 5$ | 74.8 | － | 71－5． |
| 11 | 78 | $79 \cdot 9$ | 78 | $76 \cdot 9$ | $72 \cdot 8$ | $61 \cdot 4$ | $75 \cdot 6$ | $77 \cdot 8$ | $79 \cdot 0$ | $72 \cdot 3$ | 7 | $66 \cdot 1$ | $75 \cdot 2$ | 76.5 |  | 71.5 |
| 12 | 77 | $75 \cdot 8$ | 78.8 | $76 \cdot 2$ | 74 | 58.5 | 71.6 | 76.2 | 7 | 6 | $76 \cdot 1$ | $65 \cdot 2$ | 71－7 | $71 \cdot 2$ | － | 0 |
| 13 | 80 |  |  | 78 | 73 | 60 |  |  | $79 \cdot 0$ |  | $72 \cdot 1$ | $69 \cdot 7$ | $71 \cdot 2$ | $71 \cdot 0$ | － | 73.0 |
| 14 | 78 | 82 | 82 | 79.0 | 75 | 58 | 73 | $75 \cdot 2$ | 77.5 | $69 \cdot 6$ | 7 | 66－7 | $71 \cdot 3$ | $73 \cdot 0$ | － | $70 \cdot T$ |
| 15 | 69 | 88.9 | $72 \cdot 9$ | 71 | $69 \cdot 0$ | 63 | $72 \cdot 6$ | $71 \cdot 4$ | 70.5 | 70.5 | $74 \cdot 8$ | 75•8 | $75 \cdot 7$ | 750 | － | 71－5． |
| 16 | 63 | $61 \cdot 9$ |  | 59 | 57－0 | 61 | 61.9 | 59 | 57－5 | $62 \cdot 7$ | $61 \cdot 7$ | 56.8 | 560 | 56.8 | － | －5． |
| 17 | 67 | 68 | $65 \cdot 5$ | 62 | 57 | 58 | 58 | $59 \cdot 7$ | $56 \cdot 3$ | 59.0 | $58 \cdot 0$ | 58 | $65 \cdot 0$ | $61 \cdot 0$ |  | 53．0． |
| 18 | $69 \cdot 3$ | 71 | 68.6 | $64 \cdot 9$ | 59.0 | 57 | 61 | $61 \cdot 3$ | $60 \cdot 8$ | $62 \cdot 3$ | $61 \cdot 6$ | 2 | 4 | $62 \cdot 3$ |  | $0 \cdot 3$ |
| 19 | 68 | $68 \cdot 9$ | $67 \cdot 2$ | 60 | 58.4 | $54 \cdot 7$ | $59 \cdot 3$ | 63.0 | 58－7 | 61. | 57.1 | $61 \cdot 2$ | $65 \cdot 4$ | $62 \cdot 7$ |  | 23 |
| 20 | 57 |  |  |  | $52 \cdot 3$ | 56 |  |  |  | 60. | $60 \cdot 4$ | $62 \cdot 9$ | 59.6 | $64 \cdot 3$ |  | $4 \cdot 2$ |
| 21 | 56 | 59 | 56 | 50 | 46 | 54 | $52 \cdot 5$ |  | $49 \cdot 0$ | 53－9 | 56.0 | $52 \cdot 4$ | 54.5 | 53.5 |  | $53 \cdot 8$ |
| 22 | 62 | 68 | 64 | 54 | 52 | 54 | 52.6 | 51.1 | 51. | 52 | 54. | $50 \cdot 8$ |  | $52 \cdot 7$ |  | 55．5 |
| 23 | 62 | $69 \cdot 9$ | 635 | 55.6 | 55.5 | 55 | $53 \cdot 3$ | $56 \cdot$ | $57 \cdot 0$ | 54－2 | 53.9 | 52.0 | $54 \cdot 3$ | 52.8 |  |  |
| 24 | $64 \cdot 5$ | $68 \cdot 9$ | 64 | $60 \cdot 6$ | 53.5 | 59.5 | $58 \cdot 7$ | 57.0 | 52.3 | 59.2 | 53.2 | $56 \cdot 5$ | 53.2 | 53.0 |  | 8.0 |
| 25 | $73 \cdot 3$ | 69 | $70 \cdot 2$ | 60 | 63 | 56 | 599 | 58 | 52.0 | $61 \cdot 0$ | 56.5 | $59 \cdot 3$ | 62.5 | $61 \cdot 3$ |  |  |
| 26 | $62 \cdot 2$ | 59.9 | 62 | $59 \cdot 8$ | 56.7 | 58 | 659 | 60.7 | 57.5 | $62 \cdot 6$ | 64.2 | 66.0 | 65．7 | 61.3 66.0 |  | 59.0 |
| 27 | 54 |  |  | 50 |  | 56 |  |  | 51.5 | 61 | $63 \cdot 7$ | $60 \cdot 8$ | 64.2 | $63 \cdot 7$ | ． | 61.5 |
| 28 | 55．0 | 61 | 58.0 | 540 | $52 \cdot 3$ | $56 \cdot 1$ | $54 \cdot 2$ | 53.9 | $51 \cdot 5$ | $56 \cdot 4$ | $58 \cdot 4$ | 54. | 56.9 | 55.3 |  | 64．5． |
| 29 | 60.0 | 66 | 63.2 | $60 \cdot 1$ | 53 | 58.8 | 58.8 | 54 | $54 \cdot 3$ | 57.9 | $55 \cdot 8$ | 54．2 | $54 \cdot 3$ | 55.7 | － |  |
| 30 | 61.3 | 66 | $67 \cdot 0$ | 63.7 | $53 \cdot 1$ | 57.7 | 58.3 | $54 \cdot 1$ | $51 \cdot 3$ | 58.4 | 55．0 | 56.7 | 543 55.6 | 557 545 |  | 4．5．5 |
| 31 | $67 \cdot 3$ | 735 | $69 \cdot 8$ | $62 \cdot 2$ | 60.5 | $59 \cdot 4$ | 59.0 | 56.4 | 57．7 | $58 \cdot 9$ | 55.3 | 55.4 | 55 | 545 52.7 |  |  |
|  | $68 \cdot 7$ | 711 | 701 | 66.6 | $62 \cdot 1$ | 60.0 | $65 \cdot 1$ | 65.1 | $64 \cdot 0$ | $64 \cdot 2$ | 64.6 | 624 | 65.7 | 64.9 |  | $\frac{63-7}{}$ |

Table XV．－September，1876．Daily Mean Temperature．－Continued．

|  |  | Fort Calgary. |  |  | 窎 |  |  |  | 安 | 定 | $\frac{\stackrel{3}{E}}{\substack{\text { E }}}$ | R |  | $\stackrel{\rightharpoonup}{c}$ <br> 0 <br> 0 <br> 0 <br> 0 <br> $\square$ |  | ๕ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\bigcirc$ | － | － | － | － | $\bigcirc$ | － |  | － | － |  |  |  |  | － | － |  |
| 59.2 | $63 \cdot 4$ | $51 \cdot 5$ | 560 | $52 \cdot 6$ | 52.2 | 495 | 61.5 | 63.0 | 64.4 | 64.4 | 61.4 | 63.0 | $70 \cdot 6$ | $64 \cdot 0$ | $65 \cdot 6$ | 1 |
| 55.4 | $63 \cdot 9$ | $55 \cdot 0$ | 55．0 | 58．1 | $62 \cdot 4$ | $45 \cdot 4$ | $59 \cdot 0$ | $54 \cdot 7$ | 590 | 58.3 | 53．8 | $53 \cdot 1$ | $57 \cdot 8$ | 53.5 | 56.0 | 2 |
| $58 \cdot 1$ | 61.2 | $45 \cdot 5$ | $52 \cdot 0$ | － | 51.9 | $48 \cdot 9$ | $62 \cdot 0$ | $61 \cdot 0$ |  |  | 581 | － |  | 59.7 | $58 \cdot 4$ | 3 |
| 54－7 | $59 \cdot 8$ | $46 \cdot 0$ | $48 \cdot 5$ | 54．5 | $54 \cdot 6$ | 52.7 | 57.3 | 56.0 | 63.2 | 57.8 | 54－2 | 55.9 | 61.0 | 56.3 | 59•1 | 4 |
| 54.0 | 64.0 | $46 \cdot 0$ | $49 \cdot 0$ | 56.0 | 57．8 | $42 \cdot 1$ | 57－8 | 50.5 | 56.2 | 56.7 | $50 \cdot 5$ | 51.2 | 56.7 | $52 \cdot 7$ | 55.0 | 5 |
| 53.9 | 66.4 | 50．0 | $50 \cdot 5$ | 53.4 | 53.8 | $46 \cdot 0$ | 59.5 | 58.5 | 60－2 | 61.6 | 57.0 | 55.6 | 58.4 | 55 | 54.2 | 6 |
| 54.0 | $62 \cdot 4$ | 51.0 | 52.0 | 51.5 | 52．7 | 41.0 | 60.3 | 62.5 | $69 \cdot 2$ | 64.6 | 65.0 | $61 \cdot 6$ | 65.5 | 64.0 | $62 \cdot 6$ | 7 |
| \＄2•3 | $57 \cdot 4$ | 47－5 | 475 | $51 \cdot 9$ | 52．5 | $42 \cdot 9$ | $62 \cdot 4$ | $61 \cdot 2$ | $66 \cdot 2$ | $62 \cdot 9$ | 61.5 | 61.0 | $66 \cdot 0$ | 613 | 63.9 | 8 |
| $54 \cdot 7$ | $60 \cdot 1$ | 51.0 | 51.0 | 52.9 | 53.2 | 53.0 | $60 \cdot 3$ | $59 \cdot 7$ | 625 | 63.4 | 58.5 | 58.5 | $59 \cdot 2$ | 59－5 | 57.9 | 9 |
| $55 \cdot 0$ | 61.5 | 51．0 | $49 \cdot 0$ |  | $54 \cdot 2$ | 56.4 | 56.0 | 57.0 |  |  | $55 \cdot 2$ |  |  | 55.7 | 55－7 | 10 |
| 52.8 | 64．1 | $47 \cdot 0$ | $47 \cdot 0$ | 52.5 | $54 \cdot 7$ | 59.6 | $60 \cdot 3$ | 56.0 | 58.8 | $60 \cdot 5$ | $54 \cdot 2$ | 53.8 | 56.6 | 53.5 | $54 \cdot 8$ | 11 |
| 62.4 | $65 \cdot 8$ | $48 \cdot 5$ | $49 \cdot 0$ | $52 \cdot 7$ | $54 \cdot 2$ | 50.0 | $54 \cdot 9$ | $51 \cdot 0$ | $58 \cdot 2$ | 560 | 53.7 | $53 \cdot 3$ | 56.2 | $55 \cdot 0$ | 54－3 | 12 |
| 60.8 | 53.2 | 490 | $50 \cdot 0$ | $52 \cdot 7$ | 53.3 | $42 \cdot 4$ | 56.5 | 52.8 | 57．5 | 55.8 | 54.7 | 53.6 | 54.5 | 57．5 | 53.6 | 13 |
| \＄5．7 | $62 \cdot 8$ | 49.0 | 53.0 | 53.2 | 53.9 | 36.4 | $54 \cdot 9$ | $52 \cdot 0$ | $60 \cdot 3$ | $59 \cdot 6$ | 56.1 | 55.6 | 596 | $56 \cdot 7$ | $56 \cdot 8$ | 14 |
|  | $57 \cdot 6$ | 51－5 | 54.0 | 57.2 | 57.2 | $37 \cdot 9$ | $57 \cdot 0$ | $49 \cdot 0$ | 58.8 | 55.9 | 53.4 | 53.9 | 57.6 | $54 \cdot 0$ | 56.8 | 15 |
| 52．3 | 62.0 | $49 \cdot 0$ | 52.5 | $61 \cdot 3$ | $60 \cdot 5$ | $45 \cdot 5$ | 56.5 | $53 \cdot 3$ | 59.5 | 57.9 | 54－7 | 53.2 | 56.1 | 56.5 | $52 \cdot 3$ | 16 |
| 52.0 | $62 \cdot 6$ | $46 \cdot 0$ | $49 \cdot 5$ |  | $57 \cdot 9$ | $45 \cdot 6$ | 59.7 | 54.5 |  |  | 53.5 |  | － | $52 \cdot 7$ | 51.8 | 17 |
| 54.8 | 58.0 | $49 \cdot 5$ | $54 \cdot 5$ | $53 \cdot 9$ | 54.2 | 430 | 57.5 | 54.0 | 59.8 | $65 \cdot 7$ | 54－7 | 55.4 | 58.3 | 55.5 | 56.0 | 18 |
| 50.9 | $54 \cdot 6$ | 51.0 | 49.0 | $57 \cdot 0$ | $57 \cdot 6$ | $48 \cdot 0$ | 58.0 | 57.2 | 63.7 | $60 \cdot 1$ | 58.4 | 58．1 | 59.0 | $59 \cdot 3$ | 592 | 19 |
| \＄3．6 | 55．0 | $43 \cdot 0$ | 51.0 | $54 \cdot 8$ | 55．2 | 52.4 | 59.6 | $65 \cdot 3$ | 68.2 | 66.7 | $61 \cdot 7$ | $61 \cdot 3$ | 61.9 | 61.7 | $60 \cdot 9$ | 20 |
| 50.3 | 53.8 | 42.5 | $49 \cdot 5$ | 56.8 | 57－1 | $59 \cdot 7$ | 56.4 | $62 \cdot 5$ | 64.7 | 644 | 61.0 | $59 \cdot 9$ | 614 | 59－5 | $60 \cdot 0$ | 21 |
| $53 \cdot 3$ | $53 \cdot 2$ | $46 \cdot 5$ | 44.0 | $57 \cdot 0$ | 59.1 | $54 \cdot 7$ | 61．3 | 63.5 | 636 | 66.6 | $60 \cdot 9$ | 60.2 | 621 | $60 \cdot 3$ | 58 | 22 |
| 51.4 | $52 \cdot 8$ | $39 \cdot 5$ | 47－5 | 53.0 | $54 \cdot 7$ | $50 \cdot 3$ | 57．5 | $59 \cdot 0$ | 63．2 | 62.5 | 59.7 | $58 \cdot 3$ | 59.9 | 59.0 | $58 \cdot 5$ | 23 |
| 52.0 | $51 \cdot 7$ | $40 \cdot 0$ | $48 \cdot 0$ |  | 52．5 | 46.5 | $62 \cdot 7$ | 562 |  |  | 60 |  |  | 59.0 | $59 \cdot$ | 24 |
| $55 \cdot 4$ | $58 \cdot 5$ | $47 \cdot 0$ | 52.5 | $44^{\prime} 7$ | 45．0 | $42 \cdot 4$ | 57.5 | 59.0 | $64 \cdot 7$ | 616 | $62 \cdot 4$ | 62.2 | 63.9 | 62.5 | $62 \cdot$ | 25 |
| 54.5 | 58.8 | 55．5 | 545 | $46 \cdot 4$ | $47 \cdot 0$ | $42 \cdot 9$ | 53.5 | 51.5 | $51 \cdot 7$ | 51.4 | $45 \cdot 3$ | 43.9 | 51.5 | $45 \cdot 5$ | $48 \cdot 3$ | 26 |
| 54.5 | $61 \cdot 2$ | 440 | 51.0 | $49 \cdot 8$ | 492 | $41 \cdot 5$ | 475 | $50 \cdot 5$ | 489 | $49 \cdot 5$ | 437 | $44 \cdot 3$ | 485 | $44 \cdot 7$ | 45 | 27 |
| 53.8 | 61.6 | $40 \cdot 0$ | 43.0 | 40.5 | 40.2 | $34 \cdot 3$ | $49 \cdot 7$ | $52 \cdot 8$ | $50 \cdot 4$ | $51 \cdot 3$ | $50 \cdot 5$ | $48 \cdot 3$ | 54.6 | $50 \cdot 0$ | $47 \cdot$ | 28 |
| $8 \cdot 4$ |  |  | 51.0 | 36.6 | $36 \cdot 3$ | $32 \cdot 7$ | 46.9 | $49 \cdot 5$ | 489 | 51.3 | $43 \cdot 7$ | 45．7 | $50 \cdot 0$ | 46.0 | 48 | 29 |
|  |  |  |  |  |  |  |  |  |  |  |  | 42•1 | 2 |  |  |  |
| $54 \cdot 7$ | $60 \cdot 6$ | $45 \cdot 0$ | $47 \cdot 5$ | $35 \cdot 2$ | $32 \cdot 3$ | $31 \cdot 6$ | 46.0 | 47.5 | 45 |  |  |  |  |  |  | 3 |
| ． 53.8 | 598 | 47.2 | $50 \cdot 3$ | 51.8 | $52 \cdot 6$ | $45 \cdot 8$ | 56.9 | 56.0 | 59－5 | 587 | 55.4 |  | 82 | 55－8 | $55 \cdot 5$ |  |

Table XV.-September, 1876. Daily Mean Temperature.-Continued.


Table XV.-September, 1876. Daily Mean Temperature.-Continued.


Table XVI．－October，1876．Daily Mean Temperature．

| $\stackrel{\stackrel{\rightharpoonup}{\mathrm{E}}}{\stackrel{\text { ® }}{0}}$ |  |  | Fort Calgary. |  | $\begin{aligned} & \text { io } \\ & \stackrel{0}{E} \\ & \stackrel{E}{E} \end{aligned}$ |  |  |  |  | $\begin{aligned} & \text { 号 } \\ & \text { 品 } \\ & \dot{B} \end{aligned}$ | $\begin{aligned} & \text { : } \\ & \text { D } \\ & \text { D } \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | 走 |  | 守 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\bigcirc$ | － | － | $\bigcirc$ | － | 9 |  |  |  | $\bigcirc$ | 8 | Q | 8 | R | 8 | 0 |
| 1 | $152 \cdot 8$ | $60 \cdot 3$ | 53.5 | $50 \cdot 5$ |  | 496 | 36.9 | 44－4 | 487 |  |  | $45 \cdot$ |  |  | 44.5 | 45－1 |
| 2 | 53.7 | 58.9 | 38. | $41 \cdot 5$ | 43－1 | 44 | $33 \cdot 4$ | 53.5 | 55.0 | 530 | 53.9 | $48 \cdot 3$ | 47－9 | $52 \cdot 1$ | 49•7 | 472 |
| 3 | 52－3 | 57.7 | $38 \cdot 0$ | 38.0 | 30.6 | 293 | $25 \cdot 1$ | 460 | 49.8 | $49 \cdot 5$ | 50.0 | $46 \cdot 0$ | $45 \cdot 7$ | $50 \cdot 9$ | $48 \cdot 3$ | $49 \cdot 5$ |
| 4 | 51.8 | 63.7 | 53.0 | 48 | 307 | 339 | 21 | 42 | 46.0 | $44 \cdot 4$ | 46 | $42 \cdot 0$ | 42．0 | 44.4 | 43.0 | $44 \cdot 8$ |
| 5 |  | $62 \cdot 9$ | 40 | 420 | 33 | 34 | 26.2 | 41. | $45 \cdot 0$ | 484 | 44 | 43.5 | 41．7 | $47 \cdot 6$ | 465 | $45 \cdot 2$ |
| 6 | 51 | 57 | 40 | 36.5 | $33 \cdot 3$ | 349 | $23 \cdot 0$ | $42 \cdot 2$ | 477 | 47 | 49 | $44 \cdot 5$ | $45 \cdot 5$ | 50.5 | $44 \cdot 5$ | $46 \cdot 8$ |
| 7 | $52 \cdot 9$ | 56 | 35 | 37 | $27 \cdot 7$ | $27 \cdot 3$ | $20 \cdot 8$ | 34.8 | $43 \cdot 3$ | $43 \cdot 1$ | $43 \cdot 4$ | 37.3 | 36.6 | 41.9 | $39 \cdot 3$ | 39.9 |
| 8 | $49^{\circ} 0$ | 54.9 | 35.0 | 43.0 |  | 326 | 24.2 | 346 | $39 \cdot 0$ |  |  | 34.0 |  |  | 34－2 | 36.4 |
| $\theta$ | $51 \cdot 9$ | $52 \cdot 3$ | 41 | 44.0 | 37－3 | $37 \cdot 5$ | 26.5 | 44 | $47 \cdot 3$ | $43 \cdot 6$ | 4 | 428 | $39 \cdot 1$ | 416 | 42.5 | 39－7 |
| 10 | $52 \cdot 3$ | 54 | 30 | 42 | 29 | 27. | 230 | 36 | 40.2 | $44 \cdot 3$ | 40.7 | $37 \cdot 0$ | 36．7 | 44＇1 | 38.0 | 421 |
| 11 | 508 | 55 | 35 | 43 | 36 | $36 \cdot 0$ | 19 | 37.4 | $39 \cdot 5$ | 36.8 | 37 | 31.6 | 29.8 | 36.7 | $32 \cdot 0$ | 32.8 |
| 12 | $48 \cdot 5$ | 52 | 29 | 36 | 29 | 29.2 | $18 \cdot 6$ | $43 \cdot 7$ | $45 \cdot 2$ | 38.0 | 44 | $35 \cdot 6$ | 36．1 | 41.0 | 373 | 36－4 |
| 13 | 49 | 50 | 30 | 30 | 26 | 26 | 18 | 35.8 | 47－5 | $45 \cdot 6$ | 48 | $43 \cdot 7$ | 42－5 | 469 | $43 \cdot 7$ | 42.9 |
| 14 | $54 \cdot 0$ | 52 | 33.5 | 350 | 27.8 | $29 \cdot 2$ | 15 | $24 \cdot 8$ | 32.8 | 35－7 | 329 | $30 \cdot 4$ | 32.6 | 38.4 | $32 \cdot 3$ | $35 \cdot 8$ |
| 15 | 54 | 65 | 36 | 570 |  | 327 | 22.9 | 32.0 | 35－5 |  | － | $29 \cdot 3$ |  |  | $30 \cdot 0$ | 27.8 |
| 16 | $50 \cdot 0$ | 60 | 48 | 53.0 | 38 | 396 | $24 \cdot$ | $42 \cdot 5$ | $46 \cdot 5$ | $43 \cdot 3$ | 449 | 40．0 | 37.9 | $42 \cdot 9$ | $40 \cdot 3$ | $39 \cdot 5$ |
| 17 | 50 | 56 | 40 | 51 | 47 | 44 | 31 | 34．5 | $34 \cdot 0$ | 44.6 | 38.2 | $35 \cdot 5$ | $36 \cdot 1$ | $40 \cdot 8$ | 37.5 | 41.0 |
| 18 | $50 \cdot 3$ | 53 | 40 | 44 | 52．7 | 525 | 28.0 | $48 \cdot$ | 41 | $43 \cdot 4$ | 41－2 | 37.5 | 36.0 | 37．7 | 380 | 39－4 |
| 19 | $49 \cdot 8$ | 53. | $37 \cdot 5$ | $43 \cdot 5$ | 50.3 | $49 \cdot 9$ | $33 \cdot 1$ | $48 \cdot 3$ | 50.5 | 52 | 53.3 | $47 \cdot 6$ | 434 | $43 \cdot 6$ | $43 \cdot 7$ | 41－4 |
| 20 | $48 \cdot 6$ | 49 | 33.0 | $42 \cdot 5$ | 492 | 491 | $32 \cdot 9$ | 48.6 | 57.5 | $60 \cdot 5$ | 59.1 | 54.5 | 530 | 54.4 | 52.8 | 49－1 |
| 21 | 482 | 45. | $28 \cdot 0$ | $38 \cdot 0$ | 400 | 39.3 | 34 | 53 | 51.5 | 61.2 | 59.1 | 65．3 | 56.4 | 64.0 | 58.5 | 59.9 |
| 22 | $50 \cdot 3$ | $43 \cdot 9$ | 33 | 34 |  | 370 | $33 \cdot 4$ | 51 | $58 \cdot 2$ |  |  | 58.3 |  |  | $59 \cdot 2$ | 576 |
| 23 | $49 \cdot 3$ | 42 | 31 | 33.0 | $36 \cdot 4$ | 365 | 34.0 | $46 \cdot 0$ | 46．5 | $47 \cdot 4$ | 49 | $47 \cdot 9$ | 49.2 | 55－1 | 49.0 | 51－1 |
| 24 | $50 \cdot 3$ | 46 | $30 \cdot 5$ | 31.5 | $33 \cdot 9$ | $33 \cdot 8$ | $31 \cdot 3$ | $40 \cdot 3$ |  | $42 \cdot 6$ | $44 \cdot 5$ | 40.6 | $40 \cdot 5$ | 47.9 | 41.8 | 42．1 |
| 25 | 514 | $47 \cdot 6$ | $29 \cdot 5$ | 4 | 31.2 | $30 \cdot 7$ | $25 \cdot 4$ | 35 | 41 | $40 \cdot 3$ | 41．2 | 365 | 360 | $40 \cdot 9$ | 38.5 | 37－4 |
| 26 | 51 | 51 | 41 | 50 | 29 | 29 | 14 | $33 \cdot 9$ | 37.5 | 38.7 | 38.2 | $33 \cdot 5$ | 33.3 | 37.8 | $35 \cdot 3$ | $34 \cdot 8$ |
| 27 | ${ }^{47 \cdot 0}$ | $49 \cdot 8$ | 400 | 42 | $36 \cdot 7$ | $35 \cdot 8$ | 21.4 | $30 \cdot 8$ | $35 \cdot 7$ | 38.8 | 37．0 | $34 \cdot 8$ | 33．7 | 36.7 | 357 | $34 \cdot 3$ |
| 28 | 456 | 39.5 | $31^{\circ} 0$ | $38 \cdot 5$ | $40 \cdot 8$ | 396 | $29^{\circ} 8$ | $37 \cdot 2$ | 36.0 | $48 \cdot 2$ | $36 \cdot 7$ | 34.5 | $33 \cdot 8$ | 37.5 | $35 \cdot 0$ | $33 \cdot 3$ |
| 29 | 45．3 | $41 \cdot 4$ | $34^{\circ}$ | 400 |  | 50 | 34.0 | 34.6 | $38 \cdot 5$ |  |  | 350 | ． |  | 35．7 | $34 \cdot 6$ |
| 30 | 428 | $45 \cdot 0$ | 31.0 | $30^{\circ} 0$ | 41.4 | 41.6 | $32 \cdot 4$ | 44.7 | $44 \cdot 5$ | 53.4 | $49 \cdot 3$ | $46 \cdot 5$ | $40 \cdot 7$ | $46 \cdot 8$ | 44.2 | $40 \cdot 4$ |
| 31 | 42.2 | 37－5 | 24.0 | 28.0 | 37.4 | $37 \cdot 1$ | $29 \cdot 4$ | 548 | 51.0 | $63 \cdot 0$ | 55.8 | 536 | 54.3 | 59.0 | $52 \cdot 8$ | 53.1 |
|  | $50 \cdot 1$ | 52.2 | 36．1 | $40 \cdot 9$ | 366 | 37.2 | 266 | $41 \cdot 3$ | $44 \cdot 6$ | $46 \cdot 4$ | $45 \cdot 5$ | $41 \cdot 4$ | $40 \cdot 8$ | 456 | $42 \cdot 1$ | 41.6 |

Table XVI．－October，1876．Daily Mean Temperature．－Continued．

| $\begin{aligned} & \text { 岕 } \\ & \text { 曹 } \\ & \text { 4 } \end{aligned}$ |  | 号 㽞 品 品 | $\begin{aligned} & \text { 呙 } \\ & \text { 蔦 } \\ & \text { 思 } \end{aligned}$ | $\begin{aligned} & \dot{D} \\ & \text { H } \\ & 0 \\ & 0 \\ & \text { E } \end{aligned}$ |  |  |  |  | $\stackrel{\stackrel{\rightharpoonup}{0}}{\stackrel{y}{*}}$ |  | 总 | 0.0 00 0 0 0 0 0 0 0 0 0 | 8 8 8 0 $z$ $z$ |  |  | 茵 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\bigcirc$ | － | － | － | $\bigcirc$ |  | － | － | $\bigcirc$ | $\bigcirc$ |  | － | － | － | － | － |  |
| $45 \cdot 2$ | $45 \cdot 4$ | $45 \cdot 5$ | － | $45 \cdot 6$ | $45 \cdot 5$ | $44 \cdot 6$ | 44.2 | 40•1 | $42 \cdot 0$ | $48 \cdot 3$ | － |  | $45 \cdot 5$ |  | － | 1 |
| 53.8 | 51.4 | 51.0 | 48.0 | 51.3 | $51 \cdot 3$ | $48 \cdot 3$ | $49 \cdot 1$ | $45 \cdot 8$ | $44 \cdot 5$ | 52.4 | $49 \cdot 8$ | 47－4 | 47.6 | $53 \cdot 9$ | $47 \cdot$ | 2 |
| －48．9 | $49 \cdot 5$ | $51 \cdot 9$ | $53 \cdot 7$ | $49 \cdot 5$ | 48.2 | $47 \cdot 6$ | $46 \cdot 9$ | $42 \cdot 9$ | 41－5 | $49 \cdot 9$ | $48 \cdot 1$ | 56.7 | 480 | 56.8 | $54 \cdot 6$ | 3 |
| 45.5 | 44•1 | 44 | $46 \cdot 7$ | $45 \cdot 8$ | $42 \cdot 8$ | $42 \cdot 8$ | 42•1 | 38.3 | $39 \cdot 0$ | $44 \cdot 3$ | $42 \cdot 7$ | 44.5 | $44 \cdot 6$ | $52 \cdot 3$ | $48 \cdot 4$ | 4 |
| －48．3 | 47.2 | 41.0 | $52 \cdot 4$ | $47 \cdot 3$ | 43.5 | $44 \cdot 9$ | 40.0 | 36.2 | 37.0 | 45.2 | $43 \cdot 0$ | $48 \cdot 1$ | $43 \cdot 1$ | 51.2 | $43 \cdot 5$ | 5 |
| 46.9 | $46 \cdot 2$ | $38 \cdot 7$ | 51.0 | $48 \cdot 4$ | $48 \cdot 8$ | $50 \cdot 4$ | $48 \cdot 1$ | $44 \cdot 3$ | $44 \cdot 8$ | $49 \cdot 8$ | 482 | $49 \cdot 8$ | 47•6 | 46.6 | $50 \cdot 9$ | 6 |
| －42．6 | $40 \cdot 2$ | $37 \cdot 4$ | $43 \cdot 4$ | 423 | 43.5 | $37 \cdot 7$ | 36.2 | 34－1 | 330 | $39 \cdot 2$ | $38 \cdot 7$ | $40 \cdot 0$ | ． | $45 \cdot 9$ | $42 \cdot 3$ | $\tau$ |
| 36.4 | 45.1 | $34 \cdot 1$ |  | $37 \cdot 6$ | 34.5 | $35 \cdot 4$ | 33.5 | $30 \cdot 1$ | 29.0 | $34 \cdot 3$ |  |  | $34 \cdot 5$ |  | － | 8 |
| －45．7 | $43 \cdot 2$ | 41.9 | $46 \cdot 3$ | 41.4 | 40.2 | $39 \cdot 6$ | 40 | $37 \cdot 5$ | $31 \cdot 3$ | 42.5 | 400 | $39 \cdot 4$ | $40 \cdot 8$ | 41.4 | $39 \cdot 4$ | 9 |
| $42 \cdot 2$ | 408 | 390 | $43 \cdot 4$ | $40 \cdot 9$ | 42.0 | $37 \cdot 3$ | $37 \cdot 7$ | $32 \cdot 5$ | 32.0 | 392 | 38.9 | $40 \cdot 3$ | $38 \cdot 3$ | $42 \cdot 8$ | 485 | 10 |
| ． 31.0 | 34．6 | $34 \cdot 2$ | $35 \cdot 0$ | 34．4 | 30.5 | $34 \cdot 7$ | 31.8 | 296 | $38 \cdot 8$ | 358 | $33 \cdot 7$ | $32 \cdot 9$ | $30 \cdot 4$ | 40.5 | $37 \cdot 6$ | 11 |
| 36.6 | $40 \cdot 1$ | $37 \cdot 8$ | 41.7 | $38 \cdot 0$ | 388 | $39 \cdot 7$ | $38 \cdot 4$ | 34－0 | $22 \cdot 5$ | 451 | 38.5 | － | $36 \cdot 3$ | 41•8 | $41 \cdot 8$ | 12 |
| ． $44 \cdot 6$ | 46.0 | 48．0 | 51．0 | 45•5 | 44.5 | $46 \cdot 4$ | 41.3 | $37 \cdot 6$ | 32．0 | 31.2 | $44 \cdot 4$ | － | 42.9 | 41.9 | 42.4 | 13 |
| ． 330 | $30 \cdot 6$ | $32 \cdot 3$ | $38 \cdot 7$ | 84．5 | $34 \cdot 5$ | 32－7 | $28 \cdot 6$ | $27 \cdot 0$ | 368 | 32.5 | $35 \cdot 0$ | － | 31.6 | $43 \cdot 4$ | $34 \cdot 7$ | 14 |
| ． 29.6 | － | 27＊0 |  | $32 \cdot 7$ | 29.5 | $30 \cdot 2$ | 32．2 | 28.3 | $23 \cdot 3$ | 34.9 |  |  |  |  | － | 15 |
| $43 \cdot 1$ |  | 42 | $44 \cdot$ | $42 \cdot 7$ | 42.2 | $40 \cdot 1$ | 36．7 | $39 \cdot 3$ | $34 \cdot 5$ | $45 \cdot 4$ | $40 \cdot 4$ | － | － | 37－4 | 383 | 16 |
| ． 358 | $39 \cdot 1$ | 35．1 | $40 \cdot 5$ | $38 \cdot 9$ | 36.0 | 35．0 | $32 \cdot 3$ | 287 | 28.3 | 38.9 | $37 \cdot 6$ |  |  | 38.9 | 36.4 | 17 |
| $35 \cdot 3$ | 43.1 | 38 | 37＊4 | 36.7 | 33.8 | $39 \cdot 1$ | 32.8 | $29 \cdot 5$ | 311 | 38.0 | 389 | 38－3 |  |  | 37•7 | 18 |
| －46．9 | $46 \cdot 9$ | $39 \cdot 9$ | 390 | 431 | $42 \cdot 2$ | $42 \cdot 7$ | $43 \cdot 9$ | $42 \cdot 3$ | $46 \cdot 5$ | 456 | 45•4 | 466 |  | $41 \cdot 3$ | 40.0 | 9 |
| 565 | 53.6 | 47•1 | $47 \cdot 8$ | 498 | 593 | 47.4 | 55.0 | $51 \cdot 7$ | $50 \cdot 9$ | 56.5 | $50 \cdot 3$ | 52.0 |  | 410 | $46 \cdot 1$ | 20 |
| ． 598 | 615 | 58 | 60.4 | 53.0 | $56 \cdot 2$ | 53.5 | 57.6 | $56 \cdot 3$ | 57.6 | 59.6 | 56.9 | 568 | － | $42 \cdot 9$ | $47 \cdot 4$ | 21 |
| ．61－2 | 58.3 | 55.2 | － | 535 | $60 \cdot 3$ | 54．2 | 565 | $53 \cdot 3$ | 55.8 | 61.0 |  |  | 52.2 |  | ． | 22 |
| －49．5 | 510 | 53．1 | 530 | E2．3 | 53.0 | $32 \cdot 8$ | $49 \cdot 8$ | 47.8 | $50 \cdot 1$ | 52.0 | 52.0 | $56 \cdot 0$ | ${ }^{\circ} 55 \cdot 4$ | 50.6 | $60 \cdot 7$ | 23 |
| $42 \cdot 7$ | $42 \cdot 3$ | 41 | $46 \cdot$ | $43 \cdot 7$ | 44－5 | $41 \cdot 3$ | 42.2 | 49•7 | 41.4 | 44 | $43 \cdot 4$ | $45 \cdot 0$ | 43.2 | $44 \cdot 5$ | 51.6 | 24 |
| ． $39 \cdot 9$ | 39.0 | $39 \cdot 8$ | $40 \cdot 6$ | 41．1 | $39 \cdot 7$ | $38 \cdot 1$ | $38 \cdot 5$ | 35．0 | $35 \cdot 3$ | 41.0 | $39 \cdot 7$ | $40 \cdot 2$ | 38.8 | $39 \cdot 3$ | $43 \cdot 7$ | 25 |
| $\cdot 36 \cdot 6$ | $35 \cdot 4$ | 36 | $40 \cdot 1$ | 37.8 | 34.5 | 33．1 | 34.9 | 31．5 | 29.8 | $37 \cdot 0$ | 368 | 35.2 | $35 \cdot 3$ | 38.0 | $39 \cdot 0$ | 26 |
|  |  |  |  |  |  | $33 \cdot 2$ | 30．0 | 27.7 | 26.8 | 346 | 35.6 | 33.0 | 32.5 | $38 \cdot 5$ | $37 \cdot 3$ | 27 |
| $36 \cdot 3$ | 356 | 34－9 | 38 | 37 | $3 \pm$ |  | 30 |  |  |  |  |  |  |  |  |  |
| －36．3 | 369 | 35．4 | $40 \cdot 2$ | $35 \cdot 5$ | 35－2 | $32 \cdot 7$ | $32 \cdot 1$ | 30.6 | 289 | 37.9 | $36 \cdot 1$ | $31 \cdot 1$ | 30.6 | $33 \cdot 4$ | 29.6 | 28 |
| ． 38.7 | 380 | $30 \cdot 3$ | ． | 32.7 | 32.5 | 31－5 | $30 \cdot 4$ | $28 \cdot 8$ | 333 | 31.9 |  |  | $28 \cdot 4$ |  |  | 29 |
| 50.8 | $43 \cdot 5$ | $39 \cdot 0$ | 400 | 420 | $42 \cdot 0$ | 40.0 | $42 \cdot 3$ | $39 \cdot 9$ | 378 | 47•5 | 42．2 | $40 \cdot 1$ | $34^{\circ} 0$ | $39 \cdot 3$ | $36 \cdot 8$ | 30 |
| ．55．2 | 53.0 | 53.5 | $57 \cdot 4$ | 50.6 | $46 \cdot 8$ | 50.0 | $49 \cdot 4$ | $48 \cdot 6$ | 47.0 | $54 \cdot 6$ | 51.0 | $49 \cdot 0$ | $48 \cdot 4$ | $51 \cdot 3$ | 45．5 | 31 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | 437 |  |  |
| $43 \cdot 7$ | $44^{\circ} 2$ | 42－7 | 45.2 | $42 \cdot 8$ | 42.2 | 41－1 | $40 \cdot 5$ | 38.0 | 37.6 | 43.6 | 42.6 | 44.0 | $40 \cdot 2$ | 437 | $43 \cdot 1$ |  |

Table XVI—October，1876．Daily Mean Temperature－Continued．

|  |  |  | $\begin{aligned} & \text { 总 } \\ & \text { 志 } \\ & \text { O } \\ & \text { O } \end{aligned}$ | $\begin{aligned} & \dot{区} \\ & \stackrel{\rightharpoonup}{0} \\ & \stackrel{3}{0} \\ & \hline \end{aligned}$ | 苟 0 品 品 | $\begin{aligned} & \text { मे } \\ & \text { 궁 } \\ & \stackrel{\rightharpoonup}{6} \end{aligned}$ | g 0 0 0 0 0 0 0 号 | $\begin{aligned} & \stackrel{\rightharpoonup}{0} \\ & \text { 券 } \\ & \text { 荡 } \end{aligned}$ |  |  | 它 | 求 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | － | $\bigcirc$ | － | － |  |  | $\bigcirc$ | － | － | － | － | $\bigcirc$ | － | $\stackrel{\square}{9}$ | － | － |
| 1 | $51 \cdot 7$ | － | － | $46 \cdot 1$ | 41.0 | $49 \cdot 8$ | － |  | $43 \cdot 3$ | 53.8 | 53.0 | 51.4 | $50 \cdot 5$ | － | 50.0 | $50 \cdot 7$ |
| 2 | $46 \cdot 5$ | $46 \cdot 2$ | $45 \cdot 9$ | $43 \cdot 3$ | 40 | $47 \cdot 3$ | 43 | 432 | $38 \cdot 7$ | $48 \cdot 6$ | $50 \cdot 1$ | $45 \cdot 2$ | 500 | － | 507 | 515. |
| 3 | 54－2 | $49 \cdot 7$ | 53．6 | 51.5 | $48 \cdot 6$ | $48 \cdot 7$ | $45 \cdot 3$ | $46 \cdot 1$ | 39 | $46 \cdot 3$ | $47 \cdot 7$ | $42 \cdot 7$ | 488 | － | $48 \cdot 3$ | $45 \cdot 8$ |
| 4 | 48 | 46.6 | $48 \cdot 8$ | $47 \cdot 2$ | 41.8 | $54 \cdot 3$ | 53.9 | 53.5 | $45 \cdot 0$ |  | $\cdot 4$ | $51 \cdot 3$ | $55 \cdot 5$ | － | $48 \cdot 3$ | $49 \cdot 3$ |
| 5 | 41 | 43.5 | 44 | $43 \cdot 1$ | 38.0 | 508 | 46.2 | 468 | $38 \cdot 5$ | 58.0 | 567 | $59 \cdot 1$ | $54 \cdot 3$ | － | $54 \cdot 3$ | $53 \cdot 3$ |
| 6 | 49 | 46.8 | 47 | 41 | $42 \cdot 3$ | 497 | $45 \cdot 4$ | $42 \cdot 9$ | 28.2 | 53 | 531 | $52 \cdot 3$ | $53 \cdot 1$ | － | $54 \cdot 3$ | 537 |
| 7 | $40 \cdot 5$ | $42 \cdot 3$ | $43 \cdot 6$ | 41.5 | 37.5 | 513 | $47 \cdot 1$ | $44 \cdot 4$ | 41．5 | 556 | $55 \cdot 2$ | 53.2 | 52.3 |  | $49 \cdot 0$ | 54.0 |
| 8 | $37 \cdot 7$ |  | － | $34 \cdot 1$ | 31.9 | $43 \cdot 1$ |  |  | 34.3 | $45 \cdot 9$ | $45 \cdot 9$ | $43 \cdot 5$ | 439 | － | $46 \cdot 3$ | 46．3． |
| 3 | 36．0 | 37.0 | 37.3 | $34 \cdot 6$ | 295 | $40 \cdot 1$ | 36.2 | 37 | $31 \cdot 0$ | $41 \cdot 2$ | $41 \cdot 4$ | 38．7 | $40 \cdot 6$ | ． | $41 \cdot$ | 38.2 |
| 10 | $45 \cdot 7$ | $40 \cdot 7$ | 458 | $40 \cdot 4$ | $40 \cdot 7$ | 47－2 | 44.0 | $44 \cdot 2$ | 36 | $47 \cdot 5$ | $45 \cdot 3$ | 46.5 | $50 \cdot 1$ | － | $45 \cdot 0$ | 465 |
| 11 | 34 | $36 \cdot 3$ | $37 \cdot 3$ | $35 \cdot 2$ | $30 \cdot 7$ | $43 \cdot 3$ | $40 \cdot 4$ | $38 \cdot 3$ |  | $48 \cdot 2$ | $47 \cdot 4$ |  | $44^{7}$ |  | 44.0 | 46.5 |
|  | ${ }_{4}$ | $42 \cdot 6$ | $39 \cdot 8$ | 37 | $34 \cdot 3$ | $39 \cdot 5$ | $37 \cdot 7$ | 39.0 | $35 \cdot 5$ | 39 | 39.2 | $38 \cdot 2$ | $40 \cdot 7$ |  | 40 | 430 |
| 13 | $40 \cdot 3$ | 38.2 | 41 | 37 | 30.0 | $45 \cdot 7$ | $41 \cdot 3$ | 35．5 | $33 \cdot 3$ | 45 | $44 \cdot 3$ | $43 \cdot 6$ | 43.9 |  | 41. | $2 \cdot T$ |
|  | ＇34－3 | 28.6 | $34 \cdot 3$ | $30 \cdot 6$ | $31 \cdot 0$ | $38 \cdot 1$ | $31 \cdot 3$ | $33 \cdot 5$ | 33 | 40 | 40•1 | 382 | 397 |  | 41 | $44^{\prime} 7$ |
| 15 |  |  |  | $30 \cdot$ | 25.5 | 40.8 |  |  | 3 | $49 \cdot$ | 46．1 | 55.6 | 51.3 |  | $40 \cdot 3$ | $42 \cdot 5$ |
| 16 | 37 | 37.4 | $34 \cdot 7$ | 31.5 | $29 \cdot 5$ | $25 \cdot 3$ | $33 \cdot 2$ | 343 | $31 \cdot 5$ |  | 41.0 | 36 | 36.8 |  |  |  |
|  | $35 \cdot 5$ | 35 | 35 | 34 | 31 | $40 \cdot 3$ | $38 \cdot 1$ | 375 | 33 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $38 \cdot$ | 40 T |
| 18 |  | 37 | 38 | 35 | $30 \cdot 3$ | $40 \cdot 3$ | 39.2 | 37.6 | 34.5 | 38. | $39 \cdot 2$ | 37.91 | $33 \cdot 4$ | － | $40 \cdot 3$ | 432 |
| 19 | 38.0 |  | 42 |  | $35 \cdot 3$ | $40 \cdot 4$ | 36.2 | $37 \cdot 3$ | $34 \cdot 3$ | 37 | 37.5 | 33.0 | 37．2 |  | 40 | $\cdot$ |
| 20 | $43 \cdot 5$ | $50 \cdot 3$ | $47 \cdot 0$ | $41 \cdot 2$ | 40.5 | 45.6 | $38 \cdot 9$ | $37 \cdot 4$ | $39 \cdot 0$ |  | $41 \cdot 6$ | 42 | 46 |  |  | 5 |
|  |  | 55.9 |  |  |  |  |  | 40.2 | 39.3 |  | 41.6 | 42. | 46 |  |  | 5 |
|  | 467 | 55.9 | $48 \cdot 8$ | $40 \cdot 8$ | 46 | $46 \cdot 5$ | $43 \cdot 3$ | $40 \cdot 2$ | $36 \cdot 3$ | $43 \cdot 3$ | 38.6 | $40 \cdot 8$ | $41 \cdot 1$ |  | $41 \cdot 7$ | $44 \cdot 3$ |
| 22 | 54．5 | － |  | 49 | 545 | 50 |  |  | 40 $\frac{\tilde{0}}{}$ | 47.3 |  | $48 \cdot 3$ | $45 \cdot 9$ |  | 40 | $43 \cdot 0$ |
| 23 | 48．7 | 55.8 | 623 | 445 | 58 | 55 | 55 |  |  |  |  |  |  |  |  |  |
|  |  |  | 623 | 44 | 5 |  | 55 |  |  | 52．5 | $48 \cdot 6$ | 571 | 52.2 |  | $44 \cdot 7$ | $47 \cdot 7$ |
|  | ， | 47 | $50 \cdot 1$ | $49 \cdot 1$ | $45 \cdot 6$ | 56 |  | 52.3 | $47 \cdot 0$ | $5 \pm$ | $47 \cdot 0$ | 58 |  |  |  | 3 |
| 25 | 41 | $41 \cdot$ | 45.2 | 43 | 38 |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 4 |  | 38 | 49 |  |  |  |  |  | 8 | 49 |  | 46.3 | $49 \cdot T$ |
| 26 | 38.0 |  | $39 \cdot 3$ | 39 | $35 \cdot 7$ | 440 | $42 \cdot 0$ | 43 | $39 \cdot 7$ | $45 \cdot 4$ | 46.7 | $44 \cdot 3$ | $46 \cdot 7$ |  |  | 5 |
|  | ！ 33.0 | 32 | 36.2 | 346 | $29 \cdot 8$ | $40 \cdot 8$ |  |  |  |  |  |  |  |  |  | \％ |
|  |  |  |  |  | 29 | 408 |  | 39 |  |  |  | 42 | 44 | － | 427 | 50． 7 |
| 28 | 28.5 | 32．0 | 30.8 | 30.3 | 25.0 | 335 | 33. | 33.2 | $30 \cdot 5$ | 36.0 | $40 \cdot 1$ |  | $35 \cdot 1$ |  |  | 46.5 |
| 29 | 280 |  |  | $32 \cdot 3$ | $27 \cdot 5$ | 35 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | 36 | 360 | 359 | $35 \cdot 1$ | 35－5 | － | 343 | $40 \cdot 7$ |
| 30 | $33 \cdot 3$ | 36.5 | 36.5 | 33 | $29 \cdot 1$ | 36.7 | 34. | $33 \cdot 6$ | $30 \cdot 7$ | 34 | 37. | 33 | $38 \cdot 4$ |  |  |  |
| 31 | 43.7 | 40.8 | $43 \cdot 2$ | $34 \cdot 9$ | $35 \cdot 4$ | $40 \cdot 3$ | 369 | 34.0 | $27 \cdot 3$ | 394 |  | 38 |  |  |  |  |
|  | 41.5 | 41.6 | 42.6 | 39.0 | 366 | $44^{5}$ | 41.8 | 407 | 360 | 45.5 | $44 \cdot 8$ | 444 | 455 |  | 435 | 469 |

Table XVII.---November, 1876. Daily Mean Temperature.


Table XVII．－November，1876．Daily Mean Temperature．

| $\stackrel{\text { ® }}{\stackrel{\circ}{\circ}}$ |  | $\begin{aligned} & \text { 己⿱山己心 } \\ & \text { D} \\ & \text { H } \\ & \text { 品 } \end{aligned}$ |  | $\begin{aligned} & \text { 吴 } \\ & \text { 樢 } \\ & \text { 思 } \end{aligned}$ |  | $\begin{aligned} & \text { 号 } \\ & \text { ä } \\ & \text { B } \end{aligned}$ |  |  |  |  |  | 官 |  | 完 | 官 | 官 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\bigcirc$ |  |  | 0 |  |  | － | － | － | － | － |  | 0 | $\bigcirc$ | － | － |
| 1 | 54．8 | 57．5 | 57.5 | 58.2 | 53．1 | 54.5 | 56.0 | 51.8 | $51-2$ | $49^{\circ} 0$ | 56.5 | $54 \cdot 0$ | $52 \cdot 5$ | 52.3 | $51 \cdot 1$ | 46．7 |
| 2 | $52 \cdot 6$ | $52 \cdot 4$ | 568 | $62 \cdot 4$ | $51 \cdot 4$ | 57.0 | 51.8 | $55 \cdot 3$ | 52． 2 | $49 \cdot 8$ | 59.5 | 51.6 | 55－8 | 54.8 | 55.6 | $48 \cdot 6$ |
| 3 | $42 \cdot 0$ | 42－1 | $42 \cdot 8$ | $44 \cdot 6$ | 44．2 | $42 \cdot 3$ | $42 \cdot 0$ | 39.9 | 36.9 | 36.5 | $44 \cdot 5$ | 44.0 | 41.5 | $38 \cdot 3$ | 44.4 | 44.9 |
| 4 | 38.0 | 40 | $36 \cdot 3$ | $44 \cdot 5$ | 40.4 | 37.7 | 39.3 | 38.4 | 36.7 | $39 \cdot 0$ | 42.0 | $40 \cdot 5$ | $40 \cdot 3$ | 37.4 | $44^{1} 1$ | 39.0 |
| 5 | $39 \cdot 4$ | 42.2 | $41 \cdot 5$ |  | 40.6 | 40.0 | 38.0 | 40.9 | 37－5 | $35 \cdot 1$ | $41 \cdot 3$ |  | － | $36 \cdot 8$ |  |  |
| 6 | 41.6 | 41．0 | $43 \cdot 3$ | $41 \cdot 7$ | $42 \cdot 5$ | 40.8 | $39 \cdot 7$ | 395 | $35 \cdot 0$ | $34 \cdot 0$ | $39 \cdot 6$ | 41.9 | $39 \cdot 7$ | $39 \cdot 3$ | $42 \cdot 1$ | 390 |
| 7 | $38 \cdot 9$ | $39 \cdot 9$ | $40 \cdot 0$ | 41•4 | 40.7 | 36.5 | $39 \cdot 9$ | 38.2 | 36.9 | 34.9 | 40.8 | 39.0 | 39.7 | $38 \cdot 2$ | 41．5 | 43.2 |
| 8 | $39 \cdot 8$ | 39.2 | 40. | $39 \cdot 7$ | $40 \cdot 4$ | 36.2 | $38 \cdot 7$ | 34.3 | 33.5 |  | 41.0 | $39 \cdot 5$ | $40 \cdot 7$ | 369 | 42.0 | $37 \cdot 6$ |
| 9 | $34 \cdot 2$ | 3 | $37 \cdot 0$ | $40 \cdot 9$ | $38 \cdot 3$ | 36.8 | 36.0 | $33 \cdot 6$ | 31.8 | 31.0 | 41.0 | 366 | $36 \cdot 3$ | $33 \cdot 3$ | $38 \cdot 9$ | 37.8 |
| 10 | 35 | $36 \cdot 7$ | $37 \cdot 5$ | 36.7 | 36.4 | $34 \cdot 5$ | $32 \cdot 3$ | 32.1 | $30 \cdot 7$ | 30.9 | $39 \cdot 0$ | $35 \cdot 8$ | $30 \cdot 8$ | 32.0 | $38 \cdot 9$ | 32.3 |
| 11 | $35 \cdot 0$ | 37－5 | $36 \cdot 7$ | 36.7 | 34.8 | $30 \cdot 7$ | $34 \cdot 6$ | $33 \cdot 1$ | $32 \cdot 1$ | 31.1 | $39 \cdot 6$ | 37－3 | $35 \cdot 7$ | $34 \cdot 4$ | $39 \cdot 9$ | $37 \cdot 3$ |
| 12 | 42.0 | 42.9 |  |  | 34 | $34 \cdot 3$ | $35 \cdot 7$ | $34 \cdot 1$ | 33.0 | 363 | 378 |  | － | $31 \cdot 1$ |  |  |
| 13 | $45 \cdot 2$ | $44 \cdot 2$ |  | 44．0 | $42 \cdot 1$ | 46.2 | $38 \cdot 1$ | 41 | $40 \cdot 1$ | $32 \cdot 5$ | $40 \cdot 2$ | 42.4 | $34 \cdot 7$ | 36.0 | $41 \cdot 4$ | 38.5 |
| 14 | $34 \cdot 6$ | 34.9 |  | $39^{\prime} 7$ | 37 | 35－3 | $32 \cdot 8$ | $32 \cdot 4$ | 295 | 27.9 | 358 | $35 \cdot 3$ | $39 \cdot 5$ | $30 \cdot 4$ | $35 \cdot 9$ | 37.7 |
| 15 | 33.7 | 33 |  | $36 \cdot 8$ | $33 \cdot 8$ | 29.5 | 32.2 | 30.0 | 26.5 | $26 \cdot 3$ | 32－8 | 33.1 | 31.2 | 30.4 | $34 \cdot 7$ | 31.4 |
| 16 | 36.4 | 38 |  | 37.8 | 37.2 | $34 \cdot 7$ | $35 \cdot 5$ | $34 \cdot 6$ | $31 \cdot 1$ | 30.8 | $37 \cdot 0$ | $35 \cdot 4$ | $31 \cdot 8$ | $29 \cdot 7$ | 335 | $31 \cdot 1$ |
| 17 | $38 \cdot 3$ | $38 \cdot 9$ | － | 39.4 | 38.9 | $37 \cdot 3$ | $36 \cdot 3$ | 38.2 | $35 \cdot 0$ | 33.6 | 36.8 | $38 \cdot 4$ | $37 \cdot 8$ | $35 \cdot 1$ | $38 \cdot 3$ | $33 \cdot 7$ |
| 18 | $43 \cdot 9$ | $43 \cdot 0$ |  | 41.9 | 43.7 | 44.0 | $37 \cdot 7$ | 39－8 | 38.4 | 36.0 | $36 \cdot 8$ | $40 \cdot 9$ | $38 \cdot 3$ | 36.5 | 390 | $35 \cdot 5$ |
| ． 19 | $45 \cdot 6$ | $43 \cdot 5$ | － | － | 43.5 | 42.5 | $39 \cdot 0$ | $42 \cdot 5$ | $40 \cdot 3$ | $39 \cdot 6$ | 42.6 |  |  | 39.4 |  |  |
| 20 | 405 | 41．5 | － | $42 \cdot 1$ | 41 | 39.5 | $38 \cdot 7$ | $39 \cdot 7$ | 37－7 | 37.8 | $40 \cdot 0$ | $40 \cdot 4$ | $39 \cdot 2$ | 37.5 | $40 \cdot 0$ | $38 \cdot 4$ |
| 21 | $42 \cdot 1$ | 41.6 |  | 42.3 | $41 \cdot 3$ | 41.2 | $37 \cdot 0$ | $40 \cdot 4$ | 39.3 | $38 \cdot 5$ | 36.2 | 40•4 | 57－8 | $37 \cdot 2$ | 38.4 | $35 \cdot 9$ |
| － 22 | $33 \cdot 0$ | 33．1 |  | 36.9 | 38.0 | $35 \cdot 8$ | $34 \cdot 2$ | $34 \cdot 6$ | 33．5 | $32 \cdot 3$ | $39 \cdot 2$ | 36－1 | $38 \cdot 3$ | － | $39 \cdot 4$ | 36－0 |
| 23 | 30.7 | $31 \cdot 3$ |  | $34 \cdot 5$ | 33.6 | 30.0 | 31.9 | $31 \cdot 3$ | $29 \cdot 4$ | 29.5 | 37.5 | 33 | $33 \cdot 1$ | － | 36.3 | 38.6 |
| 24 | $29 \cdot 7$ | $30 \cdot 3$ |  | $32 \cdot 4$ | 32.0 | $30 \cdot 0$ | $30 \cdot 6$ | $30 \cdot 8$ | 27.5 | 25.8 | $33 \cdot 6$ | 31 | $31 \cdot 3$ |  | 32．1 | 30.2 |
| 25 | 31.9 | $32 \cdot 9$ | 33 | 33.8 | 33.7 | $32 \cdot 0$ | 30.6 | $30^{\prime} 0$ | 27.8 | $26 \cdot 3$ | 32.6 | $32 \cdot 7$ | $30 \cdot 8$ |  | 31.8 | 32.2 |
| 26 |  | 33 | 25 | － | 29.4 | $30 \cdot 7$ | 28.6 |  | $26 \cdot 2$ | 26.5 | 30.0 |  |  |  |  |  |
| 27 |  | 31.2 | $29 \cdot 2$ | $30 \cdot 2$ | 27.7 | 290 | $21 \cdot 1$ | 26.0 | $25 \cdot 2$ | 26.8 | $30 \cdot 8$ | 30.8 | 23.7 | － | 31 | 258 |
| 28 | 33.8 | $29 \cdot 4$ | 307 | $32 \cdot 2$ | 31.1 | $29 \cdot 8$ | $26 \cdot 6$ | $23 \cdot 1$ | 19.9 | $20 \cdot 0$ | 30.0 | $30 \cdot 2$ | $23 \cdot 2$ |  |  | $28^{-6}$ |
| 29 | 25.0 | 27.2 | 23.7 | $29 \cdot 2$ | 26.5 | $26 \cdot 5$ | 25.9 | 21.9 | $19 \cdot 7$ | $19 \cdot 0$ | 24.2 | 28.3 | 24.9 | － | 26.4 | $25 \cdot 4$ |
| 30 | 15.8 | $16 \cdot 1$ | 8.5 | 182 | 10.4 | 14.7 | $7 \cdot 7$ | 6.3 | $0 \cdot 0$ | －1． | 13.6 | 7－5 | 6.8 |  | $12 \cdot 6$ | 9.2 |
|  | 37.3 | $37 \cdot 8$ | 358 |  |  |  | $34 \cdot 9$ | 34．9 | $\left.\right\|^{32.4}$ | 31．6 | $37 \cdot 7$ | 36.8 | $35 \cdot 4$ |  | 37.7 | 35－2 |

Table XVJI．－November，1876．Daily Mean Temperature．－Continued．

| $\begin{aligned} & \text { 品 } \\ & \text { 品 } \\ & \text { 몋 } \\ & \text { 式 } \\ & \text { 田 } \end{aligned}$ |  |  | $\begin{aligned} & \text { 8. } \\ & 0 \\ & 0 \\ & \hline 031 \\ & 0 \end{aligned}$ |  |  | 适 |  |  | 苗 | ¢ | 忘 |  |  | 家 | O． | － |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | 0 | 9 | 0 | 0 | － | 0 | － | $\bigcirc$ | － | － | 0 |  |
| $44 \cdot 5$ | 467 | $45 \cdot 4$ | 419 | $39 \cdot 3$ | $45 \cdot 2$ | $44 \cdot 5$ | $40 \cdot 8$ | $40 \cdot 0$ | $41 \cdot 5$ | $39 \cdot 0$ | $36 \cdot 8$ | $37 \cdot 9$ | $37 \cdot 7$ | $38 \cdot 3$ | 35－5 | 1 |
| $44 \cdot 3$ | $45 \cdot 4$ | $43 \cdot 1$ | $40 \cdot 6$ | $39 \cdot 1$ | $45 \cdot 4$ | $42 \cdot 5$ |  | $39 \cdot 2$ | $42 \cdot 4$ | $38 \cdot 1$ | 418 | $41 \cdot 2$ | $41 \cdot 2$ | 39 | $37 \cdot 8$ | 2 |
| $42 \cdot 5$ | $41 \cdot 9$ | $45 \cdot 5$ | 41－5 | 403 | $49 \cdot 4$ | $47 \cdot 6$ | $42 \cdot 7$ | $37 \cdot 1$ | $49 \cdot 9$ | $44 \cdot 3$ | 51.9 | $49 \cdot 5$ | $49 \cdot 7$ | 370 | $42 \cdot 0$ | 3 |
| $38 \cdot 5$ | $36 \cdot 2$ | 38．0 | $35 \cdot 7$ | $32 \cdot 5$ | $39 \cdot 5$ | $37 \cdot 9$ | $37 \cdot 4$ | $35 \cdot 3$ | $42 \cdot 5$ | $45 \cdot 8$ | $40 \cdot 8$ | $41 \cdot 5$ | $41 \cdot 0$ | $42 \cdot 3$ | $42 \cdot 5$ | 4 |
| $34 \cdot 0$ |  |  | $33 \cdot 3$ | $29 \cdot 3$ | $33 \cdot 7$ | － |  | $29 \cdot 7$ | $32 \cdot 9$ | $35 \cdot 4$ | 298 | $35 \cdot 6$ | $35 \cdot 3$ | $33 \cdot 0$ | $39 \cdot 3$ | 5 |
| $39 \cdot 0$ | $39^{\prime} 0$ | $39 \cdot 2$ | 36．1 | $33 \cdot 5$ | $32 \cdot 3$ | $30 \cdot 2$ | $32 \cdot 1$ | $31 \cdot 5$ | $32 \cdot 4$ | $32 \cdot 3$ | 286 | $31 \cdot 6$ | 31.0 | 31.0 | $32 \cdot 5$ | 6 |
| $39 \cdot 7$ | $40 \cdot 6$ | 40－5 | $34 \cdot 6$ | $33 \cdot 2$ | $41 \cdot 7$ | $35 \cdot 0$ | $34 \cdot 8$ | $31 \cdot 6$ | $40 \cdot 4$ | $32 \cdot 4$ | $39 \cdot 4$ | $37 \cdot 7$ | $38 \cdot 3$ | $33 \cdot 0$ | $44 \cdot 0$ | 7 |
| $37 \cdot 0$ | $41 \cdot 3$ | $37 \cdot 8$ | $35 \cdot 9$ | $35 \cdot 0$ | $53 \cdot 3$ | $44 \cdot 0$ | $40 \cdot 8$ | $39 \cdot 6$ | 51.8 | $49 \cdot 1$ | $58 \cdot 6$ | $52 \cdot 6$ | 54.0 | $42 \cdot 3$ | 59.0 | 8 |
| 37－5 | $31 \cdot 8$ | $38 \cdot 1$ | $36 \cdot 6$ | $36 \cdot 4$ | $44 \cdot 7$ | $41 \cdot 6$ | $39 \cdot 7$ | $37 \cdot 5$ | $57 \cdot 3$ | $57 \cdot 4$ | 599 | $8 \cdot 6$ | $56 \cdot 8$ | $45 \cdot 3$ | $55 \cdot 3$ | 9 |
| $34 * 3$ | $36 \cdot 2$ | $37 \cdot 3$ | 37－9 | $34 \cdot 5$ | $41 \cdot 5$ | $40 \cdot 7$ | $38 \cdot 7$ | $39 \cdot 2$ | 486 | $47 \cdot 3$ | $43 \cdot 7$ | $40 \cdot 4$ | $41 \cdot 3$ | $43 \cdot 7$ | 400 | 10 |
| $37 \cdot 2$ | $36 \cdot 6$ | 38.9 | $37 \cdot 6$ | $38 \cdot 1$ | 44•1 | $40 \cdot 9$ | $39 \cdot 2$ | $37 \cdot 0$ | $45 \cdot 7$ | $41 \cdot 4$ | 47•1 | $44 \cdot 4$ | $44 \cdot 0$ | $39 \cdot 3$ | $44 \cdot 2$ | 11 |
| $39 \cdot 7$ | － | － | 355 | 32－7 | $45 \cdot 7$ |  |  | $38 \cdot 7$ | $46 \cdot 5$ | $42 \cdot 1$ | $47 \cdot 5$ | $45 \cdot 3$ | $44 \cdot 7$ | $38 \cdot 7$ | $40 \cdot 7$ | 12 |
| $37 \cdot 3$ | $42 \cdot$ | $37 \cdot$ | 36.4 | $34 \cdot 3$ | $41 \cdot 3$ | $40 \cdot 8$ | $38 \cdot 2$ | $37 \cdot 4$ | $43 \cdot 6$ | $44 \cdot 5$ | $42 \cdot 9$ | 44•1 | $44 \cdot 3$ | $37 \cdot 3$ | $49 \cdot 5$ | 13 |
| $36 \cdot 0$ | $33 \cdot 8$ | $37 \cdot 2$ | $35 \cdot 2$ | $30 \cdot 6$ | $39 \cdot 5$ | $38 \cdot 8$ | $37 \cdot 6$ | $35 \cdot 0$ | $42 \cdot 5$ | $42 \cdot 4$ | 41.5 | $39 \cdot 8$ | $40 \cdot 3$ | $32 \cdot 7$ | $46 \cdot 0$ | 14 |
| $28 \cdot 5$ | $30 \cdot 3$ | $29 \cdot 6$ | $27 \cdot 2$ | 24.0 | $33 \cdot 8$ | $32 \cdot 6$ | $29 \cdot 4$ | $27 \cdot 1$ | $38 \cdot 5$ | 403 | $36 \cdot 7$ | $35 \cdot 4$ | $35 \cdot 5$ | $35 \cdot 7$ | $43 \cdot 0$ | 15 |
| $29 \cdot 2$ | $31 \cdot 8$ | $30 \cdot 8$ | $29 \cdot 1$ | $27 \cdot 3$ | $30 \cdot 7$ | 296 | $29 \cdot 6$ | $26 \cdot 1$ | $34 \cdot 7$ | $37 \cdot 0$ | $33 \cdot 5$ | $32 \cdot 2$ | $32 \cdot 7$ | $36 \cdot 0$ | $40 \cdot 7$ | 16 |
| $31 \cdot 5$ | $34 \cdot 6$ | $31 \cdot 7$ | 27－8 | $30 \cdot 1$ | $28 \cdot 2$ | 28＇1 | $26 \cdot 9$ | $24 \cdot 5$ | $30 \cdot 7$ | $33 \cdot 6$ | $29 \cdot 8$ | $29 \cdot 1$ |  | $32 \cdot 7$ | $36 \cdot 3$ | 17 |
| $33 \cdot 3$ | 34 | $32 \cdot$ | $31 \cdot 2$ | $28 \cdot 3$ | $29 \cdot 9$ | $30 \cdot 5$ | $28 \cdot 1$ | 27.0 | $30 \cdot 0$ | $32 \cdot 9$ | $30 \cdot 6$ | $31 \cdot 3$ | $31 \cdot 3$ | $30 \cdot 7$ | $38 \cdot 3$ | 18 |
| 40.5 |  |  | $30 \cdot 3$ | $28 \cdot 5$ | $28 \cdot 6$ | － |  | $22 \cdot 5$ | $30 \cdot 5$ | $32 \cdot 6$ | $30 \cdot 2$ | $30 \cdot 0$ | $30 \cdot 7$ | $29 \cdot 3$ | $36 \cdot 5$ | 19 |
| 37.0 | 398 | $35 \cdot 9$ | $32 \cdot 4$ | $27^{\prime}$ | $32 \cdot 7$ | $29 \cdot 9$ | 296 | $28 \cdot 3$ | $34 \cdot 9$ | $33 \cdot 3$ | $33 \cdot 4$ | $33 \cdot 3$ | 34－3 | $28 \cdot 3$ | 35－8 | 20 |
| $33 \cdot 3$ | 41.6 | $33 \cdot 8$ | $31 \cdot 3$ | $27 \cdot 0$ | $36 \cdot 1$ | $35 \cdot 0$ | $33 \cdot 5$ | $32 \cdot 6$ | $38 \cdot 0$ | $32 \cdot 7$ | $34 \cdot 9$ | 33.9 | $35 \cdot 3$ | $30 \cdot 0$ | $34 \cdot 7$ | 21 |
| $35 \cdot 7$ | $35 \cdot 6$ | $32 \cdot 9$ | 31.5 | $29 \cdot 8$ | $35 \cdot 7$ | $35 \cdot 6$ | $34 \cdot 2$ | $32 \cdot 5$ | $37 \cdot 2$ | $34 \cdot 9$ | 36.2 | $37 \cdot 0$ | $37 \cdot 0$ | $33 \cdot 0$ | $35 \cdot 0$ | 22 |
| $36 \cdot 5$ | 35． | $37 \cdot 9$ | $34 \cdot 1$ | $32 \cdot 7$ | 37＇6 | $35 \cdot 8$ | $34 \cdot 8$ | 33.0 | $37 \cdot 8$ | $36 \cdot 2$ | $36 \cdot 2$ | $37 \cdot 0$ | $36 \cdot 3$ | $34 \cdot 8$ | $36 \cdot 3$ | 23 |
| $28 \cdot 3$ | 28.4 | $30 \cdot 9$ | $30 \cdot 5$ | $27 \cdot 5$ | $37 \cdot 3$ | $36 \cdot 1$ | $34 \cdot 5$ | $32 \cdot 7$ | $38 \cdot 2$ | $39 \cdot 7$ | $37 \cdot 2$ | $38 \cdot 2$ | $38 \cdot 5$ | $38 \cdot 0$ | $40 \cdot 3$ | 24 |
| $25 \cdot 5$ | $30 \cdot 6$ | $26 \cdot 2$ | 25－1 | $22 \cdot 3$ | $33 \cdot 5$ | 31．7 | $32 \cdot 3$ | $29 \cdot 8$ | $37 \cdot 7$ | $40 \cdot 2$ | $38 \cdot 5$ | $38 \cdot 0$ | $38 \cdot 5$ | $42 \cdot 3$ | $43 \cdot 0$ | 25 |
| $26 \cdot 7$ | － | － | $24^{\circ} 0$ | $23 \cdot 3$ | 3 |  |  | $30 \cdot 5$ | 35.9 | $38 \cdot 9$ | $35 \cdot 5$ | $34 \cdot 7$ | $35 \cdot 5$ | $46 \cdot 7$ | $42 \cdot 5$ | 26 |
| 24.0 | $26 \cdot 8$ | $24 \cdot 5$ | $24 \cdot 7$ | $21 \cdot 3$ | $30 \cdot 0$ | $28 \cdot 4$ | $29 \cdot 1$ | $28 \cdot 4$ | $33 \cdot 7$ | $35 \cdot 6$ | $33 \cdot 8$ | $30 \cdot 8$ | $33 \cdot 0$ | $35 \cdot 0$ | 44.5 | 27 |
| $27 \cdot 3$ | $28 \cdot 2$ | $26 \cdot 5$ | 26.6 | $21 \cdot 4$ | 28．7 | $27 \cdot 6$ | $27 \cdot 4$ | $24 \cdot 7$ | $30 \cdot 9$ | $31 \cdot 9$ | $30 \cdot 6$ | $29 \cdot 1$ | $29 \cdot 8$ | $32 \cdot 7$ | 370 | 28 |
| $24 \cdot 3$ | 22.5 | 240 | $21 \cdot 8$ | $15 \cdot 8$ | $27 \cdot 2$ | 26.2 | 26.9 | $22 \cdot 1$ | $30 \cdot 2$ | $30 \cdot 7$ | $28 \cdot 3$ | $27 \cdot 6$ | 29.0 | $30 \cdot 7$ | $45 \cdot 0$ | 29 |
| $6 \cdot 3$ | $4 \cdot 4$ | $11 \cdot 2$ | $10 \cdot 9$ | $6 \cdot 3$ | $19 \cdot 4$ | $17 \cdot 6$ | $18 \cdot 7$ | $15 \cdot 9$ | $23 \cdot 3$ | $25 \cdot 6$ | 18•7 | $20 \cdot 1$ | $21 \cdot 8$ | $30 \cdot 3$ | $40 \cdot 5$ | 30 |
| 33.6 | $34 \cdot 7$ | $34 \cdot 1$ | $31 \cdot 9$ | $29 \cdot 4$ | 366 | $34 \cdot 6$ | $33 \cdot 5$ | $30 \cdot 5$ | $38 \cdot 7$ | $38 \cdot 3$ | $37 \cdot 8$ | $37 \cdot 0$ | $38 \cdot 1$ | $36 \cdot 2$ | $41 \cdot 6$ |  |

Table XVIII. December, 1876. Daily Mean Temperature.


Table XVIII--December, 1876. Daily Mean Temperature.--Continued.


Table XVIII．－December，1876．Daily Mean Temperature．－Continued．

| $\stackrel{\dot{\mathbf{~}}}{\stackrel{\rightharpoonup}{*}}$ |  |  |  | $\begin{aligned} & \dot{0} \\ & \text { D } \\ & \text { W } \\ & 0 \end{aligned}$ | $\stackrel{\circ}{0}$ <br> 呆 <br> 号 <br> 品 <br> 品 |  |  | $\begin{aligned} & \text { 荡 } \\ & \text { 霜 } \\ & \hline \end{aligned}$ |  | $\begin{aligned} & \text { 出 } \\ & \text { 出 } \\ & \text { 出 } \end{aligned}$ |  | 宫 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | － | $\bigcirc$ | － | 0 | － | － |  | $\bigcirc$ | $\bigcirc$ |  | $\bigcirc$ |  | $\bigcirc$ |  | ${ }^{\circ}$ | $\bigcirc$ |
| 1 | $5 \cdot 8$ | $7 \cdot 6$ | $6 \cdot 1$ | 10.61 | －5 | 17.8 | 18．1 | 28.5 | 28.5 | $22 \cdot 3$ | $33 \cdot 9$ | $22 \cdot 1$ | $30 \cdot 7$ |  | 37－7 | $43 \cdot 2$ |
| 2 | 18 | $22 \cdot 9$ | $19 \cdot$ | $18 \cdot 4$ | 2 | 29.8 | 7 | $32 \cdot 9$ | 0 | 31.0 | 35 | 31 | $34 \cdot 6$ |  | 37.0 | $40 \cdot 8$ |
| 3 |  |  |  | 26．1 | 21＊0 | $\cdot 4$ |  |  |  | $30 \cdot 1$ | 34 | $30 \cdot$ | $33 \cdot 0$ |  | 367 | $3 \cdot 5$ |
| 4 | 3 | 18. | 24.6 | $25 \cdot 9$ | $20 \cdot 1$ | $\cdot 1$ | $29 \cdot 1$ | 27 | $25 \cdot 1$ | $29 \cdot 5$ | $31 \cdot 7$ | 28 | $28^{\circ} 0$ | ． | $32 \cdot 0$ | $37 \cdot 3$ |
| 5 | 23 |  | 2 | 22.8 | 19•1 | 27.4 | $27 \cdot 1$ | 24 | 23 | 27.2 | 31 | $19 \cdot 3$ | 27－9 |  | 30.7 | 34.5 |
| 6 | $32 \cdot 8$ | $27.3{ }^{\prime}$ |  | 27.4 | $26 \cdot 2$ | 30.6 | 26 | 28 | $25 \cdot 7$ | $33 \cdot 3$ | $31 \cdot 2$ |  | $30 \cdot 3$ |  | 3 | $4 \cdot 2$ |
| 7 | 3 | $25 \cdot 6$ | $\cdot 9$ | 27－5 | $25 \cdot 3$ | 33.7 |  | 27 ¢ | 27 | 35.6 | $35 \cdot 9$ | 33 | $1 \cdot 8$ | － | 5．3 | $6 \cdot 5$ |
| 8 | 3 |  |  | 12 | $10 \cdot 3$ | 27.3 | $19 \cdot 2$ | 5 |  | 29 | $30 \cdot 8$ | 24．2 | $4 \cdot 2$ |  | $3 \cdot 3$ | 6.2 |
| 9 | 5 | $2 \cdot 1$ | $12 \cdot 7$ | 16.9 | $12 \cdot 7$ | $22 \cdot 9$ | 9 | 18.0 | 11.8 | 28.6 | 28．0 | 25. | 26.2 |  | 3 | $3 \cdot 5$ |
| 10 | 6．5 |  |  |  | －10．8 | $\cdot 1$ |  |  | 5 | ． 5 | 24 | $5 \cdot 6$ | $15 \cdot 3$ |  |  | 31.2 |
| 11 | 0.5 |  |  |  |  |  |  | $2 \cdot 3$ | 11 | $9 \cdot 3$ | 15.0 | 0.7 | $5 \cdot 9$ |  | 3 | 27.5 |
| 12 |  | $9 \cdot 4$ | $12 \cdot 8$ | $11 \cdot 7$ | 9.2 | 15．7 | $9 \cdot 3$ |  | $14 \cdot$ | 25.4 | 20 | 25 | 25.6 |  | $22 \cdot 0$ | 26.6 |
| 13 |  |  | $\cdot 2$ | $19 \cdot 1$ | $25 \cdot 7$ | $26 \cdot 3$ |  | 20 |  | 30 | 28.4 | 29 | $27 \cdot 1$ |  | $24 \cdot 7$ | 360 |
| 14 |  |  |  |  | 26 | $36 \cdot 5$ | $27 \cdot 5$ | $22 \cdot 7$ | $22 \cdot 1$ | $35 \cdot 6$ | 31.0 | $32 \cdot 6$ | $30 \cdot 1$ | ． | ． | 36.2 |
| 15 | 5 | $8 \cdot 6$ | 17.3 | $14 \cdot 2$ | 6.5 | 9 | $22 \cdot 5$ | ． 6 | $16 \cdot 3$ | $32 \cdot 8$ | $34 \cdot 3$ | $1 \cdot 0$ | $28 \cdot 2$ |  | 343 | $40^{\circ}$ |
| 16 | － |  |  |  |  |  | ． 8 |  | 3 | $3 \cdot 3$ | $26 \cdot 3$ | 17．2 | 7 |  | 80 | $33 \cdot 5$ |
| 17 | －13．0 |  |  |  |  |  |  |  |  |  |  |  | $\cdot 5$ |  |  |  |
| 18 |  |  |  |  | － |  |  |  |  |  |  |  |  |  |  |  |
| 18 |  |  |  |  | － |  |  |  |  |  |  |  | $8 \cdot 4$ |  | $0 \cdot 0$ | $30 \cdot 5$ |
| 19 |  |  |  |  |  | 16.2 | $9 \cdot 2$ | $6 \cdot 5$ | 10.0 | $25 \cdot 7$ | 286 | －7 | 21.7 |  | ． 0 | $32 \cdot 5$ |
| 20 | － |  |  |  |  | $4 \cdot 3$ |  |  |  |  |  |  | 6 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 21 | － 1 |  |  |  |  |  |  | 3.6 | 0.4 | $15 \cdot 4$ |  | $14 \cdot 8$ | $7 \cdot 7$ |  |  | 6 |
| 22 | 7.8 | $6 \cdot 1$ | 7 | $7 \cdot 7$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 23 | 0 | 76 | 12.7 | 11.8 | $8 \cdot 2$ | 8 | 13.4 | 5－1 | 20 | －8 | $9 \cdot 8$ | 18 | $17 \cdot 8$ |  | 4． | 31 |
| 24 | $0 \cdot 3$ |  |  |  |  | $14 \cdot 3$ |  |  |  | $8 \cdot 6$ | $1 \cdot 8$ | 6 | 15．0 |  | $5 \cdot 7$ | $8 \cdot 5$ |
| 25 | $3 \cdot 0$ | 2 |  |  | 0.0 | $12 \cdot 3$ | $9 \cdot 8$ |  | 9.5 | $13 \cdot 1$ |  | 11 | 13.0 |  |  |  |
| 26 | $10 \cdot 3$ |  | 81 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 26 | 103 |  | 81 |  |  |  |  |  |  |  |  |  | $7 \cdot 1$ |  | $23 \cdot 3$ | 28.2 |
| 27 | 16 | 18 |  | $13 \cdot 1$ | 15.6 | $17 \cdot 4$ |  | $17 \cdot 5$ | $7 \cdot 5$ | 18.8 | 24.6 | $12 \cdot 3$ | $15 \cdot 5$ |  | 22.7 | $30 \cdot 2$ |
| 28 | 9 |  | $17 \cdot 3$ | $14 \cdot 3$ | $13 \cdot 7$ | $\cdot 6$ |  |  | $1 \cdot 2$ | 21.0 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | 210 |  |  | $9 \cdot 1$ |  |  |  |
| 29 | 7. | 10.0 |  | $13 \cdot 3$ | －5 |  | ． 9 | $26 \cdot 8$ | 11.5 | $6 \cdot 9$ | $22 \cdot 4$ | $10 \cdot 5$ | $17 \cdot 1$ |  | 237 | 29 |
| 30 | $13 \cdot 0$ | $10 \cdot 8$ |  | 1 | 12 |  |  |  | $18 \cdot 5$ |  | 29 | 31.6 | 29.5 |  |  | 30 |
| 31 | 8.7 |  |  | $7 \cdot 6$ | $4 \cdot 3$ | $4 \cdot 2$ |  |  | $18 \cdot 0$ | 20.6 | 24 7 | $19 \cdot 3$ | 14.8 |  | 22．7 | $30 \cdot$ |
|  | 10.4 | 103 | 12.7 | $9 \cdot 2$ |  |  |  | 15－2 | 129 | 23.0 | $25 \cdot 3$ | 19•5 | $20 \cdot 3$ |  | 27.3 | $32 \cdot 2$ |

Table XIX.-Means of Daily Temperature at the Stations in Tables VII to XVIII, collected in five-day periods, from 1st January to 31st December, 1876, inclasive.

$5-c 6$

Table XIX.-Means of Daily Temperatures at the Stations in Tables VII to


XVIII, collected in fire-day periods, from 1st Jan. to 31st Dec., '76, inclusive.


Table XIX.-Means of Daily Temperatures at the Stations in Table XVIII

collected in five-day periods, from 1st Jan. to 31st Dec., 1876, inclusire.


Table XIX.-Means of Daily Temperatures at the Stations in Tables VII to,


XVIII, collected in five-day periods, from 1st Jan. to 31st Dec., '75, inclusive

$56 \cdot 364 \cdot 8 \cdot 49 \cdot 353 \cdot 659 \cdot 159 \cdot 851 \cdot 464 \cdot 964 \cdot 768 \cdot 9,67 \cdot 463 \cdot 2^{\prime} 64 \cdot 968 \cdot 164 \cdot 766 \cdot 2$ Aug. 29 to Sep. 2, inciusive.
 $55 \cdot 4,61 \cdot 849 \cdot 048 \cdot 7 \quad 52 \cdot 5,53 \cdot 852 \cdot 458 \cdot 857 \cdot 0.61 \cdot 4 \mid 60 \cdot 756 \cdot 656 \cdot 759 \cdot 557 \cdot 057 \cdot 3$
 52.6 $54 \cdot 946 \cdot 549 \cdot 655 \cdot 9,56651 \cdot 68 \cdot 660 \cdot 564 \cdot 0,62 \cdot 7.59 \cdot 3 \mid 54060 \cdot 5 \quad 59 \cdot 358 \cdot 9$


| $*$ | 8 to 12 | $"$ |
| :--- | :--- | :--- |
| " | 13 to 17 | " |
| " | 18 to 22 | " |
| " | 23 to 27 | " |

$54 \cdot 760 \cdot 743 \cdot 946 \cdot 7,38940 \cdot 533 \cdot 848 \cdot 150 \cdot 7,49 \cdot 451 \cdot 46 \cdot 346050 \cdot 746 \cdot 740 \cdot 3$ Sept. 28 to Oct. 2, inclusive.
$52.259 \cdot 741 \cdot 240 \cdot 431 \cdot 131 \cdot 923 \cdot 341 \cdot 446 \cdot 446 \cdot 646 \cdot 542 \cdot 742 \cdot 347 \cdot 144 \cdot 345 \cdot 2$ Oct. 3 to 7 4
$50 \cdot 553 \cdot 834 \cdot 041 \cdot 8 \quad 33 \cdot 3 \quad 32 \cdot 6 \quad 22 \cdot 3 \quad 39 \cdot 542 \cdot 240 \cdot 7^{1} 41 \cdot 8^{\prime} 36 \cdot 2 \quad 35 \cdot 440936 \cdot 837 \cdot 5$
$51 \cdot 5569,37 \cdot 7,45 \cdot 44 \cdot 934 \cdot 622 \cdot 4,33 \cdot 9,39 \cdot 342 \cdot 341 \cdot 035 \cdot 837 \cdot 342 \cdot 236 \cdot 837 \cdot 4$ $49 \cdot 4^{\prime} 49 \cdot 0^{\prime} 34 \cdot 340 \cdot 448 \cdot 1^{\prime} 45 \cdot 832 \cdot 450 \cdot 0^{\prime} 53 \cdot 754 \cdot 4^{\prime} 53 \cdot 2 \quad 50 \cdot 647 \cdot 2 \quad 51 \cdot 2,50 \cdot 4^{\prime} 495$ $49 \cdot 947 \cdot 434 \cdot 439 \cdot 733 \cdot 6,33 \cdot 325 \cdot 337 \cdot 3+1 \cdot 241 \cdot 6|42 \cdot 238 \cdot 7 \quad 38 \cdot 5,43 \cdot 7| 40 \cdot 139 \cdot 9$




 $46 \cdot 2|37 \cdot 6| 22 \cdot 0|34 \cdot 7| 15 \cdot 816 \cdot 3,4 \cdot 2|32 \cdot 7 \quad 32 \cdot 931 \cdot 8,32 \cdot 9| 29 \cdot 7 \quad 29 \cdot 433 \cdot 9,30 \cdot 607$ $41 \cdot 9|29 \cdot 0| 14 \cdot 4|22 \cdot 3-11 \cdot 9 \overline{12} \cdot 7 \overline{19} \cdot 117 \cdot 7,26 \cdot 0| 25 \cdot 2 \quad 25 \cdot 8,21 \cdot 620.624 \cdot 622 \cdot 6,20 \cdot 0$
" 7 to 11 "
" 12 to 16 "
" $\quad 17$ te $21 \quad$ "
" 22 to 26 "
" 27 to Dec. 1 "
 $37 \cdot 326 \cdot 7,18 \cdot 8 \quad 20 \cdot 2|\overline{6} \cdot 4| \overline{6} \cdot 1|\overline{24} \cdot 614 \cdot 6,202| 239,23 \cdot 3,20 \cdot 1 \mid 19 \cdot 424 \cdot 920 \cdot 822 \cdot 0$

 $43 \cdot 4,27 \cdot 1|13 \cdot 621 \cdot 8, \overline{11} \cdot 1|-\boldsymbol{y} \cdot 4|-\bar{y} \cdot 8,7 \cdot 320 \cdot 4,17 \cdot 4| 19 \cdot 2|15 \cdot 9,15 \cdot 3| 18 \cdot 3,17 \cdot 0 \mid 16 \cdot 2$

Table XIX.-Means of Daily Temperatures at the Stations in Tables VII to


XVIII collected in five day periods, from 1st June to 31 st Dec., ${ }^{7} 76$, inclusive•







$24 \cdot 0,23 \cdot 1^{\prime} 24 \cdot 424 \cdot 1\left|20 \cdot 5 \quad 29 \cdot 9,28 \cdot 9^{1} 28 \cdot 7_{2}, 26 \cdot 930 \cdot 2\right|_{32 \cdot 9} 27 \cdot 530 \cdot 8$



 $10 \cdot 8|12 \cdot 3| 15 \cdot 4|13 \cdot 1| 11 \cdot 6,19 \cdot 2,12 \cdot 9|17 \cdot 5| 13 \cdot 5,21 \cdot 8,24 \cdot 6 \mid 17 \cdot 8,19 \cdot 2$

- $33 \cdot 98 \cdot 1$ Dec. 2 to 6 , inclusive.

- $23.930 \cdot 1$ " 22 to 26 , "

Table XX.-Daily Mean Temperature at Kingston, Ontario, from Bi-hourly Observations made under the Superintendence of Lieut.-Col. Irwin, Commandant School of Gunnery, during the Year 1876.

|  | April. | May. | June. | July. | August. | September. | October. | November. | December. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $\stackrel{\square}{-}$ | 34.92 | 62.08 | $69 \cdot 00$ | $\stackrel{\circ}{74 \cdot 17}$ | 71-17 | $\stackrel{\circ}{88 \cdot 75}$ | 49.58 | $\stackrel{\circ}{725}$ |
| 2 | - | $39 \cdot 08$ | $66 \cdot 00$ | $67 \cdot 00$ | 72.67 | 72.00 | 49.67 | 52.43 | 7.42 |
| 3 | - | $45 \cdot 42$ | 63.92 | 68.00 | 74.50 | 61.75 | 53.25 | $46 \cdot 25$ | 20.33 |
| 4 | - | 45.67 | 61.21 | 72.67 | 76.67 | $61 \cdot 17$ | $50 \cdot 33$ | 42.08 | 24.08 |
| 5 | - | $43 \cdot 75$ | 61-83 | 69.33 | $75 \cdot 33$ | $65 \cdot 50$ | $46 \cdot 92$ | $41 \cdot 67$ | $21 \cdot 75$ |
| 6 | - | 44.42 | $58 \cdot 46$ | 67.00 | $78 \cdot 17$ | 55.92 | $50 \cdot 17$ | 44-75 | 24-67 |
| 7 | - | $50 \cdot 25$ | 59-33 | 67.83 | 78.75 | 57.83 | 13.08 | 44.33 | 33-17 |
| 8 | $34 \cdot 33$ | 50.83 | $60 \cdot 42$ | 68.33 | $76 \cdot 17$ | $65 \cdot 67$ | $40 \cdot 33$ | $40 \cdot 25$ | 30.08 |
| 9 | $27 \cdot 17$ | 52.75 | 62.67 | 75.08 | 74.82 | 66.33 | $41-08$ | 39.42 | $23 \cdot 50$ |
| 10 | $27 \cdot 50$ | 48.75 | 65.25 | 80.75 | 7711 | 56•75 | $46 \cdot 25$ | 36.08 | 10.00 |
| 11 | 34.08 | $48 \cdot 92$ | $64 \cdot 50$ | 80.92 | 80.67 | 56.25 | 36.42 | $39 \cdot 03$ | 575 |
| 12 | 37.25 | 5150 | 72.42 | '75.25 | 81.78 | $59 \cdot 25$ | $43 \cdot 33$ | 40.17 | 6.25 |
| 13 | 40.92 | $46 \cdot 42$ | 76.33 | 73.50 | $80 \cdot 44$ | 57.58 | 47.08 | $39 \cdot 67$ | 20.83 |
| 14 | 45.00 | 48.58 | 75.83 | $77 \cdot 58$ | 81.22 | 54-17 | 36.58 | 38-17 | 35-67 |
| 15 | $43 \cdot 58$ | $44 \cdot 42$ | 71.75 | 76.83 | $81 \cdot 11$ | $59 \cdot 50$ | 31-33 | $32 \cdot 17$ | 29.42 |
| 16 | $39 \cdot 50$ | 46.83 | 76.92 | 75.75 | 82.63 | 57.83 | 40.00 | 34.42 | 19.25 |
| 17 | 38.67 | 51.08 | 76.17 | 74.50 | $66 \cdot 40$ | 57.08 | $40 \cdot 33$ | $38 \cdot 33$ | 9-17 |
| 18 | 33.83 | $52 \cdot 75$ | $73 \cdot 13$ | 77.17 | 69.17 | 54.42 | $39 \cdot 25$ | 36.50 | 875 |
| 19 | 35•37 | $56 \cdot 17$ | 66.83 | $81 \cdot 75$ | 72.75 | 59-33 | $44 \cdot 42$ | 32.58 | 333 |
| 20 | $37 \cdot 25$ | 59.67 | 66.75 | 77.67 | 74.58 | $58 \cdot 33$ | 50.75 | 39.67 | 7.67 |
| 21 | $38 \cdot 50$ | 58.75 | 65.33 | $77 \cdot 42$ | 56.42 | 57-75 | 58.08 | $38 \cdot 58$ | $2 \cdot 83$ |
| 22 | 40.25 | $60 \cdot 00$ | 68.42 | 63.67 | 57.58 | 59.58 | 56.25 | 41.60 | $5 \cdot 42$ |
| 23 | 41.00 | $48 \cdot 75$ | 70.21 | 67.58 | $66 \cdot 42$ | $61 \cdot 33$ | 58.58 | 37.58 | 10.83 |
| 24 | $43 \cdot 67$ | 43.75 | $65 \cdot 17$ | $66 \cdot 17$ | $71 \cdot 67$ | 61.42 | 50.75 | $31 \cdot 33$ | 13.25 |
| 25 | $46 \cdot 00$ | $52 \cdot 75$ | $70 \cdot 83$ | $60 \cdot 83$ | $69 \cdot 92$ | $66 \cdot 00$ | 44.42 | 32.75 | $2 \cdot 25$ |
| 26 | $43 \cdot 96$ | 54.25 | 71-25 | 58.58 | 72.25 | $63 \cdot 42$ | $39 \cdot 42$ | 28.00 | 6.50 |
| 27 | $46 \cdot 92$ | 55.50 | 73.58 | 61.83 | 64.42 | 56.42 | 37.75 | 30-42 | 15.83 |
| 28 | 48.75 | 59.50 | 72.50 | 68.50 | 62.83 | $45 \cdot 50$ | 34.67 | $29 \cdot 25$ | 17-17 |
| 29 | $43 \cdot 75$ | 64.42 | $70 \cdot 00$ | 60.83 | 62.92 | $51 \cdot 00$ | $31 \cdot 68$ | 11.08 | 13.50 |
| 30 | $41 \cdot 92$ | $55 \cdot 33$ | 69.33 | 68.08 | 65.92 | 47.50 | $38 \cdot 58$ | $9 \cdot 92$ | 13.67 |
| 31 | - | 49-50 | - | $71 \cdot 17$ | $68 \cdot 17$ | - | $48 \cdot 42$ | . | 13.00 |
|  | $39 \cdot 53$ | 50.47 | 67.97 | $71 \cdot 09$ | 72-17 | 59.19 | 44-43 | $36 \cdot 92$ | 14.92 |

Abstract of Mcterological Observations made at York Factory，Hudson＇s Bay．Latitude， $57^{\circ} 0^{\prime} 2^{\prime \prime}$ N．Longitude， $92^{\circ} 26^{\prime} \mathrm{W}$ ．By Mr．W．Wood，during the year 1875.

|  | Barometer at temperature of $32^{\circ}$ ． |  |  |  | Temperature of the air． |  |  |  | Extremes of Temperature． |  |  |  |  |  | Precipitation， |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ＋ | $\begin{aligned} & \underset{\sim}{0} \\ & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & \dot{0} \\ & \infty \\ & \infty \end{aligned}$ | $\begin{aligned} & \text { 炰 } \\ & \hline \end{aligned}$ | $\xrightarrow{\text { ¢ }}$ | 2 0 $\sim$ | $\begin{aligned} & \dot{3} \\ & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & \text { 适 } \\ & \text { än } \end{aligned}$ | $\begin{aligned} & \dot{0} \\ & \stackrel{0}{0} \\ & \stackrel{0}{80} \\ & \stackrel{\rightharpoonup}{\mathbf{B}} \end{aligned}$ | $\begin{aligned} & \dot{+} \\ & 0 \\ & 0 \\ & \vdots \\ & 0 \\ & \vdots \end{aligned}$ |  |  |  |  | 哥 | 策 |  |  |  |  |  |
|  | ins． | ins． | ins． | ins． | $\bigcirc$ | $\bigcirc$ | － | － | $\bigcirc$ | － | － |  |  |  |  |  |  |  |  |  |  |
| January ．．．．．．．．．．． | 30.033 | 30.031 | 30.041 | $30 \cdot 035$ | 28.03 | 21．18 | 26.43 | $\overline{25} \cdot 51$ | 4.0 | 49.5 | $45 \cdot 5$ | －013 | 91 | $3 \cdot 5$ |  | 4.0 | 045 | 668 | 9 | 8 | 5 |
| February ．．．．．．．．． | 29.919 | 29.938 | $29 \cdot 948$ | 29.935 | $-2868$ | 21.20 | 24.25 | 24.60 | 1.0 | 41.0 | 40.0 | $\cdot 013$ | 85 | 4．1 |  | 0.2 | 0.02 | $8 \cdot 74$ | 10 | 5 | 3 |
| March．．．．．．．．．．．．．． | 30.058 | $30 \cdot 053$ | $30 \cdot 076$ | 30.062 | $\overline{10} \cdot 11$ | $2 \cdot 10$ | 5.50 | 4.75 | 29.5 | 380 | 67.5 | －038 | 77 | 4.7 |  | 9.7 | 0.90 | 10.78 | 12 | 5 | 3 |
| April．．．．．．．．．．．．．．．． | $30 \cdot 114$ | 30.099 | 30．126 | 30.113 | $7 \cdot 67$ | 18.53 | 9.87 | 11.49 | 43.5 | $\overline{22} 5$ | 66.0 | －073 | 86 | $6 \cdot 3$ | 0.25 | 7.8 | 1.03 | 9.83 | 10 | 3 | ］ |
| May．．．．．．．．．．．．．．．．． | 29.868 | 29.849 | 29860 | 29.859 | $30 \cdot 42$ | 37.44 | 29.77 | 31.85 | 71.0 | $9 \cdot 0$ | 62.0 | －168 | 88 | 74 | 253 | $24 \cdot 7$ | 4.59 | $6 \cdot 43$ | 5 | 1 | 1 |
| June | 29－882 | 29.896 | 29.907 | $29 \cdot 895$ | $42 \cdot 13$ | 46.53 | 4080 | 42.56 | 79.0 | 30.0 | 490 | －223 | 78 | $6 \cdot 1$ | 1．45 |  | 145 | $9 \cdot 82$ | 0 | 0 | 0 |
| July ．．．．．．．．．．．．．．．． | 29782 | 29.783 | 29.800 | 29789 | 5229 | 56.50 | 48.87 | 51.63 | 78.0 | 400 | 38.0 | －309 | 77 | $6 \cdot 3$ | $2 \cdot 66$ |  | 2.66 | $9 \cdot 13$ | 1 | 0 | 0 |
| August．．．．．．．．．．．． | 29.844 | 29.826 | 29.8 .4 | 29.831 | 5202 | 59.35 | 52.53 | $54 \cdot 11$ | 76.5 | $40 \cdot 0$ | $36 \cdot 5$ | $\cdot 364$ | 85 | $4 \cdot 1$ | 369 | － | 3.68 | 605 | 6 | 0 | 0 |
| September． | 29866 | $29 \cdot 865$ | 29.872 | 29.863 | $40 \cdot 41$ | 48.90 | $40 \cdot 68$ | 4265 | $66 \cdot 0$ | 28.0 | 38.0 | －221 | 76 | $5 \cdot 9$ | $1 \cdot 40$ | $0 \cdot 1$ | $1 \cdot 41$ | $8 \cdot 46$ | 10 | 0 | 0 |
| October ．．． | 29.952 | 29.942 | 29961 | $29 \cdot 952$ | 2331 | 28.27 | 2¢ $\cdot 79$ | 25.29 | 43.0 | 80 | 350 | $\cdot 132$ | 93 | 7.9 |  | 8.4 | 0.70 | 658 | 4 | 0 | 0 |
| November ．． | 29921 | 29.928 | 29.938 | 29－929 | 3.93 | 1.38 | 2． 40 | 1.84 | $35 \cdot 5$ | 400 | T55 | 071 | 94 | 54 |  | 84 | 0.84 | 7.78 | 13 | 2 | 3 |
| December． | 29843 | 29.812 | 29．831 | 29831 | $\overline{17.05}$ | $\overline{12} 52$ | －15．11 | $\overline{14} 95$ | 23．0 | 41.5 | 62.5 | －032 | 84 | $6 \cdot 5$ |  | $27 \cdot 3$ | 2.98 | $8 \cdot 15$ | 12 | 5 | 1 |
|  | 29.923 | $29 \cdot 918$ | $29 \cdot 933$ | 29.925 | $13 \cdot 37$ | $20 \cdot 34$ | $14 \cdot 47$ | $15 \cdot 66$ | 79．0 | 49.5 | 128.5 | $\cdot 138$ | 85 | $5 \cdot 7$ | 11.97 | 906 | $21 \cdot 21$ | $8 \cdot 20$ | 92 | 29 | 17 |

Table XXI.-Esquimalt, British Columbia.

| Dry. | January. |  | February. |  | March. |  | A pril. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Mux. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | - | - | - | - | - | - | - | - | - | - |
| 1 | 39 | 33 | 45 | 33 | 45 | 35 | 48 | 42 | 54 | 46 | 59 | 43 |
| 2 | 44 | 35 | 42 | 38 | 49 | 41 | 46 | 35 | 65 | 45 | 61 | 51 |
| 3 | 42 | 39 | 45 | 37 | 45 | 40 | 50 | 35 | 57 | 41 | 61 | 51 |
| 4 | 44 | 40 | 44 | 37 | 46 | 34 | 50 | 35 | 57 | 43 | 63 | 53 |
| 5 | 46 | 37 | 45 | 39 | 43 | 37 | 47 | 31 | 54 | 44 | 60 | 51 |
| 6 | 38 | 34 | 43 | 36 | 38 | 37 | 48 | 41 | 48 | 41 | 63 | 51 |
| 7 | 38 | 29 | 38 | 33 | 42 | 35 | 48 | 41 | 48 | 46 | 52 | 49 |
| 8 | 35 | 27 | 40 | 35 | 40 | 33 | 46 | 40 | 61 | 44 | 54 | 49 |
| 9 | 39 | 32 | 37 | 31 | 35 | 28 | 47 | 35 | 60 | 48 | 56 | 49 |
| 10 | 38 | 29 | 42 | 36 | 37 | 22 | $5 i$ | 35 | 58 | 47 | 56 | 49 |
| 11 | 38 | 28 | 43 | 37 | 40 | 31 | 51 | 33 | 63 | 43 | 65 | 49 |
| 12 | 35 | 28 | 42 | 38 | 42 | 36 | 52 | 34 | 54 | 46 | 65 | 50 |
| 13 | 37 | 33 | 43 | 39 | 43 | 33 | 52 | 36 | 54 | 41 | 64 | 52 |
| 14 | 42 | 37 | 49 | 40 | 42 | 32 | 53 | 46 | 52 | 38 | 74 | 50 |
| 15 | 53 | 41 | 49 | 44 | 40 | 32 | 53 | 46 | 48 | 41 | 66 | 49 |
| 16 | 49 | 44 | 47 | 38 | 40 | 31 | 52 | 47 | 57 | 40 | 79 | 52 |
| 17 | 47 | 41 | 45 | 40 | 38 | 33 | 54 | 46 | 55 | 46 | 84 | 54 |
| 18 | 42 | 32 | 43 | 36 | 43 | 33 | 47 | 40 | 55 | 47 | 72 | 54 |
| 18 | 34 | 28 | 42 | 38 | 42 | 37 | 50 | 37 | 65 | 44 | 66 | 56 |
| 20 | 32 | 24 | 44 | 38 | 46 | 41 | 55 | 42 | 57 | 50 | 65 | 53 |
| 21 | 27 | 20 | 47 | 43 | 49 | 38 | 58 | 44 | 60 | 48 | 59 | 51 |
| 22 | 28 | 24 | 53 | 43 | 48 | 43 | 59 | 49 | 67 | 50 | 56 | 49 |
| 23 | 30 | 26 | 48 | 40 | 47 | 41 | 58 | 47 | 70 | 44 | 55 | 50 |
| 24 | 33 | 25 | 47 | 39 | 46 | 88 | 54 | 45 | 55 | 48 | 65 | 48 |
| 25 | 36 | 18 | 45 | 34 | 42 | 35 | 52 | 42 | 55 | 47 | 58 | 43 |
| 26 | 39 | 33 | 42 | 29 | 43 | 35 | 56 | 49 | 63 | 49 | 59 | 51 |
| 27 | 31 | 22 | 45 | 35 | 44 | 38 | 56 | 46 | 61 | 41 | 65 | 53 |
| 28 | 39 | 20 | 46 | 34 | 51 | 42 | 60 | 40 | 58 | 46 | 69 | 52 |
| 29 | 44 | 35 | 45 | 38 | 55 | 40 | 57 | 47 | 51 | 43 | 66 | 52 |
| 30 | 39 | 33 |  |  | 48 | 31 | 54 | 46 | 56 | 49 | 63 | 53 |
| 31 | 39 | 20 |  |  | 45 | 33 |  |  | 56 | 49 |  |  |
|  | $38 \cdot 6$ | $30 \cdot 1$ | 44.4 | $37 \cdot 3$ | $43 \cdot 7$ | $35 \cdot 6$ | $52 \cdot 3$ | $40 \cdot 9$ | $57 \cdot 2$ | $45 \cdot 3$ | $63 \cdot 3$ | 50.5 |

Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Nin. | Max. | Min. | Max | Min. | Max. | Min. | Max. | Min. |  |
| $\stackrel{\circ}{68}$ | $\stackrel{\circ}{56}$ | $\stackrel{\circ}{69}$ | 48 | 69 | ${ }^{\circ}$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | $\checkmark$ | - |  |
|  | 56 |  | 48 | 69 | 51 | 62 | 47 | 49 | 44 | 50 | 44 | 1 |
| 64 | 51 | 70 | 53 | 70 | $49^{\circ}$ | 61 | 47 | 51 | 38 | 53 | 47 | 2 |
| 69 | 51 | 68 | 54 | 64 | 53 |  | 46 | 49 | 39 | 52 | 46 | 3 |
| 71 | 50 | 63 | 53 | 60 | 50 | 59 | 45 | 48 | 39 | 52 | 41 | 4 |
| 65 | 50 | 63 | 46 | 60 | 51 | 60 | 44 | 48 | 36 | 33 | 31 | 5 |
| 62 | 49 | 69 | 50 | 60 | 46 | 56 | 49 | 48 | 43 | 35 | 32 | $\stackrel{1}{0}$ |
| 66 | 49 | 64 | 50 | 57 | 47 | 48 | 46 | 51 | 41 | 43 | 38 | 7 |
| 61 | 52 | 65 | 49 | 54 | 51 | 54 | 44 | 44 | 35 | 39 | 35 | 8 |
| 64 | 53 | 56 | 51 | 60 | 51 | 53 | 43 | 47 | 39 | 39 | 35 | 9 |
| 64 | 50 | 46 | 50 | 64 | 50 | 54 | 48 | 48 | 42 | 42 | 36 | 10 |
| 63 | 53 | 60 | 50 | 60 | 45 | 57 | 49 | 44 | 33 | 45 | 38 | 11 |
| 66 | 48 | 61 | 45 | 76 | 48 | 56 | 44 | 40 | 32 | 46 | 37 | 12 |
| 74 | 51 | 66 | 46 | 72 | 55 | 52 | 44 | 46 | 37 | 39 | 34 | 13 |
| 65 | 50 | 71 | 50 | 59 | 51 | 51 | 49 | 56 | 42 | 43 | 33 | 14 |
| 56 | 53 | 72 | 50 |  |  | 59 | 52 | 53 | 46 | 36 | 31 | 15 |
| 56 | 51 | 64 | 50 | 56 | 50 | 56 | 48 | 49 | 44 | 37 | 34 | 16 |
| 64 | 51 | 67 | 49 | 61 | 44 | 57 | 47 | 48 | 36 | 44 | 30 | 17 |
| 63 | 51 | 62 | 53 | 60 | 51 | 53 | 49 | 55 | 46 | 37 | 29 | 18 |
| 71 | 50 | 58 | 50 | 55 | 44 | 54 | 47 | 49 | 45 | 39 | 33 | 19 |
| 69 | 53 | 60 | 51 | 58 | 51 | 52 | 44 | 45 | 40 | 42 | 35 | 20 |
| 65 | 53 | 59 | 50 | 54 | 45 | 49 | 47 | 47 | 44 | 43 | 39 | 21 |
| 72 | 51 | 56 | 49 | 57 | 49 | 55 | 46 | 47 | 44 | 43 | 40 | 22 |
| 66 | 55 | 58 | 42 | 55 | 49 | 53 | 47 | 46 | 42 | 46 | 41 | 23 |
| 69 | 53 | 64 | 42 | 54 | 48 | 55 | 48 | 54 | 44 | 46 | 42 | 24 |
| 66 | 50 | 64 | 52 | 65 | 50 | 55 | 48 | 52 | 48 | 48 | 42 | 25 |
| 64 | 50 | 56 | 50 | 63 | 50 | 54 | 49 | 47 | 40 | 46 | 41 | 26 |
| 66 | 54 | 60 | 52 | 63 | 50 | 53 | 45 | 44 | 32 | 41 | 38 | 27 |
| 65 | 51 | 64 | 46 | 62 | 47 | 49 | 42 | 41 | 30 | 45 | 39 | 28 |
| 63 | 54 | 60 | 48 | 77 | 48 | 49 | 44 | 43 | 33 | 47 | 44 | 29 |
| 67 | 54 | 64 | 49 | 63 | 49 | 50 | 38 | 47 | 35 | 45 | 37 | 20 |
| 65 | 53 | 66 | 51 |  |  | 49 | 39 |  |  | 46 | 43 | 31 |
| $65 \cdot 4$ | $51 \cdot 6$ | $63 \cdot 3$ | $49 \cdot 3$ | $61 \cdot 6$ | 49.0 | 54.5 | $45 \cdot 9$ | $47 \cdot 8$ | $39 \cdot 6$ | $43 \cdot 3$ | $37 \cdot 6$ |  |

Table XXII.-Spence's Bridge, British Columbia.

| Day. | January. |  | February. |  | March. |  | A pril. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | $\bigcirc$ | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - |
| 1 | 35 | 22 | 14 | 4 | 54 | 30 | 57 | 37 | 74 | 42 | 70 | 46 |
| 2 | 29 | 21 | 23 | 4 | 52 | 35 | 48 | 35 | 67 | 49 | 76 | 46 |
| 3 | 30 | 23 | 30 | 23 | 42 | 36 | 50 | 29 | 67 | 42 | 78 | 53 |
| 4 | 32 | 20 | 28 | 16 | 40 | 35 | 55 | 30 | 63 | 45 | 77 | 54 |
| 5 | 37 | 22 | 32 | 15 | 38 | 28 | 58 | 35 | 61 | 41 | 77 | 64 |
| 6 | 32 | 19 | 28 | 20 | 44 | 33 | 56 | 43 | 61 | 36 | 74 | 54 |
| 7 | 21 | 7 | 25 | 161 | 34 | 22 | 57 | 38 | 78 | 46 | 71 | 48 |
| 8 | 9 | 3 | 19 | 6 | 23 | 13 | 55 | 34 | 87 | 45 | 73 | 50 |
| 9 | 12 | 2 | 27 | 16 | 23 | 12 | 56 | 32 | 80 | 47 | 72 | 50 |
| 10 | 12 | 4 | 20 | 8 | 25 | 6 | 53 | 34 | 79 | 46 | 73 | 52 |
| 11 | 15 | 7 | 35 | 17 | 28 | 11 | 62 | 30 | 80 | 46 | 68 | 51 |
| 12 | 18 | 6 | 45 | 24 | 38 | 23 | 60 | 33 | 60 | 50 | 78 | 52 |
| 13 | 24 | 11 | 36 | 28 | 39 | 28 | 63 | 35 | 63 | 45 | 79 | 53 |
| 14 | 28 | 18 | 51 | 29 | 37 | 27 | 64 | 41 | 62 | 41 | 84 | 50 |
| 15 | 32 | 24 | 48 | 33 | 29 | 18 | 61 | 35 | 63 | 42 | 89 | 55 |
| 16 | 37 | 26 | 53 | 36 | 25 | 7 | 54 | 33 | 70 | 42 | 92 | 55 |
| 17 | 34 | 22 | 47 | 35 | 24 | 15 | 58 | 43 | 70 | 46 | 95 | 57 |
| 18 | 35 | 22 | 45 | 33 | 34 | 8 | 58 | 36 | 70 | 41 | 100 | 60 |
| 19 | 27 | 17 | 43 | 31 | 34 | 25 | 57 | 32 | 79 | 42 | 85 | 62 |
| 20 | 17 | 2 | 37 | 30 | 45 | 29 | 62 | 34 | 84 | 48 | 83 | 56 |
| 21 | 2 | -10 | 54 | 29 | 54 | 33 | 69 | 39 | 80 | 49 | 71 | 59 |
| 22 | 2 | - 9 | 58 | 33 | 58 | 36 | 64 | 47 | 84 | 50 | 73 | 50 |
| 23 | 4 | - 4 | 56 | 40 | 56 | 34 | 64 | 37 | 90 | 54 | 67 | 51 |
| 24 | 0 | -8 | 50 | 35 | 45 | 31 | 68 | 40 | 83 | 54 | 67 | 48 |
| 25 | 9 | -4 | 42 | 31 | 46 | 32 | 70 | 43 | 67 | 49 | 68 | 45 |
| 26 | 15 | 5 | 42 | 24 | 45 | 28 | 65 | 45 | 69 | 48 | 78 | 46 |
| 27 | 9 | - 2 | 39 | 23 | 55 | 32 | 68 | 43 | 72 | 41 | 83 | 52 |
| 28 | 6 | $-5$ | 39 | 23 | 49 | 39 | 71 | 42 | 72 | 45 | 76 | 54 |
| 29 | 40 | 6 | 41 | 23 | 52 | 37 | 68 | 49 | 65 | 45 | 86 | 53 |
| 30 | 35 | 11 |  |  | 49 | 30 | 71 | 45 | 61 | 47 | 94 | 54 |
| 31 | 14 | 1 | - |  | 54 | 29 |  |  |  |  |  |  |
|  | 21.01 | 90 | $38 \cdot 2$ | 236 |  | 25.9 | $60 \cdot 7$ | 37.6 | 71.8 | 45 C | 78.6 | $52 \cdot 3$ |

Maximum and Minimum Temperature, 1876.

| July |  | August. |  | September. |  | October. |  | Norember. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| $\bigcirc$ | ${ }^{\circ}$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc 1$ | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | - | - |  |
| 89 | 61 | 80 | 55 | 81 | 49 | 79 | 48 | 42 | 30 | 41 | 28 | 1 |
| 89 | 56 | 82 | 57 | 88 | 52 | 74 | 48 | 42 | 27 | 44 | 31 | 2 |
| 87 | 56 | 81 | 68 | 73 | 54 | 72 | 46 | 46 | 34 | 45 | 34 | 3 |
| 90 | 56 | 76 | 57 | 67 | 50 | 77 | 50 | 42 | 32 | 51 | 35 | 4 |
| 74 | 56 | 84 | 51 | 81 | 50 | 81 | 50 | 35 | 25 | 40 | 29 | 5 |
| 69 | 47 | 71 | 58 | 83 | 57 | 70 | 51 | 40 | 33 | 32 | 24 | 6 |
| 78 | 54 | 72 | 53 | 71 | 59 | 72 | 46 | 49 | 34 | 31 | 21 | 7 |
| 75 | 57 | 71 | 50 | 64 | 50 | 70 | 46 | 50 | 32 | 27 | 19 | 8 |
| 77 | 52 | 70 | 51 | 69 | 53 | 66 | 43 | 61 | 34 | 30 | 20 | 9 |
| 69 | 54 | 74 | 51 | 71 | 54 | 61 | 46 | 52 | 39 | 33 | 23 | 10 |
| 71 | 55 | 69 | 52 | 80 | 54 | 62 | 51 | 40 | 20 | 37 | 25 | 11 |
| 78 | 52 | 68 | 54 | 80 | 55 | 66 | 44 | 22 | 10 | 40 | 29 | 12 |
| 81 | 55 | 77 | 55 | 75 | 51 | 65 | 43 | 34 | 20 | 32 | 23 | 13 |
| 75 | 54 | 84 | 50 | 77 | 49 | 64 | 41 | 41 | 28 | 29 | 19 | 14 |
| 81 | 58 | 87 | 54 | 64 | 50 | 73 | 56 | 42 | 32 | 27 | 20 | 15 |
| 79 | 56 | 87 | 59 | 70 | 48 | 68 | 56 | 41 | 3 | 31 | 23 | 16 |
| 76 | 59 | 89 | 60 | 73 | 56 | 66 | 49 | 38 | 31 | 32 | 20 | 17 |
| 88 | 52 | 84 | 61 | 66 | 53 | 63 | 44 | 39 | 29 | 30 | 23 | 18 |
| 90 | 58 | 73 | 57 | 61 | 48 | 60 | 45 | 43 | 33 | 28 | 21 | 19 |
| 94 | 59 | 71 | 53 | 63 | 50 | 55 | 45 | 42 | 31 | 35 | 22 | 20 |
| 96 | 60 | 72 | 51 | 62 | 43 | 50 | 42 | 38 | 31 | 39 | 23 | 21 |
| 94 | 64 | 67 | 51 | 63 | 46 | 49 | 40 | 45 | 33 | 39 | 32 | 22 |
| 89 | 63 | 69 | 45 | 62 | 46 | 49 | 36 | 45 | 37 | 38 | 27 | 23 |
| 86 | 64 | 75 | 47 | 57 | 47 | 52 | 39 | 42 | 33 | 29 | 24 | 24 |
| 84 | 55 | 73 | 54 | 70 | 49 | 54 | 42 | 42 | 33 | 33 | 23 | 25 |
| 90 | 57 | 68 | 52 | 73 | 48 | 59 | 45 | 41 | 30 | 32 | 26 | 26 |
| 88 | 63 | 67 | 53 | 77 | 48 | 58 | 44 | 37 | 24 | 31 | 25 | 27 |
| 87 | 60 | 69 | 49 | 77 | 50 | 45 | 37 | 32 | 21 | 30 | 25 | 28 |
| 80 | 64 | 77 | 54 | 78 | 51 | 49 | 35 | 30 | 19 | 30 | 23 | 29 |
| 73 | 57 | 74 | 59 | 77 | 50 | 52 | 40 | 37 | 29 | 30 | 22 | 30 |
| 79 | 57 | 79 | 49 |  |  | 46 | 32 |  |  | 37 | 23 | 31 |
| 82.5 | $57 \cdot 1$ | 755 | 536 | $71 \cdot 8$ | $50 \cdot 5$ | $62 \cdot 2$ | $44 \cdot 5$ | 41.0 | 29.2 | $34 \cdot 3$ | 24 |  |

Tabie XXiIt.-Winnipeg, Manitoba. Maximum

| Das. | January. |  | February. |  | Marcl. |  | A pril. |  | Nay. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Sin. | Max. | Min. | Max. | Min. | Nax. 1 | Min. | Nax. | Min. |
|  | - | - | - | - | - |  | $\bigcirc 1$ | , | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| 1 | 13 | 4 | -21 | -41 | 16 | -20 | 351 | 4 | 39 | 31 | 42 | 36 |
| 2 | 6 | -19 | $-13$ | -36 | 22 | - 1 | 39 ! | 8 | 38 | 29 | 48 | 35 |
| 3 | -14 | -29 | $-17$ | -39 | 24 | -8 | 40 | 23 | 50 | 30 | 62 | 31 |
| 4 | $-2$ | -28 | -5 | -44 | 24 | 9 | 97 | 20 | 49 | 33 | 78 | 36 |
| 5 | -1 | -21 | 3 | -19 | 10 | 1 | 40 | 6 | 56 | 34 | 77 | 44 |
| 6 | 14 | -11 | $-3$ | -14 | 5 | -10 | 37 | 20 | 62 | 35 | 70 | 41 |
| 7 | C | -9 | $-6$ | -31 | 8 | -18 | 34 | 6 | 61 | 28 | 59 | 52 |
| 8 | 2 | -12 | 7 | -26 | 22 | 4 | 44 | 22 | 67 | 33 | 61 | 52 |
| 9 | -6 | -24 | 23 | 5 | 16 | $- \pm$ | 43 | 32 | 57 | 31 | 88 | 54 |
| 10 | - 3 | -22 | 31 | -4 | 5 | $-8$ | 42 | 29 | 56 | 31 | 75 | 55 |
| 11 | 0 | -25 | -2 | -22 | 6 | -10 | 42. | 24 | 63 | 33 | 69 | 54 |
| 12 | 5 | -27 | $-7$ | -30 | 3 | -18 | 42 | 25 | 63 | 30 | 78 | 46 |
| 13 | 24 | $-5$ | 6 | -17 | 13 | -21 | 42 | 24 | 64 | 31 | 85 | 58 |
| 14 | 19 | -6 | 2 | -15 | 13 | -22 | 48 | 25 | 53 | 45 | 85 | 55 |
| 15 | - | - | 0 | -22 | 15 | -12 | 38 | 25 | 61 | 45 | 68 | 50 |
| 16 | 32 | 8 | 3 | -24 | 18 | 0 | 35 | 25 | 52 | 43 | 57 | 38 |
| 17 | 33 | 17 | 20 | -9 | 6 | $-16$ | 55 | 25 | 70 | 45 | 64 | 33 |
| 18 | 21 | 1 | 17 | -17 | 13 | -22 | 58 | 29 | 80 | 44 | 69 | 41 |
| 19 | 4 | -19 | -12 | -24 | 10 | -14 | 57 | 38 | 78 | 53 | 81 | 35 |
| 20 | -12 | -31 | 7 | -21 | 10 | -19 | 54 | 35 | 73 | 51 | 85 | 53 |
| 21 | -8 | -39 | $-9$ | - 0 | 18 | $-7$ | 52 | 33 | 67 | 42 | 91 | 56 |
| 22 | 2 | -18 | $-8$ | -30 | 31 | 4 | 55 | 28 | 78 | 32 | 88 | 67 |
| 23 | -13 | -29 | -1 | -32 | 32 | 11 | 62 | 29 | 79 | 45 | 81 | 57 |
| 24 | -11 | -33 | 12 | -2 | 37 | 23 | 60 | 30 | 89 | 48 | 93 | 53 |
| 25 | 3 | $\cdots$ | 5 | -6 | 23 | 8 | 60 | 40 | 85 | 51 | 82 | 65 |
| 26 | 15 | 2 | 9 | 1 | 22 | 8 | 77 | 39 | 88 | 54 | 75 | 51 |
| 27 | 10 | -10 | 10 | $-6$ | 28 | 0 | 55 | 26 | 79 | 61 | 76 | 49 |
| 28 | $-5$ | --31 | 10 | -12 | 31 | 0 | 34 | 22 | 88 | 48 | 68 | 50 |
| 29 | 7 | -35 | 8 | $-20$ | 27 | $-7$ | 41 | 16 | 71 | 41 | 85 | 46 |
| 30 | 10 | $-25$ |  |  | 30 | 1 | 42 | 17 | 80 | 55 | 84 | 53 |
| 31 | -20 | -35 |  |  | 33 | 0 |  |  | 55 | 36 |  |  |
|  | $4 \cdot 5$ | -18.1 | 2.4 | $-19.9$ | $18 \cdot 4$ | $-5 \cdot 5$ | 46.9 | $24 \cdot 1$ | $66 \cdot 3$ | 39-9 | 73•3 | 48-2 |

and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Minx. | Min. | Max. | Min. | Max. | Min. | May. | Mix. |  |
| $\bigcirc$ | $\bigcirc$ | $\cdots$ | $\stackrel{\square}{\square}$ | - | - | $\bigcirc$ | - | - | - | - | - |  |
| 87 | 52 | 82 | 56 | 67 | 42 | 66 | 30 | 41 | 31 | $\bigcirc$ | - | 1 |
| 78 | 57 | 85 | 56 | 74 | 43 | 54 | - 35 | 36 | 29 | 9 | $-5$ | 2 |
| 78 | 52 | 82 | 56 | 75 | 42 | 38 | 21 | 35 | 11 | 12 | -8 | 3 |
| 78 | 48 | 88 | 53 | 73 | 39 | 38 | 19 | 19 | 2 | 17 | 3 | 4 |
| 76 | 49 | 77 | 60 | 69 | 43 | 38 | 28 | 21 | 3 | 36 | 16 | 5 |
| 79 | 60 | 80 | 53 | 60 | 48 | 40 | 22 | 27 | 3 | 22 | -13 | 6 |
| 76 | 59 | 87 | 52 | 63 | 43 | 34 | 15 | 36 | 12 | $-3$ | -14 | 7 |
| 93 | 63 | 98 | 63 | 63 | 42 | 41 | 16 | 55 | 22 | -13 | -35 | 8 |
| 78 | 55 | 89 | 63 | 57 | 49 | 51 | 24 | 50 | 25 | -1 | -36 | 9 |
| 78 | 53 | 69 | 54 | 63 | 48 | 36 | 25 | 64 | 29 | 16 | $-17$ | 10 |
| 84 | 50 | 79 | 50 | 67 | 39 | 54 | 23 | 35 | 15 | 35 | 7 | 11 |
| 78 | 54 | 71 | 53 | 70 | 37 | 35 | 24 | 18 | 7 | 33 | 3 | 12 |
| 83 | 51 | 75 | 47 | 68 | 40 | 34 | 17 | 10 | - 3 | 27 | -14 | 13 |
| 85 | 51 | 65 | 44 | 67 | 38 | 36 | 14 | 13 | - 2 | 2 | -26 | 14 |
| 78 | 54 | 65 | 45 | 71 | 42 | 47 | 21 | 12 | -4 | 3 | -28 | 15 |
| 93 | 61 | 73 | 46 | 67 | 53 | 57 | 24 | 19 | 8 | -21 | -36 | 16 |
| 73 | 52 | 80 | 43 | 73 | 49 | 64 | 31 | 32 | 16 | 0 | -31 | 17 |
| 86 | 49 | 77 | 53 | 67 | 44 | 68 | 36 | 23 | -15 | 8 | -28 | 18 |
| 73 | 56 | 70 | 44 | 70 | 43 | 60 | 43 | 27 | -14 | -7 | -27 | 19 |
| 74 | 46 | 77 | 40 | 66 | 45 | 54 | 45 | 27 | 6 | $-3$ | -32 | 20 |
| 69 | 44 | 72 | 65 | 72 | 44 | 48 | 36 | 15 | 0 | -13 | $-33$ | 21 |
| 76 | 39 | 75 | 65 | 67 | 43 | 39 | 33 | 16 | -2 | $-2$ | $-30$ | 23 |
| 79 | 48 | 75 | 55 | 73 | 43 | 41 | 31 | 17 | -2 | $-1$ | $-7$ | 23 |
| 82 | 49 | 57 | 50 | 65 | 42 | 38 | 31 | 25 | 9 | 1 | -13 | 24 |
| 82 | 54 | 62 | 40 | 58 | 35 | 37 | 26 | 27 | 10 | $-7$ | -22 | 25 |
| 76 | 57 | 67 | 36 | 59 | 32 | 45 | 26 | 30 | 7 | 4 | -18 | 26 |
| 85 | 53 | 80 | 53 | 65 | 40 | 48 | 26 | 10 | $-12$ | 0 | $-17$ | 27 |
| 88 | 57 | 82 | 49 | 48 | 36 | 56 | 30 | $-2$ | -18 | 1 | -20 | 28 |
| 92 | 54 | 79 | 59 | 43 | 34 | 59 | 38 | 1 | -27 | $-13$ | -28 | 29 |
| 91 | 57 | 73 | 56 | 47 | 26 | 61 | 30 | -16 | -33 | 0 | -28 | 30 |
| 90 | 71 | 65 | 46 | , |  | 49 | 30 |  |  |  | -19 | 31 |
| $81 \cdot 1$ | 53.4 | $75 \cdot 9$ | 51.8 | $64 \cdot 8$ | 41.4 | 47 • 3 | $27 \cdot 4$ | $24 \cdot 0$ | $3 \cdot 8$ | 4.6 | -18.c |  |

Table XXIV.-Fort Garry, Manitoba.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | - | - | 0 | - | - | c | - | - | - | $\bigcirc$ |
| 1 | 16 | -9 | -20 | -41 | 23 | -17 | 36 | 3 | 40 | 30 | 47 | 34 |
| 2 | 9 | -15 | -10 | -36 | 23 | -5 | 39 | 10 | 38 | 28 | 49 | 36 |
| 3 | -11 | -24 | -15 | -32 | 27 | -9 | 38 | 23 | 47 | 27 | 59 | 30 |
| 4 | $-2$ | -26 | $-9$ | -43 | 26 | 5 | 38 | 24 | 48 | 31 | 75 | 33 |
| 5 | $-1$ | -22 | 4 | -18 | 20 | 2 | 40 | 10 | 59 | 34 | 72 | 46 |
| 6 | 15 | -13 | $-4$ | -20 | 6 | $-5$ | 36 | 22 | 60 | 36 | 72 | 40 |
| 7 | 5 | -13 | $-5$ | -28 | 13 | -16 | 33 | 6 | 61 | 31 | 58 | 52 |
| 8 | 3 | -11 | 7 | -25 | 24 | 3 | 45 | 21 | 68 | 33 | 63 | 52 |
| 9 | $-6$ | -14 | 17 | 4 | 15 | -4 | 44 | 35 | 55 | 30 | 68 | 53 |
| 10 | $-3$ | -24 | 32 | -4 | 5 | - 8 | 44 | 32 | 58 | 32 | 76 | 55 |
| 11 | -2 | -18 | 8 | -14 | 7 | - 4 | 43 | 20 | 64 | 40 | 71 | 54 |
| 12 | -2 | -26 | $-5$ | -24 | 11 | -16 | 42 | 21 | 64 | 29 | 78 | 44 |
| 13 | 26 | $-6$ | 6 | -15 | 16 | -21 | 45 | 22 | 65 | 30 | 84 | 54 |
| 14 | 18 | $-7$ | 6 | - 8 | 17 | -18 | 44 | 22 | 58 | 46 | 85 | 54 |
| 15 | 25 | 9 | 1 | -19 | 17 | -10 | 38 | 20 | 60 | 42 | 72 | 50 |
| 16 | 34 | 9 | 7 | -25 | 19 | 6 | 36 | 24 | 57 | 43 | 57 | 45 |
| 17 | 36 | 18 |  | -12 | 11 | 12 | 52 | 18 | 69 | 42 | 63 | 34 |
| 18 | 25 | 3 | 14 | -16 | 15 | -23 | 58 | 28 | 80 | 44 | 68 | 40 |
| 19 | 8 | $-3$ |  | -25 | 12 | -10 | 58 | 39 | 80 | 55 | 72 | 35 |
| 20 | -8 | -24 |  | -24 | 19 | -19 | 54 | 34 | 72 | 50 | 85 | 47 |
| 21 | -10 | -36 | 0 | -20 | 22 | -5 | 53 | 30 | 65 | 49 | 92 | 52 |
| 22 | 3 | -16 | 8 | -30 | 38 | -2 | 57 | 24 | 76 | 32 | 92 | 60 |
| 23 | -1 | -25 | 0 | -31 | 32 | 5 | 61 | 27 | 82 | 42 | 80 | 56 |
| 24 | -4 | -35 | 11 | $-5$ | 38 | 24 | 62 | 28 | 89 | 45 | 90 | 52 |
| 25 | 2 | $-23$ |  | -6 | 25 | 10 | 66 | 40 | 87 | 48 | 85 | 62 |
| 28 | 16 | $-2$ | 9 | 0 | 23 | 8 | 75 | 37 | 90 | 53 | 75 | 55 |
| 27 | 10 | - ฐ | 12 | $-4$ | 29 | 2 | 50 | 30 | 88 | 51 | 74 | 48 |
| 28 | -5 | -23 | 15 | - 3 | 93 | $-6$ | 40 | 19 | 84 | 47 | 70 | 47 |
| 29 | 0 | -34 | 16 | -22 | 30 | -6 | 37 | 16 | 71 | 46 | 77 | 47 |
| 30 | 10 | -17 |  |  | 29 | - 2 | 43 | 17 | 79 | 54 | 55 | 54 |
| 31 | -8 | $-34$ |  |  | 34 | 0 |  |  | 60 | $45$ | 5 | 54 |
|  | 6.1 | $-150$ |  | $-19.0$ | $21 \cdot 3$ | $-5.0$ | 469 | 23.5 | 66.8 | -40.1 | 732 | $\overline{47 \cdot 3}$ |

Maximum andiMinimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. ! | Min. | Max. | Min. | Max. 1 | Min. | Max. | Min. | Max. | Min. |  |
| $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | - | - | $\bigcirc$ | - | - | $\bigcirc$ | - | - |  |
| 86 | 49 | 84 | 67 | 67 | 44 | 67 | 25 | 41 | 30 | 0 | -29 | 1 |
| 75 | 58 | 88 | 54 | 76 | 40 | 52 | 43 | 36 | 30 | 12 | -8 | 2 |
| 74 | 54 | 82 | 60 | 67 | 42 | 39 | 24 | 34 | 17 | 14 | -10 | 3 |
| 77 | 48 | 91 | 52 | 70 | 39 | 42 | 20 | 22 | 4 | 20 | -1 | 4 |
| 84 | 46 | 79 | 61 | 72 | 41 | 41 | 28 | 22 | 5 | 39 | 4 | 5 |
| 80 | 63 | 83 | 52 | 60 | 50 | 40 | 18 | 28 | 6 | 23 | -8 | 6 |
| 76 | 59 | 87 | 57 | 62 | 46 | 36 | 20 | 37 | 10 | -2 | -18 | 7 |
| 95 | 63 | 95 | 64 | 57 | 41 | 40 | 15 | 56 | 23 | -4 | -34 | 8 |
| 75 | 54 | 93 | 64 | 58 | 48 | 50 | 26 | 50 | 24 | - 5 | -38 | 9 |
| 73 | 52 | 71 | 55 | 63 | 48 | 37 | 24 | 64 | 29 | 10 | -18 | 10 |
| 79 | 50 | 77 | 50 | 68 | 38 | 55 | 20 | 37 | 18 | 35 | 8 | 11 |
| 78 | 53 | 70 | 58 | 70 | 39 | 37 | 24 | 18 | 12 | 32 | 8 | 12 |
| 80 | 50 | 58 | 51 | 69 | 40 | 33 | 22 | 12 | - 5 | 28 | -10 | 13 |
| 82 | 51 | 68 | 42 | 70 | 37 | 38 | 15 | 13 | -6 | 4 | -38 | 14 |
| 81 | 55 | 65 | 43 | 73 | 39 | 46 | 20 | 12 | $-1$ | 10 | -28 | 15 |
| 92 | 59 | 71 | 45 | 69 | 52 | 58 | 22 | 20 | 4 | 7 | -35 | 16 |
| 74 | 59 | 80 | 43 | 74 | 48 | 64 | 28 | 32 | 10 | - 1 | -36 | 17 |
| 88 | 50 | 78 | 56 | 70 | 40 | 68 | 32 | 27 | -10 | 8 | -24 | 18 |
| 78 | 61 | 76 | 45 | 74 | 39 | 60 | 43 | 25 | -13 | -10 | -29 | 19 |
| 77 | 45 | 77 | 39 | 68 | 47 | 53 | 45 | 26 | 5 | -2 | -22 | 20 |
| 70 | 51 | 72 | 66 | 73 | 42 | 49 | 36 | 14 | -4 | -12 | -3 ${ }^{1}$ | 21 |
| 72 | 39 | 76 | 66 | 68 | 42 | 39 | 34 | 16 | 8 | -10 | -28 | 22 |
| 76 | 44 | 74 | 59 | 87 | 40 | 42 | 27 | 16 | - 3 | -1 | -15 | 23 |
| 82 | 47 | 60 | 53 | 59 | 42 | 38 | 25 | 24 | 13 | 2 | $-10$ | 24 |
| 84 | 53 | 61 | 46 | 60 | 34 | 37 | 25 | 27 | 10 | -5 | -24 | 25 |
| 77 | 60 | 69 | 32 | 60 | 30 | 35 | 24 | 29 | 12 | 6 | -18 | 26 |
| 83 | 54 | 79 | 54 | 68 | 42 | 49 | 25 | 12 | -11 | 2 | $-17$ | 27 |
| 89 | 56 | 82 | 50 | 50 | 36 | 57 | 28 | -5 | -18 | 1 | -10 | 28 |
| 92 | 57 | 80 | 58 | 47 | 32 | 61 | 35 | -2 | -19 | $-7$ | -27 | 29 |
| 93 | 57 | 74 | 54 | 48 | 25 | 58 | 28 | -13 | -32 | -2 | -28 | 30 |
| 92 | 69 | 65 | 48 |  | . | 50 | 30 |  |  | -2 | -19 | 31 |
| 81.1 | $52 \cdot 9$ | 76.2 | 53.0 | $65 \cdot 3$ | $40 \cdot 8$ | 473 | $26 \cdot 8$ | $24 \cdot 3$ | 49 | 61 | $-189$ |  |

Table XXV.-York Factory, Hudson's Bay.

| Day | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | - | - | - | - | - | - | - | - | - | - |
| 1 | - |  | -28 | -45 | -1 | -26 | 30 | -9 | 43 | 16 | 51 | 27 |
| 2 | - |  | -22 | -35 | 9 | - 5 | 40 | 2 | 35 | 26 | 43 | 29 |
| 3 | - |  | -20 | -49 | 12 | -32 | 24 | 2 | 31 | 24 | 63 | 34 |
| 4 | - | . | -38 | -53 | -22 | -32 | 44 | 15 | 33 | 24 | 72 | 33 |
| 5 | - |  | -13 | -38 | -24 | -46 | 28 | 3 | 50 | 33 | 42 | 29. |
| 6 | - | - | -12 | -40 | -15 | -46 | 12 | 3 | 55 | 33 | 54 | 32 |
| 7 |  |  | -23 | -46 | -8 | -29 |  | -13 | 57 | 35 | 67 | 35. |
| 8 | - | - | -14 | -35 | - 3 | -28 | 0 | -17 | 58 | 34 | 55 | 31 |
| 9 |  |  | -14 | -37 | 10 | -22 | 13 | -12 | 38 | 30 | 74 | 44. |
| 10 |  |  | $-10$ | -26 | -19 | -32 | 28 | 9 | 36 | 27 | 77 | 52 |
| 11 | - | - | - 3 | -12 | -12 | -31 | 37 | 17 | 38 | 29 | 69 | 40. |
| 12 | - 1 | $-23$ | $-5$ | -14 | -19 | -36 | 28 | 24 | 31 | 25 | 51 | 35 |
| 13 | - 1 | -22 | -6 | -28 | $-5$ | -34 | 41 | 28 | 32 | 22 | 51 | 34 |
| 14 | $-6$ | -27 | $-9$ | -25 | 4 | -32 | 42 | 20 | 43 | 25 | 56 | 29. |
| 15 | 5 | $-7$ | $-4$ | -22 | -13 | -32 | 35 | 13 | 56 | 29 | 52 | 34 |
| 16 | 9 | -14 | - 3 | -25 | -19 | -37 | 23 | 12 | 63 | 40 | 43 | 31 |
| 17 | 19 | 6 | 10 | -27 | -8 | -35 | 20 | 9 | 57 | 39 | 59 | 34 |
| 18 | 22 | -2 | 17 | 7 | 0 | -30 | 20 | 9 | 53 | 31 | 68 | 41 |
| 19 | 2 | -23 | 15 | -20 | 10 | -25 | 21 | - 1 | 67 | 44 | 69 | 40 |
| 20 | -2 | -23 | -16 | -38 | -6 | -24 | 32 | 3 | 52 | . 2 | 51 | 36. |
| 21 | $-4$ | -18 | $-9$ | -18 | 14 | -19 | 38 | 26 | 40 | 28 | 49 | 35 |
| 22 | -7 | -18 | -10 | -33 | -18 | - 3 | 43 | 20 | 72 | 23 | 69 | 46. |
| 23 | $-3$ | -22 | $-23$ | -29 | 9 | -30 | 47 | 23 | 43 | 27 | 79 | 52 |
| 24 | $-15$ | -38 | $-21$ | -34 | 24 | -28 | 48 | 12 | 53 | 25 | 74 | 58 |
| 25 | -13 | -25 | -24 | -35 | 10 | -20 | 28 | 10 | 78 | 45 | 50 | 38 |
| 26 | -6 | -26 | -21 | -46 | -9 | -25 | 51 | 18 | 48 | 33 | 50 | 42 |
| 27 | -4 | -34 | $-1$ | -22 | $-6$ | -21 | 53 | 35 | 44 | 31 | 51 | 37 |
| 28 | -25 | -43 | 1 | $-5$ | 2 | -14 | 54 | 8 | 41 | 27 | 59 | 38 |
| 29 | -24 | -42 | 3 | $-20$ | 7 | -15 | 18 | 4 | 61 | 27 | 74 | 34 |
| 30 | $-29$ | --48 |  |  | 9 | $-9$ | 16 | 7 | 50 | 26 | 72 | 44 |
| 31 | -20 | -37 |  |  | 15 | -11 |  |  | 33 | 26 |  | - |
|  | $-5.6$ | -24 | $-10.5$ | -29 | $-1 \cdot 1$ | $-26.1$ | $30 \cdot 5$ | $9 \cdot 4$ | $48 \cdot 1$ | 29.6 | 59.8 | 37. |

## Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Mas. | Min. | Max. | Min. | Max. | Min. |  |
| - | - | - | - | - | - | - | - | - | - | - | - |  |
| 62 | 41 | 78 | 62 | 59 | 43 | 42 | 28 | 28 | 24 | -12 | -29 | 1 |
| 72 | 52 | 80 | 61 | 55 | 41 | 38 | 32 | 28 | 1 | 13 | -16 | 2 |
| 65 | 40 | 80 | 61 | 58 | 39 | 32 | 23 | 6 | -6 | 18 | 3 | 3 |
| 64 | 40 | 67 | 49 | 65 | 40 | 25 | 20 | 10 | -10 | 23 | 9 | 4 |
| 72 | 42 | 56 | 42 | 46 | 39 | 30 | 19 | 9 | $-7$ | 24 | 6 | 5 |
| 65 | 54 | 67 | 53 | 52 | 38 | 26 | 17 | 18 | 0 | 6 | -10 | 6 |
| 66 | 49 | 78 | 52 | 46 | 41 | 23 | 16 | 32 | 17 | - 7 | -25 | 7 |
| 55 | 40 | 84 | 65 | 50 | 39 | 26 | 17 | 35 | 17 | -20 | -31 | 8 |
| 50 | 40 | 67 | 44 | 62 | 38 | 31 | 22 | 16 | 4 | -27 | -35 | 9 |
| 62 | 51 | 46 | 42 | 63 | 46 | 28 | 18 | 36 | 8 | -2 | -33 | 10 |
| 65 | 50 | 48 | 39 | 74 | 45 | 27 | 15 | 9 | -11 | 7 | -12 | 11 |
| 69 | 50 | 50 | 39 | 72 | 40 | 20 | 10 | 5 | -12 | -4 | -29 | 12 |
| 61 | 52 | 76 | 40 | 51 | 35 | 20 | 16 | -5 | -17 | -20 | -36 | 13 |
| 60 | 48 | 70 | 40 | 42 | 32 | 19 | 14 | -9 | -22 | $-13$ | -28 | 14 |
| 60 | 48 | 71 | 44 | 41 | 33 | 36 | 15 | -8 | -24 | -13 | -35 | 15 |
| 75 | 45 | 61 | 46 | 53 | 38 | 30 | 14 | 6 | -14 | --20 | -32 | 16 |
| 72 | 44 | 76 | 45 | 53 | 28 | 37 | 25 | -6 | -21 | -24 | -35 | 17 |
| 63 | 49 | 57 | 41 | 52 | 41 | 35 | 27 | 0 | -14 | -19 | -28 | 18 |
| 56 | 43 | 54 | 37 | 52 | 38 | 35 | 27 | 16 | - 3 | -23 | -38 | 19 |
| 50 | 40 | 70 | 39 | 60 | 49 | 34 | 32 | 21 | 12 | -26 | -36 | 20 |
| 51 | 42 | 80 | 39 | 68 | 46 | 37 | 33 | 23 | 18 | $-13$ | -36 | 21 |
| 73 | 42 | 86 | 59 | 69 | 50 | 37 | 33 | 17 | 5 | 3 | -13 | 22 |
| 60 | 40 | 71 | 50 | 62 | 41 | 35 | 32 | 11 | 2 | -2 | -14 | 23 |
| 91 | 50 | 55 | 42 | 55 | 38 | 34 | 31 | 21 | 1 | 3 | -14 | 24 |
| 82 | 57 | 55 | 41 | 48 | 41 | 31 | 21 | 8 | -15 | 8 | 0 | 25 |
| 87 | 56 | 57 | 38 | 48 | 34 | 22 | 8 | 20 | -17 | 10 | 1 | 26 |
| 65 | 55 | 60 | 29 | 43 | 36 | 26 | 10 | -14 | -25 | 5 | --6 | 27 |
| 65 | 47 | 68 | 42 | 42 | 31 | 33 | 22 | -9 | -25 | -1 | -16 | 28 |
| 63 | 43 | 67 | 51 | 36 | 31 | 37 | 32 | 14 | -26 | -14 | -22 | 29 |
| 85 | 45 | 63 | 48 | 33 | 28 | 33 | 32 | 13 | -25 | -2 | -16 | 30 |
| 99 | 65 | 54 | 47 | - |  | 32 | 28 |  |  | - 5 | -19 | 31 |
| 67.2 | $47 \cdot 1$ | $66 \cdot 2$ | $46 \cdot 1$ | 53'7 | 38.6 | 30.7 | $22 \cdot 2$ |  | $6 \cdot 2$ |  | $-20.2$ |  |

Table XXVI--Little Current, Ontario

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | - | 0 | - | $\bigcirc$ | - | - | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ |
| 1 | 38 | 29 | 5 | - 9 | 24 | 7 | 34 | 18 | 47 | 33 | 80 | 53 |
| 2 | 50 | 30 | -11 | -22 | 22 | 6 | 35 | 16 | 50 | 32 | 67 | 54 |
| 3 | 32 | 14 | 14 | -11 | 29 | 4 | 36 | 30 | 52 | 33 | 62 | 49 |
| 4 | 10 | - 3 | $-1$ | -11 | 37 | 9 | 39 | 31 | 45 | 33 | 57 | 47 |
| 5 | 30 | 7 | 31 | -15 | 41 | 24 | 39 | 28 | 42 | 33 | 58 | 44 |
| 6 | 21 | 5 | 37 | 28 | 48 | 36 | 40 | 29 | 50 | 39 | 68 | 44 |
| 7 | 33 | 10 | 42 | 17 | 50 | 13 | 41 | 29 | 50 | 38 | 62 | 45. |
| 8 | 39 | 23 | 23 | 12 | 20 | 6 | 32 | 20 | 52 | 38 | 73 | 50 |
| 9 | 43 | 33 | 23 | 10 | 25 | 10 | 35 | 17 | 54 | 35 | 73 | 56 |
| 10 | 41 | 0 | 33 | 9 | 38 | 25 | 38 | 21 | 57 | 36 | 77 | 48 |
| 11 | 11 | -4 | 41 | 20 | 38 | 33 | 42 | 28 | 59 | 36 | 75 | 66 |
| 12 | 12 | - 3 | 38 | 18 | 34 | 13 | 41 | 32 | 50 | 40 | 75 | 58 |
| 13 | 17 | $-4$ | 24 | 6 | 15 | 1 | 43 | 32 | 54 | 35 | 72 | 59 |
| 14 | 24 | 7 | 39 | 19 | 17 | 1 | 52 | 34 | 53 | 31 | 75 | 62 |
| 15 | 36 | 3 | 32 | 19 | 21 | 0 | 41 | 33 | 50 | 37 | 73 | 65 |
| 16 | 32 | 30 | 20 | 13 | 18 | 14 | 40 | 29 | 54 | 42 | 73 | 61 |
| 17 | 39 | 31 | 20 | 7 | 18 | 3 | 36 | 25 | 55 | 41 | 69 | 61 |
| 18 | 34 | 32 | 36 | 10 | 13 | -11 | 38 | 29 | 64 | 42 | 69 | 52 |
| 19 | 31 | 30 | 35 | 7 | 19 | -2 | 44 | 29 | 67 | 41 | 66 | 47 |
| 20 | 13 | 0 | 17 | 6 | 21 | 5 | 36 | 25 | 58 | 45 | 64 | 50 |
| 21 | 9 | $-3$ | 31 | 6 | 26 | 15 | 46 | 33 | 70 | 49 | 65 | 53 |
| 22 | 21 | -2 | 14 | - 8 | 29 | 10 | 49 | 35 | 53 | 39 | 73 | 56. |
| 23 | 28 | 16 | 1 | -15 | 32 | 15 | 53 | 31 | 60 | 32 | 76 | 57 |
| 24 | 22 | 6 | 7 | $-8$ | 32 | 11 | 52 | 32 | 72 | 45 | 80 | 58 |
| 25 | 24 | 0 | 15 | 1 | 33 | 27 | 54 | 29 | 60 | 44 | 86 | 61 |
| 26 | 37 | 0 | 10 | 6 | 34 | 25 | 51 | 29 | 74 | 36 | 79 | 58 |
| 27 | 36 | 8 | 13 | 8 | 32 | 18 | 48 | 37 | 76 | 49 | 72 | 60 |
| 28 | 37 | 29 | 16 | 6 | 27 | 11 | 50 | 31 | 77 | 50 | 75 | 53. |
| 29 | 39 | 0 | 18 | 10 | 31 | 19 | 43 | 28 | 77 | 47 | 70 | 51 |
| 30 | 31 | $-3$ |  |  | 36 | 26 | 42 | 34 | 54 | 42 | 68 | 54 |
| 31 | 34 | 28 |  |  | 36 | 23 |  |  | 64 | 45 |  |  |
|  | $29 \cdot 3$ | $10 \cdot 7$ | $21 \cdot 7$ | $5 \cdot 9$ | 29.0 | $13 \cdot 1$ | $42 \cdot 3$ | $28 \cdot 3$ | 57•8 | $39 \cdot 3$ | $70 \cdot 8$ | 56.2 |

Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | D度. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| - |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | - | $\bigcirc$ | $\bigcirc$ | - | - | - |  |
| 72 | 48 | 77 | 67 | 70 | 51 | 52 | 41 | 56 | 45 | 13 | $-1$ | 1 |
| 66 | 60 | 77 | 43 | 65 | 51 | 58 | 36 | 53 | 41 | 21 | 9 | 2 |
| 76 | 61 | 82 | 48 | 67 | 46 | 59 | 43 | 50 | 39 | 24 | 15 | 3 |
| 72 | 58 | 84 | 61 | 64 | 49 | 55 | 39 | 46 | 35 | 26 | 11 | 4 |
| 66 | 55 | 85 | 67 | 67 | 46 | 45 | 33 | 48 | 35 | 35 | 21 | 5 |
| 77 | 56 | 85 | 67 | 65 | 41 | 51 | 38 | 62 | 35 | 37 | 29 | 6 |
| 79 | 62 | 75 | 67 | 65 | 40 | 45 | 31 | 44 | 35 | 32 | 9 | 7 |
| 86 | 66 | 77 | 57 | 66 | 56 | 37 | 31 | 55 | 31 | - 12 | 2 | 8 |
| 89 | 66 | 84 | 55 | 68 | 54 | 51 | 28 | 34 | 31 | 13 | -14 | 9 |
| 80 | 63 | 83 | 60 | 67 | 46 | 56 | 33 | 36 | 28 | 13 | $-17$ | 10 |
| 80 | 57 | 79 | 70 | 68 | 47 | 41 | 32 | 48 | 26 | 23 | 12 | 11 |
| 81 | 58 | 79 | 68 | 63 | 46 | 52 | 31 | 44 | 31 | 28 | 22 | 12 |
| 82 | 65 | 83 | 63 | 61 | 37 | 44 | 24 | 47 | 31 | 35 | 26 | 12 |
| 79 | 64 | 86 | 64 | 64 | 45 | 44 | 25 | 44 | 24 | 35 | 4 | 14 |
| 78 | 56 | 73 | 56 | 63 | 49 | 35 | 23 | 29 | 20 | 29 | -8 | 15 |
| 81 | 61 | 70 | 52 | 63 | 41 | 48 | 32 | 39 | 23 | 14 | -21 | 16 |
| 84 | 66 | 74 | 61 | 65 | 40 | 43 | 30 | 39 | 34 | $-5$ | -21 | 17 |
| 82 | 69 | 72 | 52 | 65 | 54 | 55 | 26 | 40 | 34 | 9 | $-9$ | 18 |
| 84 | 61 | 76 | 61 | 68 | 52 |  |  | 43 | 37 | 19 | -9 | 19 |
| 74 | 62 | 66 | 51 | 67 | 51 | 56 | 33 | 44 | 39 | 5 | -14 | 20 |
| 69 | 57 | 71 | 43 | 66 | 52 | 61 | 45 | 42 | 37 | 23 | 3 | 21 |
| 62 | 52 | 76 | 51 | 65 | 52 | 59 | 48 | 44 | 34 | 19 | - 3 | 22 |
| 70 | 56 | 76 | 61 | 64 | 55 | 65 | 44 | 43 | 29 | 7 | -7 | 23 |
| 68 | 55 | 78 | 59 | 70 | 51 | 49 | 37 | 36 | 27 | 4 | -13 | 24 |
| 67 | 44 | 63 | 54 | 68 | 54 | 48 | 37 | 35 | 29 | 9 | -6 | 25 |
| 84 | 46 | 64 | 51 | 59 | 42 | 44 | 30 | 37 | 26 | 17 | 6 | 26 |
| 66 | 47 | 68 | 51 | 56 | 46 | 31 | 26 | 40 | 29 | 27 | 17 | 27 |
| 70 | 59 | 74 | 59 | 58 | 44 | 43 | 31 | 32 | 26 | 23 | - 5 | 28 |
| 88 | 55 | 75 | 60 | 54 | 41 | 42 | 27 | 32 | 12 | 11 | -5 | 29 |
| 80 | 57 | 70 | 50 | 52 | 41 | 60 | 34 | 14 | -5 | 11 | -3 | 30 |
| 82 | 57 | 84 | 62 |  |  | 55 | 38 |  |  | 9 | 19 | 31 |
| 76.0 | 57.9 | 75.9 | 57.2 | $61 \cdot 6$ | 45.5 | 490 | $33 \cdot 3$ | $41 \cdot 8$ | $29 \cdot 8$ | $18 \cdot 7$ | 0.8 |  |

Table XXVII--Parry Sodnd, Ontario.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | - | - | - | - | - | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - |
| 1 | 43 | 35 | 42 | $-8$ | 24 | 5 | 41 | 15 | 47 | 25 | 82 | 61 |
| 2 | 50 | 30 | 8 | -22 | 24 | - 2 | 48 | 6 | 53 | 26 | 72 | 50 |
| 3 | 37 | 2 | 20 | -23 | 32 | -11 | 41 | 31 | 55 | 30 | 64 | 46 |
| 4 | 12 | -4 | 21 | -17 | 35 | 0 | 40 | 32 | 46 | 32 | 58 | 43 |
| 5 | 30 | 7 | 21 | -20 | 42 | 13 | 41 | 28 | 47 | 31 | 57 | 40 |
| 6 | 29 | 3 | 41 | 17 | 47 | 36 | 41 | 31 | 53 | 36 | 68 | 41 |
| 7 | 35 | 8 | 39 | 21 | 52 | 25 | 41 | 26 | 54 | 37 | 70 | 43 |
| 8 | 38 | 27 | 28 | 15 | 29 | 12 | 34 | 17 | 54 | 38 | 79 | 49 |
| 9 | 47 | 34 | 27 | 17 | 31 | 8 | 41 | 10 | 53 | 37 | 73 | 57 |
| 10 | 45 | - 2 | 30 | 4 | 44 | 23 | 43 | 13 | 53 | 35 | 80 | 53 |
| 11 | 14 | -5 | 45 | 24 | 42 | 32 | 57 | 24 | 55 | 30 | 91 | 55 |
| 12 | 11 | -5 | 42 | 13 | 42 | 18 | 50 | 32 | 53 | 36 | 87 | 63 |
| 13 | 13 | $-7$ | 40 | 13 | 21 | - 8 | 53 | 39 | 53 | 31 | 90 | 60 |
| 14 | 28 | 8 | 37 | 24 | 18 | -13 | 53 | 35 | 50 | 27 | 77 | 60 |
| 15 | 37 | - 2 | 35 | 22 | 29 | -13 | 42 | 32 | 53 | 35 | 82 | 60 |
| 16 | 37 | 29 | 23 | 13 | 20 | 13 | 42 | 27 | 65 | 37 | 85 | 66 |
| 17 | 39 | 31 | 19 | 1 | 20 | 0 | 42 | 26 | 64 | 46 | 79 | 67 |
| 18 | 40 | 36 | 31 | 11 | 9 | -15 | 42 | 26 | 60 | 41 | 78 | 55 |
| 19 | 39 | 26 | 35 | 9 | 20 | -19 | 44 | 26 | 72 | 35 | 71 | 49 |
| 20 | 28 | 8 | 17 | $-3$ | 23 | -6 | 45 | 21 | 76 | 43 | 61 | 53 |
| 21 | 17 | $-6$ | 34 | $-5$ | 29 | 14 | 45 | 29 | 74 | 54 | 63 | 62 |
| 22 | 19 | -4 | 20 | - 3 | 29 | 13 | 53 | 28 | 66 | 36 | 70 | 48 |
| 23 | 27 | 18 | 2 | -15 | 35 | 7 | 53 | 29 | 54 | 29 | 78 | 50 |
| 24 | 27 | 7 | 8 | -11 | 47 | 4 | 55 | 25 | 64 | 32 | 75 | 55 |
| 25 | 27 | 2 | 24 | -8 | 34 | 26 | 55 | 29 | 62 | 39 | 82 | 58 |
| 28 | 25 | -12 | 20 | 8 | 37 | 27 | 58 | 24 | 71 | 34 | 83 | 54 |
| 27 | 36 | 21 | 18 | 3 | 34 | 21 | 60 | 39 | 76 | 43 | 70 | 51 |
| 28 | 38 | 28 | 19 | 10 | 32 | 15 | 53 | 30 | 74 | 48 | 73 | 53 |
| 29 | 44 | - 1 | 26 | 13 | 40 | 19 | 45 | 25 | 58 | 40 | 79 | 48 |
| 30 | 22 | - 7 | - | - | 36 | 19 | 43 | 23 | 65 | 31 | 66 | 51 |
| 31 | 34 | 13 | - | - | 36 | 26 | . | . | 86 | 43 | - | - |
|  | $31 \cdot 1$ | $10 \cdot 2$ | $26 \cdot 5$ | 3.4 | 31.6 | $8 \cdot 5$ | 46.5 | $25 \cdot 8$ | $60 \cdot 1$ | 36.0 | 74.7 | $53 \cdot 3$ |

## Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day- |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| \% | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | 0 |  |
| 77 | 46 | 81 | 50 | 72 | 57 | 52 | 36 | 53 | 47 | 12 | -6 | 1 |
| . 68 | 55 | 86 | 52 | 64 | 50 | 57 | 32 | 58 | 46 | 20 | 8 | 2 |
| 74 | 62 | 84 | 58 | 67 | 47 | 54 | 44 | 53 | 36 | 25 | 12 | 3 |
| 73 | 52 | 85 | 65 | 64 | 49 | 48 | 37 | 45 | 35 | 26 | 8 | 4 |
| 76 | 51 | 87 | 65 | 64 | 38 | 45 | 30 | 46 | 36 | 35 | 8 | 5 |
| 76 | 54 | 86 | 68 | 68 | 40 | 53 | 39 | 43 | 34 | 41 | 29 | 6 |
| 76 | 54 | 76 | 65 | 69 | 55 | 43 | 32 | 43 | 33 | 41 | 13 | 7 |
| 81 | 64 | 79 | 54 | 67 | 52 | 41 | 28 | 41 | 31. | 22 | 8 | 8 |
| 89 | 63 | 85 | 51 | 69 | 51 | 53 | 26 | 38 | 29 | 22 | -19 | 9 |
| 82 | 67 | 89 | 53 | 69 | 46 | 54 | 31 | 41 | 26 | 1 | -30 | 10 |
| 84 | 59 | 89 | 63 | 71 | 41 | 43 | 27 | 42 | 30 | 17 | - 5 | 11 |
| 84 | 59 | 85 | 68 | 60 | 42 | 48 | 36 | 47 | 30 | 31 | 14 | 12 |
| 83 | 63 | 88 | 67 | 65 | 41 | 47 | 36 | 48 | 31 | 39 | 27 | 13 |
| 80 | 59 | 89 | 67 | 65 | 46 | 44 | 22 | 44 | 27 | 39 | 16 | 14 |
| 81 | 57 | 75 | 54 | 66 | 42 | 42 | 19 | 36 | 19 | 23 | -9 | 15 |
| 80 | 54 | 74 | 47 | 67 | 37 | 46 | 29 | 39 | 27 | 20 | -21 | 16 |
| 87 | 56 | 75 | 58 | 65 | 41 | 44 | 24 | 41 | 34 | 1 | --30 | 17 |
| 84 | 67 | 77 | 56 | 65 | 50 | 48 | 21 | 42 | 35 | 3 | $-10$ | 18 |
| 87 | 64 | 76 | 61 | 65 | 50 | 61 | 29 | 46 | 39 | 7 | -17 | 19 |
| 78 | 66 | 68 | 48 | 74 | 45 | 64 | 43 | 45 | 37 | 5 | -27 | 20 |
| 71 | 51 | 68 | 43 | 71 | 52 | 69 | 51 | 43 | 35 | 16 | 1 | 21 |
| 60 | 49 | 73 | 48 | 71 | 51 | 60 | 42 | 43 | 36 | 21 | 5 | 22 |
| 70 | 46 | 80 | 60 | 65 | 56 | 60 | 44 | 42 | 29 | 13 | -1 | 23 |
| 66 | 48 | 81 | 59 | 71 | 55 | 49 | 40 | 42 | 23 | 10 | 17 | 24 |
| 65 | 42 | 72 | 58 | 68 | 51 | 44 | 34 | 42 | 28 | 18 | 15 | 25 |
| 69 | 42 | 64 | 54 | 59 | 43 | 40 | 29 | 41 | 26 | 26 | 16 | 26 |
| 76 | 47 | 65 | 52 | 50 | 40 | 37 | 24 | 34 | 24 | 27 | 20 | 27 |
| 63 | 58 | 71 | 45 | 56 | 45 | 44 | 26 | 29 | 16 | 25 | -1 | 28 |
| 76 | 54 | 77 | 49 | 53 | 42 | 44 | 25 | 27 | 8 | 16 | -6 | 29 |
| 81 | 52 | 80 | 51 | 53 | 41 | 48 | 26 | 14 | -5 | 12 | 0 | 30 |
| 84 | 51 | 81 | 59 |  |  | 54 | 43 |  |  | 15 | -1 | 31 |
| 76.8 | 55.4 | 78.8 | $56 \cdot 4$ | $65 \cdot 3$ | $46 \cdot 6$ | $49 \cdot 4$ | $32 \cdot 4$ | 41.5 | $29 \cdot 3$ | 20.2 | $1 \cdot 0$ |  |

Table XXVIII-Windsor, Ontario.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | ${ }^{\circ}$ | $\stackrel{\circ}{\circ}$ | 22 | $\stackrel{\circ}{5}$ | $\stackrel{\circ}{\circ}$ | $\stackrel{\circ}{8}$ | c 65 |
| 1 | 67 | 39 | 39 | 14 | 26 | 17 | 36 | 22 | 53 | 26 | 82 | 65 |
| 2 | . | - | 14 | 6 | 30 | 13 | - | - | 54 | 34 | 81 | 64 |
| 3 | 62 | 27 | 19 | 9 | 35 | 8 | 43 | 20 | 61 | 36 | 75 | 57 |
| 4 | 33 | 14 | 18 | 8 | 43 | 16 | 47 | 34 | 59 | 45 | - | - |
| 5 | 47 | 22 | 29 | 5 | - | - | 43 | 31 | 56 | 42 | 64 | 50 |
| 6 | 42 | 28 | - | . | 65 | 31 | 52 | 32 | 56 | 43 | 77 | 47 |
| 7 | 45 | 26 | 44 | 24 | 57 | 32 | 48 | 35 | - | - | 77 | 50 |
| 8 | 53 | 34 | 38 | 22 | 32 | 24 | 50 | 29 | 75 | 48 | 86 | 61 |
| 9 | - | - | 45 | 29 | 42 | 29 | . | - | 59 | 44 | 79 | 63: |
| 10 | 52 | 3 | 54 | 31 | 53 | 26 | 48 | 26 | 57 | 44 | 90 | 65 |
| 11 | 21 | 14 | 55 | 33 | 59 | 38 | 64 | 34 | 59 | 39 | - | - |
| 12 | 22 | 12 | 50 | 27 | - | - | 73 | 44 | 58 | 43 | 90 | 62 |
| 13 | 21 | 8 | - | - | 45 | 14 | 68 | 48 | 61 | 40 | 86 | 65 |
| 14 | 31 | 15 | 56 | 33 | 30 | 14 | 60 | 40 | - | - | 85 | 68. |
| 15 | 42 | 20 | 34 | 23 | 28 | 20 | 49 | 36 | 66 | 34 | 84 | 67 |
| 16 | - | - | 24 | 20 | 48 | 23 | - | - | 58 | 45 | 81 | 68. |
| 17 | 48 | 31 | 31 | 22 | 35 | 14 | 46 | 30 | 84 | 52 | 74 | 66 |
| 18 | 52 | 38 | 41 | 19 | 15 | 7 | 48 | 30 | 68 | 57 | - | - |
| 19 | 50 | 26 | 40 | 30 | - | - | 56 | 29 | 68 | 57 | 67 | 50 |
| 20 | 30 | 23 | - | - | 25 | 7 | 71 | 37 | 87 | 55 | 64 | 51 |
| 21 | 27 | 18 | 43 | 22 | 27 | 17 | 64 | 40 | - | - | 73 | 53 |
| 22 | 28 | 23 | 33 | 17 | 34 | 10 | 66 | 42 | 85 | 44 | 76 | 61 |
| 23 | - | - | 17 | 2 | 42 | 26 |  | - | 62 | 39 | 79 | 58 |
| 24 | 43 | 25 | 26 | 10 | 39 | 25 | 56 | 33 | 73 | 31 | 90 | 63 |
| 25 | 36 | 22 | 36 | 14 | 40 | 32 | 68 | 35 | 80 | 45 | - | - |
| 26 | 33 | 13 | 36 | 23 | - | - | 66 | 34 | 83 | 46 | 90 | 65 |
| 27 | 50 | 32 | - |  | 35 | 28 | 68 | 51 | 83 | 54 | 80 | 67 |
| 28 | 51 | 33 | 34 | 22 | 31 | 21 | 60 | 42 |  | - | 75 | 64 |
| 29 | 51 | 14 | 27 | 21 | 27 | 18 | 50 | 35 | 85 | 53 | 79 | 55 |
| 30 |  | - | - | - | 32 | 21 | - | - | 68 | 49 | 76 | 54 |
| 31 | 42 | 10 | - | - | 34 | 27 |  | ,' | 88 | 52 | - | - |
|  | 41-8 | 21.8 | $35 \cdot 3$ | $19 \cdot 3$ | $37 \cdot 3$ | 20.6 | $55 \cdot 6$ | $34 \cdot 8$ | $68 \cdot 3$ | $44 \cdot 4$ | $79 \cdot 1$ | 60. |

Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| - | $\bigcirc$ | $\bigcirc$ | 3 | 0 | Q | 9 | 9 | 9 | $\underline{2}$ | P | $\bigcirc$ |  |
| 78 | 62 | 80 | 60 | 73 | 61 |  |  | 77 | 55 | 19 | 13 | 1 |
| - | - | 84 | 60 | 71 | 50 | 62 | 38 | 64 | 42 | 31 | 18 | 2 |
| 81 | 64 | 77 | 63 | - |  | 54 | 40 | 48 | 41 | - | - | 3 |
| 79 | 66 | 89 | 61 | 74 | 44 | 53 | 37 | 49 | 38 | 33 | 18 | 4 |
| 81 | 61 | 79 | 65 | 64 | 46 | 61 | 36 | - | - | 34 | 10 | 5 |
| 90 | 58 | - | - | 63 | 58 | 50 | 37 | 53 | 35 | 35 | 19 | 6 |
| 91 | 68 | 89 | 65 | 77 | 60 | 48 | 37 | 44 | 35 | 30 | 19 | 7 |
| 93 | 73 | 87 | 57 | 71 | 63 | - |  | 40 | 34 | 24 | 7 | 8 |
| . | - | 85 | 55 | 68 | 60 | 54 | 23 | 45 | 30 | 8 | $-8$ | 9 |
| 93 | 71 | 89 | 62 | - | - | 58 | 36 | 46 | 24 | - | - | 10 |
| 88 | 64 | 85 | 70 | 64 | 56 | 48 | 29 | 51 | 26 | 27 | - 9 | 11 |
| 94 | 70 | 79 | 70 | 68 | 50 | 54 | 23 | - | - | 36 | 26 | 12 |
| 93 | 73 | - | - | 66 | 45 | 59 | 26 | 62 | 31 | 42 | 32 | 13 |
| 80 | 67 | 89 | 67 | 69 | 55 | 45 | 29 | 43 | 33 | 40 | 17 | 14 |
| 83 | 61 | 78 | 64 | 75 | 50 | - | - | 44 | 32 | 28 | 10 | 15 |
| - | - | 77 | 57 | 68 | 48 | 49 | 25 | 37 | 30 | 27 | -15 | 16 |
| 80 | 58 | 83 | 64 | - | - | 54 | 25 | 41 | 35 | - | . | 17 |
| 92 | 73 | 85 | 61 | 71 | 53 | 62 | 26 | 46 | 34 | 19 | $-1$ | 18 |
| 91 | 71 | 83 | 67 | 78 | 42 | 70 | 34 | - | - | 16 | -4 | 19 |
| 88 | 69 | - | - | 80 | 53 | 69 | 46 | 49 | 41 | 20 | -8 | 20 |
| 75 | 60 | 77 | 47 | 71 | 60 | 74 | 50 | 46 | 40 | 26 | 8 | 21 |
| 79 | 52 | 77 | 48 | 67 | 61 | - | - | 44 | 29 | 25 | 17 | 22 |
| - | - | 88 | 64 | 67 | 59 | 65 | 42 | 34 | 27 | 26 | 8 | 23. |
| 80 | 50 | 93 | 66 | - |  | 48 | 38 | 33 | 27 | - |  | 24 |
| 81 | 53 | 82 | 66 | 76 | 52 | 43 | 37 | 36 | 30 | 21 | 2 | 25 |
| 72 | 50 | 77 | 48 | 62 | 40 | 43 | 32 | - | - | 25 | 14 | 26 |
| 82 | 61 |  | - | 60 | 41 | 46 | 25 | 37 | 29 | 22 | 5 | 27 |
| 85 | 65 | 82 | 45 | 56 | 39 | 51 | 33 | 34 | 26 | 20 | $-3$ | 28 |
| 70 | 63 | 80 | 57 | 58 | 38 |  | - | 31 | 20 | 30 | 11 | 29 |
| - | - | 84 | 64 | 59 | 39 | 64 | 41 | 24 | 16 | 23 | 7 | 30 |
| 83 | 60 | 91 | 67 |  |  | 77 | 54 | - | - |  |  | 31 |
| 83.8 | 63.3 | 83.2 | $60 \cdot 8$ | $68 \cdot 2$ | $50 \cdot 7$ | $56 \cdot 1$ | $34 \cdot 7$ | $44 \cdot 7$ | 32-3 | 26.3 | $8 \cdot 2$ |  |


| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | - | $\bigcirc$ | c | - | - | c | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| 1 | 51 | 35 | 44 | -8 | 24 | 6 | 32 | 15 | 39 | 27 | 82 | 64 |
| 2 | 65 | 35 | 15 | - 5 | 18 | 1 | 46 | 10 | 44 | 25 | 72 | 49 |
| 3 | 45 | 11 | 20 | $-1$ | 33 | $-2$ | 44 | 32 | 47 | 28 | 66 | 44 |
| 4 | 20 | 7 | 20 | 6 | 38 | 15 | 41 | 30 | 47 | 35 | 58 | 44 |
| 5 | 43 | 17 | 29 | 0 | 59 | 26 | 40 | 30 | 49 | 32 | 53 | 42 |
| 6 | 32 | 19 | 44 | 27 | 56 | 40 | 45 | 30 | 54 | 36 | 66 | 36 |
| 7 | 35 | 24 | 40 | 25 | 59 | 20 | 42 | 27 | 61 | 40 | 65 | 37 |
| 8 | 42 | 28 | 31 | 23 | 21 | 12 | 32 | 17 | 56 | 38 | 83 | 54 |
| 9 | 63 | 32 | 32 | 22 | 34 | 13 | 35 | 14 | 43 | 37 | 75 | 57 |
| 10 | 37 | 7 | 42 | 22 | 64 | 28 | 52 | 20 | 45 | 36 | 78 | 54 |
| 11 | 17 | 8 | 56 | 32 | 59 | 36 | 60 | 28 | 62 | 31 | 85 | 62 |
| 12 | 19 | 10 | 45 | 30 | 40 | 20 | 58 | 30 | 47 | 36 | 76 | 57 |
| 13 | 22 | 5 | 44 | 24 | 21 | 7 | 55 | 35 | 42 | 38 | 85 | 60 |
| 14 | 30 | 19 | 44 | 30 | 18 | $-2$ | 63 | 33 | 52 | 32 | 75 | 55 |
| 15 | 40 | 23 | 37 | 27 | 27 | 5 | 46 | 31 | 46 | 39 | 77 | 62 |
| 16 | 37 | 31 | 29 | 19 | 25 | 16 | 40 | 29 | 59 | 40 | 81 | 61 |
| 17 | 45 | 32 | 27 | 15 | 28 | 7 | 33 | 29 | 70 | 50 | 78 | 64 |
| 18 | 49 | 36 | 36 | 19 | 15 | -6 | 38 | 26 | 60 | 37 | 70 | 50 |
| 18 | 47 | 28 | 39 | 22 | 23 | $-8$ | 41 | 23 | 69 | 40 | 70 | 50 |
| 20 | 29 | 18 | 24 | 15 | 22 | 9 | 50 | 29 | 83 | 54 | 60 | 53 |
| 21 | 20 | 10 | 37 | 14 | 24 | 15 | 43 | 31 | 79 | 55 | 62 | 48 |
| 22 | 31 | 10 | 24 | 6 | 29 | 18 | 53 | 30 | 69 | 37 | 66 | 47 |
| 23 | 35 | 26 | 11 | - 5 | 33 | 15 | 43 | 29 | 55 | 32 | 71 | 51 |
| 34 | 27 | 18 | 14 | -1 | 45 | 17 | 49 | 28 | 70 | 34 | 81 | 52 |
| 25 | 23 | 19 | 29 | 9 | 37 | 26 | 46 | 27 | 62 | 39 | 76 | 55 |
| 26 | 27 | 14 | 23 | 17 | 34 | 28 | 61 | 27 | 69 | 34 | 83 | 50 |
| 27 | 39 | 26 | 20 | 12 | 29 | 24 | 70 | 45 | 78 | 56 | 75 | 56 |
| 28 | 49 | 30 | 23 | 14 | 27 | 18 | 58 | 29 | 70 | 55 | 81 | 50 |
| 29 | 64 | 14 | 26 | 14 | 27 | 20 | 46 | 27 | 63 | 43 | 75 | 53 |
| 30 | 26 | 15 | - |  | 30 | 22 | 38 | 24 | 65 | 33 | 65 | 47 |
| 31 | 37 | 24 | - |  | 34 | 24 |  | - | 85 | 44 | - | - |
|  | $37 \cdot 0$ | $20 \cdot 3$ | 31.2 | $14 \cdot 9$ | $33 \cdot 3$ | $15 \cdot 1$ | $46 \cdot 7$ | 27.5 | 593 | 38.3 | 73.0 | 52.3 |

Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Mex. | Min. | Max. | Min. | Max. | Min. |  |
| $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | - | - | - |  |
| 78 | 46 | 80 | 52 | 67 | 58 | 49 | 43 | 56 | 48 | 21 | 7 | 1 |
| 74 | 58 | 78 | 54 | 64 | 47 | 60 | 44 | 61 | 42 | 25 | 19 | 2 |
| 77 | 63 | 80 | 61 | 68 | 43 | 62 | 44 | 52 | 40 | 27 | 21 | 3 |
| 75 | 60 | 83 | 60 | 64 | 55 | 51 | 39 | 47 | 38 | 27 | 20 | 4 |
| 71 | 51 | 83 | 55 | 63 | 39 | 49 | 36 | 50 | 37 | 33 | 22 | 5 |
| 75 | 51 | 83 | 66 | 67 | 38 | 55 | 40 | 46 | 37 | 38 | 26 | 6 |
| 86 | 62 | 77 | 63 | 70 | 53 | 46 | 34 | 46 | 33 | 38 | 22 | 7 |
| 86 | 61 | 76 | 50 | 65 | 56 | 50 | 32 | 39 | 32 | 25 | 12 | 8 |
| 89 | 63 | 80 | 51 | 67 | 45 | 52 | 27 | 39 | 32 | 15 | 3 | 9 |
| 76 | 57 | 85 | 57 | 66 | 52 | 53 | 37 | 41 | 28 | 8 | -4 | 10 |
| 74 | 53 | 83 | 65 | 70 | 46 | 40 | 32 | 46 | 28 | 21 | - 2 | 11 |
| 81 | 60 | 80 | 67 | 62 | 38 | 47 | 29 | 53 | 30 | 34 | 20 | 12 |
| 79 | 58 | 84 | 65 | 66 | 33 | 50 | 40 | 58 | 36 | 39 | 30 | i3 |
| 70 | 60 | 85 | 66 | 62 | 48 | 53 | 27 | 39 | 29 | 42 | 19 | 14 |
| 77 | 53 | 76 | 63 | 62 | 42 | 37 | 25 | 36 | 22 | 30 | 5 | 15 |
| 78 | 50 | 74 | 52 | 70 | 36 | 50 | 36 | 39 | 28 | 24 | $-1$ | 16 |
| 86 | 58 | 74 | 59 | 65 | 45 | 49 | 26 | 46 | 29 | 7 | -- 3 | 17 |
| 84 | 61 | 78 | 60 | 58 | 52 | 51 | 25 | 45 | 36 | 20 | 3 | 18 |
| 86 | 56 | 74 | 60 | 64 | 51 | 68 | 35 | 51 | 43 | 20 | 5 | 19 |
| 80 | 55 | 69 | 53 | 79 | 52 | 66 | 45 | 45 | 40 | 12 | 0 | 20 |
| 66 | 49 | 66 | 39 | 71 | 55 | 69 | 46 | 44 | 39 | 19 | 6 | 21 |
| 65 | 46 | 74 | 45 | 75 | 54 | 63 | 45 | 45 | 33 | 25 | 17 | 22 |
| 64 | 49 | 77 | 60 | 63 | 57 | 62 | 44 | 37 | 31 | 20 | 9 | 23 |
| 62 | 52 | 84 | 60 | 69 | 52 | 49 | 37 | 34 | 28 | 17 | 3 | 24 |
| 64 | 46 | 73 | 49 | 71 | 50 | 45 | 36 | 31 | 28 | 19 | $-2$ | 25 |
| 68 ! | 38 | 69 | 45 | 62 | 44 | 43 | 34 | 38 | 23 | 24 | 15 | 26 |
| 79 | 52 | 66 | 46 | 63 | 44 | 39 | 31 | 33 | 26 | 23 | 18 | 27 |
| 69 | 51 | 70 | 42 | 58 | 44 | 44 | 32 | 36 | 27 | 24 | 20 | 28 |
| 71 | 49 | 76 | 52 | 54 | 39 | 50 | 27 | 34 | 21 | 22 | 13 | 29 |
| 73 | 51 | 80 | 50 | 52 | 43 | 57 | 35 | 23 | 8 | 20 | 12 | 30 |
| 74 | 50 | 85 | 59 |  |  | 58 | 48 | - | . | 22 | 16 | 31 |
| $75 \cdot 4$ | 53.9 | 77.5 | 56.1 | 65.2 | $47 \cdot 0$ | 52.2 | $35 \cdot 9$ | $43 \cdot 1$ | 31.7 | 23.9 | $11 \cdot 3$ |  |

Table XXX.-Goderich, Ontario.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | - | - | - | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ |
| 1 | 54 | 40 | 43 | 15 | 26 | 13 | 32 | 22 | 39 | 31 | 82 | 69 |
| 2 | 59 | 38 | 11 | 6 | 24 | 10 | 42 | 17 | 44 | 30 | 76 | 60 |
| 3 | 39 | 18 | 19 | 9 | 29 | 9 | 44 | 34 | 53 | 30 | 68 | 54 |
| 4 | 24 | 14 | 19 | 7 | 38 | 22 | 43 | 33 | 54 | 36 | 64 | 50 |
| 5 | 42 | 21 | 30 | 3 | 48 | 33 | 42 | 34 | 53 | 36 | 53 | 48 |
| 6 | 34 | 27 | 41 | 28 | 57 | 37 | 44 | 31 | 57 | 40 | 70 | 43 |
| 7 | 36 | 29 | 39 | 30 | 57 | 30 | 41 | 32 | 63 | 50 | 68 | 45 |
| 8 | 48 | 33 | 34 | 24 | 29 | 14 | 34 | 25 | 63 | 43 | 80 | 63 |
| 9 | 53 | 42 | 39 | 30 | 34 | 7 | 35 | 21 | 49 | 39 | 73 | 62 |
| 10 | 42 | 14 | 45 | 25 | 51 | 31 | 48 | 29 | 47 | 39 | 83 | 60 |
| 11 | 19 | 14 | 53 | 33 | 56 | 38 | 60 | 34 | 50 | 35 | 86 | 68 |
| 12 | 21 | 16 | 44 | 31 | 43 | 25 | 61 | 34 | 50 | 44 | 86 | 70 |
| 13 | 22 | 16 | 48 | 33 | 25 | 14 | 59 | 36 | 45 | 37 | 80 | 64 |
| 14 | 30 | 21 | 42 | 32 | 21 | 13 | 57 | 35 | 56 | 34 | 80 | 63 |
| 15 | 39 | 27 | 32 | 26 | 27 | 15 | 48 | 34 | 54 | 45 | 80 | 64 |
| 16 | 38 | 32 | 29 | 21 | 37 | 23 | 42 | 32 | 54 | 44 | 77 | 69 |
| 17 | 44 | 35 | 27 | 23 | 33 | 9 | 35 | 30 | 72 | 53 | 77 | 66 |
| 18 | 50 | 38 | 35 | 23 | 9 | -6 | 37 | 30 | 61 | 40 | 70 | 58 |
| 19 | 50 | 27 | 36 | 29 | 21 | 4 | 40 | 26 | 70 | 53 | 70 | 54 |
| 20 | 26 | 22 | 27 | 18 | 23 | 14 | 55 | 34 | 79 | 55 | 62 | 54 |
| 21 | 24 | 17 | 40 | 20 | 24 | 18 | 45 | 35 | 77 | 57 | 66 | 55 |
| 22 | 34 | 17 | 26 | 6 | 29 | 15 | 55 | 33 | 68 | 39 | 68 | 54 |
| 23 | 38 | 29 | 10 | 3 | 35 | 18 | 41 | 31 | 56 | 34 | 78 | 59 |
| 24 | 28 | 23 | 17 | 6 | 43 | 26 | 54 | 33 | 67 | 45 | 82 | 60 |
| 25 | 26 | 21 | 29 | 14 | 41 | 30 | 50 | 43 | 59 | 46 | 79 | 65 |
| 26 | 35 | 19 | 28 | 22 | 36 | 29 | 60 | 33 | 73 | 45 | 84 | 61 |
| 27 | 38 | 33 | 22 | 17 | 29 | 25 | 65 | 45 | 76 | 57 | 76 | 67 |
| 28 | 51 | 35 | 27 | 20 | 27 | 23 | 50 | 35 | 72 | 60 | 74 | 63 |
| 29 | 51 | 15 | 24 | 20 | 26 | 21 | 55 | 33 | 69 | 48 | 77 | 60 |
| 30 | 29 | 14 | $\ldots$ | $\cdots$ | 29 | 20 | 36 | 28 | 66 | 44 | 71 | 54 |
| 31 | 38 | 24 | ... | ... | 34 | 26 |  | $\ldots$ | 85 | 52 | ... | ... |
|  | $37 \cdot 5$ | $24 \cdot 8$ | 317 | $19 \cdot 8$ | 338 | $10 \cdot 6$ | 47•1 | $31 \cdot 1$ | $60 \cdot 7$ | 43.2 | $7 \pm 7$ | $50 \cdot$ |

## Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| $\stackrel{\square}{0}$ | 60 | $\bigcirc$ | $\stackrel{8}{8}$ | $\bigcirc$ | - | - | $\bigcirc$ | $\bigcirc$ | - | - | - |  |
| 69 | 60 | 80 | 60 | 74 | 63 | 52 | 42 | 59 | 51 | 23 | 7 | 1 |
| 77 | 62 | 85 | 64 | 63 | 53 | 58 | 46 | 62 | 46 | 26 | 22 | 2 |
| 75 | 63 | 78 | 67 | 69 | 48 | 55 | 48 | 45 | 42 | 30 | 19 | 3 |
| 72 | 63 | 83 | 66 | 65 | 54 | 51 | 44 | 46 | 38 | 29 | 13 | 4 |
| 77 | 58 | 83 | 69 | 63 | 44 | 50 | 42 | 50 | 31 | 32 | 21 | 5 |
| 77 | 56 | 84 | 60 | 67 | 47 | 54 | 44 | E0 | 39 | 36 | 30 | 6 |
| 84 | 68 | 78 | 65 | 69 | 56 | 49 | 38 | 43 | 37 | 33 | 25 | 7 |
| 88 | 69 | 79 | 55 | 68 | 58 | 49 | 34 | 41 | 35 | 27 | 13 | 8 |
| . 89 | 73 | 81 | 60 | 71 | 57 | 54 | 33 | 39 | 34 | 17 | 5 | 9 |
| 79 | 66 | 87 | 63 | 61 | 57 | 54 | 36 | 41 | 31 | 13 | 4 | 10 |
| 76 | 64 | 85 | 70 | 62 | 51 | 42 | 33 | 45 | 34 | 23 | 5 | 11 |
| . 84 | 70 | 80 | 70 | 64 | 50 | 49 | 33 | 52 | 34 | 34 | 23 | 12 |
| 82 | 65 | 84 | 67 | 62 | 44 | 54 | 41 | 55 | 41 | 39 | 33 | 13 |
| 77 | 64 | 86 | $69^{\circ}$ | 63 | 53 | 50 | 29 | 40 | 32 | 36 | 22 | 14 |
| $73$ | 58 | 78 | 59 | 62 | 49 | 37 | 27 | 39 | 31 | 29 | 13 | 15 |
| 78 | 55 | 74 | 58 | 68 | 44 | 49 | 36 | 43 | 34 | 29 | -2 | 16 |
| 86 | 62 | 77 | 63 | 63 | 52 | 46 | 33 | 43 | 36 | 12 | 0 | 17 |
| 83 | 68 | 81 | 45 | 58 | 53 | 50 | 30 | 52 | 38 | 19 | 16 | 18 |
| . 88 | 65 | 74 | 64 | 66 | 55 | 63 | 39 | 52 | 45 | 28 | 12 | 19 |
| 77 | 63 | 67 | 53 | 75 | 56 | 67 | 49 | 45 | 42 | 15 | 8 | 20 |
| 69 | 57 | 67 | 45 | 74 | 59 | 67 | 55 | 46 | 39 | 21 | 11 | 21 |
| 68 | 54 | 75 | 49 | 73 | 58 | 67 | 55 | 46 | 34 | 25 | 15 | 22 |
| 68 | 52 | 74 | 59 | 66 | 60 | 64 | 46 | 37 | 33 | 25 | 15 | 23 |
| 63 | 49 | 85 | 65 | 70 | 59 | 49 | 42 | 33 | 30 | 16 | 6 | 24 |
| 66 | 48 | 73 | 57 | 69 | 57 | 45 | 37 | 33 | 30 | 24 | 9 | 25 |
| 71 | 47 | 67 | 53 | 58 | 43 | 40 | 36 | 27 | 12 | 24 | 18 | 26 |
| 80 | 63 | 66 | 55 | 53 | 48 | 41 | 34 | 35 | 20 | 24 | 19 | 27 |
| 72 | 58 | 71 | 49 | 63 | 52 | 39 | 33 | 35 | 30 | 23 | 13 | 28 |
| 73 | 54 | 77 | 61 | 54 | 47 | 43 | 35 | 37 | 33 | 23 | 15 | 29 |
| 78 | 59 | 77 | 64 | 52 | 45 | 56 | 39 | 33 | 26 | 21 | 15 | 30 |
| 76 | 58 | 84 | 63 | $\cdots$ | ... | 59 | 53 | ... | ... | 23 | 17 | 31 |
| $76 \cdot 6$ | $60 \cdot 3$ | 78.2 | $61 \cdot 1$ | $64 \cdot 9$ | 52.2 | 51.8 | $39 \cdot 5$ | 43.5 | $34 \cdot 6$ | 25.0 | $14 \cdot 3$ |  |

Table XXXI -Kincardine, Ontario.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Mis. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Min | Max. |
|  | - | - | $\bigcirc$ | - | - | - | ${ }^{\circ}$ | $\stackrel{\circ}{\circ}$ | $\stackrel{\circ}{\circ}$ | - | $\bigcirc$ | - |
| 1 | 53 | 37 | . |  | 25 | 13 | 31 | 20 | 41 | 28 | 87 | 69 |
| 2 | 59 | 37 |  | - | 20 | 8 | 44 | 16 | 41 | 32 | 75 | 55 |
| 3 | 39 | 16 | 21 | 12 | 32 | 7 | 45 | 33 | 50 | 29 | 69 | 50 |
| 4 | 22 | 13 | 21 | 4 | 41 | 20 | 45 | 33 | 49 | 35 | 62 | 48 |
| 5 | 42 | 21 | 29 | 2 | 48 | 30 | 42 | 34 | 54 | 38 | 58 | 44 |
| 6 | 39 | 24 | 40 | 28 | 57 | 40 | 49 | 31 | 55 | 37 | 70 | 43 |
| 7 | 35 | 28 | 38 | 29 | 57 | 21 | 43 | 29 | 60 | 41 | 64 | 44 |
| 8 | 47 | 32 | 34 | 24 | 22 | 13 | 33 | 23 | 52 | 39 | 86 | 61 |
| 9 | 50 | 35 | 33 | 24 | 35 | 18 | 35 | 21 | 45 | 38 | 78 | 59. |
| 10 | 37 | 14 | 49 | 24 | 54 | 31 | 50 | 27 | 44 | 36 | 87 | 59 |
| 11 | 19 | 15 | 64 | 32 | 55 | 33 | 54 | 33 | 52 | 33 | 94 | 66 |
| 12 | . | . | 44 | 29 | 36 | 23 | 60 | 41 | 52 | 39 | 79 | 59 |
| 13 | 22 | 12 | 48 | 29 | 24 | 11 | 56 | 36 | 45 | 35 | 90 | 55 |
| 14 | - |  | 40 | 31 | 19 | 9 | 56 | 34 | 54 | 34 | 75 | 54 |
| 15 | 37 | 26 | 32 | 25 | 29 | 11 | - |  | 52 | 43 | 79 | 63 |
| 16 | 38 | 32 | 27 | 20 | 34 | 20 | 41 | 30 | 54 | 42 | 80 | 69 |
| 17 | 42 | 34 | 28 | 20 | 34 | 18 | 34 | 28 | 77 | 47 | 79 | 66 |
| 18 | 50 | 36 | 37 | 23 | . | . | 39 | 26 | 62 | 38 | 70 | 55 |
| 19 | 38 | 25 | 36 | 23 | . | . | 43 | 26 | 68 | 49 | 69 | 53. |
| 20 | 27 | 20 | 24 | 18 | . |  | 52 | 32 | 84 | 58 | 68 | 54 |
| 21 | 21 | 15 | 41 | 18 | - |  | 53 | 35 | 86 | 56 | 64 | 54 |
| 22 | 34 | 15 | 24 | 7 | - |  | 52 | 35 | 68 | 37 | 74 | 50 |
| 23 | 37 | 27 | 8 | 5 |  |  | 41 | 32 | 61 | 35 | . |  |
| 24 |  |  | 18 | 5 |  |  | 47 | 31 | 77 | 44 | 89 | 64 |
| 25 | 30 | 21 | 29 | 12 |  |  | 44 | 31 | 77 | 44 | 81 | 62 |
| 26 | 31 | 20 | 25 | 19 | 36 | 27 | 63 | 33 | 79 | 41 | 91 | 56 |
| 27 | 37 | 29 | 21 | 16 | 29 | 24 | 69 | 46 | 85 | 55 | 77 | 61 |
| 28 | 48 | 32 | 23 | 17 | 29 | 21 | 87 | 33 | 78 | 58 | 78 | 57 |
| 29 | 44 | 13 | 25 | 17 | 27 | 21 | 50 | 28 | 66 | 45 |  | . |
| 30 | 27 | 13 |  |  | 30 | 22 | 37 | 29 | 70 | 40 | 82 | 54 |
| 31 | 39 | 24 |  |  | 34 | 27 |  |  | 92 | 48 |  | . |
|  | 37.1 | $23 \cdot 6$ | 31.7 | 18.8 | $34 \cdot 9$ | $20 \cdot 1$ | $46 \cdot 9$ | $30 \cdot 4$ | 62.1 | 41.0 | 76.8 | 56.4 |

Maximum and Minimum Température, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | ${ }^{\circ}$ | $\bigcirc$ | $\bigcirc$ | - | - | - | - |  |
| 73 | 51 | 76 | 56 | 70 | 60 | 51 | 44 | 59 | 48 | 23 | 8 | 1 |
| 79 | 56 | 79 | 59 | 66 | 49 | 59 | 47 | 62 | 43 | 26 | 21 | 2 |
| 82 | 64 | 77 | 64 | 67 | 47 | 55 | 44 | 45 | 41 | 28 | 22 | 3 |
| 82 | 64 | 82 | 63 | 66 | 54 | 51 | 42 | 45 | 39 | 30 | 19 | 4 |
| 75 | 54 | 82 | 70 | 63 | 42 | 52 | 40 | 52 | 40 | 33 | 19 | 5 |
| 81 | 54 | 89 | 68 | 68 | 44 | 53 | 42 | 48 | 38 | 36 | 28 | 6 |
| 93 | 67 | 79 | 58 | 69 | 57 | 47 | 36 | - | . | 33 | 23 | 7 |
| 95 | 68 | 78 | 53 | 65 | 57 | 45 | 33 | 39 | 34 | 24 | 13 | 8 |
| 96 | 70 | 83 | 59 | 68 | 53 | 53 | 35 | 40 | 34 | 19 | 7 | 9 |
| 77 | 62 | 90 | 61 | 60 | 55 | 53 | 36 | 42 | 31 | 9 | 0 | 10 |
| 79 | 57 | 83 | 69 | 69 | 50 | 41 | 33 | 46 | 32 | 22 | 2 | 11 |
| 83 | 67 | 81 | 69 | 59 | 50 | 48 | 33 | 54 | 33 | 33 | 21 | 12 |
| 77 | 63 | 82 | 70 | 63 | 42 | 52 | 45 | 55 | 37 | 38 | 30 | 13 |
| 74 | 59 | 87 | 75 | 60 | 50 | 48 | 26 | 39 | 33 | 36 | 20 | 14 |
| 74 | 54 | 77 | 61 | 59 | 47 | 38 | 26 | 37 | 28 | 21 | 11 | 15 |
| 84 | 51 | 73 | 56 | 66 | 40 | 50 | 38 | 39 | 32 | 13 | 0 | 16 |
| 90 | 72 | 76 | 62 | 65 | 48 | 49 | 30 | 43 | 32 | 8 | 3 | 17 |
| 81 | 66 | 82 | 63 | 57 | 51 | 55 | 29 | 45 | 38 | 19 | 4 | 18 |
| 92 | 60 | 72 | 63 | 65 | 53 | 66 | 39 | 51 | 45 | 19 | 9 | 19 |
| 78 | 57 | 64 | 46 | 72 | 52 | 66 | 46 | 47 | 41 | 16 | 7 | 20 |
| 65 | 53 | 69 | 41 | 77 | 57 | 68 | 48 | 46 | 40 | 22 | 11 | 21 |
| 64 | 50 | 76 | 48 | 74 | 56 | 63 | 49 | 46 | 34 |  |  | 22 |
| 63 | 50 | 77 | 61 | 66 | 59 | 62 | 42 | 38 | 31 | - |  | 23 |
| 61 | 48 | 81 | 61 | 69 | 55 | 49 | 41 | 34 | 29 | . |  | 24 |
| 65 | 46 | 74 | 51 | 70 | 53 | 49 | 37 | 34 | 27 | - |  | 25 |
| 75 | 41 | 68 | 51 | 56 | 42 | 40 | 34 | 39 | 20 | . | . | 26 |
| 79 | 57 | 71 | 49 | 53 | 46 | 41 | 33 | 36 | 31 |  |  | 27 |
| 70 | 56 | 74 | 47 | 55 | 48 | 40 | 34 | 36 | 30 | 28 | 17 | 28 |
| 71 | 56 | 77 | 58 | 53 | 45 | 47 | 32 | 34 | 22 | 24 | 15 | 29 |
| 72 | 54 | 78 | 63 | 49 | 42 | 57 | 38 | 24 | 11 | 22 | 16 | 30 |
|  |  | 90 | 66 |  |  | 59 | 49 |  |  | 26 | 18 | 31 |
| 77.3 | 574 | 78.2 | $59 \cdot 2$ | 63.9 | 50.0 | 61.8 | 38.0 | $43 \cdot 2$ | $33 \cdot 6$ | 24.2 | 13.8 |  |

Table XXXII.-Stratford, Ontario.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | Juve. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | - | - | - | $\bigcirc$ | $\bigcirc$ | $\stackrel{+}{16}$ | $\stackrel{0}{45}$ | $\stackrel{\circ}{2}$ | $\stackrel{\circ}{83}$ | $\stackrel{\circ}{62}$ |
| 1 | 58 | 42 | 35 | 13 | 25 | 14 |  | 16 |  |  |  |  |
| 2 |  | - | 13 | 3 | 21 | 8 | - | . | 49 | 29 | 80 | 64 |
| 3 | 44 | 17 | 17 | 4 | 30 | 3 | 43 | 18 | 54 | 29 | 65 | 52 |
| 4 | 20 | 9 | 17 | - 6 | 35 | 15 | 40 | 32 | 49 | 42 | - |  |
| 5 | 39 | 16 | 22 | -9 |  |  | 39 | 30 | 47 | 40 | 65 | 44 |
| 6 | 37 | 23 |  |  | 50 | 27 | 42 | 31 | 56 | 44 | 69 | 38 |
| 7 | 35 | 24 | 37 | 21 | 49 | 36 | 45 | 31 | . |  | 75 | 46 |
| 8 | 41 | 29 | 37 | 19 | 37 | 16 | 35 | 26 | 66 | 48 | 81 | 59 |
| 9 |  | - | 33 | 28 | 32 | 16 | - |  | 49 | 41 | 79 | 64 |
| 10 | 46 | 10 | 33 | 26 | 43 | 25 | 44 | 21 | 48 | 40 | 84 | 58 |
| 11 | 15 | 10 | 46 | 33 | 45 | 32 | 57 | 31 | 54 | 31 | - |  |
| 12 | 16 | 6 | 39 | 27 |  |  | 55 | 38 | 52 | 40 | 89 | 60 |
| 13 | 19 | 9 |  | . | 40 | 10 | 52 | 4 i | 51 | 37 | 85 | 63 |
| 14 | 24 | 10 | 40 | 31 | 23 | 6 | 56 | 38 |  | - | 83 | 63 |
| 15 | 35 | 21 | 34 | 25 | 26 | 7 | 48 | 34 | 60 | 31 | 82 | 66 |
| 16 |  | - | 26 | 19 | 32 | 20 |  |  | 49 | 40 | 78 | 66 |
| 17 | 39 | 30 | 24 | 18 | 35 | 9 | 40 | 28 | 69 | 45 | 74 | 65 |
| 18 | 47 | 36 | 31 | 17 | 15 | $-9$ | 37 | 28 | 66 | 43 |  | - |
| 19 | 47 | 28 | 35 | 25 | - | - | 43 | 25 | 72 | 48 | 69 | 49 |
| 20 | 30 | 20 | . | - | 27 | - 9 | 48 | 28 | 81 | 47 | 63 | 51 |
| 21 | 24 | 15 | 37 | 14 | 23 | 16 | 50 | 37 | - | - | 66 | 52 |
| 22 | 25 | 15 | 32 | 8 | 29 | 15 | 52 | 31 | 80 | 42 | 74 | 54 |
| 23 | - |  | 9 | - 2 | 37 | 15 |  | - | 58 | 34 | 81 | 54 |
| 24 | 37 | 21 | 16 | 3 | 38 | 16 | 50 | 33 | 69 | 42 | 83 | 61 |
| 25 | 27 | 18 | 28 | 11 | 35 | 29 | 49 | 34 | 72 | 49 |  | . |
| 26 | 24 | 15 | 25 | 18 | - | - | 57 | 30 | 76 | 44 | 88 | 57 |
| 27 | 39 | 23 | - | - | 34 | 23 | 60 | 45 | 81 | 54 | 79 | 66 |
| 28 | 39 | 31 | 23 | 16 | 27 | 22 | 54 | 36 | - | - | 74 | 59 |
| 29 | 45 | 12 | 22 | 17 | 25 | 20 | 49 | 30 | 78 | 55 | 80 | 51 |
| 30 |  | - |  | - | 28 | 19 | - | - | 61 | 41 | 74 | 51 |
| 31 | 34 | 11 | - | - | 34 | 25 | . | - | 83 | 41 | - | . |
|  | 34.0 | $19 \cdot 3$ | $28 \cdot 3$ | 15.1 | $32 \cdot 3$ | $15 \cdot 7$ | 47.0 | $30 \cdot 9$ | 61.8 | 40.7 | 76.8 | 56.7 |

Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| - | - | - | - | - | $\bigcirc$ | - | $\stackrel{\square}{+}$ | - | - | $\bigcirc$ | $\bigcirc$ |  |
| 63 | 51 | 85 | 52 | 81 | 57 | - | - | 65 | 49 | 13 | 0 | 1 |
| . | - | 86 | 48 | 66 | 44 | 59 | 38 | 61 | 50 | 21 | 10 | 2 |
| 84 | 61 | 74 | 60 | - | - | 52 | 43 | 51 | 35 | - | - | 3 |
| 73 | 62 | 89 | 55 | 72 | 36 | 49 | 36 | 42 | 33 | 26 | 6 | 4 |
| 78 | 57 | 91 | 55, | 68 | 33 | 51 | 35 | . | - | 27 | 12 | 5 |
| 81 | 53 | - |  | 68 | 37 | 51 | 41 | 51 | 32 | 32 | 20 | 6 |
| 89 | 61 | 84 | 57 | 69 | 56 | 43 | 34 | 39 | 34 | 26 | 19 | 7 |
| 89 | 70 | 83 | 47 | 72 | 53 | - | - | 38 | 33 | 25 | 9 | 8 |
| - | - | 86 | 48 | 68 | 45 | 48 | 27 | 39 | 33 | 9 | 2 | 9 |
| 92 | 71 | 90 | 53 | - |  | 50 | 32 | 41 | 29 | - | - | 10 |
| 87 | 66 | 89 | 60 | 64 | 47 | 41 | 23 | 42 | 31 | 18 | -6 | 11 |
| 90 | 65 | 85 | 68 | 69 | 41 | 45 | 26 | - | - | 30 | 18 | 12 |
| 89 | 69 | - | - | 69 | 38 | 56 | 29 | 54 | 28 | 38 | 29 | 13 |
| 84 | 64 | 90 | 63 | 66 | 50 | 46 | 24 | 42 | 31 | 34 | 19 | 14 |
| 81 | 53 | 80 | 62 | 67 | 47 | - | - | 39 | 26 | 21 | 7 | 15 |
| - | - | 81 | 51 | 70 | 32 | 46 | 19 | 35 | 30 | 26 | $-7$ | 16 |
| 88 | 50 | 86 | 57 | - | - | 46 | 29 | 38 | 35 | - | - | 17 |
| 84 | 70 | 83 | 56 | 60 | 48 | 56 | 20 | 42 | 36 | 12 | - 8 | 18 |
| 87 | 59 | 81 | 57 | 70 | 52 | 61 | 25 | - |  | 14 | -9 | 19 |
| 82 | 62 | - | - | 77 | 48 | 67 | 39 | 45 | 38 | 10 | -16 | 20 |
| 73 | 52 | 82 | 34 | 73 | 53 | 68 | 46 | 42 | 37 | 18 | 4 | 21 |
| 71 | 49 | 81 | 38 | 69 | 54 | - | - | 43 | 29 | 25 | 15 | 22 |
| - |  | 74 | 57 | 62 | 56 | 64 | 42 | 37 | 27 | 20 | 11 | 23 |
| 68 | 44 | 88 | 61 |  | - | 46 | 36 | 33 | 24 | - | - | 24 |
| 69 | 44 | 74 | 55 | 73 | 56 | 40 | 33 | 32 | 26 | 20 | 0 | 25 |
| 74 | 40 | 69 | 45 | 61 | 40 | 37 | 32 | - | - | 19 | 10 | 26 |
| 78 | 52 | - | - | 52 | 40 | 39 | 28 | 34 | 24 | 17 | 12 | 27 |
| 73 | 61 | 78 | 38 | 55 | 38 | 34 | 32 | 32 | 26 | 20 | 10 | 28 |
| 79 | 47 | 80 | 53 | 54 | 43 |  |  | 30 | 20 | 21 | 14 | 29 |
| - | . | 79 | 60 | 51 | 34 | 50 | 30 | 20 | 7 | 19 | 9 | 30 |
| 83 | 55 | 89 | 60 | - | - | 59 | 44 | - | . | - |  | 31 |
| 80.1 | 57.2 | $82 \cdot 6$ | 53.8 | 66.2 | $45 \cdot 3$ | $49 \cdot 9$ | 32.5 | 41.0 | 30. | $21 \cdot 5$ | 73 |  |

Table XXXIII.-Simcoe, Ontario. Maximum

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | $\bigcirc$ | $\stackrel{\circ}{\circ}$ | $\stackrel{\circ}{\circ}$ | $\bigcirc$ | $\bigcirc$ | $\stackrel{\circ}{\circ}$ | $\stackrel{\square}{\square}$ | $\bigcirc$ | $\bigcirc$ | $\stackrel{-}{\circ}$ | $\stackrel{1}{0}$ |
| 1 | 61 | 44 | 38 | 18 | 25 | 15 | 35 | 24 | 54 | 23 | 88 | 61 |
| 2 | - | - | 20 | 0 | 22 | 8 |  | . | 53 | 27 | 84 | 61 |
| 3 | 58 | 25 | 20 | 0 | 33 | 3 | 49 | 13 | 60 | 32 | 71 | 59 |
| 4 | 27 | 12 | 20 | -4 | 39 | 11 | 43 | 32 | 62 | 32 | - | - |
| 5 | 48 | 17 | 25 | -10 | - |  | 43 | 30 | 53 | 44 | 71 | 47 |
| 6 | 41 | 21 | . |  | 67 | 26 | 44 | 32 | 60 | 50 | 70 | 41 |
| 7 | 41 | 26 | 43 | 20 | 56 | 42 | 48 | 30 |  |  | 77 | 45 |
| 8 | 48 | 30 | 41 | 22 | 45 | 22 | 45 | 29 | 71 | 47 | 85 | 58 |
| 9 | - |  | 33 | 29 | 33 | 21 |  |  | 57 | 41 | 88 | 66 |
| 10 | 52 | 13 | 35 | 26 | 44 | 27 | 47 | 21 | 58 | 37 | 90 | 64 |
| 11 | 24 | 12 | 53 | 35 | 51 | 32 | 63 | 31 | 64 | 36 | - | . |
| 12 | 20 | 13 | 43 | 27 |  |  | 55 | 34 | 56 | 42 | 94 | 62 |
| 13 | 20 | 13 |  | . | 42 | 10 | 56 | 38 | 57 | 32 | 86 | 62 |
| 14 | 26 | 10 | 44 | 30 | 27 | 0 | 68 | 39 |  |  | 89 | 63 |
| 15 | 39 | 26 | 34 | 26 | 27 | 16 | 39 | 25 | 64 | 30 | 87 | 66 |
| 16 |  |  | 27 | 21 | 38 | 20 |  |  | 51 | 41 | 84 | 70 |
| 17 | 41 | 32 | 27 | 22 | 38 | 12 | 47 | 30 | 72 | 47 | 74 | 66 |
| 18 | 52 | 39 | 36 | 19 | 12 | 2 | 37 | 28 | 76 | 54 | . | . |
| 19 | 51 | 130 | 41 | 24 |  | - | 50 | 26 | 71 | 48 | 74 | 50 |
| 20 | 33 | 24 | - |  | 23 | 0 | 53 | 25 | 79 | 56 | 73 | 58 |
| 21 | 24 | 17 | 40 | 20 | 27 | 19 | 57 | 38 | . |  | 73 | 55 |
| 22 | 31 | 18 | 40 | 12 | 31 | 17 | 55 | 30 | 84 | 44 | 76 | 56 |
| 23 | . |  | 40 | 3 | 38 | 20 |  |  | 59 | 34 | 84 | 52 |
| 24 | 44 | 25 | 19 | 4 | 40 | 13 | 54 | 34 | 74 | 38 | 90 | 52 |
| 25 | 32 | 22 | 27 | 12 | 39 | 32 | 54 | 34 | 75 | 50 |  |  |
| 26 | 30 | 15 | 24 | 19 |  |  | 61 | 30 | 75 | 44 | 88 | 62 |
| 27 | 49 | 30 |  |  | 37 | 25 | 63 | 42 | 87 | 53 | 87 | 70 |
| 28 | 44 | 32 | 27 | 12 | 30 | 22 | 63 | 43 |  |  | 76 | 62 |
| 29 | 42 | 15 | 27 | 17 | 30 | 22 | 58 | 30 | 86 | 54 | 81 | 51 |
| 30 |  |  | . |  | 32 | 21 |  | . | 61 | 42 | 82 | 52 |
| 31 | 39 | 11 | - | . | 39 | 28 |  |  | 81 | 40 |  |  |
|  | $39 \cdot 1$ | 22.0 | $32 \cdot 9$ | $16 \cdot 2$ | $35 \cdot 8$ | 18.0 | 51.5 | 30.7 | 66.8 | 41.4 | $81 \cdot 4$ | 58.1 |

and Minimam Temperatüre, 1876.


Table XXXIV.-Aylmer, Ontario.

| Day. | Jacuary. |  | Febraary. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | 9 | $\varepsilon$ | 9 | 16 | $\stackrel{9}{9}$ | 19 | $\stackrel{9}{38}$ | $\stackrel{9}{20}$ | $\stackrel{9}{41}$ | $\xrightarrow{2}$ | $\stackrel{8}{8}$ | $\stackrel{0}{6}$ |
| 1 |  |  | 38 | 16 | 25 | 19 | 38 | 20 |  | 26 | 82 | 64 |
| 2 | - |  | 17 | -4 | 22 | 2 | 40 | 20 | 43 | 29 | - | . |
| 3 | - |  | 19 | -4 | 34 | -1 | 48 | 33 | 53 | 29 | - | - |
| 4 | - | - | 19 | 8 | 38 | 8 | 42 | 32 | 56 | 29 | 65 | 55 |
| 5 | - | - | - 23 | -11 | 47 | 19 | 42 | 32 | 60 | 43 | 59 | 45 |
| 6 | - | - | 39 | 21 | 53 | 38 | 44 | 33 | 56 | 43 | 68 | 41 |
| 7 |  | - | 39 | 26 | 52 | 38 | 43 | 28 | 60 | 45 | 77 | 46 |
| 8 | . | - | 39 | 20 | 37 | 21 | 43 | 26 | 71 | 50 | 81 | 58 |
| 9 | - | - | 33 | 29 | 35 | 21 | 46 | 27 | 59 | 49 | 78 | 63 |
| 10 |  | - | 35 | 30 | 64 | 28 | 47 | 26 | 52 | 41 | 83 | 61 |
| 11 | - | - | 52 | 34 | 32 | 34 | 65 | 34 | 52 | 40 | 86 | 59 |
| 12 | - |  | 39 | 27 | 42 | 30 | 61 | 39 | 59 | 34 | 80 | 67 |
| 13 | - |  | 46 | 30 | 30 | 6 | 57 | 41 | 58 | 41 | 85 | 69 |
| 14 | - |  | 42 | 31 | 28 | 0 | 59 | 39 | 54 | 40 | 84 | 66 |
| 15 | - | - | 34 | 26 | 25 | 19 | 50 | 36 | 59 | 30 | 85 | 67 |
| 16 | - |  | 26 | 19 | 40 | 22 \| | 43 | 31 | 51 | 42 | 80 | 69 |
| 17 | 42 | 35 | 27 | 19 | 38 | 12 | 36 | 30 | 52 | 42 | 75 | 65 |
| 18 | 50 | 39 | 32 | 15 | 13 | 1 | 41 | 27 | 70 | 48 | 69 | 56 |
| 19 | 46 | 29 | 39 | 24 | 23 | 6 | 42 | 27 | 70 | 56 | 71 | 48 |
| 20 | 30 | 22 | 31 | 20 | 23 | 14 | 56 | 28 | 67 | 48 | 68 | 51. |
| 21 | 25 | 15 | 40 | 22 | 24 | 15 | 56 | 34 | 79 | 56 | 67 | 53 |
| 22 | 30 | 18 | 32 | 9 | 36 | 14 | 88 | 31 | 77 | 58 | 76 | 81 |
| 23 | 41 | 30 | 12 | -1 | 38 | 18 | 47 | 35 | 64 | 42 | 81 | 50 |
| 24 | 32 | 24 | 19 | 4 | 40 | 16 | 53 | 34 | 69 | 35 | 85 | 63 |
| 25 | 32 | 22 | 32 | 10 | 38 | 32 | 51 | 34 | 75 | 42 | 84 | 65 |
| 26 | 31 | 16 | 28 | 20 | 35 | 29 | 57 | 28 | 75 | 45 | 84 | 62 |
| 27 | 46 | 29 | 23 | 19 | 30 | 16 | 63 | 44 | 81 | 48 | 83 | 68 |
| 28 | 47 | 30 | 30 | 21 | 28 | 16 | 60 | 40 | 78 | 48 | 74 | 56 |
| 29 | 48 | 15 | 27 | 18 | 28 | 19 | 53 | 29 | 78 | 56 | 77 | 50 |
| 30 | 25 | 11 |  |  | 32 | 20 | 40 | 26 | 65 | 43 | 75 | 52 |
| 31 | 36 | 23 |  |  | 37 | 26 |  |  | 84 | 43 |  |  |
|  |  |  | 31.1 | 17.2 | 34.2 | 18.0 | $49 \cdot 4$ | 31.5 | 63.2 | 42.6 | 77.6 | 57. 9 |

Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| 8 | $\bigcirc$ | $\bigcirc$ | 8 | 9 | 9 | 9 | 8 | 8 | P | 8 | - |  |
| 66 | 53 | 81 | - | 79 | 56 | 53 | 30 | 66 | 50 | 17 | 5 | 1 |
| 84 | 64 | 81 | - | 69 | 44 | 60 | 41 | 64 | 49 | 26 | 14 | 2 |
| 78 | 64 | 79 | - | 73 | 40 | 58 | 46 | 51 | - 39 | 34 | 14 | 3 |
| 75 | 62 | 83 | - | 70 | 49 | 51 | 35 | 42 | 34 | 36 | 14 | 4 |
| 79 | 56 | 85 | - | 70 | 37 | 55 | 39 | 52 | 31 | 34 | 11 | $5^{\circ}$ |
| 80 | 54 | 81 | - | 68 | 39 | 56 | 43 | 49 | 36 | 36 | 24 | 6 |
| 85 | 69 | 82 | - | 71 | 55 | 46 | 38 | 41 | 36 | 34 | 22 | 7 |
| 92 | 69 | 79 | - | 74 | 53 | 49 | 34 | 40 | 30 | 25 | 10 | 8 |
| 92 | 69 | 82 | - | 70 | 44 | 51 | 23 | 45 | 30 | 11 | 1 | 9 |
| 92 | 69 | 85 | - | 59 | 52 | 53 | 35 | 39 | 28 | 12 | $-7$ | 10 |
| 86 | 61 | 84 | - | 60 | 53 | 42 | 26 | 41 | 32 | 28 | 5 | 11 |
| 87 | 67 | 80 | - | 70 | ${ }^{+} 45$ | 51 | 20 | 51 | 28 | 35 | 25 | 12 |
| 82 | 70 | 82 | 70 | 70 | 42 | 58 | 24 | 52 | 32 | 40 | 34 | 13 |
| 82 | 70 | 82 | 70 | 71 | 51 | 47 | 25 | 45 | 32 | 37 | 17 | 14 |
| 82 | 63 | 82 | 63 | 68 | 45 | 39 | 21 | 39 | 28 |  | $-2$ | 15 |
| 77 | 52 | 77 | 52 | 70 | 37 | 49 | 28 | 39 | 32 | - | $-5$ | 16 |
| 86 | 57 | 86 | 57 | 60 | 50 | 51 | 27 | 41 | 37 | - | $-7$ | 17 |
| 87 | 58 | 87 | 58 | 59 | 51 | 56 | 21 | 47 | 42 | - | 7 | 18 |
| 85 | 60 | 85 | 60 | 74 | 53 | 64 | 25 | 48 | 43 | - | 8 | 19 |
| 72 | 52 | 72 | 52 | 76 | 50 | 63 | 35 | 44 | 39 | - | 4 | 20 |
| 76 | 37 | 76 | 37 | 73 | 54 | 70 | 53 | 44 | 38 | - | 10 | 21 |
| 78 | 41 | 78 | 41 | 68 | 55 | 66 | 48 | 44 | 32 | . | - | 22 |
| 78 | 59 | 78 | 59 | 64 | 57 | 63 | 46 | 38 | 29 | - | - | 23 |
| 88 | 60 | 88 | 60 | 65 | 57 | 49 | 37 | 34 | 27 | - | - | 24 |
| 80 | 56 | 80 | 56 | 72 | 55 | 43 | 36 | 34 | 28 | - | - | 25 |
| 73 | 42 | 73 | 42 | 63 | 43 | 41 | 34 | , | - | . | . | 26 |
| 73 | 38 | 73 | 38 | 54 | 40 | 45 | 33 | - |  | - | - | 27 |
| 80 | 39 | 80 | 39 | 60 | 37 | 38 | 32 | 54 | 25 | - | - | 28 |
| 78 | 55 | 78 | 55 | 58 | 39 | 45 | 35 | 35 | 23 | - |  | 29 |
| 80 | 58 | 80 | 58 | 54 | 34 | 62 | 36 | 22 | 12 | - | - | 30 |
| 87 | 58 | 87 | 57 |  |  | 68 | 49 |  |  |  | 12 | 31 |
| 81.2 | 57.5 | $80 \cdot 7$ | 54.0 | 67.0 | 47•3 | 52.9 | $34 \cdot 0$ | $44 \cdot 1$ | 32.6 |  | $9 \cdot 8$ |  |

Table XXXV.-Stanley, Ontario.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | $\bigcirc$ | - | - | - | - | - | $\stackrel{ }{\circ}$ | $\stackrel{\square}{\circ}$ | $\bigcirc$ | - | - | $\square$ |
| 1 | 51 | 40 | 39 | 14 | 33 | 15 | 40 | 20 | 50 | 29 | 81 | 60 |
| 2 | 51 | 34 | 15 | - 7 | 26 | 8 | 44 | 20 | 64 | 30 | 74 | 60 |
| 3 | 38 | 21 | 20 | $-7$ | 36 | -2 | 43 | 35 | 65 | 32 | 71 | 58 |
| 4 | 27 | 17 | 22 | - 6 | 38 | -11 | 46 | 33 | 64 | 43 | 66 | 52 |
| 5 | 43 | 24 | 30 | -9 | 39 | 20 | 44 | 31 | 53 | 44 | 63 | 48 |
| 6 | 42 | 26 | 40 | 20 | 49 | 37 | 45 | 32 | 60 | 44 | 66 | 43 |
| 7 | 38 | 28 | 42 | 23 | 48 | 34 | 50 | 31 | 64 | 47 | 73 | 47 |
| 8 | 44 | 30 | 39 | 14 | 36 | 22 | 44 | 27 | 63 | 47 | 81 | 69 |
| 8 | 48 | 38 | 27 | 24 | 34 | 22 | 46 | 21 | 54 | 43 | 74 | 60 |
| 10 | 42 | 12 | 43 | 30 | 47 | 29 | 43 | 25 | 54 | 43 | 79 | 69 |
| 11 | 19 | 12 | 49 | 35 | 51 | 38 | 50 | 33 | 58 | 37 | 82 | 58 |
| 12 | 22 | 13 | 40 | 25 | 44 | 25 | 58 | 39 | 57 | 42 | 90 | 62 |
| 13 | 25 | 12 | 48 | 30 | 31 | 9 | 56 | 40 | 56 | 40 | 81 | 62 |
| 14 | 28 | 18 | 44 | 31 | 29 | 3 | 52 | 40 | 56 | 32 | 83 | 62 |
| 15 | 38 | 28 | 35 | 24 | 28 | 15 | 52 | 37 | 64 | 43 | 80 | 67 |
| 16 | 37 | 31 | 31 | 20 | 30 | 22 | 46 | 32 | 56 | 43 | 80 | 69 |
| 17 | 38 | 32 | 30 | 19 | 35 | 12 | 40 | 30 | 63 | 49 | 79 | 65 |
| 18 | 47 | 34 | 34 | 15 | 13 | 3 | 43 | 26 | 73 | 51 | 73 | 60 |
| 19 | 47 | 27 | 41 | 28 | 25 | 3 | 45 | 27 | 63 | 47 | 80 | 68 |
| 20 | 30 | 24 | 33 | 22 | 26 | 15 | 58 | 29 | 65 | 54 | 67 | 57 |
| 21 | 25 | 15 | 38 | 23 | 27 | 17 | 67 | 38 | 70 | 53 | 72 | 55 |
| 22 | 35 | 20 | 31 | 9 | 36 | 14 | 64 | 33 | 65 | 40 | 73 | 57 |
| 23 | 43 | 30 | 10 | $-1$ | 38 | 22 | 50 | 34 | 55 | 33 | 77 | 65 |
| 24 | 32 | 24 | 20 | 5 | 42 | 17 | 60 | 33 | 61 | 36 | 75 | 62 |
| 25 | 32 | 20 | 33 | 12 | 42 | 33 | 53 | 33 | 67 | 42 | 77 | 61 |
| 26 | 33 | 15 | 34 | 21 | 36 | 31 | 51 | 30 | 66 | 44 | 80 | 61 |
| 27 | 43 | 30 | 30 | 20 | 35 | 21 | 56 | 44 | 71 | 49 | 80 | 64 |
| 28 | 43 | 29 | 33 | 23 | 29 | 21 | 65 | 38 | 70 | 48 | 75 | 57 |
| 29 | 43 | 14 | 39 | 19 | 34 | 21 | 62 | 32 | 72 | 55 | 77 | 52 |
| 30 | 28 | 8 |  |  | 35 | 21 | 50 | 28 | 64 | 44 | 76 | 54 |
| 31 | 37 | 26 | - |  | 41 | 25 | - |  | 77 | 45 |  |  |
|  | $37 \cdot 0$ | 23.6 |  |  | $32 \cdot 4$ | $18 \cdot 8$ | 50.5 | 31.8 | 62.2 | $43 \cdot 6$ | 76.2 | 58.2 |

Maximum and Minimum Temperature, 1876.

| July. |  | Augast. |  | September. |  | October. |  | November. |  | December. |  | Day، |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\stackrel{\square}{2}$ | - | $\bigcirc$ | - | - | R | $\bullet$ | - | - |  |
| 73 | 54 | 84 | 57 | 78 | 57 | 54 | 37 | 59 | 52 | 17 | 4 | 1 |
| 80 | 63 | 84 | 58 | 69 | 47 | 60 | 44 | 58 | 46 | 28 | 15 | 2 |
| 75 | 64 | 80 | 66 | 71 | 44 | 67 | 47 | 50 | 40 | 33 | 13 | 3 |
| 78 | 63 | 86 | 62 | 73 | 48 | 52 | 41 | 48 | 34 | 33 | 16 | 4 |
| 81 | 59 | 89 | 66 | 70 | 42 | 54 | 41 | 51 | 30 | 31 | 15 | 5 |
| 80 | 54 | 83 | 69 | 77 | 43 | 57 | 44 | 50 | 39 | 36 | 28 | 6 |
| 79 | 64 | 84 | 61 | 71 | 58 | 60 | 37 | 43 | 38 | 34 | 22 | 7 |
| 82 | 85 | 82 | 65 | 73 | 55 | 51 | 32 | 40 | 35 | 24 | 9 | 8 |
| 85 | 67 | 84 | 57 | 68 | 47 | 53 | 26 | 45 | 30 | 10 | 1 | 0 |
| 90 | 69 | 86 | 58 | 60 | 54 | 54 | 36 | 40 | 29 | 16 | -4 | 10 |
| 80 | 65 | 86 | 66 | 64 | 54 | 43 | 27 | 45 | 33 | 32 | 0 | 11 |
| 86 | 67 | 84 | 72 | 68 | 47 | 50 | 23 | 49 | 31 | 36 | 26 | 12 |
| 88 | 71 | 84 | 70 | 69 | 44 | 56 | 27 | 56 | 33 | 42 | 34 | 13 |
| 89 | 65 | 85 | 66 | 71 | 52 | 51 | 27 | 44 | 33 | 36 | 18 | 14 |
| 94 | 57 | 82 | 60 | 68 | 50 | 41 | 23 | 40 | 29 | 30 | 9 | 15 |
| 82 | 55 | 78 | 55 | 71 | 41 | 50 | 30 | 41 | 33 | 31 | -4 | 16 |
| 84 | 55 | 82 | 60 | 61 | 51 | 52 | 32 | 42 | 37 | 11 | -4 | 17 |
| 89 | 69 | 82 | 60 | 61 | 52 | 55 | 25 | 48 | 38 | 19 | 7 | 18 |
| 84 | 65 | 84 | 64 | 71 | 55 | 57 | 28 | 50 | 44 | 17 | 10 | 19 |
| 85 | 62 | 73 | 51 | 71 | 52 | 66 | 40 | 45 | 40 | 17 | 8 | 20 |
| 79 | 55 | 75 | 43 | 72 | 55 | 63 | 51 | 45 | 39 | 28 | 9 | 21 |
| 76 | 52 | 83 | 47 | 69 | 57 | 60 | 62 | 46 | 33 | 29 | 19 | 22 |
| 73 | 53 | 74 | 60 | 66 | 57 | 59 | 45 | 38 | 28 | 22 | 15 | 23 |
| 74 | 48 | 81 | 63 | 66 | 58 | 50 | 38 | 34 | 28 | 16 | -4 | 24 |
| 76 | 50 | 83 | 55 | 70 | 8 | 44 | 37 | 35 | 30 | 24 | 7 | 25 |
| 71 | 48 | 75 | 50 | 60 | 42 | 41 | 34 | 37 | 29 | 24 | 17 | 26 |
| 79 | 54 | 75 | 44 | 57 | 42 | 46 | 35 | 35 | 30 | 24 | 12 | 27 |
| 83 | 62 | 78 | 44 | 59 | 40 | 47 | 35 | 36 | 28 | 23 | $-2$ | 28 |
| 76 | 55 | 76 | 58 | 60 | 44 | 48 | 36 | 35 | 23 | 25 | 16 | 29 |
| 84 | 53 | 79 | 62 | 55 | 40 | 55 | 38 | 25 | 14 | 22 | 12 | 30 |
| 87 | 57 | 83 | 62 | - | - | 63 | 50 | - | - | 21 | 9 | 31 |
| 81.2 | $59 \cdot 4$ | $81 \cdot 3$ | 58.8 | 69.6 | $49 \cdot 6$ | 52.8 | $36 \cdot 1$ | $43 \cdot 7$ | 33.6 | $25 \cdot 5$ | $10 \cdot 6$ |  |

Table XXXV.-Granton, Ongario.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. ${ }^{1}$ | Min. | Max. | Min. | Max. | Min. |
|  | 0 | $\bigcirc$ | - | - | $\bigcirc$ | - | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - |
| 1 | 48 | 34 | 33 | 24 | 26 | 12 | 37 | 29 | 39 | 34 | 67 | 41 |
| 2 | 39 | 34 | 43 | 5 | 25 | 12 | 48 | 27 | 48 | 33 | 61 | 46 |
| 3 | 41 | 30 | 9 | -4 | 30 | 10 | 47 | 29 | 44 | 30 | 65 | 50 |
| 4 | 32 | 7 | 31 | 3 | 31 | 12 | 39 | 20 | 47 | 31 | 55 | 43 |
| 5 | 10 | 1 | 15 | -14 | 35 | 19 | 36 | 28 | 48 | 31 | 53 | 42 |
| 6 | 32 | 10 | 34 | -13 | 37 | 31 | 35 | 28 | 48 | 37 | 59 | 47 |
| 7 | 20 | 7 | 44 | 31 | 41 | 29 | 44 | 28 | 50 | 41 | 64 | 53 |
| $B$ | 20 | 3 | 35 | 16 | 42 | 26 | 37 | 30 | 55 | 40 | 58 | 46 |
| 9 | 25 | 18 | 19 | 4 | 43 | 24 | 40 | 30 | 51 | 41 | 58 | 48 |
| 10 | 37 | 18 | 22 | 10 | 27 | 17 | 40 | 32 | 48 | 40 | 57 | 48 |
| 11 | 28 | -1 | 34 | 4 | 29 | 20 | 45 | 32 | 48 | 39 | 64 | 50 |
| 12 | 13 | 1 | 41 | 29 | 38 | 20 | 53 | 34 | 49 | 37 | 63 | 52 |
| 13 | 13 | -3 | 39 | 16 | 38 | $3 i$ | 44 | 27 | 48 | 39 | 57 | 50 |
| 14 | 13 | -6 | 25 | 8 | 38 | 12 | 47 | 36 | 49 | 37 | 67 | 51 |
| 15 | 25 | 9 | 38 | 20 | 20 | 0 | 43 | 36 | 49 | 33 | 62 | 51 |
| 16 | 34 | 18 | 40 | 31 | 31 | 10 | 45 | 33 | 50 | 32 | 62 | 50 |
| 17 | 21 | 5 | 33 | 17 | 25 | 19 | 44 | 34 | 52 | 32 | 58 | 50 |
| 18 | 39 | 20 | 34 | 18 | 24 | 6 | 45 | 32 | 47 | 39 | 58 | 50 |
| 19 | 41 | 35 | 31 | 24 | 17 | 2 | 47 | 35 | 59 | 40 | 73 | 54 |
| 20 | 38 | 21 | 33 | 16 | 29 | 27 | 52 | 31 | 64 | 46 | 59 | 54 |
| 21 | 22 | 5 | 29 | 12 | 35 | 19 | 44 | 37 | 54 | 41 | 58 | 53 |
| 22 | 9 | 2 | 31 | 16 | 39 | 31 | 45 | 35 | 53 | 45 | 63 | 49 |
| 23 | 29 | 0 | 27 | -4 | 37 | 23 | 44 | 34 | 60 | 40 | 68 | 52 |
| 24 | 29 | 3 | -3 | -19 | 35 | 20 | 42 | 32 | 56 | 36 | 57 | 49 |
| 25 | 10 | -5 | 24 | $-15$ | 35 | 21 | 45 | 25 | 56 | 40 | 65 | 53 |
| 26 | 15 | 3 | 20 | 8 | 38 | 29 | 42 | 29 | 55 | 36 | 77 | 52 |
| 27 | 32 | 0 | 25 | 0 | 40 | 32 | 39 | 28 | 49 | 41 | 68 | 55 |
| 28 | 32 | 30 | 30 | 5 | 40 | 31 | 42 | 32 | 50 | 44 | 62 | 54 |
| 29 | 36 | 27 | 26 | 13 | 38 | 32 | 41 | 34 | 59 | 40 | 76 | 52 |
| 30 | 35 | 11 | - | - | 38 | 31 | 39 | 33 | 61 | 41 | 79 | 59 |
| 1 | 25 | -3 | - | - | 40 | 29 | - | - | 55 | 38 | - | - |
|  | $27 \cdot 2$ | 10.7 | 29.0 | $9 \cdot 0$ | $33 \cdot 6$ | $20 \cdot 6$ | 43.0 | $30 \cdot 9$ | $51 \cdot 7$ | $37 \cdot 9$ | 63-1 | $50 \cdot 1$ |

## Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| - | - | - | - | - | - | - | - | - | - | 。 | 。 |  |
| 64 | 55 | 75 | 57 | 66 | 57 | 55 | 46 | 50 | 40 | 21 | 12 | 1 |
| 63 | 54 | 75 | 44 | 67 | 54 | 55 | 44 | 47 | 43 | 36 | 19 | 2 |
| 69 | 55 | 69 | 57 | 70 | 52 | 55 | 39 | 52 | 45 | 35 | 27 | 3 |
| 73 | 53 | 67 | 56 | 63 | 52 | 58 | 50 | 48 | 34 | 35 | 25 | 4 |
| 75 | 55 | 65 | 55 | 64 | 50 | 65 | 46 | 40 | 28 | 33 | 22 | 5 |
| 66 | 56 | 66 | 55 | 61 | 45 | 56 | 37 | 39 | 25 | 38 | 22 | 6 |
| 69 | 52 | 69 | 58 | 66 | 49 | 57 | 43 | 49 | 34 | 38 | 29 | 7 |
| 69 | 52 | 74 | 56 | 59 | 45 | 48 | 36 | 58 | 48 | 33 | 19 | 8 |
| 75 | 60 | 76 | 61 | 58 | 46 | 47 | 35 | 52 | 43 | 28 | 18 | 9 |
| 66 | 53 | 73 | 60 | 66 | 44 | 52 | 33 | 44 | 40 | 24 | -2 | 10 |
| 70 | 53 | 73 | 58 | 67 | 45 | 53 | 33 | 48 | 39 | 4 | -7 | 11 |
| 66 | 56 | 63 | 54 | 64 | 51 | 46 | 32 | 48 | 44 | 24 | -1 | 12 |
| 76 | 55 | 63 | 55 | 68 | 45 | 65 | 40 | 43 | 35 | 39 | 13 | 13 |
| 74 | 62 | 63 | 54 | 63 | 46 | 46 | 26 | 43 | 35 | 38 | 34 | 14 |
| 79 | 60 | 73 | 56 | 60 | 52 | 52 | 29 | 40 | 30 | 44 | 14 | 15 |
| 83 | 58 | 69 | 56 | 61 | 46 | 39 | 29 | 34 | 27 | 37 | -4 | 16 |
| 71 | 58 | 63 | 53 | 55 | 39 | 44 | 37 | 33 | 23 | -2 | -15 | 17 |
| 63 | 56 | 64 | 53 | 57 | 44 | 47 | 35 | 35 | 26 | 35 | -12 | 18 |
| 78 | 57 | 60 | 51 | 57 | 49 | 48 | 32 | 33 | 23 | 42 | 6 | 19 |
| 68 | 55 | 62 | 52 | 54 | 49 | 52 | 39 | 36 | 28 | 14 | -3 | 20 |
| 80 | 54 | 64 | 46 | 52 | 48 | 53 | 36 | 40 | 33 | 7 | -5 | 21 |
| 71 | 57 | 62 | 49 | 58 | 43 | 54 | 46 | 39 | 32 | 13 | 3 | 22 |
| 63 | 57 | 64 | 49 | 63 | 47 | 60 | 49 | 40 | 34 | 19 | 12 | 23 |
| 62 | 53 | 75 | 49 | 64 | 46 | 60 | 49 | 41 | 34 | 19 | 8 | 24 |
| 64 | 53 | 67 | 50 | 65 | 51 | 65 | 46 | 36 | 31 | 20 | 6 | 25 |
| 62 | 54 | 62 | 55 | 59 | 49 | 48 | 36 | 36 | 30 | 24 | 8 | 26 |
| 62 | 54 | 62 | 52 | 57 | 50 | 45 | 38 | 36 | 26 | 24 | 8 | 27 |
| 62 | 54 | 65 | 48 | 58 | 47 | 40 | 31 | 35 | 23 | 25 | 9 | 28 |
| 62 | 57 | 65 | 53 | 58 | 47 | 42 | 28 | 31 | 23 | 21 | 9 | 29 |
| 71 | 56 | 66 | 52 | 62 | 52 | 44 | 31 | 25 | 15 | 36 | 20 | 30 |
| 65 | 56 | 73 | 50 |  | - | 47 | 29 | - | - | 22 | 9 | 31 |
| 69.1 | 55.5 | $67 \cdot 3$ | $52 \cdot 4$ | $61 \cdot 4$ | 48.0 | 506 | $27 \cdot 4$ | 41.0 | $32 \cdot 4$ | 26.7 | 9.8 |  |

Table XXXVI.-Ingersoll, Ontaifo.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | $\stackrel{\bullet}{6}$ | $\stackrel{\circ}{ }$ | ${ }^{\circ}$ | ${ }^{\circ}$ | 26 | 16 | 40 | 20 | 49 | $\stackrel{\circ}{28}$ | $\stackrel{\circ}{83}$ | 6 |
| 1 | 62 | 47 | 37 | 17 | 26 | 16 | 40 | 20 | 49 | 28 | 83 |  |
| 2 | 48 | 37 | 18 | 7 | 24 | 12 | 43 | 17 | 52 | 31 | 82 | 65 |
| 3 | 41 | 19 | 20 | 0 | 34 | 3 | 48 | 33 | 88 | 32 | 72 | 66 |
| 4 | 22 | 13 | 19 | -3 | 37 | 11 | 46 | 34 | 86 | 42 | 67 | 54 |
| 5 | 44 | 17 | 24 | -6 | 48 | 24 | 43 | 32 | 63 | 43 | 59 | 45 |
| 6 | 40 | 25 | 40 | 20 | 68 | 40 | 48 | 32 | ${ }^{6}$ | 48 | 72 | 42 |
| 7 | 40 | 25 | 39 | 27 | 63 | 37 | 46 | 31 | 76 | 49 | 79 | 47 |
| 8 | 46 | 28 | 42 | 21 | 37 | 19 | 40 | 28 | 60 | 50 | 83 | 68 |
| 9 | 52 | 46 | 33 | 30 | 36 | 20 | 45 | 21 | 62 | 41 | 80 | 56 |
| 10 | 49 | 10 | 34 | 27 | 45 | 26 | 49 | 26 | 82 | 41 | 92 | 63 |
| 11 | 17 | 10 | 53 | 34 | 46 | 32 | 68 | 34 | 58 | 37 | 90 | 62 |
| 12 | 18 | 12 | 41 | 26 | 40 | 29 | 57 | 32 | 56 | 41 | 90 | 62 |
| 13 | 19 | 10 | 44 | 31 | 30 | 10 | 56 | 40 | 51 | 39 | 89 | 65 |
| 14 | 26 | 12 | 45 | 33 | 26 | 3 | 60 | 40 | 60 | 33 | 86 | 65 |
| 15 | 38 | 24 | 34 | 25 | 26 | 13 | 51 | 36 | 83 | 40 | 90 | 68 |
| 16 | 39 | 32 | 25 | 19 | 40 | 21 | 44 | 34 | 50 | 41 | 81 | 69 |
| 17 | 41 | 34 | 26 | 19 | 40 | 10 | 39 | 26 | 72 | 47 | 76 | 66 |
| 18 | 52 | 40 | 34 | 11 | 14 | -5 | 42 | 29 | 69 | 55 | 71 | 81 |
| 19 | 49 | 28 | 38 | 29 | 26 | 3 | 49 | 26 | 72 | 49 | 72 | 62 |
| 20 | 28 | 22 | 29 | 18 | 23 | 12 | 68 | 28 | 82 | 57 | 64 | 67 |
| 21 | 25 | 14 | 40 | 18 | 24 | 17 | 85 | 38 | 79 | 63 | 68 | 53 |
| 22 | 28 | 17 | 33 | 10 | 32 | 18 | 86 | 38 | 65 | 44 | 81 | 56 |
| 23 | 41 | 27 | 11 | 2 | 39 | 18 | 63 | 34 | 61 | 36 | 85 | 54 |
| 24 | 30 | 22 | 17 | 4 | 41 | 20 | 83 | 35 | 72 | 40 | 91 | 62 |
| 25 | 28 | 19 | 31 | 12 | 36 | 30 | $\delta 2$ | 33 | 73 | 37 | 86 | 67 |
| 26 | 28 | 14 | 25 | 19 | 36 | 28 | 60 | 31 | 79 | 46 | 89 | 63 |
| 27 | 45 | 25 | 22 | 18 | 29 | 23 | 64 | 45 | 81 | 57 | 82 | 68 |
| 28 | 46 | 33 | 28 | 18 | 27 | 23 | 88 | 39 | 82 | 53 | 77 | 60 |
| 28 | 81 | 13 | 24 | 17 | 27 | 20 | 53 | 31 | 76 | 59 | 78 | 63 |
| 30 | 24 | 9 | - | - | 30 | 20 | 40 | 26 | 66 | 43 | 76 | 58 |
| 91 | 37 | 17 | - | . | 35 | 26 |  |  | 88 | 43 | . | - |
|  | 36.8 |  | 31.0 | 171 | 39.9 | 18.7 | 50.0 | 31.6 | 64.6 | 43.7 | 76.7 | 56\% |

Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| - | - | $\bigcirc$ | - | $\bigcirc$ | - | - | $\bigcirc$ | - | $\bigcirc$ | - | - |  |
| 65 | 55 | 88 | 55 | 78 |  | 52 | 37 | 66 | 46 | 15 | 5 | 1 |
| 84 | 63 | 87 | 55 | 67 | 48 | 59 | 40 | 64 | 51 | 25 | 14 | 2 |
| 81 | 66 | 82 | 65 | 72 | 43 | 55 | 46 | 46 | 39 | 29 | 17 | 3 |
| 78 | 66 | 91 | 63 | 69 | 50 | 52 | 39 | 46 | 34 | 29 | 13 | 4 |
| 80 | 60 | 90 | 66 | 69 | 38 | 54 | 39 | 50 | 33 | 28 | 13 | 5 |
| 86 | 56 | 83 | 68 | 66 | 42 | 57 | 42 | 49 | 38 | 34 | 24 | 6 |
| 89 | 69 | 85 | 63 | 70 | 57 | 42 | 37 | 41 | 37 | 33 | 21 | 7 |
| 94 | 71 | 88 | 52 | 74 | 56 | 47 | 32 | 40 | 35 | 23 | 12 | 8 |
| 93 | 72 | 88 | 55 | 70 | 48 | 50 | 29 | 43 | 33 | 15 | 5 | 9 |
| 89 | 70 | 89 | 58 | 60 | 55 | 53 | 34 | 41 | 31 | 11 | -5 | 10 |
| 92 | 68 | 87 | 62 | 58 | 51 | 42 | 29 | 43 | 33 | 21 | 3 | 11 |
| 93 | 68 | 86 | 70 | 70 | 42 | 48 | 24 | 51 | 28 | 34 | 21 | 12 |
| 93 | 71 | 90 | 67 | 70 | 43 | 57 | 29 | 55 | 33 | 41 | 21 | 13 |
| 87 | 61 | 88 | 65 | 70 | 51 | 47 | 26 | 44 | 31 | 35 | 20 | 14 |
| 84 | 57 | 83 | 62 | 69 | 49 | 38 | 25 | 39 | 26 | 17 | 8 | 15 |
| 90 | 55 | 81 | 55 | 70 | 51 | 47 | 28 | 39 | 32 | 0 | -5 | 16 |
| 87 | 57 | 85 | 57 | 60 | 41 | 52 | 32 | 41 | 36 | 8 | -5 | 17 |
| 85 | 69 | 83 | 61 | 61 | 52 | 59 | 24 | 45 | 37 | 15 | 4 | 18 |
| 90 | 65 | 83 | 60 | 73 | 55 | 57 | 27 | 49 | 42 | 14 | 0 | 19 |
| 86 | 65 | 74 | 53 | 75 | 53 | 69 | 38 | 44 | 40 | 15 | -2 | 20 |
| 75 | 55 | 77 | 41 | 71 | 55 | 70 | 53 | 44. | 38 | 21 | 10 | 21 |
| 71 | 56 | 78 | 43 | 78 | 55 | 67 | 52 | 43 | 31 | 28 | 17 | 22 |
| 73 | 45 | 75 | 58 | 65 | 55 | 64 | 46 | 33 | 29 | 28 | 15 | 23 |
| 72 | 46 | 87 | 62 | 66 | 54 | 48 | 39 | 32 | 27 | 16 | 3 | 24 |
| 76 | 44 | 78 | 55 | 73 | 57 | 43 | 36 | 35 | 28 | 21 | 4 | 25 |
| 72 | 52 | 71 | 47 | 63 | 42 | 46 | 43 | 35 | 29 | 21 | 11 | 26 |
| 80 | 54 | 72 | 43 | 53 | 42 | 43 | 32 | 36 | 28 | 20 | 12 | 27 |
| 78 | 64 | 79 | 43 | 59 | 39 | 38 | 35 | 33 | 28 | 21 | 10 | 28 |
| 85 | 54 | 76 | 56 | 53 | 43 | 43 | 34 | 32 | 23 | 24 | 15 | 29 |
| 81 | 58 | 79 | 46 | 53 | 35 | 56 | 34 | 19 | 11 | 21 | 12 | 30 |
| 86 | 59 | 87 | 61 | - | - | 65 | 45 | - | - | 21 | 10 | 31 |
| 82\% | $60 \cdot 0$ | 82.5 | 566 | 66.4 | $48 \cdot 4$ | 51.5 | $35 \cdot 2$ | 42-2 | $32 \cdot 8$ | 21.9 | $9 \cdot 7$ |  |

Table XXXVII.----Port Dover, Ontario.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | $\stackrel{\circ}{ }$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | 42 | 24 | $\stackrel{\circ}{\circ}$ | $\stackrel{\circ}{\circ}$ | $\stackrel{0}{0} 8$ | $\stackrel{\circ}{59}$ |
| 1 | 54 | 43 | 36 | 17 | 28 | 16 | 42 | 24 | 50 | 39 | 78 | 59 |
| 2 | 54 | 38 | 17 | 1 | 26 | 11 | 45 | 16 | 47 | 32 | 45 | 63 |
| 3 | 39 | 23 | 19 | 4 | 32 | 8 | 46 | 34 | 48 | 31 | 71 | 58 |
| 4 | 23 | 12 | 19 | $-1$ | 34 | 13 | 43 | 35 | 54 | 42 | 68 | 56 |
| 5 | 43 | 19 | 28 | $-1$ | 42 | 27 | 43 | 33 | 52 | 44 | 59 | 49 |
| 6 | 42 | 27 | 38 | 26 | 49 | 37 | 45 | 34 | 56 | 46 | 67 | 45 |
| 7 | 38 | 27 | 46 | 30 | 46 | 39 | 43 | 32 | 72 | 47 | 72 | 47 |
| 8 | 46 | 33 | 39 | 23 | 39 | 22 | 43 | 29 | 60 | 48 | 75 | 58 |
| 9 | 49 | 41 | 32 | 30 | 35 | 21 | 40 | 23 | 51 | 43 | 70 | 61 |
| 10 | 46 | 13 | 35 | 27 | 43 | 27 | 48 | 26 | 51 | 43 | 78 | 59 |
| 11 | 19 | 13 | 52 | 34 | 49 | 33 | 58 | 33 | 56 | - | 86 | 61 |
| 12 | 20 | 14 | 41 | 29 | 39 | 32 | 54 | 38 | 57 | - | 88 | 63 |
| 13 | 20 | 14 | 45 | 32 | 32 | 9 | 54 | 38 | 57 | 43 | 87 | 68 |
| 14 | 27 | 16 | 43 | 33 | 26 | 5 | 48 | 40 | 54 | 35 | 84 | 65 |
| 15 | 36 | 27 | 34 | 26 | 25 | 14 | 49 | 37 | 52 | 41 | 89 | 65 |
| 16 | 36 | 34 | 26 | 22 | 38 | 22 | 44 | 33 | 52 | 42 | 82 | 70 |
| 17 | 41 | 34 | 27 | 22 | 37 | 12 | 37 | 31 | 63 | 47 | 72 | 67 |
| 18 | 49 | 37 | 32 | 20 | 12 | 3 | 38 | 29 | 72 | 51 | 73 | 61 |
| 19 | 44 | 30 | 40 | 30 | 23 | 3 | 45 | 28 | 70 | 56 | 72 | 54 |
| 20 | 30 | 24 | 32 | 21 | 25 | 15 | 54 | 29 | 70 | 57 | 70 | 60 |
| 2 | 25 | 17 | 38 | 22 | 26 | 20 | 56 | 38 | 70 | 57 | 68 | 55 |
| 22 | 33 | 19 | 33 | 11 | 35 | 18 | 48 | 34 | 63 | 55 | 70 | 56 |
| 23 | 44 | 32 | 12 | 3 | 39 | 22 | 60 | 36 | 51 | 36 | 70 | 58 |
| 24 | 32 | 25 | 18 | 6 | 40 | 14 | 56 | 34 | 61 | 41 | 82 | 61 |
| 25 | 31 | 21 | 31 | 14 | 39 | 33 | 52 | 39 | 66 | 51 | 80 | 61 |
| 26 | 32 | 16 | 26 | 19 | 34 | 30 | 54 | 35 | 69 | 45 | 75 | 63 |
| 27 | 46 | 32 | 22 | 18 | 34 | 25 | 59 | 42 | 68 | 55 | 73 | 62 |
| 28 | 41 | 41 | 28 | 21 | 31 | 24 | 60 | 42 | 69 | 54 | 72 | 62 |
| 29 | 41 | 15 | 26 | 20 | 31 | 23 | 49 | 36 | 69 | 54 | 73 | 54 |
| 30 | 28 | 12 | - | - | 32 | 23 | 38 | 30 | 68 | 42 | 70 | 58 |
| 31 | 37 | 27 |  | -• | 37 | 28 | - | - | 85 | 40 | . | , |
|  | 37.6 | $25 * 0$ | 31.5 | $19 \cdot 4$ |  | 20.2 | 479 | $33 \cdot 0$ | 60.5 | $45 \cdot 1$ | $74 \cdot 7$ | 591 |

Maximum and Minimum Temperature, 1876.

| Jul |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| - | - | - | $\bigcirc$ | - | . 0 | - | - | - | - | $\bigcirc$ | - |  |
| 66 | 54 | 90 | 60 | 78 | 60 | 53 | 37 | 55 | 50 | 17 | 5 | 1 |
| 84 | 62 | 89 | 61 | 68 | 51 | 56 | 44 | 56 | 50 | 25 | 17 | 2 |
| 77 | 64 | 82 | 66 | 70 | 46 | 53 | 49 | 51 | 41 | 28 | 20 | 3 |
| 71 | 62 | 88 | 68 | 70 | 52 | 49 | 42 | 47 | 38 | 30 | 16 | 4 |
| 79 | 58 | 92 | 69 | 66 | 45 | 52 | 42 | 49 | 34 | 31 | 18 | 5 |
| 76 | 57 | 82 | 70 | 66 | 44 | 56 | 46 | 47 | 42 | 35 | 31 | 6 |
| 88 | 63 | 84 | 68 | 69 | 59 | 46 | 38 | 42 | 39 | 32 | 24 | 7 |
| 91 | 69 | 80 | 55 | 73 | 57 | 44 | 31 | 42 | 37 | 24 | 13 | 8 |
| 83 | 72 | 90 | 61 | 69 | 49 | 50 | 25 | 44 | 35 | 13 | 3 | 9 |
| 82 | 72 | 89 | 60 | 59 | 56 | 50 | 36 | 40 | 30 | 13 | $-3$ | 10 |
| 82 | 69 | 87 | 64 | 59 | 55 | 43 | 30 | 41 | 33 | 30 | 9 | 11 |
| 84 | 69 | 81 | 71 | 66 | 49 | 47 | 25 | 48 | 29 | 33 | 27 | 12 |
| 81 | 73 | 90 | 68 | 70 | 45 | 51 | 35 | 48 | 33 | 40 | 33 | 13 |
| 81 | 69 | 89 | 69 | 70 | 51 | 48 | 28 | 47 | 34 | 36 | 21 | 14 |
| 81 | 60 | 85 | 64 | 69 | 54 | 38 | 22 | 38 | 30 | 30 | 10 | 16. |
| 84 | 58 | 76 | 57 | 71 | 46 | 48 | 32 | 40 | 33 | 30 | $-4$ | 16 |
| 88 | 57 | 84 | 62 | 53 | 50 | 51 | 33 | 41 | 37 | 10 | $-4$ | 17 |
| 83 | 72 | 82 | 61 | 60 | 51 | 50 | 24 | 48 | 39 | 14 | 7 | 18 |
| 93 | 66 | 82 | 64 | 65 | 55 | 58 | 27 | 48 | 44 | 15 | 3 | 19. |
| 84 | 60 | 73 | 56 | 71 | 53 | 69 | 39 | 44 | 39 | 12 | $-4$ | 20 |
| 81 | 55 | 72 | 46 | 70 | 54 | 61 | 54 | 43 | 38 | 20 | 11 | 21 |
| 72 | 73 | 75 | 47 | 66 | 55 | 60 | 54 | 39 | 35 | 27 | 20 | 22 |
| 72 | 57 | 74 | 61 | 64 | 57 | 59 | 49 | 36 | 31 | 20 | 16 | 23 |
| 72 | 49 | 80 | 61 | 63 | 58 | 49 | 40 | 36 | 28 | 16 | 1 | 24 |
| 71 | 50 | 79 | 59 | 67 | 58 | 42 | 36 | 33 | 30 | 21 | 8 | 25 |
| 74 | 48 | 72 | 51 | 61 | 44 | 40 | 35 | 32 | 28 | 21 | 15 | 26 |
| 78 | 53 | 74 | 47 | 53 | 42 | 43 | 32 | 33 | 28 | 20 | 15 | 27 |
| 80 | 63 | 73 | 45 | 58 | 44 | 39 | 32 | 33 | 29 | 21 | 9 | 28 |
| 80 | 55 | 74 | 58 | 58 | 48 | 43 | 34 | 31 | 24 | 22 | 11 | 29 |
| 82 | 60 | 76 | 63 | 54 | 41 | 60 | 34 | 26 | 11 | 17 | 11 | 30 |
| 84 | 61 | 79 | 62 | . | - | 62 | 45 | . | - | 20 | 16 | 31 |
| 80.0 | 61*4 | 81.2 | 60-4 | 651 | 50.8 | 50.6 | $36 \cdot 4$ | 41.9 | $34 \cdot 3$ | $23 \cdot 4$ | 12.0 |  |

Table XXXVIII.-Woonstock, Ontario.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Mi. | Max. | Min. |
|  | - | - | 0 | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - |
| 1 | 60 | 49 | 38 | 7 | 27 | 11 | 37 | 16 | 50 | 26 | 83 | 62 |
| 2 | 59 | 35 | 10 | $-3$ | 22 | 6 | 42 | 17 | 53 | 28 | 82 | 63 |
| 3 | 39 | 15 | 18 | $-1$ | 33 | 0 | 48 | 23 | 57 | 30 | 64 | 52 |
| 4 | 29 | 10 | 19 | -11 | 37 | 14 | 41 | 32 | 55 | 40 | 66 | 51 |
| 5 | 45 | 15 | 24 | -14 | 47 | 26 | 44 | 30 | 55 | 40 | 59 | 43 |
| 6 | 52 | 20 | 41 | 21 | 56 | 39 | 45 | 30 | 61 | 46 | 69 | 39 |
| 7 | 38 | 23 | 42 | 23 | 52 | 33 | 45 | 28 | 71 | 47 | 77 | 44 |
| 8 | 48 | 28 | 42 | 21 | 35 | 17 | 39 | 24 | 60 | 48 | 80 | 43 |
| 9 | 51 | 39 | 36 | 27 | 34 | 17 | 41 | 19 | 50 | 37 | 79 | 63 |
| 10 | 41 | 9 | 34 | 25 | 42 | 25 | 45 | 23 | 51 | 36 | 85 | 61 |
| 11 | 16 | 8 | 52 | 32 | 44 | 31 | 63 | 29 | 59 | 33 | 87 | 60 |
| 12 | 18 | 6 | 42 | 26 | 39 | 26 | 58 | 35 | 55 | 39 | 90 | 59 |
| 13 | 19 | 8 | 42 | 29 | 29 | 3 | 52 | 39 | 56 | 35 | 86 | 61 |
| 14 | 26 | 11 | 42 | 21 | 27 | 1 | 58 | 37 | 62 | 30 | 83 | 61 |
| -15 | 37 | 23 | 33 | 23 | 26 | 10 | 50 | 34 | 61 | 39 | 85 | 61 |
| 16 | 38 | 31 | 26 | 18 | 37 | 19 | 44 | 29 | 47 | 40 | 79 | 66 |
| 17 | 41 | 32 | 26 | 14 | 35 | 8 | 36 | 27 | 70 | 43 | 74 | 64 |
| 18 | 51 | 38 | 33 | 14 | 10 | $-4$ | 38 | 21 | 70 | 51 | 70 | 54 |
| 19 | 48 | 25 | 39 | 24 | 26 | $-1$ | 48 | 25 | 70 | 46 | 70 | 47 |
| 20 | 27 | 19 | 28 | 15 | 23 | 9 | 52 | 26 | 82 | 55 | 67 | 54 |
| 21 | 23 | 11 | 40 | 17 | 24 | 16 | 54 | 32 | 79 | 62 | 69 | 53 |
| 22 | 29 | 14 | 28 | 4 | 31 | 13 | 57 | 29 | 64 | 39 | 77 | 52 |
| 23 | 39 | 27 | 8 | $-1$ | 38 | 15 | 52 | 32 | 60 | 33 | 81 | 53 |
| 24 | 30 | 21 | 19 | 1 | 40 | 14 | 54 | 33 | 72 | 39 | 84 | 61 |
| 25 | 29 | 12 | 29 | 10 | 35 | 28 | 59 | 31 | 75 | 46 | 86 | 65 |
| 26 | 29 | 11 | 28 | 18 | 37 | 26 | 60 | 30 | 75 | 42 | 87 | 60 |
| 27 | 45 | 28 | 21 | 16 | 31 | 22 | 63 | 44 | 81 | 52 | 82 | 66 |
| 28 | 49 | 31 | 26 | 16 | 27 | 21 | 58 | 33 | 78 | 65 | 75 | 57 |
| 29 | 31 | 12 | 24 | 11 | 28 | 18 | 49 | 28 | 72 | 56 | 79 | 53 |
| 30 | 25 | 6 | - |  | 31 | 18 | 39 | 25 | 58 | 40 | 75 | 53 |
| 31 | 36 | 21 | - |  | 37 | 25 |  |  | 83 | 38 | - | - |
|  | 37.0 | $20 \cdot 9$ | 30.6 | $13 \cdot 9$ | 33.6 | $16 \cdot 3$ | $49 \cdot 1$ | 28.6 | 64.0 | 41.7 | $77 \cdot 8$ | 56.0 |

Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min | Max. | Min. |  |
| $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | Q | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | 0 | - | - | $\bigcirc$ |  |
| 76 | 52 | 84 | 53 | 79 | 56 | 54 | 40 | 66 | 48 | 17 | 3 | 1 |
| 84 | 63 | 84 | 50 | 68 | 44 | 58 | 39 | 64 | 45 | 25 | 15 | 2 |
| 79 | 64 | 78 | 63 | 74 | 39 | 55 | 42 | 46 | 38 | 29 | 16 | 3 |
| 73 | 61 | 87 | 60 | 39 | 44 | 51 | 40 | 37 | 32 | 28 | 11 | 4 |
| 79 | 56 | 89 | 64 | 68 | 40 | 52 | 38 | 49 | 30 | 29 | 10 | 5 |
| 81 | 54 | 83 | 67 | 68 | 36 | 53 | 41 | 48 | 36 | 34 | 23 | 6 |
| 87 | 60 | 83 | 55 | 71 | 57 | 41 | 34 | 41 | 36 | 30 | 19 | 7 |
| 90 | 71 | 82 | 50 | 73 | 51 | 45 | 30 | 39 | 33 | 24 | 6 | 8 |
| 92 | 71 | 86 | 56 | 69 | 46 | 50 | 28 | 43 | 31 | 10 | 2 | 9 |
| 89 | 70 | 89 | 54 | 58 | 53 | 51 | 32 | 40 | 28 | 9 | -11 | 10 |
| 86 | 67 | 89 | 59 | 60 | 47 | 43 | 24 | 41 | 31 | 20 | -6 | 11 |
| 88 | 65 | 80 | 67 | 69 | 41 | 49 | 22 | 50 | 26 | 33 | - 18 | 12 |
| 86 | 69 | 84 | 66 | 71 | 37 | 58 | 29 | 55 | 29 | 40 | 31 | 13 |
| 85 | 60 | 87 | 61 | 68 | 50 | 48 | 22 | 42 | 30 | 36 | 15 | 14 |
| 81 | 55 | 81 | 56 | 67 | 46 | 39 | 19 | 38 | 24 | 27 | 5 | 15 |
| 83 | 52 | 77 | 51 | 69 | 37 | 48 | 28 | 38 | 30 | 33 | $-9$ | 16 |
| 86 | 53 | 83 | 58 | 59 | 44 | 49 | 28 | 40 | 35 | 10 | $-9$ | 17 |
| 86 | 68 | 84 | 58 | 61 | 51 | 56 | 19 | 44 | 36 | 13 | 1 | 18 |
| 82 | 60 | 84 | 58 | 71 | 53 | 60 | 24 | 46 | 40 | 15 | 9 | 19 |
| 85 | 58 | 69 | 46 | 74 | 51 | 68 | 32 | 42 | 38 | 15 | - 10 | 20 |
| 74 | 53 | 74 | 36 | 69 | 53 | 69 | 46 | 43 | 38 | 19 | -11 | 21 |
| 72 | 48 | 79 | 40 | 66 | 47 | 66 | 47 | 43 | 30 | 28 | 14 | 22 |
| 69 | 48 | 74 | 57 | 61 | 44 | 61 | 44 | 34 | 27 | 21 | 9 | 23 |
| 69 | 44 | 88 | 59 | 64 | 56 | 49 | 36 | 32 | 26 | 12 | $-1$ | 24 |
| 70 | 45 | 79 | 51 | 73 | 55 | 42 | 34 | 34 | 29 | 20 | 3 | 25 |
| 73 | 43 | 78 | 45 | 58 | 40 | 41 | 32 | 34 | 25 | 22 | 10 | 26 |
| 79 | 50 | 73 | 41 | 51 | 39 | 41 | 26 | 36 | 24 | 20 | 7 | 27 |
| 71 | 56 | 79 | 39 | 60 | 36 | 36 | 32 | 35 | 26 | 23 | 9 | 28 |
| 79 | 50 | 80 | 50 | 56 | 40 | 39 | 31 | 33 | 18 | 23 | 13 | 29 |
| 80 | 55 | 79 | 60 | 54 | 40 | 50 | 31 | 21 | 7 | 24 | 9 | 30 |
| 81 | 56 | 87 | 60 |  | - | 44 | 41 |  |  | - | 9 | 31 |
| 806 | $57 \cdot 4$ | $82 \cdot 3$ | $54 \cdot 8$ | $64 \cdot 8$ | $45 \cdot 8$ | $51 \cdot 4$ | $32 \cdot 6$ | $41 \cdot 7$ | $30 \cdot 9$ | $22 \cdot 9$ | 6.2 |  |

Table XXXIX.-Brantford, Ontario.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Hax. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | $\checkmark$ | $\checkmark$ | - | - | $\stackrel{ }{ }$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | 2 | $\stackrel{8}{8}$ | $\stackrel{\square}{6}$ |
| 1 | 59 | 40 | 39 | 22 | 30 | 14 | 43 | 24 | 52 | 29 | 85 | 63 |
| 2 | (i) | 33 | 22 | 2 | 26 | 12 | 44 | 23 | 59 | 32 | 85 | 62 |
| 3 | 40 | 20 | 18 | 2 | 33 | 7 | 54 | 31 | 59 | 35 | 69 | 58 |
| 4 | 27 | 13 | 18 | 3 | 36 | 17 | 47 | 35 | 56 | 40 | 67 | 56 |
| 5. | 46 | 18 | 25 | - 5 | 49 | 25 | 45 | 26 | 48 | 47 | 48 | 47 |
| 6 | 46 | 24 | 41 | 20 | 58 | 40 | 46 | 31 | 63 | 47 | 73 | 43 |
| 7 | 40 | 24 | 40 | 31 | 57 | 37 | 45 | 32 | 76 | 45 | 83 | 43 |
| 8 | 46 | 31 | 46 | 23 | 38 | 12 | 41 | 29 | 62 | 50 | 83 | 63 |
| 9 | 52 | 44 | 37 | 29 | 36 | 20 | 48 | 24 | 55 | 42 | 80 | 61 |
| 10 | 51 | 4 | 25 | 25 | 40 | 22 | 51 | 25 | 52 | 40 | 88 | 63 |
| 11 | 17 | 10 | 51 | 34 | 43 | 32 | 61 | 36 | 60 | 36 | 93 | 65 |
| 12 | 20 | 12 | 42 | 28 | 41 | 32 | 49 | 37 | 56 | 42 | 98 | 63 |
| 13 | 22 | 11 | 43 | 32 | 36 | 10 | 48 | 38 | 56 | 40 | 89 | 64 |
| 14 | 26 | 14 | 44 | 31 | 28 | 9 | 64 | 36 | 60 | 35 | 89 | 65 |
| 15 | 39 | 20 | 38 | 25 | 27 | 13 | 50 | 33 | 53 | 39 | 89 | 62 |
| 16 | 38 | 33 | 28 | 12 | 35 | 22 | 43 | 32 | 46 | 40 | 84 | 65 |
| 17 | 41 | 33 | 26 | 19 | 37 | 11 | 35 | 29 | 72 | 43 | 79 | 66 |
| 18 | 52 | 39 | 34 | 19 | 15 | -1 | 40 | 29 | 71 | 56 | 73 | 60 |
| 19 | 51 | 28 | 38 | 28 | 30 | 4 | 49 | 27 | 79 | 50 | 73 | 50 |
| 20 | 30 | 21 | 30 | 18 | 22 | 15 | 51 | 48 | 87 | 56 | 67 | 52 |
| 21 | 25 | 11 | 40 | 20 | 26 | 19 | 54 | 39 | 82 | 66 | 68 | 54 |
| 22 | 30 | 18 | 31 | 9 | 31 | 16 | 56 | 35 | 67 | 40 | 80 | 55 |
| 23 | 39 | 28 | 13 | 0 | 39 | 18 | 57 | 35 | 65 | 36 | 81 | 55 |
| 44 | 34 | 22 | 24 | 3 | 42 | 23 | 53 | 36 | 74 | 43 | 88 | 55 |
| 25 | 28 | 18 | 33 | 13 | 36 | 29 | 63 | 59 | 77 | 50 | 86 | 67 |
| 26 | 30 | 12 | 32 | 20 | 39 | 29 | 62 | 36 | 80 | 44 | 90 | 64 |
| 27 | 44 | 25 | 25 | 12 | 30 | 24 | 65 | 43 | 83 | 54 | . | - |
| 28 | 50 | 34 | 26 | 18 | 32 | 23 | 57 | 40 | 81 | 58 | 90 | 61 |
| 29 | 51 | 12 | 26 | 16 | 31 | 20 | 54 | 37 | 74 | 54 | 79 | 55 |
| 30 | 25 | 11 | 30 | 14 | 29 | 18 | 39 | 24 | 61 | 41 | 76 | ${ }^{6}$ |
| 31 | 39 | 22 |  |  | 36 | 21 | . | . | 88 | 40 |  | - |
|  |  | 22.1 |  |  | 35.1 | 192 | $50 \cdot 6$ | 33.6 | 66.4 | $44 \cdot 2$ | 80.5 | 58.5 |

Maximum and Minimum Temperature, 1876.


Table XL.-Gravenhurst, Ontario.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. 1 | Min. | Max | Min. | Max. ${ }^{-}$ | Min. | Max. | Min. |
|  | $\bigcirc$ | $\stackrel{\circ}{ }$ | $\bigcirc$ | $\bigcirc$ | $\stackrel{\circ}{\circ}$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | 27 | $\stackrel{\circ}{\circ}$ | $\bigcirc$ |
| 1 | 48 | 36 | 34 | 17 | 23 | 4 | 38 | 16 | 45 | 27 | 83 | 61 |
| 2 | 41 | 29 | 16 | -20 | 22 | 3 | 40 | 1 | 53 | 26 | 77 | 56 |
| 3 | 35 | 9 | 14 | -24 | 27 | -12 | 38 | 14 | 53 | 33 | 68 | 43 |
| 4 | 9 | -2 | 15 | -11 | 36 | -2 | 37 | 32 | 42 | 35 | 63 | 51 |
| 5 | 33 | 6 | 15 | -14 | 42 | 13 | 39 | 24 | 46 | 32 | 56 | 42 |
| 6 | 33 | 0 | 37 | 12 | 47 | 36 | 40 | 30 | 50 | 38 | 69 | 42 |
| 7 | 32 | 0 | 37 | 25 | 47 | 34 | 38 | 27 | 58 | 35 | 73 | 40 |
| 8 | 36 | 28 | 29 | 19 | 30 | 13 | 32 | 18 | 55 | 39 | 80 | 53 |
| 9 | 44 | 34 | 24 | 18 | 30 | 14 | 36 | 7 | 44 | 39 | 78 | 61 |
| 10 | 46 | 0 | 28 | 4 | 40 | 22 | 47 | 11 | 47 | 40 | 78 | 58 |
| 11 | 11 | -10 | 42 | 35 | 37 | 30 | 50 | 22 | 55 | 32 | 89 | 52 |
| 12 | 7 | 4 | 42 | 14 | 36 | 29 | 52 | 30 | 53 | 36 | 89 | 57 |
| 13 | 8 | -12 | 38 | 17 | 30 | 1 | 50 | 38 | 49 | 35 | 90 | 59 |
| 14 | 25 | 7 | 35 | 23 | 14 | -5 | 52 | 39 | 53 | 26 | 79 | 64 |
| 15 | 35 | 4 | 34 | 27 | 24 | -13 | 41 | 29 | 50 | 35 | 79 | 63 |
| 16 | 35 | 25 | 28 | 17 | 17 | 6 | 40 | 22 | 64 | 33 | 83 | 64 |
| 17 | 37 | 30 | 19 | 4 | 25 | 9 | 34 | 26 | 66 | 45 | 77 | 68 |
| 18 | 38 | 34 | 27 | 10 | 10 | -13 | 37 | 25 | 70 | 46 | 75 | 61 |
| 19 | 42 | 28 | 33 | 15 | 19 | -18 | 41 | 23 | 74 | 37 | 71 | 47 |
| 20 | 28 | 13 | 17 | 0 | 20 | -5 | 45 | 19 | 79 | 44 | 68 | 50 |
| 21 | 21 | $-3$ | 28 | -6 | 25 | 14 | 45 | 16 | 77 | 40 | 67 | 50 |
| 22 | 15 | -3 | 29 | 0 | 25 | 10 | 51 | 27 | 68 | 38 | 72 | 46 |
| 23 | 28 | 15 | 2 | $-13$ | 33 | 3 | 51 | 26 | 56 | 32 | 83 | 59 |
| 24 | 25 | 11 | 7 | $-11$ | 37 | $-2$ | 53 | 24 | 70 | 31 | 79 | 58 |
| 25 | 24 | 12 | 19 | -10 | 32 | 25 | 55 | 25 | 63 | 40 | 84 | 57 |
| 26 | 21 | 11 | 18 | 11 | 36 | 27 | 60 | 25 | 72 | 34 | 86 | 53 |
| 27 | 37 | 19 | 19 | $\stackrel{\circ}{6}$ | 30 | 23 | 59 | 26 | 79 | 45 | 77 | 61 |
| 28 | 35 | 14 | 15 | 10 | 28 | 15 | 50 | 32 | 78 | 51 | 77 | 51 |
| 29 | 41 | 6 | 24 | 12 | 31 | 19 | 45 | 24 | 67 | 38 | 82 | 46 |
| 30 | 18 | $-6$ |  |  | 33 | 17 | 40 | 25 | 62 | 28 | 71 | 50 |
| 31 | 34 | 17 |  |  | 35 | 10 |  |  | 83 | 38 | . | . |
|  | $29 \cdot 8$ | 11.2 | $24 \cdot 9$ | $5 \cdot 9$ | 29.8 | $9 \cdot 9$ | 44.5 | $23 \cdot 4$ | $60 \cdot 1$ | 36.4 | 76.8 | 54.1 |

Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| - | - | - | - | - | - | - | - | $\bigcirc$ | - | - | $\bigcirc$ |  |
| 77 | 43 | 83 | 49 | 74 | 57 | 53 | 35 | 58 | 47 | 11 | -2 | 1 |
| 68 | 58 | 86 | 50 | 74 | 44 | 57 | 33 | 58 | 47 | 18 | 11 | 2 |
| 77 | 60 | 85 | 55 | 70 | 41 | 51 | 41 | 47 | 33 | 26 | 15 | 3 |
| 76 | 55 | 88 | 65 | 64 | 54 | 49 | 36 | 44 | 35 | 24 | 9 | 4 |
| 75 | 54 | 90 | 66 | 67 | 34 | 45 | 31 | 54 | 33 | 30 | 10 | 5 |
| 76 | 54 | 85 | 66 | 71 | 39 | 54 | 38 | 42 | 34 | 32 | 18 | 6 |
| 80 | 51 | 80 | 61 | 71 | 51 | 46 | 32 | 42 | 34 | 30 | 18 | 7 |
| 86 | 64 | 83 | 54 | 70 | 54 | 39 | 3.1 | 41 | 29 | 22 | 12 | 8 |
| 90 | 65 | 89 | 50 | 68 | 49 | 45 | 38 | 37 | 28 | 19 | -12 | 9 |
| 85 | 68 | 90 | 53 | 67 | 45 | 52 | 31 | 41 | 27 | 6 | $-23$ | 10 |
| 87 | 63 | 92 | 57 | 71 | 38 | 39 | 27 | 41 | 27 | 12 | $-7$ | 11 |
| 88 | 59 | 89 | 57 | 62 | 41 | 47 | 26 | 44 | 27 | 28 | 12. | 12 |
| 88 | 61 | 90 | 65 | 63 | 38 | 48 | 32 | 46 | 28 | 36 | 28 | 13 |
| 83 | 58 | 92 | 71 | 63 | 41 | 43 | 34 | 43 | 29 | 35 | 23 | 14 |
| 81 | 55 | 73 | 63 | 61 | 49 | 36 | 21 | 35 | 19 | 23 | $-5$ | 15 |
| 85 | 53 | 74 | 45 | 67 | 35 | 45 | $29^{-1}$ | 37 | 27 | 18 | -14 | 16 |
| 90 | 54 | 71 | 56 | 63 | 41 | 47 | 27 | 41 | 33 | 0 | $-27$ | 17 |
| 84 | 68 | 79 | 54 | 63 | 50 | 50 | 20 | 40 | 35 | 2 | $-9$ | 18 |
| 90 | 58 | 77 | 61 | 65 | 51 | 59 | 27 | 44 | 37 | 14 | -13 | 19 |
| 81 | 64 | 68 | 51 | 74 | 46 | 64 | 36 | 42 | 36 | 5 | -24 | 20 |
| 71 | 52 | 69 | 38 | 65 | 52 | 68 | 39 | 42 | 36 | 14. | $\cdots 1$ | 21 |
| 62 | 45 | 77 | 44 | 68 | 52 | 63 | 42 | 41 | 31 | 19 | 9 | 22 |
| 69 | 49 | 84 | 57 | 68 | 54 | 58 | 45 | 35 | 29 | 17 | 2 | 23 |
| 68 | 46 | 83 | 53 | 66 | 55 | 41 | 39 | 33 | 27 | 9 | $-16$ | 24 |
| 64 | 42 | 74 | 57 | 74 | 53 | 43 | 33 | 31 | 26 | 18 | -15 | 25 |
| 71 | 39 | 66 | 46 | 64 | 43 | 39 | 32 | 32 | 26 | 23 | 16 | 26 |
| 76 | 46 | 61 | 46 | 47 | 40 | 37 | 26 | 32 | 22 | 22 | 1 | 27 |
| 63 | 57 | 76 | 43 | 55 | 45 | 41 | 25 | 34 | 20 | 25 | 14 | 28 |
| 79 | 51 | 79 | 42 | 52 | 37 | 44 | 21 | 30 | 17 | 25 | 5 | 29 |
| 83 | 52 | 85 | 55 | 50 | 34 | 46 | 24 | 18 | 1 | 10 | 3 | 30 |
| 83 | 51 | 88 | 54 | - | - | 52 | 40 | - | . | 16 | 2 | 31 |
| ${ }^{78} 7$ | 54.7 | 80.8 | 54.3 | 65.3 | $45 \cdot 4$ | $45 \cdot 1$ | 32.0 | $40 \cdot 1$ | 29.4 | 19.2 | 1.2 |  |

Table XLI.-Seelt, Ontario.-

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Mia. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - |  | 0 | - | - | - | - | - | $\bigcirc$ | - | ${ }^{\circ}$ | - |
| 1 | 47 | 33 | 34 | 4 | 25 | 11 | 38 | 13 | 48 | 25 | 83 | 56 |
| 2 | 48 | 32 | 4 | -25 | 24 | -6 | 48 | 5 | 57 | 23 | 74 | 58 |
| 3 | 36 | 2 | 13 | -28 | 32 | - 7 | 38 | 27 | 54 | 31 | 72 | 46 |
| 4 | 9 | -8 | 13 | -16 | 38 | 4 | 36 | 30 | 39 | 33 | 58 | 46 |
| 5 | 27 | 1 | 17 | -18 | 43 | 15 | 38 | 25 | 30 | 32 | 53 | 38 |
| 6 | 13 | $-1$ | 37 | 14 | 53 | 34 | 40 | 27 | 42 | 37 | 68 | 38 |
| 7 | 29 | - 3 . | 28 | 22 | 48 | 34 | 39 | 25 | 56 | 36 | 72 | 53 |
| 8 | 35 | 27 | 21 | 12 | 34 | 11 | 39 | 18 | 58 | 40 | 80 | 50 |
| 9 | 42 | 32 | 28 | 6 | 31 | 4 | 40 | 5 | 52 | 37 | 79 | 57 |
| 10 | 43 | - 1 | 24 | 15 | 41 | 16 | 53 | 10 | 52 | 36 | 84 | 57 |
| 11 | 10 | - 5 | 43 | 12 | 34 | 18 | 58 | 20 | 59 | 30 | 93 | 50 |
| 12 | 8 | -8 | 41 | 14 | 35 | 27 | 51 | 26 | 53 | 35 | 88 | 57 |
| 13 | 7 | 11 | 35 | 13 | 27 | -6 | 53 | 39 | 48 | 32 | 95 | 59 |
| 14 | 22 | 6 | 34 | 11 | 16 | -16 | 51 | 34 | 53 | 24 | 79 | 64 |
| 15 | 35 | 3 | 31 | 22 | 29 | -17 | 38 | 57 | 53 | 35 | 80 | 57 |
| 16 | 34 | 26 | 23 | 10 | 15 | 8 | 39 | 23 | 71 | 29 | 84 | 62 |
| 17 | 37 | 28 | 17 | - 5 | 21 | 4 | 34 | 24 | 61 | 43 | 76 | 65 |
| 18 | 35 | 33 | 26 | 3 | 8 | -18 | 38 | 25 | 66 | 45 | 75 | 61 |
| 19 | 36 | 28 | 32 | 10 | 23 | -16 | 39 | 22 | 75 | 37 | 72 | 49 |
| 20 | 28 | 11 | 20 | -4 | 19 | 0 | 14 | 17 | 74 | 43 | 67 | 51 |
| 21 | 119 | -6 | 29 | $-3$ | 21 | 13 | 49 | 18 | 80 | 58 | 63 | 47 |
| 22 | 15 | $-7$ | 26 | -2 | 28 | 12 | 49 | 26 | 74 | 35 | 72 | 39 |
| 23 | 25 | 14 | 1 | -32 | 31 | 7 | 50 | 28 | 62 | 26 | 82 | 50 |
| 24 | 22 | 4 | 8 | -22 | 39 | 8 | 50 | 20 | 74 | 31 | 81 | 53 |
| 25 | 23 | 9 | 19 | -11 | 29 | 24 | 57 | 25 | 63 | 39 | 84 | 53 |
| 26 | 21 | 11 | 16 | 6 | 36 | 25 | 57 | 25 | 73 | 32 | 88 | 55 |
| 27 | 34 | 17 | 14 | 0 | Omitted | Omitted | 58 | 37 | 79 | 45 | 70 | 61 |
| 28 | 34 | 24 | 14 | 7 | 30 | 12 | 52 | 30 | 79 | 52 | 76 | 48 |
| 29 | 42 | $-1$ | 25 | 11 | 34 | 17 | 44 | 22 | 52 | 36 | 78 | 44 |
| 30 | 16 | -11 | $\cdots$ | $\cdots$ | 32 | 14 | 39 | 22 | 74 | 26 | 68 | 48 |
| 31 | 35 | 15 | $\cdots$ | ... | 34 | 24 | $\cdots$ | ... | 90 | 55 |  | ... |
|  | 27.9 | 8.8 | 232 | 220 | $30 \cdot 4$ | 8.5 | $45 \cdot 4$ | 220 | 62.0 | $36 \cdot 1$ | 76.4 | $52 \cdot 4$ |

. Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | Octcber. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| - | - | - | - | - | - | - | - | - | - | - | - |  |
| 78 | 43 | 83 | 44 | 95 | 52 | 54 | 34 | 54 | 30 | 10 | $-8$ | 1 |
| 71 | 59 | 84 | 61 | 64 | 38 | 55 | 30 | 58 | 39 | 18 | 7 | 2 |
| 73 | 61 | 83 | 55 | 68 | 36 | 48 | 28 | 46 | 34 | 23 | 10 | 3 |
| 78 | 53 | 84 | 65 | 63 | 46 | 46 | 30 | 45 | 30 | 22 | 7 | 3 |
| 77 | 49 | 101 | 69 | 64 | 30 | 48 | 31 | 41 | 3 L | 29 | 2 | 5 |
| 78 | 55 | 83 | 61 | 66 | 32 | 51 | 37 | 41 | 30 | 30 | 16 | 6 |
| 77 | 49 | 78 | 60 | 69 | 49 | 47 | 27 | 38 | 32 | 30 | 8 | 7 |
| 91 | 57 | 83 | 50 | 67 | 50 | 35 | 25 | 39 | 33 | 20 | 9 | 8 |
| 90 | 62 | 84 | 47 | 66 | 50 | 44 | 21 | 34 | 28 | 16 | -18 | 9 |
| 86 | 67 | 91 | 51 | 67 | 41 | 41 | 22 | 36 | 25 | $-3$ | -31 | 10 |
| 88 | 58 | 89 | 56 | 70 | 31 | 48 | 26 | 39 | 25 | 11 | -10 | 11 |
| 85 | 58 | 81 | 60 | 57 | 31 | 24 | 21 | 44 | 24 | 25 | 8 | 12 |
| 87 | 63 | 88 | 62 | 60 | 34 | 43 | 23 | 46 | 27 | 34 | 23 | 13 |
| 82 | 55 | 91 | 63 | 63 | 40 | 46 | 25 | 32 | 25 | 35 | 21 | 14 |
| 80 | 49 | 70 | 50 | 64 | 68 | 34 | 17 | 33 | 13 | 22 | -16 | 15 |
| 82 | 51 | 71 | 39 | 66 | 30 | 41 | 18 | 35 | 20 | -14 | -23 | 16 |
| 88 | 61 | 76 | 53 | 62 | 36 | 37 | 19 | 37 | 29 | $-1$ | -32 | 17 |
| 84 | 65 | 80 | 51 | 61 | 37 | 49 | 17 | 37 | 31 | -1 | -14 | 18 |
| 86 | 58 | 81 | 52 | 64 | 38 | 63 | 16 | 41 | 35 | 12 | --15 | 19 |
| 78 | 60 | 63 | 45 | 75 | 40 | 66 | 34 | 42 | 34 | 7 | -23 | 20 |
| 69 | 45 | 69 | 34 | 63 | 43 | 76 | 41 | 44 | 35 | 14 | -5 | 21 |
| 56 | 43 | 75 | 40 | 71 | 45 | 63 | 41 | 38 | 31 | 17 | 7 | 23 |
| 66 | 41 | 82 | 50 | 69 | 43 | 61 | 40 | 33 | 25 | 11 | - 1 | 23 |
| 61 | 47 | 80 | 54 | 65 | 41 | 47 | - 38 | 32 | 20 | 6 | -18 | 24 |
| 62 | 34 | 76 | 50 | 64 | 40 | 41 | 32 | 36 | 24 | 19 | -16 | 25 |
| 66 | 33 | 65 | 41 | 73 | 36 | 34 | 30 | 31 | 18 | 22 | 12 | 26 |
| 78 | 43 | 66 | 40 | 60 | 38 | 35 | 24 | 32 | 20 | 21 | 13 | 27 |
| 66 | 56 | 76 | 37 | 62 | 35 | 41 | 20 | 32 | 14 | 22 | 3 | 28 |
| 76 | 45 | 80 | 45 | 71 | 40 | 43 | 19 | 26 | 15 | 14 | - 4 | 29 |
| 81 | 53 | 81 | 47 | 54 | 30 | 45 | 24 | 19 | $-4$ | 10 | $-5$ | 30 |
| 81 | 46 | 84 | 57 | ... | ... | 53 | 30 |  | $\cdots$ | 14 | $-3$ | 31 |
| $77 \cdot 4$ | $52 \cdot 2$ | $79 \cdot 9$ | 51.3 | 65.9 | $39 \cdot 1$ | 47.0 | $27 \cdot 1$ | $38 \cdot 1$ | $25 \cdot 7$ | 16.0 | 3.4 |  |

Table XLIL.-Stayner, Ontario.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | $\bigcirc$ | - | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - |
| 1 | 47 | 35 | 38 | 0 | 21 | 6 | 40 | 14 | 50 | 24 | 86 | 61 |
| 2 | - | . | 3 | $-6$ | 15 | - 1 | - | - | 48 | 31 | 81 | 54 |
| 3 | 53 | 10 | 19 | 4 | 30 | $-6$ | 40 | 23 | 55 | 32 | 67 | 46 |
| 4 | 17 | 9 | 19 | 1 | 39 | 6 | 42 | 25 | 48 | 32 | - | . |
| 5 | 43 | 14 | 28 | -11 | - | - | 42 | 24 | 48 | 30 | 65 | 41 |
| 6 | 31 | 18 | . | - | 60 | 20 | 44 | 33 | 51 | 39 | 70 | 38 |
| 7 | 35 | 20 | 43 | 22 | 59 | 23 | 43 | 31 | - | - | 70 | 40 |
| 8 | 47 | 27 | 31 | 20 | 25 | 12 | 35 | 12 | 59 | 40 | 84 | 55 |
| 9 | - | - | 29 | 20 | 35 | 14 | - | . | 52 | 39 | 78 | 64 |
| 10 | 22 | 6 | 33 | 9 | 45 | 24 | 50 | 11 | 48 | 39 | 81 | 57 |
| 11 | 19 | 6 | 49 | 29 | 41 | 31 | 56 | 25 | 58 | 37 | - | - |
| 12 | 12 | 7 | 47 | 26 | - | - | 45 | 36 | 53 | 42 | 93 | 59 |
| 13 | 19 | 1 | - | - | 38 | 6 | 53 | 37 | 50 | 36 | 85 | 59 |
| 14 | 27 | 16 | 43 | 23 | 14 | $-1$ | 57 | 37 | - | - | 83 | 58 |
| 15 | 39 | 20 | 33 | 25 | 27 | 0 | 48 | 33 | 55 | 30 | 82 | 64 |
| 16 | . |  | 27 | 19 | 21 | 14 |  | . | 60 | 36 | 82 | 63 |
| 17 | 43 | 29 | 21 | 13 | 35 | 2 | 42 | 27 | 75 | 45 | 76 | 65 |
| 18 | 51 | 35 | 35 | 13 | 6 | $-9$ | 36 | 27 | 60 | 45 | - | - |
| 19 | 50 | 26 | 37 | 17 | - | - | 44 | 26 | 74 | 39 | 75 | 50 |
| 20 | 28 | 18 | - | - | 22 | 0 | 44 | 24 | 77 | 49 | 67 | 54 |
| 21 | 21 | 10 | 34 | 3 | 23 | 14 | 50 | 36 | - | - | 65 | 49 |
| 22 | 18 | 10 | 23 | 0 | 29 | 14 | 54 | 29 . | 88 | 37 | 71 | 45 |
| 23 | - | - | 6 | - 4 | 36 | 11 | - | I | 59 | 34 | 84 | 56 |
| 24 | 20 | 15 | 10 | $-6$ | 40 | 9 | 51 | 28 | 76 | 41 | 83 | 58 |
| 25 | 27 | 15 | 25 | $-6$ | 36 | 24 | 53 | 30 | 62 | 38 | - | - |
| 26 | 26 | 12 | 19 | 10 | - |  | 65 | 28 | 82 | 33 | 85 | 53 |
| 27 | 40 | 25 | - | - | 35 | 82 | 65 | 43 | 84 | 60 | 79 | 63 |
| 28 | 35 | 27 | 20 | 12 | 29 | 20 | 50 | 31 ! | - | - | 75 | 56 |
| 29 | 48 | 9 | 23 | 9 | 31 | 20 | 50 | 29 | 77 | 39 | 79 | 50 |
| 30 |  |  |  |  | 31 | 20 | - | + | 65 | 34 | 68 | 50 |
| 31 | 41 | 6 | - |  | 33 | 27 | - | ! | 86 | 40 | - | - |
|  | $32 \cdot 8$ | 16.5 | $33 \cdot 2$ | $9 \cdot 7$ | $31 \cdot 5$ | $12 \cdot 0$ | 47.6 | $28 \cdot 1$ | $62 \cdot 6$ | $37 \cdot 9$ | $77 \cdot 1$ | $54 \cdot 5$ |

Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | Ootober. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| - | - | - | $\bigcirc$ | - | - | - | Q | - | - | - | - |  |
| 75 | 45 | 83 | 51 | 68 | 54 | . |  | 58 | 49 | 19 | 1 | 1 |
| - | - | 86 | 49 | 63 | 47 | 60 | 36 | 63 | 42 | 27 | 17 | 2 |
| 80 | 60 | 83 | 60 | - | - | 52 | 39 | 47 | 40 | - | - | 3 |
| 79 | 59 | 87 | 68 | 72 | 44 | 50 | 38 | 47 | 35 | 27 | 15 | 4 |
| 74 | 59 | 91 | 68 | 63 | 40 | 52 | 33 | - | - | 30 | 20 | 5 |
| 79 | 60 | - | - | 70 | 36 | 57 | 39 | 50 | 32 | 32 | 24 | 6 |
| 88 | 59 | 90 | 60 | 70 | $E 1$ | 45 | 34 | 46 | 33 | 30 | 21 | 7 |
| 88 | 67 | 79 | 54 | 69 | 49 | - | - | 41 | 33 | 22 | 10 | 8 |
| - | - | 85 | 49 | 68 | 48 | 53 | 30 | 39 | 32 | 13 | -6 | 9 |
| 94 | 68 | 91 | 54 | - | - | 53 | 33 | 40 | 30 | - | - | 10 |
| 84 | 64 | 90 | 59 | 68 | 45 | 43 | 31 | 42 | 29 | 15 | - 7 | 11 |
| 88 | 63 | 87 | 68 | 60 | 40 | 45 | 27 | - | - | 31 | 16 | 12 |
| 85 | 63 | - | - | 65 | 36 | 52 | 41 | 53 | 26 | 40 | 25 | 13 |
| 79 | 63 | 92 | 63 | 64 | 43 | 44 | 23 | 41 | 30 | 38 | 17 | 14 |
| 78 | 56 | 73 | 59 | 61 | 41 | - | - | 36 | 23 | 20 | 10 | 15 |
| - | - | 75 | 51 | 69 | 36 | 47 | 32 | 39 | 28 | 23 | - 7 | 16 |
| 90 | 53 | 73 | 58 | - | - | 41 | 30 | 42 | 34 |  | - | 17 |
| 86 | 64 | 81 | 60 | 62 | 62 | 52 | 22 | 44 | 36 | 15 | - 8 | 18 |
| 90 | 58 | 81 | 53 | 62 | 49 | 63 | 27 | - | - | 15 | 4 | 19 |
| 83 | 59 | - | - | ¢ | - | 62 | 36 | 46 | 39 | 6 | - 7 | 20 |
| 69 | 48 | 68 | 43 | 70 | 46 | 71 | 42 | 42 | 38 | 15 | -2 | 21 |
| 62 | 49 | 77 | 43 | 66 | 50 | - | - | 42 | 33 | 24 | 14 | 22 |
| - | - | 85 | 60 | 67 | 51 | 67 | 44 | 34 | 30 | 18 | 10 | 23 |
| 65 | 49 | 88 | 60 | - | - | 51 | 38 | 35 | 29 | - | - | 24 |
| 66 | 44 | 77 | 51 | 75 | 49 | 45 | 36 | 34 | 29 | 15 | $-9$ | 25 |
| 70 | 45 | 78 | 49 | 55 | 43 | 40 | 32 | - | - | 25 | 4 | 26 |
| 76 | 51 | - | - | 50 | 42 | 40 | 31 | 34 | 21 | 23 | 17 | 27 |
| 68 | 54 | 72 | 41 | 55 | 39 | 39 | 26 | 35 | 19 | 28 | 18 | 28 |
| 78 | 52 | 77 | 52 | 53 | 36 | - |  | 32 | 21 | 17 | 1 | 29 |
| - | - | 82 | 57 | 52 | 33 | 51 | 24 | 22 | 1 | 19 | 11 | 30 |
| 82 | 52 | 87 | 60 | - | - | 60 | 43 |  |  | - |  | 31 |
| 78.8 | 56.6 | 81-9 | 55.8 | 63.6 | 44.4 | 51.0 | $33 \cdot 1$ | 41.4 | 30.2 | 22.4 | 7.5 |  |

Table XLIII.-Barrie, Ontario.

| Day. | January. |  | February. |  | March. |  | April. |  | Mry. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | Q | $\bigcirc$ | - | Q | Q | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| 1 | 45 | 30 | 40 | 13 | 24 | 8 | 34 | 20 | 47 | 26 | 77 | 59 |
| 2 | 47 | 35 | 19 | -10 | 20 | 4 | 34 | 10 | 51 | 29 | 77 | 57 |
| 3 | 41 | 22 | 18 | -10 | 33 | 0 | 41 | 25 | 50 | 33 | 64 | 50 |
| 4 | 28 | 4 | 20 | 4 | 42 | 10 | 44 | 30 | 54 | 36 | - | - |
| 5 | 39 | 12 | 20 | - 9 | 40 | 16 | 46 | 23 | 49 | 31 | 57 | 45 |
| 6 | 38 | 18 | 38 | 15 | 52 | 37 | 44 | 30 | 53 | 41 | 68 | 44 |
| 7 | 35 | 19 | 41 | 30 | 56 | 40 | 42 | 32 | 65 | 42 | 65 | 44 |
| 8 | 39 | 28 | 34 | 24 | 44 | 17 | 37 | 23 | 57 | 42 | 80 | 54 |
| 9 | 47 | 35 | 31 | 19 | 29 | 13 | 36 | 17 | 51 | 40 | 73 | 60 |
| 10 | 46 | 14 | 32 | 15 | 37 | 22 | $\pm 2$ | 19 | 47 | 39 | 78 | 57 |
| 11 | 23 | 7 | 45 | 27 | 39 | 30 | 48 | 28 | 56 | 33 | 81 | 57 |
| 12 | 22 | 6 | 45 | 24 | 38 | 30 | 43 | 35 | 55 | 40 | 80 | 60 |
| 13 | 16 | - 3 | 39 | 25 | 34 | 6 | 44 | 35 | 62 | 36 | 81 | 63 |
| 14 | 30 | 10 | 39 | 23 | 19 | - 1 | 49 | 34 | 54 | 32 | 78 | 66 |
| 15 | 38 | 19 | 37 | 28 | 22 | 1 | 40 | 31 | 49 | 39 | 78 | 62 |
| 16 | 42 | 31 | 33 | 21 | 22 | 12 | 38 | 29 | 51 | 37 | 78 | 65 |
| 17 | 41 | 31 | 27 | 14 | 31 | 11 | 34 | $2 \%$ | 68 | 42 | 75 | 65 |
| 18 | 42 | 34 | 32 | 13 | 16 | $-5$ | 39 | 27 | 67 | 48 | 73 | 62 |
| 19 | 44 | 28 | 39 | 23 | 23 | -2 | 42 | 24 | 69 | 40 | 73 | 55 |
| 20 | 33 | 18 | 31 | 8 | 20 | 4 | 38 | 22 | 66 | 50 | 67 | 56 |
| 21 | 26 | 8 | 33 | 4 | 30 | 14 | 46 | 32 | 79 | 57 | 65 | 53 |
| 22 | 19 | 6 | 33 | 7 | 35 | 17 | 52 | 30 | 70 | 40 | 71 | 51 |
| 23 | a, | 14 | 13 | $-6$ | 30 | 14 | 46 | 33 | 58 | 33 | 81 | 56 |
| 24 | 33 | 16 | 14 | -4 | 35 | 9 | 48 | 27 | 72 | 38 | 81 | 62 |
| 25 | 29 | 15 | 19 | $-2$ | 34 | 22 | 52 | 35 | 62 | 46 | 82 | 66 |
| 26 | 24 | 12 | 20 | 16 | 35 | 29 | 54 | 30 | 69 | 37 | 81 | 56 |
| 27 | 45 | 19 | 20 | 6 | 33 | 24 | 54 | 37 | 77 | 53 | 82 | 69 |
| 28 | 42 | 19 | 19 | 8 | 30 | 21 | 50 | 33 | 7.4 | 56 | 76 | 58 |
| 29 | 43 | 14 | 24 | 9 | 34 | 20 | 51 | 29 | 65 | 43 | 77 | 52 |
| 30 | 21 | 4 |  | - | 37 | 19 | 39 | 25 | 56 | 38 | 74 | 55 |
| 31 | 30 | 17 |  |  | 36 | 26 |  |  | 75 | 39 | - | - |
|  | $35 \cdot 0$ | 174 | $34 \cdot 0$ | $13 \cdot 3$ | $32 \cdot 8$ | 15.0 | 43.4 | 27.7 | 601 | $39 \cdot 7$ | 748 | 67.2 |

Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Mid. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| $\square$ | - | $\stackrel{\circ}{\circ}$ | $\bigcirc$ | - | - | - | - | - | - | $\bigcirc$ | - |  |
| 69 | 48 | 81 | 56 | 76 | 58 | 51 | 39 | 59 | 49 | 16 | - 3 | 1 |
| \% | 61 | 81 | 55 | 68 | 53 | 58 | 39 | 59 | 47 | 23 | 12 | 2 |
| 76 | 64 | 81 | 63 | 69 | 46 | 52 | 43 | 51 | 40 | 25 | 16 | 3 |
| 73 | 62 | 85 | 67 | 64 | 51 | 50 | 38 | 45 | 37 | 25 | 17 | 4 |
| 72 | 59 | 87 | 69 | 63 | 42 | 48 | 37 | 45 | 37 | 30 | 19 | 5 |
| 77 | 55 | 85 | 69 | 65 | 44 | 53 | 37 | 44 | 38 | 32 | 21 | 6 |
| 81 | 59 | 81 | 66 | 68 | 56 | 47 | 35 | 45 | 35 | 30 | 22 | 7 |
| 88 | 68 | 81 | 65 | 70 | 56 | 41 | 30 | 42 | 34 | 23 | 17 | 8 |
| 89 | 70 | 84 | 57 | 65 | 51 | 48 | 26 | 41 | 34 | 21 | 2 | 9 |
| 85 | 72 | 86 | 59 | 63 | 52 | 49 | 34 | 39 | 32 | 9 | $-7$ | 10 |
| 83 | 64 | 87 | 64 | 69 | 53 | 40 | 29 | 41 | 33 | 18 | 4 | 11 |
| 87 | 66 | 83 | 69 | 65 | 44 | 42 | 29 | 48 | 31 | 30 | 14 | 12 |
| 85 | 60 | 86 | 67 | 64 | 45 | 50 | 35 | 48 | 34 | 36 | $2 \overline{5}$ | 13 |
| 81 | 66 | 88 | 67 | 64 | 51 | 47 | 24 | 46 | 31 | 36 | ¢9 | 14 |
| 80 | 59 | 78 | 63 | 66 | 50 | 38 | 23 | 39 | 24 | 33 | 13 | 15 |
| 82 | 57 | 73 | 55 | 66 | 43 | 44 | 30 | 39 | 30 | 23 | -6 | 16 |
| 89 | 58 | 74 | 60 | 61 | 50 | 47 | 33 | 41 | 34 | 3 | $-7$ | 17 |
| 83 | 70 | 77 | 63 | 62 | 52 | 51 | 28 | 44 | 36 | 11 | -3 | 18 |
| 90 | 61 | 81 | 65 | 61 | 53 | 56 | 33 | 45 | 40 | 17 | 7 | 19 |
| 83 | 59 | 75 | 50 | 71 | 51 | 56 | 42 | 44 | 38 | 12 | -8 | 20 |
| 73 | 54 | 72 | 45 | 66 | 55 | 68 | 50 | 42 | 37 | 14 | 1 | 21 |
| 64 | - 49 | 75 | 49 | 66 | 57 | 63 | 47 | 43 | 32 | 20 | 10 | 22 |
| 68 | 51 | 80 | 61 | 64 | 56 | 56 | 46 | 37 | 30 | 20 | 7 | 23 |
| 69 | 49 | 82 | 64 | 65 | 55 | 50 | 40 | 34 | 26 | 12 | $-6$ | 24 |
| 65 | 45 | 77 | 56 | 72 | 53 | 44 | 36 | 35 | 26 | 14 | -4 | 25 |
| 69 | 45 | 69 | $5)$ | 64 | 43 | 40 | $3 \pm$ |  | 28 | 21 | 10 | 26 |
| 75 | 54 | 70 | 46 | 49 | 41 | 40 | 33 | 35 | 26 | 23 | 15 | 27 |
| 68 | 58 | 74 | 49 | 54 | 39 | 40 | 32 | 37 | 21 | 23 | 16 | 28 |
| 75 | 52 | 80 | 51 | 53 | 42 | 41 | 31 | 35 | 21 | 22 | 11 | 29 |
| 77 | 56 | 78 | 59 | 51 | 38 | 47 | 32 | 26 | 3 | 18 | 4 | 30 |
| 81 | 56 | 84 | 61 |  |  | 56 | 40 |  |  | 20 | 4 | 31 |
| 77.5 | 58.4 | 796 | 593 |  | $49 \cdot 2$ | $48 \cdot 6$ | $34 \cdot 8$ | 42.0 | $32 \cdot 1$ | $21 \cdot 1$ | 8.1 |  |

Table XLIV.--Newmarket, Ontario.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | - June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | - | $\bullet$ | - | - | - | - | - | - | - | - |
| 1 | 43 | 37 | 35 | 12 | 22 | 15 | 30 | 16 | 45 | 25 | 82 | 60 |
| 2 | 50 | 39 |  | -17 | 20 | 1 | 40 | -1 | 52 | 31 | 83 | 62 |
| 3 | 41 | 15 | 17 | -17 | 34 | $-5$ | 40 | 28 | 60 | 30 | 70 | 50 |
| 4 | 17 | 6 | 14 | -2 | 35 | 4 | 41 | 31 | 54 | 33 | 70 | 52 |
| 5 | 41 | 13 | 21 | -16 | 44 | 18 | 41 | 24 | 55 | 30 | 60 | 44 |
| 6 | 32 | 19 | 39 | 17 | 55 | 37 | 43 | 29 | 59 | 44 | 64 | 42 |
| 7 | 33 | 19 | 40 | 30 | 52 | 38 | 35 | 29 | 70 | 44 | 63 | 42 |
| 8 | 38 | 24 | 31 | 23 | 23 | 12 | 33 | 20 | 60 | 46 | 65 | 45 |
| 9 | 49 | 36 | 26 | 22 | 32 | 14 | 37 | 13 | 51 | 41 | 78 | 56 |
| 10 | 20 | 10 | 30 | 14 | 39 | 12 | 46 | 15 | 47 | 39 | 86 | 64 |
| 11 | 19 | 5 | 47 | 28 | 42 | 30 | 51 | 34 | 56 | 33 | 86 | 58 |
| 12 | 15 | 8 | 42 | 25 | 36 | 29 | 45 | 33 | 56 | 39 | 87 | 57 |
| 13 | 11 | - 2 | 43 | 23 | 19 | 10 | 48 | 34 | 52 | 35 | 85 | 56 |
| 14 | 27 | 14 | 39 | 28 | 18 | 0 | 54 | 39 | 59 | 30 | 86 | 63 |
| 15 | 37 | 15 | 31 | 27 | 27 | 1 | 45 | 32 | 43 | 39 | 82 | 64 |
| 16 | 40 | 30 | 26 | 22 | 27 | 14 | 43 | 30 | 57 | 37 | 83 | 64 |
| 17 | 40 | 31 | 24 | 12 | 33 | 10 | 33 | 25 | 70 | 45 | 75 | 63 |
| 18 | 49 | 35 | 34 | 14 | 4 | -8 | 34 | 24 | 69 | 50 | 76 | 60 |
| 19 | 43 | 28 | 38 | 23 | 21 | -2 | 44 | 24 | 74 | 40 | 71 | 48 |
| 20 | 24 | 17 | 24 | 11 | 22 | 3 | 42 | 23 | 67 | 49 | 71 | 52 |
| 21 | 17 | 8 | 35 | 10 | 23 | 15 | 44 | 32 | 81 | 56 | 67 | 50 |
| 22 | 25 | 6 | 25 | 16 | 29 | 15 | 54 | 28 | 57 | 40 | $77^{\circ}$ | 43 |
| 23 | 34 | 23 | 41 | -8 | 40 | 12 | 50 | 28 | 59 | 32 | 84 | 49 |
| 24 | 22 | 16 | 11 | -2 | 38 | 3 | 54 | 25 | 77 | 36 | 88 | 60 |
| 25 | 28 | 10 | 20 | 1 | 34 | 24 | 54 | 33 | 66 | 47 | 87 | 62 |
| 26 | 36 | 12 | 17 | 12 | 35 | 29 | 60 | 28 | 74 | 36 | 86 | 50 |
| 27 | 40 | 24 | 17 | 8 | 30 | 22 | 57 | 36 | 84 | 52 | 87 | 63 |
| 28 | 46 | 29 | 16 | 11 | 27 | 21 | 50 | 30 | 83 | 52 | 79 | 56 |
| 29 | 33 | 10 | 23 | 9 | 30 | 20 | 52 | 27 | 83 | 57 | 80 | 45 |
| 30 | 23 | 6 | - |  | 32 | 15 | 38 | 25 | 56 | 32 | 75 | 54 |
| 31 | 37 | 18 | - |  | 34 | 25 |  |  | 77 | 36 |  |  |
|  | 32.5 | 18.1 | 265 | 11.5 | $30 \cdot 9$ | 14.0 | 44.6 | 26.5 | 63.0 | $39 \cdot 9$ | 778 | 51.5 |

## Maximum and Minimam Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\stackrel{\circ}{\circ}$ | $\stackrel{\circ}{\circ}$ | $\stackrel{\square}{\circ}$ | - | $\bigcirc$ | $\stackrel{\circ}{\circ}$ | $\bigcirc$ | - | - |  |
| 68 | 43 | 86 | 48 | 76 | 58 | 53 | 33 | 65 | 50 | 12 | -4 | 1 |
| 69 | 54 | 88 | 45 | 66 | 48 | 59 | 34 | 60 | 49 | 20 | 10 | 2 |
| 80 | 64 | 82 | 60 | 71 | 38 | 54 | 43 | 46 | 36 | 21 | 12 | 3 |
| 75 | 60 | 89 | 65 | 65 | 40 | 49 | 33 | 44 | 33 | $2:$ | 8 | 4 |
| 76 | 57 | 92 | 64 | 65 | 34 | 52 | 37 | 46 | 29 | 29 | 9 | 5 |
| 82 | 50 | 87 | 65 | 70 | 33 | 55 | 42 | 45 | 32 | 30 | 14 | 6 |
| 82 | 58 | 84 | 68 | 71 | 52 | 42 | 34 | 42 | 35 | 29 | 16 | 7 |
| 94 | 70 | 88 | 48 | 71 | 50 | 42 | 30 | 44 | 30 | 23 | 15 | 8 |
| 94 | 72 | 89 | 49 | 67 | 42 | 50 | 26 | 40 | 32 | 6 | $-10$ | 9 |
| 96 | 70 | 91 | 51 | 64 | 44 | 43 | 35 | 40 | 24 | 7 | -20 | 10 |
| 94 | 67 | 90 | 60 | 70 | 50 | 39 | 27 | 42 | 26 | 19 | 1 | 11 |
| 93 | 67 | 88 | 68 | 65 | 37 | 48 | 25 | 46 | 23 | 31 | 12 | 12 |
| 91 | 67 | 90 | 63 | 66 | 34 | 54 | 31 | 47 | 3 | 38 | 26 | 13 |
| 85 | 64 | 91 | 59 | 65 | 40 | 37 | 30 | 38 | 31 | 35 | 14 | 14 |
| 82 | 54 | 77 | 60 | 66 | 43 | 36 | 15 | 38 | 23 | 19 | 5 | 16 |
| 89 | 49 | 76 | 48 | 68 | 32 | 48 | 29 | 39 | 27 | -2 | $-7$ | 16 |
| 92 | 50 | 77 | 56 | 61 | 34 | 44 | 34 | 42 | 31 | 5 | $-13$ | 17 |
| 85 | 67 | 79 | 57 | 63 | 49 | 52 | 19 | 42 | 33 | 10 | -5 | 18 |
| 93 | 56 | 82 | 61 | 63 | 53 | 57 | 28 | 44 | 39 | 16 | 3 | 19 |
| 86 | 56 | 70 | 54 | 72 | 44 | 62 | 36 | 43 | 36 | 7 | -13 | 20 |
| 72 | 53 | 75 | 34 | 79 | 53 | 68 | 43 | 42 | 33 | 15 | 3 | 21 |
| 65 | 42 | 79 | 38 | 68 | 49 | 62 | 41 | 37 | 33 | 25 | 12 | 23 |
| 70 | 54 | 83 | 57 | 68 | 54 | 59 | 53 | 36 | 29 | 19 | 0 | 23 |
| 64 | 43 | 85 | 58 | 64 | 55 | 49 | 36 | 34 | 24 | 7 | -16 | 24 |
| 67 | 38 | 83 | 64 | 77 | 54 | 44 | 35 | 34 | 25 | 15 | -11 | 25 |
| 72 | 37 | 71 | 40 | 58 | 40 | 40 | 31 | 33 | 24 | 23 | 10 | 26 |
| 76 | 37 | 72 | 45 | 48 | 39 | 37 | 29 | 34 | 7 | 20 | 10 | 27 |
| 71 | 60 | 78 | 34 | 50 | 37 | 40 | 27 | 34 | 14 | 24 | 5 | 28 |
| 82 | 46 | 82 | 35 | 56 | 43 | 40 | 21 | 33 | 15 | 16 | 10 | 29 |
| 82 | 51 | 83 | 55 | 51 | 34 | 48 | 24 | 12 | 2 | 18 | 6 | 30 |
| 86 | 55 | 89 | 56 |  |  | 59 | 40 |  |  | 19 | 5 | 31 |
| 812 | 55.2 | 83.1 | 63.7 | 65.8 | $43 \cdot 8$ | 489 |  | $37 \cdot 4$ | 28.5 | $18 \cdot 8$ | $3 \cdot 4$ |  |

Table XLV.-Hamilton, Ontario.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | Jnne. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Nax. | Min | Max. | Min. | Max. | Min. |
|  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | $\stackrel{\circ}{\circ}$ | 0 | - | $\stackrel{\square}{\circ}$ | - | - |
| 1 | 51 | 36 | 39 | 34 | 34 | 15 | 44 | 27 | 53 | 30 | 66 | 50 |
| 2 | - | . | 32 | 1 | 30 | 2 | - | - | 50 | 32 | 87 | 56 |
| 3 | 42 | 20 | $\underline{2}$ | 4 | 34 | 9 | 44 | 24 | 60 | 34 | 69 | 52 |
| 4 | 29 | 10 | 23 | 1 | 38 | 18 | 45 | 33 | 61 | 42 | - | - |
| 5 | 49 | 17 | 25 | 1 | - | - | 47 | 33 | 47 | 40 | 59 | 43 |
| 6 | 42 | 24 | . | - | 68 | 20 | 47 | 36 | 64 | 40 | 71 | 43 |
| 7 | 34 | 28 | 49 | 10 | 61 | 42 | 44 | 32 | - | - | 69 | 43 |
| 8 | 36 ! | 30 | 38 | 29 | 41 | 21 | 45 | 27 | 62 | 41 | 82 | 68 |
| 9 | - | - | 35 | 27 | 36 | 20 | - | - | 53 | 41 | 84 | 68 |
| 10 | 38 | 11 | 35 | 23 | 37 | 28 | 45 | 32 | 50 | 34 | 62 | 60 |
| 11 | 20 | 11 | 56 | 31 | 40 | 23 | 49 | 26 | 64 | 40 | . | - |
| 12 |  | 13 | 45 | 32 | - | - | 41 | 36 | 58 | 42 | 65 | 61 |
| 13 | 26 | 2 |  | - | 30 | 5 | 42 | 36 | 59 | 42 | 65 | 59 |
| 14 | 30 | 15 | 47 | 29 | $\underline{-6}$ | 4 | 44 | 50 | - |  | 90 | 60 |
| 15 | 41 | 23 | 39 | 26 | 29 | 15 | 4.4 | 38 | 51 | 35 | 67 | 61 |
| 16 | - | - | 33 | 19 | 42 | 19 | . | . | 47 | 40 | 78 | 61 |
| 17 | 49 | 33 | 31 | 20 | 38 | 11 | 43 | 32 | 71 | 43 | 75 | 58 |
| 18 | 60 | 35 | 40 | 22 | 28 | 11 | 42 | 31 | 73 | 55 |  | - |
| 19 | 57 | 31 | 37 | 29 |  | - | 49 | 34 | 73 | 56 | 77 | 54 |
| 20 | 35 | 21 |  |  | 27 | 5 | 42 | 34 | 64 | 45 | 73 | 51 |
| 21 | 29 | 16 | 39 | 21 | 32 | 20 | 53 | 37 |  | . | 71 | 56 |
| 22 | 31 | 16 | 34 | 2 | 35 | 20 | 66 | 36 | 51 | 40 | 68 | 55 |
| 23 |  |  |  | 2 | 40 | 20 |  |  | 51 | 37 | 84 | 51 |
| 24 | 40 | 21 | 22 | 1 | 40 | 17 | 41 | 30 | 76 | 45 | 90 | 61 |
| 25 | 34 | 20 | 29 | 11 | 37 | 30 | 57 | 30 | 67 | 48 |  |  |
| 25 | 34 | 10 | 30 | 16 |  |  | 48 | 39 | 63 | 40 | 89 | 59 |
| 27 | 49 | 19 |  |  | 35 | 24 | 65 | 35 | 88 | 56 | 76 | 66 |
| 28 | 44 | 29 | 31 | 16 | 25 | 20 | 63 | 38 | - | . | 74 | 63 |
| 29 | 41 | 15 | 30 | 15 | 25 | 19 | 58 | 37 | 70 | 45 | 84 | 54 |
| 30 |  | - |  |  |  |  |  |  |  |  |  | 54 |
|  |  |  |  |  | 37 | 19 |  |  | 52 | 33 | 90 | 55 |
| 31 | 43 | 16 |  |  | 39 | 29 | - |  | 60 | 40 |  |  |
|  | 38.7 | 20.0 | $34 \cdot 5$ | 16.9 | $36 \cdot 3$ | $18 \cdot 3$ | 48.0 | 32.6 | $\overline{607}$ | $41 \cdot 4$ | $75 \cdot 6$ | 56 |

Maximum and Minimum Temperature, 1876.

| Iuly. |  | August. | September. |  | October. |  | Nuveraber. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| - | - | $\bigcirc \quad \circ$ |  | - | - | - |  | - | - | - |  |
| 63 | 56 | 86 60 | 83 | 56 | 64 | 41 | 73 | 40 | 14 | 7 | 1 |
| - | - | 81 5t | 76 | 50 | 58 | 49 | 70 | 54 | 28 | 14 | 2 |
| 84 | 66 | 8365 | - | - | 63 | 40 | 48 | 33 | - | - | 3 |
| 75 | 49 | $80 \quad 62$ | 79 | 44 | 64 | 42 | 50 | 36 | 32 | 20 | 4 |
| 84 | 61 | 94: 60 | 79 | 44 | 63 | 43 | - | - | 33 | 22 | 5 |
| 83 | 57 | - . | 69 | 49 | 49 | 39 | 53 | 34 | 39 | 30 | 6 |
| 81 | 61 | 92 65 | 71 | 60 | - | - | 50 | 35 | 34 | 20 | 7 |
| 96 | 72 | 90 60 | 80 | 55 | - |  | 46 | 33 | 29 | 17 | 8 |
| . | . | 90 57 | 71 | 48 | 48 | 37 | 47 | 35 | 18 | 7 | 9 |
| 96 | 74 | 8163 | - | - | 53 | 35 | 40 | 30 | - | . | 10 |
| 83 | 66 | 90 | 67 | 50 | 46 | 29 | 45 | 30 | 25 | 12 | 11 |
| 94 | 59 | 89 | 70 | 45 | 55 | 25 | . | - | 34 | 22 | 12 |
| 70 | 68 | - . | 68 | 41 | 61 | 29 | 55 | 33 | 43 | 34 | 13 |
| 90 | 65 | $95 \quad 68$ | 67 | 49 | 47 | 25 | 51 | 34 | 40 | 29 | 14 |
| 84 | 60 | 90 61 | 70 | 51 | - | - | 45 | 30 | 4 | -3 | 15 |
| - | - | 80 | 67 | 47 | 53 | 35 | 43 | 30 | 25 | 14 | 16 |
| 88 | 64 | 82 62 | - | - | 49 | 30 | 42 | 34 | - |  | 17 |
| 80 | 60 | $83 \quad 60$ | 67 | 48 | 59 | 23 | 45 | 36 | 13 | $-2$ | 18 |
| 93 | 57 | $90 \quad 62$ | 68 | 51 | 55 | 30 | . | - | 19 | 7 | 19 |
| 90 | 62 | - ${ }^{\text {c }}$ | 70 | 55 | 57 | 32 | 47 | 35 | 13 | 2 | 20 |
| 80 | 51 | 78 45 | 67 | 52 | 76 | 40 | 46 | 39 | 23 | 10 | 21 |
| 76 | 49 | $83-46$ | 67 | 54 |  |  | 47 | 33 | 30 | 16 | 22 |
| - | - | 81 63 | 64 | 55 | 53 | 46 | 39 | 31 | 24 | 17 | 23 |
| 71 | 51 | 8661 | - | - | 51 | 35 | 36 | 25 | - | - | 24 |
| 73 | 45 | 86 60 | 75 | 58 | 45 | 32 | 37 | 29 | 24 | 12 | 25 |
| 73 | 49 | 79 51 | 60 | 41 | 46 | 31 |  | - | 27 | 19 | 26 |
| 80 | 54 | - | 54 | 41 | 47 | 28 | 38 | 20 | 24 | 19 | 27 |
| 80 | 61 | 86 45 | 62 | 44 | 48 | 33 | 39 | 26 | 27 | 15 | 28 |
| 80 | 50 | 80 54 | 61 | 49 |  |  | 38 | 24 | 25 | 15 | 29 |
| . | - | 87 62 | 57 | 41 | 49 | 30 | 29 | 9 | 28 | 12 | 30 |
| 84 | 57 | $95 \quad 65$ | - | - | 73 | 40 |  |  |  |  | 31 |
| 81-9 | 58.6 | 85.8 59.1 | 68.8 | $49 \cdot 2$ | 55.0 | 34.6 | $46 \cdot 1$ | $31 \cdot 9$ | $26^{\circ} 0$ | 14.8 |  |

Table XLV.-Toronto, Ontario.

| Day. | January. |  | February. |  | March. |  | A pril. |  | May. |  | June? |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Mar. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | $\bigcirc$ | - | - | - | $\bigcirc$ | $\bigcirc$ | ${ }^{\circ}$ | $\bigcirc$ | $\bigcirc$ | - |
| 1 | 58 | 38 | 41 | 15 | 26 | 13 | 34 | 22 | 49 | 30 | 70 | 50 |
| 2 | 48 | 36 | 15 | -1 | 21 | 10 | 38 | 17 | 51 | 34 | 77 | 57 |
| 3 | 43 | 16 | 20 | 1 | 33 | 7 | 41 | 33 | 57 | 35 | 68 | 56 |
| 4 | 22 | 13 | 20 | -3 | 37 | 13 | 42 | 32 | 55 | 39 | 68 | 51 |
| 5 | 41 | 22 | 29 | -4 | 44 | 21 | 44 | 28 | 46 | 38 | 60 | 46 |
| 6 | 37 | 24 | 41 | 16 | 51 | 37 | 45 | 34 | 60 | 42 | 64 | 44 |
| 7 | 36 | 25 | 40 | 27 | 48 | 36 | 40 | 30 | 63 | 43 | 64 | 46 |
| 8 | 41 | 28 | 40 | 26 | 36 | 20 | 35 | 24 | 60 | 46 | 74 | 53 |
| 9 | 49 | 39 | 32 | 24 | 30 | 19 | 40 | 21 | 53 | 42 | 76 | 61 |
| 10 | 49 | 12 | 33 | 22 | 33 | 26 | 45 | 23 | 50 | 40 | 77 | 58 |
| 11 | 20 | 9 | 44 | 32 | 41 | 31 | 47 | 29 | 58 | 39 | 77 | 58 |
| 12 | 18 | 11 | 42 | 28 | 41 | 33 | 42 | 38 | 54 | 43 | 77 | 59 |
| 13 | 20 | 5 | 39 | 30 | 32 | 11 | 45 | 38 | 56 | 40 | 78 | 59 |
| 14 | 28 | 17 | 40 | 29 | 23 | 7 | 55 | 38 | 55 | 34 | 79 | 59 |
| 15 | 40 | 25 | 36 | 29 | 25 | 8 | 50 | 36 | 49 | 41 | 75 | 65 |
| 16 | 42 | 29 | 29 | 22 | 29 | 21 | 45 | 31 | 51 | 42 | 77 | 61 |
| 17 | 43 | 33 | 25 | 18 | 39 | 12 | 41 | 31 | 60 | 43 | 71 | 61 |
| 18 | 48 | 36 | 37 | 19 | 12 | -3 | 41 | 29 | 71 | 51 | 73 | 60 |
| 19 | 48 | 32 | 41 | 26 | 24 | 1 | 46 | 30 | 69 | 49 | 71 | 52 |
| 20 | 32 | 24 | 28 | 18 | 26 | 15 | 43 | 27 | 66 | 50 | 70 | 58 |
| 21 | 25 | 13 | 37 | 16 | 28 | 16 | 48 | 36 | 75 | 49 | $68{ }^{2}$ | 58 |
| 22 | 32 | 13 | 29 | 6 | 32 | 16 | 50 | 31 | 65 | 41 | 73 | 52 |
| 23 | 41 | 30 | 8 | -2 | 41 | 19 | 49 | 35 | 55 | 34 | 78 | 54 |
| 24 | 30 | 22 | 17 | 3 | 37 | 18 | 52 | 36 | 73 | 39 | 86 | $\epsilon 2$ |
| 25 | 30 | 19 | 22 | 6 | 34 | 29 | 51 | 40 | 63 | 47 | 86 | 66 |
| 26 | 31 | 15 | 22 | 17 | 41 | 30 | 57 | 37 | 62 | 41 | 78 | 57 |
| 27 | 42 | 30 | 20 | 14 | 32 | 26 | 52 | 39 | 83 | 46 | 87 | 62 |
| 28 | 38 | 35 | 21 | 15 | 31 | 26 | 56 | 34 | 80 | 53 | 76 | 59 |
| 29 | 42 | 13 | 26 | 15 | 32 | 20 | 54 | 29 | 67 | 46 | 77 | 53 |
| 30 | 27 | 13 |  |  | 35 | 21 | 40 | 29 | 51 | 41 | 75 | 55 |
| 31 | 41 | 23 |  |  | 41 | 26 | . |  | 70 | 40 |  | . |
|  | 369 | 22.5 | $30 \cdot 2$ | $16 \cdot 1$ | $33 \cdot 4$ | $18 \cdot 9$ | 456 | $31 \cdot 7$ | $60 \cdot 4$ | $41 \cdot 9$ | $74 \cdot 4$ | 56.3 |

Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Mia. | Max. | Min. | Max. | Min. |  |
| - | $\bigcirc$ | - | - | $\bigcirc$ | $\bigcirc$ | - | - | - | - | 0 | - |  |
| 65 | 53 | 78 | 63 | 78 | 59 | 55 | 35 | 59 | 50 | 17 | -1 | 1 |
| 70 | 60 | 79 | 59 | 70 | 48 | 59 | 44 | 57 | 45 | 22 | 16 | 2 |
| 82 | 65 | 75 | 64 | 73 | 49 | 54 | 46 | 51 | 43 | 25 | 18 | 3 |
| 72 | 57 | 83 | 63 | 70 | 49 | 51 | 40 | 47 | 34 | 26 | 12 | 4 |
| 75 | 59 | 87 | 67 | 67 | 45 | 54 | 41 | 47 | 31 | 31 | 18 | 5 |
| 78 | 56 | 85 | 68 | 67 | 43 | 58 | 45 | 45 | 38 | 34 | 24 | 6 |
| 78 | 56 | 87 | 60 | 69 | 55 | 47 | 40 | 44 | 36 | 30 | 21 | 7 |
| 93 | 62 | 81 | 56 | 75 | 54 | 50 | 30 | 45 | 34 | 26 | 14 | 8 |
| 92 | 73 | 83 | 58 | 66 | 53 | 47 | 27 | 43 | 35 | 15 | -3 | 9 |
| 89 | 70 | 85 | 63 | 60 | 55 | 52 | 33 | 40 | 33 | 13 | -10 | 10 |
| 80 | 66 | 87 | 63 | 62 | 51 | 43 | 28 | 43 | 30 | 28 | 7 | 11 |
| 87 | 62 | 83 | 71 | 63 | 48 | 49 | 25 | 42 | 28 | 35 | 24 | 12 |
| 85 | 69 | 85 | 69 | 63 | 48 | 54 | 34 | 49 | 31 | 40 | 32 | 13 |
| 87 | 62 | 89 | 68 | 65 | 51 | 46 | 25 | 46 | 30 | 36 | 20 | 14 |
| 80 | 58 | 82 | 61 | 59 | 52 | 42 | 23 | 38 | 29 | 30 | 12 | 15 |
| 80 | 57 | 75 | 57 | 63 | 49 | 48 | 32 | 41 | 27 | 30 | -3 | 16 |
| 83 | 57 | 78 | 63 | 60 | 51 | 47 | 27 | 42 | 33 | 15 | -7 | 17 |
| 84 | 68 | 77 | 65 | 64 | 53 | 48 | 24 | 45 | 39 | 16 | 3 | 18 |
| 84 | 62 | 85 | 63 | 65 | 55 | 81 | 31 | 45 | 41 | 17 | 3 | 19 |
| 86 | 62 | 70 | 53 | 67 | 53 | 58 | 39 | 43 | 39 | 17 | -3 | 20 |
| 74 | 53 | 71 | 49 | 65 | 57 | 62 | 45 | 43 | 40 | 18 | 10 | 21 |
| 68 | $\$ 1$ | 75 | 48 | 65 | 58 | 59 | 45 | 45 | 34 | 26 | 16 | 22 |
| 71 | 55 | 80 | 6.4 | 63 | 56 | 68 | 46 | 36 | 31 | 26 | 4 | 23 |
| 72 | 52 | 78 | 64 | 63 | c8 | 50 | 37 | 35 | 29 | 12 | 1 | 24 |
| 66 | 48 | 85 | 53 | 68 | 68 | 46 | 36 | 36 | 28 | 25 | 2 | 25 |
| 67 | 46 | 76 | 48 | 61 | 43 | 43 | 33 . | 35 | 21 | 25 | 18 | 26 |
| 69 | 50 | 76 | 46 | 51 | 43 | 44 | 32 | 34 | 18 | 21 | 11 | 27 |
| 77 | 60. | 76 | . 45 | 59 | 42 | 40 | 32 | 35 | 26 | 27 | 12 | 28 |
| 74 | 56 | 79 | 52 | 58 | 40 | 38 | 28 | 33 | 22 | 23 | 13 | 29 |
| 78 | G0 | 80 | 64 | 56 | 39 | 46 | 31 | 24 | 5 | 19 | 11 | 30 |
| 81 | 61 | 84 | 63 |  | - | 59 | 43 |  | . | 21 | 14 | 31 |
| 78.3 | 58.8 | 804 | 597 | $64 \cdot 8$ | 50.4 | $50 \cdot 2$ | $34 \cdot 7$ | $42 \cdot 3$ | 32.0 | $24 \cdot 2$ | 10.0 |  |

Table XLVII.-Welland, Ontario.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | - | $\bigcirc$ | $\bigcirc$ | - | - | - | $\bigcirc$ | - | ${ }^{\circ}$ | - |
| 1 | 50 | 40 | 37 | 25 | 25 | 17 | 34 | 25 | 47 | 27 | 84 | 41 |
| 2 | 45 | 34 | 8 | - 2 | 23 | 13 | 45 | 12 | 49 | 32 | 78 | 60 |
| 3 | 35 | 25 | 23 | - 2 | 30 | 4 | 69 | 30 | 60 | 35 | 67 | 57 |
| 4 | 20 | 12 | 13 | 0 | 38 | 14 | 43 | 33 | 57 | 38 | 67 | 53 |
| 5 | 46 | 15 | 25 | -7 | 54 | 19 | 43 | 25 | 58 | 42 | 62 | 46 |
| 6 | 30 | 21 | 40 | 16 | 57 | 40 | 39 | 30 | 62 | 51 | 68 | 43 |
| 7 | 36 | 25 | 40 | 25 | 52 | 40 | 38 | 30 | 69 | 45 | 75 | 45 |
| 8 | 42 | 30 | 43 | 20 | 26 | 21 | 38 | 26 | 62 | 43 | 82 | 53 |
| 9 | 48 | 40 | 32 | 26 | 34 | 19 | 34 | 20 | 62 | 42 | 82 | 64 |
| 10 | 20 | 13 | 35 | 25 | 45 | 21 | 46 | 25 | 54 | 39 | 82 | 63 |
| 11 | 18 | 11 | 50 | 30 | 50 | 25 | 52 | 34 | 63 | 40 | 89 | 65 |
| 12 | 18 | 13 | 37 | 26 | 38 | 32 | 55 | 35 | 57 | 41 | 90 | 60 |
| 13 | 17 | 10 | 48 | 28 | - | - | 55 | 38 | 54 | 40 | 85 | 61 |
| 14 | 24 | 18 | 45 | 32 | 27 | 1 | 55 | 38 | 58 | 32 | 85 | 62 |
| 15 | 35 | 25 | 35 | 27 | 29 | 11 | 46 | 30 | 53 | 40 | 80 | 67 |
| 16 | 38 | 30 | 25 | 20 | 33 | 13 | 44 | 30 | 67 | 42 | 89 | 68 |
| 17 | 40 | 31 | 30 | 20 | 33 | 20 | 35 | 30 | 70 | 45 | 79 | 65 |
| 18 | 50 | 31 | 35 | 19 | 10 | 1 | 35 | 23 | 74 | 47 | 80 | 64 |
| 19 | 40 | 36 | 38 | 18 | 28 | -1 | 45 | 25 | 77 | 49 | 75 | 53 |
| 20 | 27 | 22 | 28 | 18 | 24 | 6 | 43 | 25 | 78 | 55 | 70 | 57 |
| 21 | 23 | 12 | 46 | 16 | 30 | 16 | 47 | 36 | 75 | 51 | 65 | 56 |
| 22 | 30 | 17 | 27 | 12 | 30 | 17 | 50 | 28 | 63 | 43 | 74 | 55 |
| 23 | 40 | 30 | 10 | 0 | 39 | 19 | 51 | 35 | 53 | 53 | 78 | 54 |
| 24 | 26 | 22 | 20 | 2 | 42 | 10 | 50 | 30 | 64 | 38 | 80 | 62 |
| 25 | 32 | 19 | 32 | 10 | 40 | 27 | 53 | 37 | 86 | 43 | 82 | 64 |
| 26 | 27 | 19 | 22 | 10 | 35 | 30 | 57 | 32 | 73 | 42 | 87 | 61 |
| 27 | 45 | 25 | 20 | 15 | 33 | 23 | 65 | 39 | 76 | 56 | 83 | 60 |
| : 8 | 38 | 30 | 28 | 18 | 25 | 25 | 60 | 39 | 78 | 50 | 77 | 65 |
| 29 | 35 | 14 | 29 | 17 | 28 | 22 | 50 | 30 | 75 | 51 | 81 | 53 |
| 30 | 23 | 9 | - | - | 32 | 20 | 36 | 30 | 62 | 39 | 81 | 59 |
| 31 | 37 | 17 | - |  | 39 | 23 |  |  | 84 | 41 | - | - |
|  | $33 \cdot 4$ | 22.5 | 31.0 | 16.0 | $34 \cdot 3$ | 18.6 | 56.8 | 30.5 | 65.0 | 42.5 | 78.5 | $57 \cdot 8$ |

Maximum and Minimum Temperature, 1876.

| Suly. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| c | - | - | - | - | - | - | $\bigcirc$ | - | - | $\bigcirc$ | - |  |
| 64 | 53 | 80 | 56 | 80 | 60 | 54 | 33 | 61 | 28 | 17 | 5 | 1 |
| 84 | 62 | 80 | 55 | 70 | 49 | 57 | 33 | 68 | 45 | 20 | 10 | 2 |
| 7 | 62 | 84 | 67 | 70 | 43 | 53 | 43 | 47 | 40 | 25 | 12 | 3 |
| 70 | 62 | 89 | 66 | 72 | 53 | 46 | 35 | 46 | 34 | 27 | 11 | 4 |
| 84 | 58 | 92 | 76 | 66 | 40 | 52 | 33 | 53 | 29 | 28 | 11 | 5 |
| 84 | 55 | 86 | 70 | 73 | 33 | 57 | 42 | 43 | 30 | 34 | 19 | 6 |
| 78 | 60 | 87 | 70 | 75 | 38 | 52 | 39 | 40 | 29 | 32 | 10 | 7 |
| 88 | 70 | 81 | 53 | 75 | 59 |  | 29 | 42 | 30 | 25 | 15 | 8 |
| 93 | 70 | 85 | 56 | 69 | 45 | 46 | 25 | 43 | 30 | 9 | 3 | 9 |
| 00 | 71 | 91 | 58 | 60 | 53 | 51 | 35 | 45 | 30 | 12 | 0 | 10 |
| 82 | 66 | 85 | 65 | 55 | 38 | 42 | 25 | 38 | 27 | 23 | 5 | 11 |
| 84 | 65 | 86 | 64 | 65 | 48 | 49 | 21 | 40 | 27 | 33 | 20 | 12 |
| 80 | 73 | 89 | 64 | 69 | 40 | 55 | 21 | 51 | 30 | 41 | 31 | 13 |
| 83 | 70 | 90 | 66 | 73 | 57 | 48 | 28 | 40 | 32 | 35 | 30 | 14 |
| 80 | 53 | 84 | 66 | 65 | 40 | 36 | 19 | 34 | 27 | 25 | 10 | 15 |
| 85 | 55 | 79 | 58 | 69 | 48 | 46 | 29 | 39 | 26 | 22 | - 3 | 16 |
| 83 | 58 | 80 | 58 | 55 | 50 | 44 | 32 | 42 | 22 | 10 | -5 | 17 |
| 78 | 70 | 86 | 59 | 64 | 50 | 49 | 19 | 50 | 30 | 13 | 5 | 18 |
| 90 | 65 | 85 | 61 | 67 | 50 | 58 | 25 | 45 | 41 | 15 | 4 | 19 |
| $\therefore 77$ | 65 | 65 | 55 | 72 | 49 | - | - | 40 | 38 | 16 | 2 | 20 |
| 73 | 54 | 73 | 43 | 74 | 51 | 71 | 51 | 45 | 35 | 27 | 3 | 21 |
| 76 | 50 | 79 | 48 | 67 | 6) | 66 | 50 | 40 | 33 | 30 | 18 | 22 |
| : 65 | 55 | 80 | 60 | 68 | 55 | 65 | 50 | 33 | 28 | 22 | 15 | 23 |
| - 71 | 47 | 80 | 62 | 64 | 57 | 50 | 38 | 40 | 26 | 13 | 3 | 24 |
| 65 | 45 | 78 | 60 | 71 | 57 | 43 | 35 | 36 | 26 | 19 | 7 | 25 |
| $\because 68$ | 46 | 73 | 47 | 57 | 43 | 39 | 32 | 35 | 29 | 23 | 13 | 26 |
| 83 | 50 | 731 | 44 | 53 | 42 | 43 | 25 | 38 | 17 | 21 | 11 | 27 |
| 80 | 68 | 71 | 41 | 59 | 36 | 39 | 24 | 34 | 20 | 24 | 3 | 28 |
| 77 | 54 | 80 | 50 | 58 | 46 | 43 | 24 | 34 | 20 | 20 | 11 | 29 |
| 80 | 58 | 80 | 54 | 49 | 46 | 52 | 28 | 20 | 10 | 21 | 4 | 30 |
| 79 | 59 | 86 | 49 |  |  | 79 | 49 |  |  | 22 | 11 | 31 |
| 79.2 | 598 | 81.8 | $58 \cdot 1$ | $59 \cdot 5$ | $47 \cdot 7$ | $51 \cdot 1$ | . $32 \cdot 4$ | $42 \cdot 2$ | $29 \cdot 3$ | 23.0 |  |  |

Table XLVIII.-Peterborough, Ontario.

| Day. | January. |  | February. |  | March. |  | $\Delta$ pril. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Mnx. | Min. | Max. | Min. | Max. | Min. |
|  | $\stackrel{\circ}{\circ}$ | - | - | $\bigcirc$ | - | $\bigcirc$ | - | - | - | - | '0 | - |
| 1 | 44 | 38 | 35 | 22 | 25 | 14 | 41 | 22 | 51 | 22 | 88 | 57 |
| 2 | - | - | 32 | -14 | 27 | 8 | - | - | 60 | 27 | 84 | 63 |
| 3 | 47 | 12 | 18 | -14 | 29 | 3 | 43 | 20 | 55 | 37 | 76 | 56 |
| 4 | 16 | 2 | 18 | -3 | 37 | 5 | 46 | 34 | 30 | 0 | $\because$ | - |
| 5 | 39 | 11 | 14 | -13 | - | - | 40 | 23 | 48 | 26 | 72 | 44 |
| 6 | 41 | 10 | - | - | 50 | 10 | 45 | 30 | 50 | 42 | 74 | 45 |
| 7 | 33 | 11 | 39 | 4 | 48 | 37 | 41 | 30 | - | - | 78 | 44 |
| 8 | 37 | 25 | 35 | 25 | 33 | 13 | 39 | 20 | 69 | 38 | 82 | 54 |
| 9 | - | - | 23 | 18 | 30 | 10 | - | - | 54 | 40 | 83 | 63 |
| 10 | 48 | 6 | 30 | 15 | 39 | 19 | 50 | 18 | 55 | 37 | 84 | 60 |
| 11 | 14 | 0 | 44 | 22 | 35 | 24 | 56 | 23 | 58 | 32 | . | - |
| 12 | 14 | 4 | 39 | 22 | . | - | 56 | 23 | 57 | 39 | 93 | 57 |
| 13 | 15 | -9 | - | - | 38 | 3 | 53 | 36 | 54 | 30 | 86 | 64 |
| 14 | 25 | 10 | 39 | 21 | 19 | -1 | 55 | 38 | . | . | 87 | 67 |
| 15 | 39 | 15 | 34 | 22 | 26 | 1 | 45 | 30 | 60 | 26 | 85 | 66 |
| 16 | - | - | 28 | 18 | 17 | 10 | - | . | 63 | 36 | 87 | 66 |
| 17 | 39 | 20 | 22 | 8 | 36 | 3 | 47 | 28 | 67 | 42 | 80 | 66 |
| 18 | 40 | 30 | 29 | 10 | 8 | -5 | 41 | 26 | 75 | 55 | . | . |
| 19 | 46 | 30 | 38 | 13 |  | - | 47 | 25 | 78 | 45 | 76 | 53 |
| 20 | 33 | 18 | - |  | 24 | 4 | 50 | 33 | 72 | 49 | 73 | 55 |
| 21 | 23 | 5 | 40 | 2 | 30 | 10 | 47 | 30 | - | . | 71 | 55 |
| 22 | 15 | 6 | 34 | 3 | 30 | 10 | 56 | 30 | 89 | 41 | 78 | 49 |
| 23 | - |  | 6 | -11 | 38 | 7 |  | . | 69 | 51 | 86 | 55 |
| 24 | 40 | 10 | 13 | $-10$ | 37 | 6 | 58 | 37 | 83 | 41 | 86 | 63 |
| 25 | 28 | 13 | 18 | -4 | 33 | 23 | 59 | 36 | 64 | 35 | 8 |  |
| 26 | 22 | 12 | 20 | 10 | - | - | 63 | 40 | 78 | 40 | 87 | 58 |
| 27 | 42 | 15 | - |  | 37 | 23 | 63 | 30 | 88 | 52 | 90 | 63 |
| 28 | 41 | 29 | 16 | 5 | 30 | 20 | 53 | 30 | . |  | 80 | 57 |
| 29 | 43 | 10 | 30 | 10 | 33 | 20 | 54 | 33 | 85 | 45 | 83 | 50 |
| 30 |  | . | - |  | 35 | 10 | . | . | 62 | 35 | 79 | 37 |
| 31 | 36 | 21 | . |  | 42 | 26 |  |  | 60 | 40 | 7 | 37 |
|  | 33.0 | 13.6 | $27 \cdot 6$ | $7 \cdot 3$ | 32.0 | 11.5 | 49.9 | 289 | 64.1 | 383 | $\overline{818}$ | 57-3 |

Maximum and Minimum Temperature, 1876.

| July |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Ming. | Max. | Min. | Max. | . Min. | Max. | Min. | Max. | Min. |  |
| - | $\bigcirc$ | - | 。 | $\bigcirc 1$ | $\bigcirc$ | - | - | - | $\bigcirc$ | - |  |  |
| 73 | 48 | 90 | 54 | 85 | 76 |  |  | 57 | 50 | 9 | -2 | 1 |
| - | - | 89 | 61 | 73 | 53 | 58 | 33 | 60 | 51 | 26 | 10 | 2 |
| 81 | 63 | 84 | 64 | . | - | - | - | 57 | 32 | - | - | 3 |
| 87 | 63 | 89 | 60 | 75 | 44 | 52 | 39 | 40 | 37 | 24 | 11 | 4 |
| 77 | 55 | 95 | 65 | 63 | 42 | 53 | 39 | - | - | 30 | $\theta$ | 5 |
| 83 | 57 | - | - | 75 | 42 | 57 | 42 | 45 | 30 | 24 | 20 | 6 |
| 80 | 56 | 88 | 69 | 79 | 54 | 47 | 36 | 44 | 37 | 31 | 21 | 7 |
| 92 | 68 | 89 | 56 | 78 | 60 |  | - | 45 | 35 | 24 | 10 | 8 |
| - | . | 94 | 57 | 69 | 58 | 46 | 27 | 40 | 32 | 21 | -9 | 9 |
| 93 | 69 | 96 | 59 | - | - | 48 | 26 | 40 | 30 | - | - | 10 |
| 87 | 66 | 96 | 63 | 71 | 45 | 41 | 26 | 41 | 30 | 15 | 10 | 11 |
| 82 | 65 | 97 | 62 | 71 | 45 | - | - | - | - | 34 | 10 | 12 |
| 93 | 66 |  | - | 70 | 35 | - | - | 46 | 26 | 40 | 23 | 13 |
| 88 | 67 | 95 | 73 | 64 | 43 | - | - | 46 | 30 | 35 | 25 | 14 |
| 85 | 61 | 85 | 63 | 70 | 51 | - | - | 39 | 25 | 29 | 5 | 15 |
| - | - | 78 | 50 | 71 | 42 | - | - | 36 | 25 | 28 | 11 | 16 |
| 90 | 55 | 80 | 59 | . | - | - | . | 42 | 30 | - | - | 17 |
| 83 | 71 | 84 | 57 | 65 | 45 | - | 23 | 41 | 34 | -1 | -16 | 18 |
| 92 | 65 | 87 | 64 | 70 | 54 | - | 23 | - | - | 12 | -5 | 19 |
| 89 | 66 | . | - | 71 | 56 | . | 25 | 42 | 36 | 4 | -19 | 20 |
| 76 | 58 | 77 | 44 | 65 | 54 | - | 36 | 44 | 32 | 12 | -5 | 21 |
| 73 | 48 | 83 | 47 | 69 | 56 | - | - | 44 | 31 | 20 | 9 | 22 |
| . | . | 88 | 57 | 67 | 56 | - | 41 | 37 | 30 | 20 | 2 | 23 |
| 74 | 52 | 86 | 55 | . |  | . | 47 | 35 | 28 |  | - | 24 |
| 75 | 45 | 90 | 57 | 72 | 65 | 41 | 36 | 33 | 26 | 15 | -7 | 25 |
| 74 | 43 | 73 | 53 | 63 | 46 | 39 | 32 | - | - | 23 | 11 | 26 |
| 76 | 45 | . | - | 50 | 40 | 40 | 28 | 32 | 20 | 31 | 14 | 27 |
| 75 | 62 | 78 | 56 | 58 | 40 | 38 | 21 | 35 | 17 | 27 | ${ }^{9}$ | . 28. |
| 90 | 83 | 81 | 55 | 60 | 42 | - | - | 33 | 14 | 18 | 11 | 29 |
| . | . | 85 | $7 \pm$ | 57 | 35 | 50 | 22 | 22 | 3 | 14 | 1 | 30 |
| 86 | 55 | 83 | 62 |  |  | 57 | 34 |  |  |  |  | 31 |
| 82.9 | $58 \cdot 8$ | 86.7 | $59 \cdot 1$ | $63 \cdot 5$ | $49 \cdot 3$ | - | $\cdot$ | 414 | 29.7 | 22.0 | $5 \cdot 1$ |  |

Table XLIX.-Belleville, Ontario.

| Day. | Jenuary. |  | February. |  | March. |  | A pril. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Nin. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | - | 0 | - | - | - | c | - | - | - | - |
| 1 | 56 | 38 | 34 | 28 | 27 | 14 | 40 | 25 | 48 | 29 | 82 | 57 |
| 2 | - | - | 32 | -8 | 28 | 11 | - | - | 52 | 35 | 80 | 51 |
| 3 | 52 | 17 | 23 | $-11$ | 30 | 5 | 40 | 26 | 52 | 39 | 72 | 60 |
| 4 | 17 | 4 | 24 | 0 | 34 | 23 | 44 | 34 | 53 | 37 | $\bullet$. | - |
| 5 | 38 | 9 | 18 | -13 | - | - | 45 | 31 | 55 | 39 | 70 | 49 |
| 6 | 38 | 15 | - | - | 47 | 34 | 42 | 23.1 | 60 | 40 | 68 | 44. |
| 7 | 29 | 13 | 39 | 18 | 49 | 37 | 38 | 31 | - | $\cdot$ | 73 | 50 |
| 8 | 38 | 28 | 37 | 28 | 41 | 20 | 41 | 30 | 69 | 34 | 78 | 56 |
| 9 | - | - | 28 | 18 | 31 | 18 | . | . | 54 | 47 | 81 | 61 |
| 10 | 48 | 9 | 28 | 18 | 35 | 22 | 43 | 24 | 57 | 37 | 78 | 59 |
| 11 | 17 | 3 | 43 | 26 | 39 | 25 | 50 | 28 | 62 | 42 | - | . |
| 12 | 18 | 9 | 39 | 28 |  | - | 47 | 37 | 54 | 41 | 85 | 58 |
| 13 | 13 | $-4$ | - | - | 40 | 8 | 49 | 37 | 53 | 43 | 84 | 65 |
| 14 | 26 | 11 | 38 | 23 | 19 | 2 | 49 | 37 | . | - | 81 | 66 |
| 15 | 37 | 20 | 33 | 25 | 26 | 7 | 51 | 35 | 54 | 35 | 83 | 69 |
| 16 | - | - | 30 | 23 | 20 | 9 | . | - | 60 | 39 | 85 | 68 |
| 17 | 39 | 32 | 28 | 12 | 32 | 5 | 45 | 31 | 63 | 48 | 80 | 67 |
| 18 | 44 | 34 | 25 | 15 | 16 | $-1$ | 43 | 31 | 72 | 50 | - | . |
| 19 | 48 | 32 | 34 | 11 | - | - | 40 | 32 | 70 | 51 | 76 | 61 |
| 20 | 32 | 24 | - |  | 21 | 3 | 44 | 34 | 70 | 50 | 72 | 58 |
| 21 | 25 | 11 | 38 | 5 | 29 | 21 | 43 | 31 | - | - | 70 | 54 |
| 22 | 19 | 10 | 34 | 7 | 30 | 19 | 41 | 29 | 76 | 37 | 71 | 52 |
| 23 | - | - | 7 | $-4$ | 34 | 8 | - | - | 52 | 35 | 76 | 61 |
| 24 | 34 | 17 | 8 | $-6$ | 37 | 11 | 54 | 35 | 67 | 41 | 81 | 65 |
| 25 | 26 | 15 | 15 | $-2$ | 39 | 15 | 55 | 38 | 65 | 48 | . |  |
| 26 | 23 | 3 | 19 | 11 | - |  | 58 | 40 | 68 | 39 | 84 | 62 |
| 27 | 43 | 22 | - | - | 36 | 20 | 59 | 35 | 73 | 52 | 84 | 66 |
| 28 | 37 | 33 | $: 6$ | 6 | 36 | 22 | 54 | 34 | . | . | 78 | 65 |
| S9 | 43 | 18 | 28 | 12 | 37 | 25 | 52 | 33 | 70 | 37 | 78 | 65 |
| 30 | - | - | - | - | 38 | 28 | - | - | 61 | 32 | 76 | 63 |
| 31 | 33 | 3 | - |  | 40 | 30 | - |  | 79 | 40 |  | . |
|  | $33 \cdot 5$ | 16.3 | $27 \cdot 9$ | $10 \cdot 9$ | 32.9 | 16.3 | $46 \cdot 6$ | $32 \cdot 1$ | 61.6 | 40.6 | $77 \cdot 7$ | $59 \cdot 7$ |

Maximum and Minimum Temperature, 1876.

| Jul |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| - | - | - | - | - | - | - | - | $\bigcirc$ | - | - | $\bigcirc$ |  |
| i4 | 61 | 82 | 61 | 72 | 55 | - |  | 54 | 46 | 11 | $-1$ | 1 |
| - | - | 86 | 67 | 72 | 56 | 58 | 43 | 60 | 47 | 28 | 10 | 2 |
| 79 | 57 | 84 | 68 | - | - | 63 | 51 | 52 | 40 | - | - | 3 |
| 76 | 61 | 85 | 69 | 79 | 54 | 59 | 47 | 51 | 37 | 30 | 16 | 4 |
| 79 | 61 | 86 | 72 | 78 | 45 | 58 | 44 | - | - | 34 | 14 | 5 |
| 77 | 60 | - | - | 74 | 47 | 54 | 42 | 50 | 35 | 36 | 20 | 6 |
| 79 | 61 | 84 | 77 | 71 | 51 | 56 | 39 | 45 | 35 | 36 | 24 | 7 |
| 89 | 72 | 80 | 62 | 74 | 54 | - | - | 45 | 34 | 30 | 20 | 8 |
| - | - | 85 | 58 | 76 | 52 | 52 | 31 | 44 | 35 | 22 | - 2 | 9 |
| 92 | 72 | 88 | 61 |  | - | 52 | 32 | 44 | 34 | - | - | 10 |
| 81 | 67 | 88 | 64 | 79 | 58 | 49 | 25 | 44 | 34 | 12 | -16 | 11 |
| 84 | 65 | 90 | 63 | 78 | 60 | 50 | 34 | - | - | 33 | 12 | 12 |
| 88 | 72 | - | - | 77 | $57^{\circ}$ | 54 | 33 | 47 | 31 | 44 | 28 | 13 |
| 85 | 68 | 81 | 61 | 72 | 52 | 63 | 37 | 47 | 29 | 42 | 30 | 14 |
| 86 | 70 | 80 | 65 | 73 | 52 | - | - | 43 | 29 | 33 | 10 | 15 |
| - | - | 80 | 64 | 72 | 51 | 48 | 29 | 40 | 24 | 26 | -10 | 16 |
| 86 | 55 | 80 | 68 | - | - | 47 | 35 | 45 | 33 |  |  | 17 |
| 84 | 60 | 76 | 64 | 68 | 47 | 52 | 30 | 43 | 35 | 2 | -17 | 18 |
| 85 | 62 | 70 | 59 | 70 | 51 | 52 | 29 | - |  | . 19 | 0 | 19 |
| 84 | 64 | - | - | 66 | 50 | 53 | 28 | 46 | 37 | 2 | $-8$ | 20 |
| 75 | 64 | 62 | 44 | 70 | 52 | 56 | 31 | 44 | 35 | 11 | -11 | 21 |
| 70 | 54 | 63 | 48 | 67 | 56 | - | - | 45 | 35 | 12 | 1 | 22 |
| - | - | 65 | 51 | 67 | 55 | 65 | 41 | 42 | 33 | 10 | $-1$ | 23 |
| 69 | 54 | 66 | 55 | - | - | 58 | 25 | 36 | 29 | - | - | 24 |
| 68 | 50 | 71 | 60 | 62 | 51 | 50 | 33 | 37 | 20 |  | $-7$ | 25 |
| 71 | 48 | 75 | 64 | 62 | 51 | 51 | 29 | - | - | 23 | 10 | 26 |
| 74 | 49 |  | - | 61 | 45 | 54 | 28 | 37 | 18 | 25 | 12 | 27 |
| 78 | 54 | 74 | 60 | 58 | 41 | 41 | 25 | 36 | 24 | 25 | 9 | 28 |
| 56 | 50 | 71 | 59 | 60 | 45 |  |  | 33 | 20 | 19 | 11 | 29 |
|  | - | 70 | 56 | 61 | 45 | 48 | 24 | 26 | 7 | 16 | 8 | 30 |
| 85 | 59 | 71 | 58 |  |  | 54 | 39 |  |  |  |  | 31 |
| 79•7 | 60.4 | 77.5 | 61.6 | 69.9 | 51.1 | 53.4 | $33 \cdot 8$ | $43 \cdot 5$ | 31.4 | 22.9 | 64 |  |

Table L.----Kingston, Ontario.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min: | Max. | Min. | Max. | Min. | Max. | Min. |
|  | Q | 9 | Q | - | $\rho$ | ค | $\bigcirc$ | $\stackrel{\square}{8}$ | - | $\bigcirc$ | $\stackrel{ }{ }$ | 9 |
| 1 | 51 | 37 | 40 | 20 | 29 | 15 | 38 | 24 | 56 | 27 | 77 | 55 |
| 2 | 52 | 34 | 33 | -12 | 25 | 12 | 41 | 20 | 52 | 35 | 69 | 54 |
| 3 | 44 | 17 | 26 | -18 | 32 | 6 | 45 | 28 | 53 | 40 | 68 | 54 |
| 4 | 21 | 6 | 21 | - 3 | 36 | 7 | 42 | 32 | 53 | 37 | 66 | 52 |
| 5 | 43 | 10 | 20 | -18 | 42 | 20 | 47 | 33 | 53 | 37 | 63 | 49 |
| 6 | 36 | 8 | 40 | 13 | 48 | 36 | 47 | 31 | 61 | 46 | 64 | 49 |
| 7 | 25 | 6 | 49 | 30 | 52 | 39 | 45 | 28 | 65 | 45 | 69 | 48 |
| 8 | 39 | 21 | 44 | 21 | 49 | 22 | 47 | 22 | 61 | 41 | 71 | 54 |
| 9 | 46 | 34 | 41 | 15 | 34 | 19 | 43 | 13 | 64 | 39 | 72 | 59 |
| 10 | 45 | 8 | 29 | 16 | 36 | 21 | 47 | 22 | 56 | 41 | 72 | 56 |
| 11 | 28 | 2 | 48 | 24 | 42 | 22 | 47 | 29 | 63 | 43 | 85 | 51 |
| 12 | 21 | 6 | 43 | 26 | 46 | 35 | 51 | 29 | 46 | 42 | 83 | 65 |
| 13 | 9 | 4 | 37 | 24 | 48 | 5 | 63 | 34 | 58 | 40 | 84 | 65 |
| 14 | 40 | 7 | 37 | 19 | 32 | 2 | 57 | 37 | 49 | 35 | 79 | 65 |
| 15 | 36 | 15 | 40 | 23 | 22 | 4 | 47 | 35 | 51 | 42 | 87 | 67 |
| 16 | 38 | 32 | 30 | 19 | 28 | 11 | 48 | 33 | 63 | 39 | 83 | 69 |
| 17 | 39 | 33 | 30 | 11 | 39 | 16 | 50 | 31 | 58 | 46 | 78 | 69 |
| 18 | 48 | 37 | 27 | 10 | 28 | 0 | 41 | 30 | 65 | 44 | 73 | 63 |
| 19 | 47 | 34 | 40 | 17 | 20 | $-3$ | 42 | 32 | 66 | 49 | 74 | 59 |
| 20 | 36 | 24 | 40 | 11 | 24 | 2 | 45 | 30 | 66 | 49 | 70 | 59 |
| 21 | 28 | 10 | 41 | 1 | 31 | 19 | 47 | 35 | 75 | 51 | 65 | 58 |
| 22 | 20 | 7 | 47 | 9 | 39 | 16 | 47 | 33 | 58 | 37 | 71 | 50 |
| 23 | 34 | 17 | 12 | -6 | $\because 5$ | 8 | 53 | 36 | 49 | 35 | 73 | 58 |
| 24 | 28 | 10 | 10 | -11 | 37 | 8 | 60 | 36 | 63 | 42 | 80 | 58 |
| 25 | 29 | 10 | 15 | -4 | 41 | 14 | 49 | 37 | 63 | 47 | 80 | 58 |
| 26 | 21 | 2 | 15 | 2 | 37 | 29 | 56 | 34 | 63 | 42 | 83 | 63 |
| 27 | 42 | 17 | 19 | 0 | 43 | 28 | 59 | 36 | 68 | 43 | 77 | 65 |
| 28 | 38 | 32 | 22 | 7 | 35 | 25 | 65 | 38 | 70 | 50 | 72 | 62 |
| 29 | 62 | 15 | 29 | 13 | 43 | 23 | 48 | 33 | 64 | 42 | 73 | 56 |
| 30 | 21 | 2 | - |  | 35 | 22 | 45 | 32 | 61 | 38 | 76 | 57 |
| 31 | 33 | 14 | ${ }^{\circ}$ |  | 40 | 22 | . | . | 76 | 45 | . |  |
|  | $35 \cdot 1$ | 16.1 | 31.8 | -8.9 | $36 \cdot 4$ | 16.3 | $48 \cdot 4$ | $30 \cdot 6$ | $60 \cdot 5$ | 41.4 | 74.3 | 58.4 |

Maximum and Minimum Temperature, 1876.

| Jaly. |  | August. |  | September. |  | October. |  | Norember. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Mia. |  |
| - | - | - | $\bigcirc$ | - | $\bigcirc$ | - | $\bullet$ | - | - | - | - |  |
| 71 | 55 | 84 | 63 | 79 | 61 | 56 | 39 | 53 | 47 | 10 | 0 | 1 |
| 71 | 63 | 84 | 61 | 72 | 54 | 65 | 42 | 64 | 47 | 32 | 9 | 2 |
| 76 | 63 | 81 | 67 | 70 | 47 | 59 | 49 | 51 | 38 | 30 | 21 | 3 |
| 68 | 62 | 82 | 70 | 74 | 50 | 59 | 45 | 52 | 36 | 26 | 19 | 4 |
| 78 | 60 | 85 | 69 | 75 | 44 | 53 | 43 | 49 | 34 | 31 | 15 | 5 |
| 74 | 61 | 85 | 70 | 79 | 46 | 57 | 46 | 54 | 37 | 42 | 29 | 6 |
| 72 | 59 | 83 | 66 | 75 | 49 | 50 | 38 | 53 | 40 | 37 | 25 | 7 |
| 78 | 64 | 82 | 62 | 75 | 59 | 49 | 32 | 48 | 36 | 30 | 18 | 8 |
| 84 | 73 | 82 | 63 | 64 | 51 | 57 | 29 | 49 | 35 | 31 | -8 | 9 |
| 84 | 68 | 88 | 64 | 68 | 49 | 61 | 32 | 46 | 33 | 11 | -14 | 10 |
| 81 | 68 | 90 | 69 | 67 | 50 | 54 | 29 | 47 | 34 | 12 | -4 | 11 |
| 81 | 66 | 88 | 73 | 67 | 47 | 51 | 28 | 48 | 32 | 33 | 10 | 12 |
| 82 | 68 | 88 | 72 | 63 | 47 | 53 | 42 | 50 | 33 | 42 | 31 | 13 |
| 82 | 69 | 88 | 72 | 66 | 49 | 48 | 28 | 44 | 32 | 39 | 29 | 14 |
| 83 | 66 | 85 | 63 | 67 | 52 | 40 | 25 | 35 | 27 | 38 | 8 | 15 |
| 80 | 61 | 75 | 54 | 65 | 41 | 50 | 29 | 39 | 27 | 28 | -10 | 16 |
| 82 | 61 | 78 | 61 | 62 | 47 | 54 | 33 | 50 | 32 | 1 | -17 | 17 |
| 86 | 72 | 79 | 62 | 66 | 47 | 56 | 27 | 41 | 34 | 2 | -8 | 18 |
| 83 | 67 | 80 | 70 | 62 | 57 | 59 | 35 | 48 | 33 | 22 | -8 | 19 |
| 86 | 67 | 72 | 53 | 63 | 55 | 64 | 40 | 43 | 37 | 4 | - 8 | 20 |
| 77 | 62 | 69 | 46 | 65 | 54 | 64 | 53 | 45 | 34 | 11 | 1 | 21 |
| 71 | 56 | 77 | 51 | 66 | 55 | 59 | 52 | 49 | 35 | 14 | 4 | 22 |
| 70 | 56 | 82 | 58 | 66 | 58 | 64 | 50 | 44 | 31 | 18 | 3 | 23 |
| 73 | 54 | 82 | 53 | 71 | 57 | 55 | 45 | 41 | 28 | 12 | -5 | 24 |
| 66 | 46 | 83 | 59 | 69 | 59 | 55 | 38 | 41 | 28 | 10 | -5 | 25 |
| 69 | 46 | 73 | 54 | 62 | 48 | 49 | 35 | 43 | 25 | 22 | - 3 | 26 |
| 74 | 53 | 76 | 52 | 56 | 42 | 53 | 30 | 44 | 21 | 28 | 15 | 27 |
| 74 | 64 | 71 | 48 | 58 | 42 | 43 | 28 | 41 | 25 | 34 | 12 | 28 |
| 74 |  |  | 51 | 58 | 46 | 42 | 23 | 49 | 22 | 20 | 11 | 29 |
|  |  | 1 |  |  |  |  |  |  |  | 17 |  |  |
| 77 | 59 | 179 | 45 | 56 | 40 | 53 | 26 | 33 | 6 | 17 | 7 | 30 |
| 83 | 59 | 80 | 63 |  |  | 53 | 31 |  |  | 20 | 8 | 31 |
| 769 | $61 \cdot 4$ | 80.9 | $60 \cdot 9$ | 638 | 50.0 | 539 | $36 \cdot 1$ | - 46.5 | $31 \cdot 9$ | 22.7 | 5.7 |  |

Table LT-Brockville, Ontario.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | $\bigcirc$ | 9 | $\bigcirc$ | 9. | - | $\stackrel{\square}{8}$ | $\stackrel{8}{8}$ | $\stackrel{\circ}{8}$ | $\stackrel{\circ}{\circ}$ | 8 | $5 \pm$ |
| 1 | 58 | 37 | 39 | 23 | 32 | 12 | 37 | 24 | 48. | 28 | 81 | 54 |
| 2 | 57 | 34 | 33 | -9 | 22 | 5 | 42 | 15 | 54 | 33 | 79 | 57 |
| 3 | 39 | 31 | 16 | -21 | 26 | - 2 | 39 | 23 | 49 | 39 | 70. | 57 |
| 4 | 36 | 3 | 24 | - 1 | 33 | -5 | 42 | 32 | 52 | 39 | 74 | 54 |
| 5 | 24 | 5 | 7 | -22 | 45 | 9 | 43 | 32. | 54 | 39 | 67 | 47 |
| 6 | 22 | 6 | 41 | - 4 | 50 | 36 | 42 | 33 | 62 | 45 | 67. | 50 |
| 7 | 21 | $-1$ | 43 | 30 | 58 | 40 | 39 | 31. | 57. | 41 | 66 | 46. |
| 8 | 35 | 19 | 34 | 21 | 46 | 26 | 33 | 21 | 73 | 44 | 76 | 47. |
| 9 | 43 | 33 | 24 | 12 | 28 | 18 | 35 | 15 | 59 | 44 | 82 | 58 |
| 10 | 50 | 7 | 23 | 14 | 33 | 19 | 46 | 24 | 57 | 42 | 77. | 58 |
| 11 | 18 | 1 | 43 | 18 | 36 | 20 | 49 | 27 | 62 | 43 | 84 | 5] |
| 12 | 16 | 3 | 39 | 26 | 47 | 32 | 59 | 26 | 53 | 43 | 88 | 59. |
| 13 | 8 | 4 | 37 | 23 | 42 | 5 | 59 | 36 | 55 | 41 | 84 | 65. |
| 14 | 24 | 4 | 31 | 14 | 17 | -1 | 62 | 40 | 55 | 33 | 82 | 64 |
| 15 | 36 | 13 | 32 | 23 | 20 | 2 | 45 | 34 | 52 | 39 | 87 | 61 |
| 16 | 38 | 29 | 27 | 20 | 20 | 7 | 48 | 32 | 61 | 34 | 88 | 67 |
| 17 | 40 | 28 | 23 | 7 | 32 | 18 | 41 | 30 | 64 | 38 | 81 | 63. |
| 18 | 49 | 35 | 24 | 1 | 22 | - 3 | 40 | 30 | 69 | 50 | 76 | 61. |
| 19 | 51 | 35 | 38 | 11 | 21 | -7 | 44 | 30 | 73 | 47 | 80 | 61. |
| 20 | 37 | 22 | 29 | 3 | 23 | -4 | 50 | 29 | 75 | 44 | 78 | 58: |
| 21 | 27 | 5 | 26 | -9 | 32 | 17 | 43 | 34 | 74 | 54 | 70 | 55. |
| 22 | 14 | 1 | 36 | 18 | 31 | 21 | 50 | 33 | 66 | 38 | 75 | 52 |
| 23 | 26 | 11 | 22 | -11 | 34 | 9 | 54 | 33 | 59 | 34 | 73 | 55. |
| 24 | 25 | 3 | 8 | -14 | 37 | 4 | 55 | 31 | 63 | 41 | 80 | 61 |
| 25 | 22 | 0 | 15 | -11 | 33 | 21 | 56 | 32 | 59 | 44 | 80 | 61 |
| 26 | 15 | 7 | 15 | 5 | 38 | 29 | 58 | 31 | 65 | 34 | 82 | 62 |
| 27 | 43 | 9 | 14 | -5 | 40 | 31 | 63 | 30 | 74 | 51 | 83 | 61 |
| 28 | 39 | 31 | 16 | 4 | 38 | 21 | 59 | 40 | 75 | 53 | 78 | 61 |
| 29 | 46 | 18 | 29 | 13 | 37 | 25 | 54 | 32 | 64 | 43 | 78 | 55 |
| 30 | 21 | -2 |  | ... | 33 | 22 | 45 | 30 | 63 | 34 | 79 | 53 |
| 31 | 38 | 13 | ... | $\cdots$ | 44 | 22 | ... | $\ldots$ | 79 | 37 | $\ldots$ | .. |
|  | 32.8 | 136 | 27.0 | 218 | $33 \cdot 7$ | 145 | 476 | 298 | 61.5 | $41^{\cdot} \theta$ | 77.9 | $57 \cdot 6$ |

Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min! |  |
| $\bigcirc$ | - | - | Q | - | $\bullet$ | - | - | - | Q | - | - |  |
| 78 | 52 | 82 | 56 | 85 | 66 | 56 | 37 | 51 | 46 | 3 | $-1$ | 1 |
| 73 | 62 | 86 | 54 | 69 | 55 | 56 | 41 | 57 | 45 | 28 | 6 | 2 |
| 78 | 66 | $\varepsilon 6$ | 65 | 70 | 49 | 62 | 47 | 58 | 33 | 27 | 20 | 3 |
| 75 | 64 | 85 | 66 | 72 | 55 | 56 | 44 | 49 | 30 | 26 | 19 | 4 |
| 82 | 57 | 90 | 65 | 64 | 45 | 49 | 40 | 47 | 28 | 31 | 12 | 5 |
| 81 | 61 | 88 | 65 | 70 | 54 | 69 | 39 | 49 | 33 | 36 | 25 | 6 |
| 78 | 59 | 84 | 71 | 74 | 50 | 52 | 34 | 49 | 41 | 37 | 21 | 7 |
| 86 | 63 | 85 | 62 | 71. | 59 | 49 | 32 | 44 | 34 | 30 | 12 | 8 |
| 91 | 69 | 87 | 57 | 62 | 49 | 45 | 28 | 40 | 31 | 29 | $-7$ | 9 |
| 87 | 70 | 91 | 58 | 67. | 40 | 54 | 39 | 40 | 28 | 2 | -12 | 10 |
| 84 | -68 | 93 | 61 | 70. | 39. | 45 | 30 | 41 | 32 | 11 | $-3$ | 11 |
| 83 | 66 | 90 | 68 | 64. | 45 | 50 | 26 | 45 | 31 | 25 | 8 | 12 |
| 93 | ! 68 | 91 | 66 | 66 | 40 | 51 | 37 | 45 | 33 | 43 | 23 | 13 |
| 81 | 65 | 93 | 66 | 65 | 40 | 45 | 29 | 43 | 32 | 39 | 29 | 14 |
| 83 | 60 | 90 | 64 | 66 | 49 | 36 | 25 | 32 | 26 | 37 | 11 | 15 |
| 86 | 59 | 76 | 51 | 62 | 40 | 45 | 29 | 39 | 22 | 30 | -18 | 16 |
| 85 | 60 | 77 | 55 | 60 | 44 | 44 | 33 | 46 | 29 | -5 | -19 | 17 |
| 93 | 69 | 82 | 61 | 64 | 52 | 48 | 28 | 39 | 30 | -1 | -10 | 18 |
| 89 | 56 | 79 | 64 | 69 | 53 | 59 | 32 | 45 | 37 | 18 | -10 | 19 |
| 88 | 65 | 73 | 55 | 63 | 52 | 66 | 36 | 43 | 32 | 2 | -13 | 20 |
| 73 | 56 | 71 | 41 | 67 | 54 | 67 | 49 | 44 | 34 | 7 | $-5$ | 21 |
| 70 | 47 | 80 | 51 | 67 | 56 | 64 | 53 | 49 | 31 | 15 | -2 | 22 |
| 69 | 47 | 79 | 53 | 72 | 58 | 7. | 55 | 42 | 35 | 16 | $-3$ | 23 |
| 75 | 49 | 80 | 52 | 70 | 56 | 59 | 46 | 38 | 26 | 11 | -8 | 24 |
| 68 | 43 | 79 | 58 | 72 | 56 | 58 | 38 | 38 | 24 | 9 | -12 | 25 |
| 71 | 49 | 74 | 51 | 64 | 49 | 45 | 36 | 33 | 25 | 18 | 8 | 26 |
| 76 | 52 | 70 | 48 | 57 | 41 | 44 | 27 | 34 | 19 | 24 | 11 | 27 |
| 76 | 64 | 76 | 45 | 61 | 42 | 40 | 23 | 37 | 23 | 26 | 2 | 28 |
| 79 | 59 | 77 | 54 | 58 | 49 | 40 | 21 | 31 | 23 | 16 | 1 | 29 |
| 80 | 53 | 83 | 49 | 54 | 36 | 52 | 21 | 26 | 6 | 18 | 7 | 30 |
| 83 | 65 | 83 | 56 | ... | ... | 53 | 34 | ... | $\cdots$ | 19 | 4 | 31 |
| $80 \cdot 2$ | 59.8 | $82 \cdot 3$ | 57.8 | 65.9 | 49.2 | 51.9 | $35 \cdot 1$ | $48 \cdot 2$ | $30 \cdot 0$ | $20 \cdot 3$ | 1.9 |  |

Table LII.-Cornwall, Ontario.

| Day. | January. |  | Pebruary. |  | March. |  | April. |  | May. |  | Jung. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. 1 | Mia. | Max. | Min. | Max. | Min: | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | Q | $\bigcirc$ | - | - | - | $\bigcirc$ | Q | $\bigcirc$ | $\stackrel{\square}{0}$ | Q | $\bigcirc$ |
| 1 | 59 | 39 | 32 | 15 | 29 | 20 | 38 | 25 | 44 | 29 | 84 | 55 |
| 2 | 57 | 32 | 32 | $-10$ | 26 | 12 | 39 | 16 | 60 | 38 | 90 | 61 |
| 3 | 39 | 27 | 8 | -17 | 22 | 1 | 41 | 24 | 50 | 40 | 73 | 63 |
| 4 | 29 | 4 | 18 | 1 | 33 | 8 | 39 | 33 | 52 | 40 | 67 | 50 |
| 5 | 17 | 4 | 1 | -18 | 43 | 23 | 39 | 30 | 53 | 40 | 71 | 51 |
| 6 | 19 | 10 | 39 | $-7$ | 48 | 29 | 44 | 29 | 62 | 48 | 71 | 51 |
| 7 | 19 | 3 | 42 | 36 | 60 | 42 | 40 | 32 | 52 | 44 | 70 | 51 |
| 8 | 25 | 16 | 33 | 22 | 46 | 26 | 35 | 22 | 64 | 45 | 75 | 46 |
| 9 | 29 | 21 | 23 | 8 | 30 | 19 | 34 | 17 | 60 | 44 | 85 | 59 |
| 10 | 43 | 5 | 23 | 14 | 28 | 22 | 44 | 25 | 60 | 49 | 78 | 63 |
| 11 | 12 | - 3 | 43 | 15 | 37 | 25 | 51 | 29 | 59 | 46 | 77 | 63 |
| 12 | 91 | $-1$ | 39 | 26 | 40 | 33 | 52 | 30 | 56 | 44 | 84 | 63 |
| 13 | 4 | -9 | 37 | 20 | 38 | 5 | 54 | 32 | 52 | 44 | 85 | 63 |
| 14 | 24 | 2 | 29 | 11 | 12 | 0 | 53 | 40 | 53 | 34 | 82 | 67 |
| 15 | 24 | 12 | 32 | 25 | 19 | 4 | 46 | 36 | 52 | 44 | $8: 3$ | 69 |
| 16 | 35 | 23 | 32 | 18 | 19 | 9 | 47 | 33 | 53 | 33 | 89 | 69 |
| 17 | 30 | 18 | 23 | 8 | 24 | 17 | 43 | 29 | 67 | 43 | 85 | 66 |
| 18 | 39 | 26 | 22 | 15 | 22 | 0 | 42 | 32 | 66 | 50 | 73 | 67 |
| 19 | 49 | 35 | 36 | 12 | 16 | - 3 | 46 | 32 | 70 | 46 | 79 | 68 |
| 20 | 37 | 20 | 27 | 10 | 19 | - 3 | 53 | 30 | 75 | 47 | 83 | 65 |
| 21 | 38 | 0 | 20 | 6 | 28 | 16 | 43 | 33 | 78 | 58 | 78 | 61 |
| 23 | 11 | $-1$ | 33 | 18 | 29 | 21 | 55 | 34 | 69 | 39 | 73 | 53 |
| 23 | 21 | 9 | 23 | -8 | 34 | 14 | 52 | 35 | 56 | 35 | 7 | 57 |
| 24 | 20 | 7 | 2 | -11 | 33 | 14 | 53 | 29 | 69 | 43 | 83 | 63 |
| 25 | 14 | 0 | 9 | -4 | 31 | 13 | 53 | 33 | 58 | 45 | 83 | 62 |
| $\underline{26}$ | 13 | -2 | 15 | 1 | 38 | 28 | 53 | 33 | 67 | 35 | 84 | 59 |
| 27 | 40 | - 2 | 11 | -11 | 38 | 32 | 56 | 33 | 81 | 57 | 88 | 69 |
| 28 | 37 | 30 | 16 | 2 | 38 | 27 | 50 | 37 | 80 | 60 | 82 | 65 |
| 29 | 47 | -21 | 26 | 15 | 37 | 27 | 52 | 32 | 67 | 39 | 84 | 58 |
| 30 | 21 | -2 |  |  | 38 | 25 | 49 | 34 | 55 | 31 | 83 | 65 |
| 31 | 35 | 7 | - |  | 41 | 25 | - |  | 77 | 37 | - |  |
|  | 29.0 | $11 \cdot 3$ | 25.0 | 73 | $32 \cdot 2$ | 17.1 | 465 | $30 \cdot 3$ | 61.8 | 42.8 | $80 \cdot 0$ | $60 \cdot 3$ |

Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| $\stackrel{\square}{\circ}$ | $\stackrel{ }{\circ}$ | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | - | 0 | $\bigcirc$ | $\bigcirc$ | 8 |  |
| 84 | 56 | 79 | 59 | 83 | 65 | 52 | 40 | 49 | 46 | 9 | $-1$ | 1 |
| 70 | 65 | 85 | 50 | 69 | 55 | 53 | 40 | 51 | 47 | 26 | 7 | 2 |
| 80 | 70 | 88 | 67 | 71 | 47 | 62 | 43 | 56 | 39 | 30 | 23 | 3 |
| 81 | 66 | 89 | 67 | 68 | 50 | 64 | 45 | 46 | 41 | 25 | 17 | 4 |
| 82 | 60 | 94 | 66 | 60 | 44 | 48 | 35 | 44 | 41 | 29 | 15 | 5 |
| 82 | 63 | 96 | 73 | 67 | 43 | 56 | 40 | 46 | 29 | 34 | 24 | 6 |
| 87 | 61 | 88 | 74 | 75 | 50 | 51 | 34 | 47 | 31 | 36 | 27 | 7 |
| 90 | 67 | 85 | 63 | 64 | 55 | 45 | 34 | 42 | 33 | 23 | 9 | 8 |
| 88 | 74 | 91 | 59 | 60 | 48 | 44 | 29 | 41 | 34 | 22 | - 6 | 9 |
| 92 | 73 | 95 | 60 | 64 | 44 | 54 | 40 | 37 | 28 | - 5 | -15 | 10 |
| 81 | 70 | 97 | 63 | 70 | 44 | 54 | 30 | 39 | 33 | 7 | -9 | 11 |
| 89 | 68 | 96 | 65 | 62 | 44 | 48 | 27 | 44 | 39 | 20 | 1 | 12 |
| 90 | 73 | 93 | 69 | 64 | 39 | 61 | 27 | 40 | 36 | 43 | 20 | 13 |
| 84 | 65 | 96 | 72 | 63 | 37 | 41 | 30 | 41 | 32 | 46 | 29 | 14 |
| 82 | 69 | 92 | 60 | 62 | 52 | 35 | 26 | 35 | 27 | 35 | 8 | 15 |
| 86 | 62 | 75 | 50 | 56 | 38 | 45 | 34 | 36 | 27 | 21 | -18 | 15 |
| 90 | 63 | 83 | 53 | 61 | 42 | 43 | 32 | 41 | 30 | -8 | -20 | 17 |
| 90 | 68 | 82 | 61 | 65 | 42 | 44 | 33 | ?8 | 29 | - 3 | -11 | 18 |
| 91 | 69 | 80 | 66 | 56 | 45 | 55 | 27 | 48 | 34 | 14 | -11 | 19 |
| 91 | 70 | 68 | 53 | 59 | 51 | 54 | 37 | 41 | 35 | 0 | -11 | 20 |
| 73 | 56 | 67 | 42 | 63 | 53 | 51 | 43 | 42 | 31 | 4 | $-16$ | 21 |
| 75 | 49 | 75 | 47 | 64 | 52 | 60 | 43 | 40 | 29 | 13 | -3 | 22 |
| 68 | 67 | 75 | 47 | 69 | 56 | 72 | 57 | 41 | 35 | 15 | 4 | 23 |
| 78 | 55 | 76 | 58 | 68 | 56 | 60 | 48 | 36 | 25 | 5 | -4 | 24 |
| 70 | 44 | 83 | 58 | 70 | 57 | 49 | 30 |  | 28 | 8 | -9 | 25 |
| 72 | 48 | 75 | 57 | 69 | 52 | 49 | 36 | 29 | 19 | 14 | 5 | 26 |
| 72 | 59 | 63 | 56 | 52 | 40 | 43 | 29 | 32 | 15 | 23 | 12 | 27 |
| 76 | 63 | 63 | 45 | 57 | 42 | 39 | 23 | 32 | 24 | 23 | 3 | 28 |
| 75 | 61 | 74 | 54 | 56 | 49 | 32 | 19 | 28 | 20 | 15 | $-5$ | 29 |
| 80 | 60 | 76 | 47 | 54 | 42 | 47 | 24 | 24 | 7 | 17 | 10 | 30 |
| 81 | 62 | 83 | 55 |  |  | 50 | 39 |  |  | 11 | 6 | 31 |
| 81.7 | 62.4 | 82.7 |  | 61.0 | 48.0 | 49.8 | 34.6 | 40.6 | 29.5 | 17.8 | $2 \cdot 5$ |  |

Table LIII.-Pembroke, Ontario.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | - | - | - | - | - | - | $\bigcirc$ | - | - | $\bigcirc$ |
| 1 | 51 | 35 | 32 | 13 | 29 | 13 | 40 | 16 | 47 | 27 | 86 | 59 |
| 2 | 51 | 32 | 17 | -14 | 20 | 5 | 52 | 8 | 53 | 28 | 89 | 65 |
| 3 | 41 | 8 | 17 | -27 | 35 | $-7$ | 40 | 25 | 52 | 41 | 72 | 52 |
| 4 | 10 | $-4$ | 9 | -9 | 46 | -2 | 42 | 33 | 46 | 39 | 74 | 55 |
| 5 | 15 | -2 | 4 | -33 | 45 | 19 | 40 | 33 | 50 | 38 | 61 | 45 |
| $G$ | 16 | 4 | 43 | -2 | E6 | 38 | 43 | 33 | 69 | 43 | 68 | 50 |
| 7 | 15 | $-3$ | 43 | 29 | 52 | 41 | 42 | 27 | 53 | 43 | 73 | 48 |
| 8 | 29 | 14 | 31 | 4 | 48 | 19 | 32 | 14 | 59 | 44 | 87 | 54 |
| 9 | 35 | 26 | 19 | -7 | 33 | 16 | 40 | 11 | 54 | 41 | 82 | 53 |
| 10 | 42 | $-1$ | 25 | 7 | 36 | 13 | 53 | 18 | 50 | 41 | 80 | 60 |
| 11 | 13 | $-6$ | 49 | 19 | 34 | 23 | 58 | 27 | 59 | 39 | 88 | 56 |
| 12 | 6 | $-9$ | 47 | 14 | 37 | 32 | 61 | 26 | 57 | 40 | 99 | 65 |
| 13 | 6 | $-8$ | 38 | -10 | 35 | 0 | 54 | 3 | 50 | 40 | 90 | 67 |
| 14 | 24 | $-3$ | 29 | 16 | 15 | $-7$ | 55 | 39 | 59 | 33 | 78 | 63 |
| 15 | 24 | 4 | 27 | 21 | 25 | -10 | 45 | 37 | 59 | 37 | 85 | 60 |
| 16 | 34 | 22 | 24 | 11 | 21 | $-3$ | 41 | . 35 | 68 | 33 | 90 | 66 |
| 17 | 37 | 25 | 19 | 4 | 24 | 6 | 38 | 31 | 66 | 43 | 78 | 69 |
| 18 | 40 | 34 | 21 | 12 | 13 | -13 | 41 | 29 | 63 | 50 | 74 | 65 |
| 19 | 42 | 33 | 40 | 12 | 22 | -11 | 43 | 28 | 74 | 44 | 82 | 61 |
| 20 | 36 | 14 | 22 | 2 | 22 | -11 | 54 | 27 | 67 | 46 | 75 | 56 |
| 21 | 21 | 0 | 23 | -13 | 32 | 12 | 50 | 34 | 81 | 55 | .60 | 54 |
| 22 | 12 | -12 | 23 | 7 | 29 | 14 | 45 | 35 | 70 | 38 | 74 | 52 |
| 23 | 23 | $-7$ | 10 | -15 | 35 | $-5$ | 57 | 33 | 69 | 35 | 78 | 55 |
| 24 | 17 | 8 | 7 | -11 | 44 | -8 | 62 | 31 | 76 | . 40 | 89 | 58 |
| 25 | 16 | 5 | 18 | -4 | 37 | 22 | 63 | 30 | 58 | . 36 | 81 | 53 |
| 26 | 21 | $-13$ | 23 | -11 | 41 | 29 | 69 | ; 32 | 81 | 56 | 87 | 59 |
| 27 | 32 | 8 | 23 | $-10$ | 36 | 28 | 66 | 35 | 87 | 52 | 85 | 65 |
| 28 | 37 | 28 | 22 | 3 | 35 | 19 | 55 | 36 | 77 | 62 | 82 | 61 |
| 29 | 43 | 4 | 30 | 17 | 39 | 20 | 55 | . 30 | 65 | 46 | 87 | 56 |
| 30 | 24 | - 15 |  |  | 39 | 19 | 40 | 28 | 68 | 36 | 79 | 56 |
| 31 | 38 | 10 |  |  | 37 | 28 |  |  | 87 | 42 |  |  |
|  | 27.5 | 7.9 | 25.0 | 2.0 | 4333 | 11.3 | $49 \cdot 1$ | $28 \cdot 6$ | $63 \cdot 3$ | $40 \cdot 9$ | 80.6 | 578 |

Maximum and Minimum Temperature, 1876.

July. August. Suptember. October. November.
December.
Day.

| Max. | Min. | Max. | Min. | Max. | Min. | Max | Din. | Mas. | Min. | Max. | Min. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | $\bigcirc$ |  |
| 85 | 55 | 89 | 56 | 86 | 60 | 57 | 37 | 49 | 39 | 17 | - 1 | 1 |
| 78 | 54 | 90 | 52 | 68 | 52 | 57 | 36 | 49 | 41 | 26 | 16 | 2 |
| 80 | 65 | 89 | 59 | 71 | 42 | 56 | 45 | 55 | 36 | 28 | 20 | 3 |
| 82 | 64 | 91 | 60 | 64 | 52 | 55 | 41 | 44 | 34 | 22 | 15 | 4 |
| 79 | 57 | 95 | 68 | 64 | 45 | 52 | 41 | 43 | 29 | 33 | 8 | 5 |
| 83 | 56 | 93 | 72 | 72 | 46 | 56 | 36 | 42 | 37 | 33 | 22 | 6 |
| 81 | 56 | 88 | 71 | 70 | 52 | 49 | 33 | 45 | 36 | 33 | 19 | 7 |
| 96 | C6 | 89 | 56 | 72 | 55 | 50 | 33 | 48 | 36 | 23 | 7 | 8 |
| 99 | 73 | 94 | 60 | 74 | 56 | 45 | 24 | 41 | 35 | 16 | -10 | 9 |
| 86 | 73 | 95 | 60 | 75 | 40 | 50 | 35 | 40 | 34 | 0 | -21 | 10 |
| 95 | 66 | 96 | 64 | 73 | 41 | 42 | 30 | 42 | 33 | 7 | -17 | 11 |
| 95 | 65 | 83 | 67 | 66 | 46 | 52 | 23 | 45 | 43 | 16 | 1 | 12 |
| 91 | 68 | 90 | 68 | 68 | 44 | 44 | 32 | 44 | 32 | ?9 | 10 | 13 |
| 85 | 62 | 96 | 66 | 62 | 41 | 36 | 23 | 44 | 30 | 40 | 25 | 14 |
| 84 | 61 | 83 | 64 | 67 | 51 | 38 | 22 | 39 | 24 | 34 | -5 | 15 |
| 92 | 57 | 71 | 49 | 69 | 37 | 46 | 29 | 38 | 23 | 22 | -23 | 16 |
| 93 | 58 | 83 | 55 | 65 | 38 | 40 | 33 | 38 | 31 | 5 | -33 | 17 |
| 85 | 73 | 82 | 52 | 66 | 53 | 56 | 31 | 37 | 32 | - 1 | -13 | 18 |
| 94 | 63 | 79 | 64 | 64 | 58 | 66 | 27 | 42 | 35 | 4 | -19 | 19 |
| 84 | 60 | 71 | 53 | 66 | 59 | 64 | 50 | 55 | 37 | 5 | -16 | 20 |
| 71 | 56 | 73 | 42 | 63 | 55 | 72 | 47 | 50 | 37 | 10 | -14 | 21 |
| 66 | 51 | 83 | 49 | 70 | 57 | 63 | 44 | 43 | 32 | 12 | 0 | 22 |
| 72 | 55 | 84 | 55 | 66 | 57 | 64 | 53 | 43 | 32 | 12 | 4 | 23 |
| 65 | 47 | 81 | 57 | 71 | 58 | 64 | 44 | 34 | 26 | 11 | -4 | 24 |
| 69 | 45 | 85 | 60 | 76 | 61 | 48 | 37 | 35 | 27 | 12 | -8 | 25 |
| 73 | 46 | 68 | 50 | 65 | 48 | 41 | 33 | 40 | 25 | 16 | 5 | 26 |
| 71 | 46 | 64 | 51 | 51 | 38 | 40 | 30 | 36 | 21 | 28 | 12 | 27 |
| 75 | 59 | 76 | 45 | 59 | 38 | 43 | 25 | 32 | 25 | 23 | -1 | 28 |
| 84 | 57 | 84 | 52 | 61 | 45 | 50 | 24 | 28 | 17 | 27 | $-7$ | 29 |
| 88 | 57 | 86 | 48 | 61 | 35 | 48 | 21 | 21 | 2 | 18 | 6 | 30 |
| 89 | 58 | 89 | 56 | - | - | 48 | 28 | - |  | 13 | 6 | 31 |
| $82 \cdot 9$ | 59.1 | $84 \cdot 7$ | 57.4 | $67 \cdot 4$ | 48.5 $\cdots$ | 51-2 | $33 \cdot 3$ | 41.2 | $30 \cdot 6$ | 18.8 | -05 |  |

Table LIV.-Ottawa, Ontario.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min.: | Max. | Min. | Max. | Min. | Max. | Min | Max. | Min. | Max. | Min. |
| 1 | 52 | 35 | 32 | 14 | $\stackrel{0}{33}$ | 15 | 42 | $\stackrel{\circ}{\circ}$ | $\stackrel{\circ}{49}$ | $\stackrel{0}{28}$ | $\stackrel{\circ}{88}$ | $\stackrel{0}{55}$ |
| 2 | 53 | 34 | $-3$ | -14 | 28 | 10 | 43 | 16 | 56 | 38 | 90 | 66 |
| 3 | 43 | 19 | 4 | -21 | 25 | -- 2 | 43 | 20 | 50 | 39 | 75 | 56 |
| 4 | 17 | 0 | 12 | - 5 | 35 | - 2 | 37 | 25 | 52 | 39 | 74 | 58 |
| 5 | 12 | 1 | 4 | -26 | 43 | 15 | 38 | 25 | 51 | 41 | 75 | 46 |
| 6 | 15 | 8 | 38 | -10 | 46 | 36 | 42 | 29 | 67 | 41 | 63 | 47 |
| 7 | 13 | $-6$ | 42 | 28 | 55 | 37 | 43 | 28 | 49 | 39 | 71 | 49 |
| 8 | 23 | 11 | 28 | 13 | 55 | 22 | 32 | 20 | 56 | 46 | 77 | 48 |
| 9 | 33 | 21 | 15 | 2 | 27 | 16 | 35 | 15 | 59 | 42 | 87 | 58 |
| 10 | 43 | 2 | 31 | 10 | 32 | 14 | 41 | 25 | 60 | 46 | 80 | 62 |
| 11 | 10 | -6 | 42 | 15 | 34 | 15 | 52 | 27 | 60 | 43 | 84 | 63 |
| 12 | 4 | --11 | 39 | 20 | 40 | 33 | 57 | 27 | 58 | 38 | 89 | 63 |
| 13 | 3 | -11 | 33 | 17 | 34 | 0 | 50 | 35 | 62 | 42 | 87 | 65 |
| 14 | 17 | -11 | 27 | 10 | 17 | $-5$ | 45 | 37 | 58 | 34 | 87 | 65 |
| 15 | 19 | 4 | 28 | 20 | 18 | -5 | 45 | 32 | 57 | 39 | 86 | 62 |
| 16 | 37 | 15 | 22 | 10 | 20 | 3 | 47 | 29 | 65 | 35 | 85 | 67 |
| 17 | 30 | 14 | 17 | 6 | 29 | 15 | 40 | 29 | 64 | 39 | 83 | 69 |
| 18 | 38 | 25 | 23 | 8 | 10 | -6 | 42 | 28 | 67 | 53 | 74 | 62 |
| 19 | 45 | 35 | 26 | 3 | 18 | - 6 | 46 | 31 | 73 | 44 | 82 | 63 |
| 20 | 36 | 15 | 16 | 6 | 21 | -3 | 52 | 30 | 73 | 48 | 81 | 59 |
| 21 | 17 | 0 | 26 | -8 | 33 | 16 | 43 | 29 | 81 | 56 | 72 | 55 |
| 22 | 13 | - 8 | 23 | 10 | 33 | 17 | 51 | 34 | 68 | 36 | 72 | 52 |
| 23 | 22 | 6 | -2 | -13 | 33 | 5 | 56 | 33 | 61 | 36 | 79 | 56 |
| 24 | 20 | 0 | 3 | -13 | 36 | 5 | 58 | 31 | 77 | 38 | 89 | 61 |
| 25 | 13 | 2 | 11 | $-9$ | 36 | 14 | 60 | 31 | 70 | 39 | 88 | 60 |
| 26 | 13 | 5 | 15 | 0 | 41 | 28 | 61 | 32 | 72 | 36 | 84 | 59 |
| 27 | 33 | -4 | 15 | $-8$ | 46 | 28 | 66 | 30 | 85 | 42 | 90 | 61 |
| 28 | 37 | 29 | 20 | 3 | 35 | 18 | 46 | 36 | 81 | 58 | 80 | 64 |
| 29 | 46 | 5 | 32 | 18 | 37 | 23 | 51 | 30 | 63 | 43 | 84 | 57 |
| 30 | 10 | $-8$ |  |  | 38 | 18 | 50 | 31 | 63 | 35 | 81 | 60 |
| 31 | 32 | 1 |  | - | 41 | 26 |  |  | 81 | 37 | - | . |
|  | 25.5 | $7 \cdot 0$ |  | $2 \cdot 9$ | 33.0 | 13.0 | 47.0 | $28 \cdot 1$ | 64.0 | $40 \cdot 8$ | 81.3 | 58.9 |

Maximum and Minimum Temperature, 1876.


Table LV.-Huntingadon, Quebec.

| Day . | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | $\bigcirc$ | $\bigcirc$ | - | - | - | - | ${ }^{\circ}$ | $\bigcirc$ | - | $\stackrel{\circ}{9}$ | 85 | - ${ }^{\circ}$ |
| 1 | 46 | 37 | 34 | 13 | 26 | 20 | 36 | 25 | 41 | 29 | 85 | 50 |
| 2 | 58 | 33 | - 2 | -10 | 25 | 10 | 38 | 14 | 54 | 35 | 82 | 60 |
| 3 | 38 | 25 | 10 | -16 | 22 | - 3 | 45 | 20 | 50 | 39 | 76 | 55 |
| 4 | 9 | 4 | 15 | 2 | 33 | 5 | 36 | 32 | 48 | 40 | 63 | 50 |
| 5 | 19 | 4 | -1 | -18 | 38 | 11 | 39 | 30 | 54 | 37 | 70 | 50 |
| 6 | 19 | 9 | 39 | -10 | 50 | 39 | 40 | 35 | 66 | 47 | 71 | 49 |
| 7 | 17 | 5 | 40 | 30 | 57 | 37 | 40 | 34 | 53 | 45 | 70 | 50 |
| 8 | 24 | 15 | 26 | 22 | 59 | 28 | 31 | 24 | 74 | 45 | 70 | 45. |
| 9 | 27 | 24 | 13 | 4 | 41 | 28 | 33 | 17 | 59 | 49 | 86 | 57 |
| 10 | 46 | 5 | 22 | 16 | 26 | 20 | 43 | 24 | 58 | 47 | 78 | 63. |
| 11 | 10 | - 3 | 43 | 32 | 26 | 18 | 51 | 28 | 58 | 44 | 78 | 60. |
| 12 | 7 | $-3$ | 38 | 27 | 37 | 22 | 56 | 31 | 54 | 39 | 85 | 60 |
| 13 | 3 | - 8 | 38 | 18 | 38 | 6 | 57 | 30 | 49 | 42 | 83 | 60 |
| 14 | 22 | $-2$ | 32 | 10 | 11 | 2 | 52 | 39 | 52 | 35 | 83 | 65 |
| 15 | 24 | 10 | 30 | 24 | 21 | 4 | 48 | 35 | 55 | 40 | 83 | 62 |
| 16 | 35 | 28 | 25 | 19 | 20 | 8 | 45 | 34 | 63 | 30 | 91 | $67^{\circ}$ |
| 17 | 27 | 18 | 15 | 8 | 25 | 18 | 41 | 33 | 71 | 37 | 83 | 65 |
| 18 | 36 | 30 | 24 | 14 | 10 | 1 | 42 | 31 | 68 | 50 | 77 | $62^{\circ}$ |
| 19 | 48 | 39 | 35 | 10 | 17 | - 5 | 46 | 31 | 71 | 43 | 78 | 64 |
| 20 | 28 | 20 | 15 | 9 | 24 | -4 | 51 | 28 | 73 | 40 | 80 | 60. |
| 21 | 10 | 3 | 23 | 4 | 27 | 15 | 39 | 32 | 78 | 57 | 68 | 55 |
| 22 | 12 | - 3 | 35 | 18 | 27 | 21 | 52 | 35 | 66 | 42 | 71 | 53 |
| 23 | 20 | 15 | $-3$ | -8 | 34 | 10 | 52 | 36 | 68 | 34 | 78 | 53. |
| 24 | 15 | 8 | -2 | -10 | 34 | 10 | 54 | 28 | 68 | 47 | 85 | 62 |
| 25 | 15 | 5 | 9 | $-5$ | 30 | 15 | 55 | 30 | 58 | $4 \overline{0}$ | 83 | 59 |
| 26 | 12 | - 3 | 13 | 2 | 39 | 30 | 58 | 30 | 71 | 32 | 83 | 56 |
| 27 | 38 | 18 | 13 | $-7$ | 38 | 32 | 60 | 27 | 81 | 55 | 86 | 52 |
| 28 | 38 | 32 | 12 | 0 | 36 | 27 | 47 | 31 | 80 | 63 | 79 | 62 |
| 29 | 47 | 22 | 24 | 13 | 39 | 27 | 49 | 32 | 62 | 44 | 80 | 63 |
| 30 | 8 | - 3 | - | - | 36 | 26 | 48 | 32 | 59 | 33 | 80 | 54 |
| 31 | 31 | 7 | - |  | 40 | 24 | - | - | 81 | 35 | - | - |
|  | $25 \cdot 5$ | 12.6 | 21.2 | 7.3 | 31.8 | $16 \cdot 2$ | $46 \cdot 1$ | $29 \cdot 6$ | $62 \cdot 6$ | $41 \cdot 9$ | $78 \cdot 8$ | $57 \cdot 1$ |

Maximum and Minimum Temperature, 1876.


Table LVI.-Montreal, Quebec.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | - | - | $\bigcirc$ | $\stackrel{\square}{2}$ | $\bigcirc$ | 25 | - | $\stackrel{\circ}{\circ}$ | 80 | 0 56 |
| 1 | 64 | 34 | 32 | 21 | 26 | 21 | 42 | 25 | 42 | 31 | 80 | 56 |
| 2 | 63 | 32 | 30 | -10 | 27 | 15 | 42 | 25 | 55 | 39 | 85 | 62 |
| 3 | 38 | 25 | 6 | -14 | 25 | 9 | 41 | 24 | 50 | 38 | 70 | 57 |
| 4 | 26 | 5 | 15 | - 3 | 32 | 14 | 34 | 30 | 51 | 39 | 60 | 50 |
| 5 | 11 | 1 | - 2 | -15 | 38 | 18 | 41 | 29 | 52 | 38 | 69 | 49 |
| 6 | 17 | 9 | 34 | 12 | 42 | 35 | 39 | 35 | 60 | 43 | 67 | 54 |
| 7 | 13 | 6 | 41 | 30 | 52 | 33 | 38 | 33 | 47 | 41 | 65 | 48 |
| 8 | 20 | 10 | 32 | 13 | 38 | 28 | 34 | 21 | 60 | 41 | 65 | 50 |
| 9 | 26 | 19 | 12 | 1 | 90 | 20 | 39 | 17 | 60 | 47 | 81 | 54 |
| 10 | 42 | 4 | 22 | 11 | 26 | 18 | 44 | 28 | 85 | 48 | 76 | 62 |
| 11 | 8 | - 6 | 40 | 12 | 37 | 22 | 50 | 35 | 57 | 43 | 74 | 57 |
| 12 | 6 | - 3 | 38 | 25 | 39 | 33 | 53 | 34 | 56 | 44 | 80 | 58 |
| 13 | 3 | -7 | 31 | 12 | 37 | 4 | 54 | 29 | 53 | 43 | 79 | 64 |
| 14 | 21 | - 4 | 27 | 8 | 15 | 2 | 48 | 36 | 52 | 38 | 76 | 65 |
| 15 | 27 | 9 | 32 | 23 | 23 | 2 | 43 | 36 | 54 | 40 | 78 | 65 |
| 16 | 31 | 17 | 25 | 15 | 20 | 6 | 45 | 34 | 58 | 39 | 84 | 70 |
| 17 | 33 | 13 | 18 | 8 | 21 | 17 | 40 | 33 | 65 | 40 | 79 | 67 |
| 18 | 40 | 32 | 23 | 11 | 18 | 3 | 41 | 31 | 64 | 49 | 80 | 67 |
| 19 | 47 | 37 | 35 | 11 | 21 | $-4$ | 47 | 32 | 67 | 49 | 74 | 65 |
| 20 | 47 | 16 | 25 | 8 | 22 | 3 | 51 | 32 | 69 | 47 | 78 | 61 |
| 21 | 19 | 1 | 20 | 9 | 25 | 19 | 43 | 33 | 73 | 58 | 68 | 57 |
| 22 | 8 | $-3$ | 30 | 17 | 29 | 22 | 58 | 36 | 68 | 35 | 70 | 55 |
| 23 | 20 | $-2$ | 18 | - 7 | 34 | 17 | 52 | 35 | 57 | 34 | 78 | 58 |
| 24 | 18 | 6 | -1 | -12 | 35 | 18 | 50 | 34 | 69 | 42 | 82 | 64 |
| 25 | 12 | 6 |  | -7 | 30 | 15 | 54 | 31 | 57 | 43 | 80 | 66 |
| 26 | 15 | 3 | 18 | 3 | 38 | 28 | 63 | 32 | 67 | 38 | 77 | 62 |
| 27 | 33 | 5 | 11 | 4 | 39 | 31 | 87 | 32 | 81 | 58 | 80 | 65 |
| 28 | 35 | 28 | 17 | - 3 | 35 | 27 | 46 | 31 | 80 | 63 | 76 | 67 |
| 29 | 46 | 13 | 28 | 8 | 42 | 28 | 49 | 33 | 67 | 40 | 79 | 62 |
| 30 | 14 | - 5 | , |  | 37 | 26 |  | 33 | 56 | 35 | 78 | 61 |
| 31 | 31 | 5 |  |  | 43 | 25 | - |  | 73 | 43 |  | - |
|  | $31 \cdot 2$ | $11 \times 9$ | 23.0 |  | 31.4 | 18.0 | $44 \cdot 1$ | $29 \cdot 9$ | $60 \cdot 4$ | $42 \cdot 8$ | 75.5 | $59 \cdot 8$ |

Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Mex. | Min. | Max. | Min. |  |
| - | - | - | - | - | - | Q | $\bigcirc$ | - | - | 0 | - |  |
| 75 | 61 | 77 | 61 | 82 | 67 | 54 | 41 | 48 | 44 | 9 | 2 | 1 |
| 69 | 64 | 83 | 62 | 68 | 54 | 50 | 43 | 44 | 43 | 30 | * | 2 |
| 79 | 66 | 82 | 64 | 72 | 50 | 63 | 44 | 54 | 37 | 31 | 26 | 3 |
| 77 | 66 | 84 | 68 | 68 | 54 | 54 | 46 | 45 | 33 | 28 | 20 | 4 |
| 78 | 64 | 89 | 71 | 59 | 48 | 48 | 39 | 42 | 33 | 27 | 16 | 5 |
| 77 | 63 | 92 | 74 | 65 | 49 | 55 | 38 | 45 | 33 | 33 | 25 | 6 |
| 77 | 65 | 87 | 72 | 65 | 49 | 50 | 38 | 45 | 34 | 35 | 26 | 7 |
| 84 | 67 | 84 | 67 | 59 | 51 | 45 | 31 | 41 | 34 | 26 | 8 | 8 |
| 79 | 65 | 86 | 64 | 61 | 51 | 43 | 31 | 40 | 37 | 23 | -5 | 3 |
| 88 | 72 | 89 | 65 | 66 | 49 | 54 | 41 | 41 | 35 | -4 | -14 | 10 |
| 80 | 69 | 88 | 68 | 70 | 49 | 44 | 33 | 42 | 37 | 1 | - | 11 |
| 86 | 66 | 88 | 69 | 65 | 49 | 49 | 28 | 44 | 37 | 17 | 1 | 12 |
| 87 | 71 | 91 | 72 | 68 | 49 | 50 | 35 | 43 | 36 | 38 | 17 | 13 |
| 84 | 66 | 91 | 71 | 63 | 47 | 42 | 30 | 43 | 31 | 35 | 26 | 14 |
| 78 | 65 | 85 | 61 | 63 | 52 | 35 | 27 | 33 | 27 | 37 | 8 | 15 |
| 85 | 66 | 70 | 56 | 55 | 43 | 41 | 27 | 37 | 25 | 23 | -10 | 166 |
| 86 | 68 | 77 | 53 | 61 | 44 | 40 | 31 | 37 | 29 | $-8$ | -82 | 17 |
| 87 | 75 | 78 | 59 | 60 | 50 | 45 | 31 | 37 | 28 | 2 | $-10$ | 18 |
| 86 | 68 | 69 | 65 | 54 | 51 | 56 | 31 | 45 | 33 | - | -1.1 | 19 |
| 87 | 68 | 67 | 52 | 57 | 52 | 59 | 37 | 39 | 33 | 0 | -11 | 20 |
| 72 | 61 | 66 | 48 | 60 | 50 | 48 | 42 | 39 | 30 | 2 | - 9 | 21 |
| 70 | 56 | 75 | 55 | 61 | 64 | 63 | 48 | 39 | 28 | 14 | $-1$ | 22 |
| 67 | 56 | 70 | 57 | 67 | 54 | 68 | 56 | 40 | 36 | 19 | 8 | 23 |
| 73 | 54 | 76 | 53 | 67 | 54 | 63 | 47 | 36 | 26 | 10 | 3 | 24 |
| 70 | 50 | 82 | 60 | 69 | 55 | 49 | 42 | 30 | 24 | 15 | - 3 | 25 |
| 69 | 52 | 70 | 56 | 61 | 51 | 43 | 35 | 25 | 20 | 12 | 1 | 26 |
| 73 | 55 | 61 | 52 | 51 | 41 | 42 | 31 | 31 | 19 | 23 | 12 | 27 |
| 74 | 63 | 66 | 49 | 60 | 41 | 38 | 27 | 30 | 23 | 25 | 13 | 28 |
| 73 | 63 | 73 | 55 | 54 | 47 | 41 | 25 | 30 | 18 | 16 | 5 | 29 |
| 73 | 62 | 79 | 54 | 56 | 55 | 44 | 29 | 19 | 8 | 21 | 11 | 30 |
| 8.3 | 64 | 79 | 54 |  |  | 47 | 37 | - | - | 12 | 8 | 31 |
| $78 \cdot 3$ | 63.5 | $79 \cdot 2$ | $60 \cdot 9$ | $62 \cdot 9$ | $49 \cdot 9$ | 36.2 | 12.9 | $30 \cdot 2$ | 8 | 17.9 |  |  |

Table LVII.-Quebec, Citadel.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |  | $\bigcirc$ | $\bigcirc$ |
| 1 | 43 | 29 | 25 | 9 | 22 | 14 | 33 | 23 | 38 | 30 | 83 | 55 |
| 2 | 42 | 28 | 28 | -7 | 24 | 12 | 37 | 18 | 45 | 34 | 88 | 60 |
| 3 | 42 | 28 | -3 | -18 | 20 | 13 | 36 | 19 | 44 | 32 | 79 | 49 |
| 4 |  |  | 12 | -4 | 25 | 3 | 31 | 25 | 41 | 31 | 54 | 45 |
| 5 | 8 | -8 | 0 | -22 |  | 20 | 35 | 27 | 43 | 31 | - | . |
| 6 | 13 | 7 | 20 | -15 | 40 | 30 | 41 | 29 | 44 | 35 | - | - |
| 7 | 12 | 2 | 35 | 13 | . | 23 | 39 | 29 | 46 | 33 | - | - |
| 8 | 21 | 7 | 29 | 1 | 29 | 21 | 36 | 25 | 43 | 34 | 63 | 43 |
| 9 | 22 | 16 | 14 | -12 | 27 | 21 | 38 | 22 | 56 | 35 | 56 | 53 |
| 10 | 31 | 12 | 16 | 1 | 24 | 17 | 44 | 30 | 51 | 40 | 55 | 50 |
| 11 | 13 | -7 | 34 | 9 | 28 | 21 | 47 | 34 | 45 | 36 | 57 | 49 |
| 12 | 1 | -7 | 34 | 23 | 31 | 26 | 46 | 31 | 55 | 33 | 76 | 52 |
| 13 | 3 | -5 | 29 | 12 | 33 | 14 | 45 | 31 | 58 | 39 | 82 | 62 |
| 14 | 10 | -5 | 20 | 7 | 15. | -2 | 37 | 27 | 50 | 34 | 82 | 63 |
| 15 | 13 | 5 | . |  | 22 | -3 | 42 | 33 | 50 | 32 | 78 | 59 |
| 16 | 20 | 11 |  | . | 18 | 0 | 41 | 32 | 53 | 32 | 83 | 59 |
| 17 | 19 | 11 |  |  | 19 | 14 | 42 | 31 | 60 | 35 | 86 | 65 |
| 18 | 35 | 19 | 21 | 15 | 16 | 1 | 41 | 31 | 55 | 46 | 84 | 65 |
| 19 | 37 | 24 | 25 | 15 | 20 | 0 | 45 | 31 | 59 | 45 | 77 | 65 |
| 20 | 35 | 8 | 27 | 12 | 19 | 9 | 45 | 32 | 64 | 41 | 77 | 62 |
| 21 | 8 | -4 | 18 | 7 | 24 | 19 | 41 | 31 | 66 | 50 | 73 | 56 |
| 22 | 5 | -8 | 27 | 12 | 29 | 20 | 47 | 37 | 68 | 45 | 68 | 54 |
| 23 | 16 | -2 | 15 | -14 | 30 | 14 | 42 | 30 | 56 | 33 | 70 | 50 |
| 24 | 15 | 4 | -11 | -21 | 30 | 20 | 39 | 27 | 64 | 40 | 74 | 54 |
| 25 | 4 | -12 | 11 | -13 | 30 | 9 | 43 | 29 | 55 | 40 | 75 | 59 |
| 26 | 8 | -1 | 20 | -5 | 33 | 26 | 44 | 34 | 59 | 33 | 76 | 55 |
| 27 | 19 | -1 | 19 | -2 | 35 | 29 | 38 | 28 | 76 | 49 | 77 | 56 |
| 28 | 20 | 12 | 21 | -8 | 37 | 28 | 39 | 30 | 75 | 51 | 80 | 60 |
| 29 | 40 | 21 | 20 | 16 | 33 | 26 | 44 | 33 | 67 | 44 | 80 | 58 |
| 30 | 24 | 8 |  |  | 34 | 25 | 40 | 30 | 59 | 36 | 73 | 59 |
| 31 | 22 | -8 |  |  | 39 | 25 |  | . | 74 | 37 |  | . |
|  | 19.9 | 6.0 | $19 \cdot 4$ | $0 \cdot 4$ | 27.6 | 15.9 | $40 \cdot 6$ | $28 \cdot 9$ | $55 \cdot 4$ | 37.6 | 74.2 | $56 \cdot 1$ |

Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Slin. | Max. | Mic |  |
| - | - | - | - |  | - | - | - | 。 | - | - | - |  |
| 74 | 55 | 76 | 56 | 68 | 58 | 52 | 42 | 48 | 35 | 13 | 8 | 1 |
| 72 | $5:$ | 86 | 62 | 60 | 52 | 46 | 41 | 44 | 38 | 24 | 11 | 2 |
| 78 | 56 | 83 | 58 | 67 | 48 | 62 | 42 | 49 | 38 | 30 | 22 | 3 |
| $\varepsilon 6$ | 60 | 82 | 61 | 63 | 48 | 55 | 43 | 39 | 32 | 30 | 20 | 4 |
| 86 | 60 | 90 | 67 | 55 | 44 | 48 | 39 | 39 | 28 | 25 | 21 | 5 |
| 79 | 57 | 86 | 68 | 65 | 48 | 44 | 36 | 41 | 29 | 32 | 18 | 6 |
| 75 | 55 | 81 | 61 | 62 | 46 | 46 | 35 | 41 | 33 | 37 | 25 | 7 |
| 72 | 60 | 76 | 58 | 58 | 47 | 42 | 32 | 38 | 34 | 27 | 10 | 8 |
| 81 | 57 | 88 | 64 | 61 | 48 | 39 | 29 | 38 | 36 | 19 | 11 | 9 |
| 86 | 62 | 87 | 65 | 66 | 43 | 45 | 34 | 41 | 35 | 18 | -9 | 10 |
| 86 | 64 | 88 | 64 | 65 | 43 | 42 | 33 | 39 | 37 | - | - | 11 |
| 86 | 65 | 85 | 67 | 63 | 44 | 43 | 29 | 38 | 34 | 15 | 2 | 12 |
| 88 | 62 | 96 | 68 | 64 | 44 | 44 | 31 | 44 | 33 | 24 | 13 | 13 |
| 80 | 57 | 90 | 69 | 65 | 41 | 34 | 28 | 43 | 30 | 28 | 20 | 14 |
| 79 | 55 | 84 | 65 | 63 | 48 | 34 | 28 | 30 | 26 | 32 | 0 | 15 |
| 88 | 57 | 75 | 53 | 54 | 38 | 37 | 28 | - | - | 20 | $-17$ | 16 |
| 86 | 63 | 77 | 53 | 60 | 40 | 38 | 32 | 32 | 26 | -16 | -23 | 17 |
| 89 | 70 | 76 | 51 | 54 | 48 | 39 | 34 | 33 | 27 | 4 | -19 | 18 |
| 83 | 62 | 70 | 59 | 53 | 49 | 45 | 30 | 33 | 29 | 4 | -12 | 19 |
| 87 | 67 | 64 | 51 | 53 | 48 | 50 | 33 | 34 | 29 | -5 | -10 | 20 |
| 74 | 59 | 63 | 42 | 55 | 48 | 45 | 39 | 34 | 30 | 0 | -14 | 21 |
| 65 | 47 | 75 | 41 | 62 | 47 | 56 | 39 | 33 | 29 | 13 | -2 | 22 |
| 57 | 54 | 65 | 45 | 63 | 53 | 55 | 42 | 38 | 31 | 15 | 10 | 23 |
| 66 | 54 | 73 | 48 | 62 | 51 | 58 | 43 | 34 | 29 | 14 | 4 | 24 |
| 78 | 54 | 72 | 52 | 65 | 54 | 49 | 39 | 29 | 24 | 12 | 1 | 25 |
| 76 | 47 | 67 | 54 | 67 | 55 | 43 | 36 | 29 | 18 | 10 | -7 | 26 |
| 75 | 48 | 63 | 40 | 56 | 45 | 40 | 30 | 30 | 19 | 17 | 8 | 27 |
| 68 | 57 | 60 | 46 | 54 | 38 | 35 | 25 | 30 | 23 | 18 | 10 | 28 |
| 71 | 63 | 69 | 53 | 60 | 48 | 41 | 25 | 27 | 18 | 18 | 9 | 29 |
| 78 | 54 | 74 | 50 | 55 | 47 | 42 | 27 | 18 | 9 | 23 | 13 | 30 |
| 72 | 58 | 77 | 45 |  | - | 38 | 28 | - | - | 13 | 5 | 31 |
| 78.1 | 57.9 | 77.2 | 56-0 | $60 \cdot 5$ | $46 \cdot 9$ | 446 | 33.7 | 36.0 | 28.7 | 17.0 | 43 |  |

## Table LVIII.-Quebec Observatory.

| Day. | January. |  | February. |  | March, |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Mas. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | $\bigcirc$ | Q | 9 | - | $\bigcirc$ | - | - | $\bigcirc$ | - | - | - | $\bigcirc$ |
| 1 | 44 | 27 | 30 | 9 | 37 | 12 | 43 | 23 | . | 26 | - | 55 |
| 2 | 45 | 29 | 28 | 18 | 36 | 14 | 44 | 16 | - | 32 | - | 63 |
| 3 | 42 | 29 | 8 | -11 | 37 | 7 | 43 | 21 | - | 28 | - | 51 |
| 4 | 37 | -3 | 5 | -8 | 41 | 2 | 32 | 20 | - | 29 | - | 42 |
| 5 | 8 | -4 | -5 | -20 | 42 | 4 | 46 | 25 | - | 29 | - | 42 |
| 6 | 11 | 7 | 25 | -11 | 43 | 18 | 43 | 25 | - | 32 | - | 51 |
| 7 | 24 | 3 | 38 | 5 | 43 | 20 | 43 | 26 | - | 31 | - | 45 |
| 8 | 21 | 5 | 26 | 4 | 43 | 21 | 35 | 22 | - | 22 | - | 41 |
| 9 | 23 | 4 | 21 | -9 | 28 | 19 | 43 | 16 | - | 30 | . | 49 |
| 10 | 32 | 2 | 16 | 9 | 43 | 13 | 58 | 26 | - | 38 | - | 47 |
| 11 | 23 | -9 | 34 | 10 | 43 | 19 | 53 | 3 | - | 34 | - | 48 |
| 12 | 6 | -9 | 34 | 22 | 36 | 21 | 53 | 32 | - | 36 | - | 50 |
| 13 | 4 | -8 | 29 | 8 | 37 | 14 | 48 | 24 | - | 37 | - | 63 |
| 14 | 11 | -8 | 30 | 6 | 36 | -2 | 39 | 20 | - | 31 | - | 63 |
| 15 | 14 | 4 | 28 | 15 | 37 | -4 | 47 | 27 | - | 28 | - | 63 |
| 16 | 22 | 9 | 30 | 11 | 26 | -2 | 44 | 23 | - | 29 | - | 58 |
| 17 | 22 | 7 | 19 | 6 | 24 | 10 | 45 | 30 | - | 32 | - | 67 |
| 18 | 34 | 16 | 37 | 11 | 28 | 1 | 44 | 28 | - | 46 | - | 66 |
| 19 | 37 | 25 | 32 | 13 | 36 | -5 | 44 | 27 | - | 44 | - | 62 |
| 20 | 34 | 7 | 39 | 11 | 37 | -4 | 47 | 28 | - | 39 | - | 58 |
| 21 | 12 | -6 | 37 | 5 | 38 | 14 |  | 28 | - | 46 | - | 54. |
| 22 | 14 | -9 | 43 | 6 | 43 | 17 | - | 29 | - | 34 | - | 50 |
| 23 | 17 | -4 | 14 | -15 | 39 | 12 |  | 29 | - | 30 | - | 49 |
| 24 | 17 | -5 | 3 | -20 | 39 | 14 |  | 27 | - | 39 | - | 51 |
| 25 | 7 | $-15$ | 11 | -14 | 43 | 7 | - | 24 | - | 38 | - | 55. |
| 26 | 10 | -2 | 32 | -10 | 47 | 24 | - | 24 | - | 31 | - | 54 |
| 27 | 18 | -2 | 17 | -4 | 35 | 27 | - | 25 | - | 45 | - | 62 |
| 28 | 26 | 13 | 18 | -6 | 38 | 29 |  | 28 | - | 46 | - | 59 |
| 29 | 40 | 10 | 37 | 13 | 35 | 30 |  | 27 | - | 44 | - | 57 |
| 30 | 20 | -10 |  |  | 143 | 26 | - | 25 | - | 33 | - | 57 |
| 31 | 36 | -4 | - |  | 40 | 20 | - | - | - | 40 | - | - |
|  | 22.9 | $3 \cdot 2$ | $24 \cdot 7$ | $1 \cdot 9$ | $37 \cdot 8$ | 12.8 | 44.7 | 25.2 | - | 34.8 | - | 54.4 |

Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| - | $\bigcirc$ | - | - | 0 | - | - | $\checkmark$ | - | - | - | - |  |
| - | 52 |  | 54 | 76 | 45 | 55 | 40 | 49 | 37 | 14 | 9 | 1 |
| - | 59 | - | 57 | 58 | 50 | 47 | 40 | 45 | 37 | 23 | 10 | 2 |
| - | 61 | - | 57 | 68 | 49 | 65 | 36 | 51 | 37 | 30 | 14 | 3 |
| - | 62 | - | 61 | 65 | 50 | 56 | 43 | 41 | 31 | 41 | 22 | 4 |
| - | 59 | - | 61 | 55 | 48 | 50 | 39 | 40 | 26 | 41 | 22 | 5 |
| . | 55 | 82 | 61 | 67 | 45 | 53 | 34 | 40 | 28 | 32 | 19 | 6 |
| - | 55 | 83 | 66 | 65 | 44 | 62 | 33 | 40 | 28 | 33 | 24 | 7 |
| - | 62 | 80 | 62 | 55 | 48 | 38 | 29 | 41 | 33 | 20 | 9 | 8 |
| - | 59 | 85 : | 58 | 62 | 42 | 42 | 26 | 40 | 33 | 20 | 11 | 9 |
| - | 58 | 89 | 60 | 74 | 43 | 52 | 31 | 42 | 34 | 3 | -8 | 10 |
| . | 63 | 92 | 60 | 67 | 40 | 48 | 33 | 39 | 35 | 10 | -15 | 11 |
| . | 60 | 96 | 67 | 70 | 47 | 46 | 31 | 39 | 34 | 14 | 9 | 12 |
| - | 60 | 94 | 65 | 70 | 42 | 50 | 27 | 44 | 32 | 24 | 14 | 13 |
| - | 59 | 92 | 69 | 70 | 40 | 洠 | 26 | 40 | 28 | 29 | 12 | 14 |
| - | 52 | 84 | 61 | 64 | 49 | 34 | 25 | 34 | 25 | 29 | 15 | 15 |
| - | 52 | 69 | 50 | 61 | 34 | 35 | 28 | 39 | 23 | 22 | -19 | 16 |
| - | 54 | 76 | 57 | 63 | 38 | 40 | 28 | 30 | 26 | 2 | -23 | 17 |
| - | 70 | 82 | 51 | 54 | 42 | 41 | 32 | 34 | 25 | 4 | $-18$ | 18 |
| - | 60 | 64 | 58 | 53 | 40 | 55 | 31 | 34 | 24 | 3 | $-16$ | 19 |
| - | 68 | 64 | 50 | 54 | 45 | 57 | 37 | 36 | 28 | -5 | $-10$ | 20 |
| - | 56 | 61 | 40 | 59 | 44 | 45 | 39 | 33 | 29 | 2 | -15 | 21 |
| - | 44 | 69 | 43 | 64 | 44 | 56 | 35 | 34 | 29 | 15 | -12 | 22 |
| - | 52 | 69 | 42 | 67 | 49 | 56 | 41 | 36 | 30 | 15 | 9 | 23 |
| - | 51 | 76 | 43 | 64 | 48 | 56 | 39 | 38 | 26 | 17 | 6 | 24 |
| - | 52 | 74 | 59 | 67 | 50 | 50 | 42 | 32 | 22 | 18 | 2 | 25 |
| - | 47 | 80 | 56 | 69 | 53 | 44 | 30 | 35 | 19 | 10 | -5 | 26 |
| - | 48 | 80 | 49 | 51 | 45 | 39 | 32 | 31 | 19 | 17 | -2 | 27 |
| - | 56 | 65 | 46 | 57 | 36 | 37 | 28 | 29 | 19 | 21 | 8 | 28 |
| - | 61 | 71 | 49 | 58 | 48 | 44 | 25 | 28 | 16 | 17 | 7 | 29 |
| . | 54 | 74 | 48 | 58 | 43 | 49 | 28 | 17 | 11 | 22 | 12 | 30 |
| - | 56 | 80 | 45 |  |  | 38 | 31 | - |  | 9 | 6 | 31 |
| - | 56.7 | 78.1 | $55 \cdot 1$ | 62.8 | $44 \cdot 7$ | 47-5 | $32 \cdot 9$ | $37 \cdot 0$ | 27.5 | $17 \cdot 8$ | $3 \cdot 1$ |  |

Table LIX.-Cranbourne, Quebec.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
| 1 | $\stackrel{ }{\circ}$ | 33 | $\bigcirc$ | 6 | - | 8 | - | $\circ$ <br> 19 | $\stackrel{0}{37}$ | $\stackrel{\circ}{29}$ | $\stackrel{0}{85}$ | 52 |
| 2 | - | 33 |  | -11 | . | 7 | - | 9 | 44 | 30 | 88 | 58 |
| 3 | - | 25 |  | -20 | . | - 3 | - | 14 | 45 | 30 | 76 | 57 |
| 4 | - | -4 |  | - 5 |  | - 2 | - | 25 | 47 | 32 | 52 | 45 |
| 5 | - | -13 |  | -24 | . | 10 | . | 24 | 47 | 34 | 63 | 44 |
| 6 |  | 5 |  | -10 |  | 33 |  | 22 | 40 | 35 | 62 | 41 |
| 7 | - | 0 | - | 26 | - | 35 | . | 25 | 50 | 37 | 62 | 43 |
| 8 | , | 3 | - | 6 |  | 31 | - | 21 | 55 | 39 | 63 | 38 |
| 9 | - | 19 | - | -10 | - | 19 | - | 14 | 54 | 45 | 72 | 50 |
| 10 | . | 9 | - | 11 | . | 12 | - | 25 | 54 | 40 | 70 | 56 |
| 11 | - | -10 | . | 9 |  | 17 | - | 31 | 48 | 37 | 76 | 57 |
| 12 | . | -10 | - | 18 | - | 23 | . | 26 | 54 | 31 | 82 | 55 |
| 13 | . | -12 |  | 4 | . | 14 | - | 21 | 56 | 36 | 81 | 56 |
| 14 | - | -12 | . | 1 |  | - 5 | . | 38 | 45 | 30 | 74 | 63 |
| 15 | - | 7 |  | 15 | . | - 7 | . | 33 | 48 | 27 | 79 | 61 |
| 16 | - | 9 | - | 14 | - | -4 | - | 28 | 53 | 27 | 85 | 54 |
| 17 | - | 0 | - | 5 | - | 11 | 36 | 30 | 66 | 27 | 85 | 65 |
| 18 | - | 19 |  | 12 | - | -1 | 37 | 28 | 54 | 47 | 84 | 63 |
| 19 | - | 33 | - | 10 | - | -8 | 43 | 27 | 55 | 41 | 76 | 60 |
| 20 | - | 6 | - | 8 |  | 0 | 43 | 28 | 69 | 32 | 77 | 61 |
| 21 | - | -5 |  | 3 | - | 15 | 45 | 27 | 75 | 45 | 70 | 54 |
| 22 | - | -12 |  | 10 | - | 18 | 44 | 31 | 70 | 40 | 62 | 52 |
| 23 |  | -7 | - | -19 | - | 13 | 57 | 26 | 53 | 30 | 68 | 46 |
| 24 |  | -4 |  | -24 | - | 11 | 47 | 24 | 68 | 34 | 77 | 46 |
| 25 |  | -13 |  | -15 | - | 3 | 52 | 26 | 51 | 36 | 76 | 52 |
| 26 | - | -4 |  | -8 | . | 24 | 50 | 26 | 61 | 27 | 73 | 52 |
| 27 |  | - 6 |  | -9 |  | 28 | 45 | 28 | 79 | 51 | 80 | 54 |
| 29 |  |  |  | -14 |  | 28 | 53 | 22 | 72 | 56 | 77 | 62 |
| 29 |  | 26 |  | 6 |  | 27 | 42 | 30 | 60 | 40 | 80 | 53 |
| 30 |  | -13 |  |  |  | 17 | 37 | 30 | 56 | 31 | 74 | 55 |
| 31 |  | - 9 |  |  |  |  |  |  | 77 | 34 |  |  |
|  |  | $3 \cdot 2$ |  | $0 \cdot 2$ |  | $12 \cdot 4$ |  | $25 \cdot 3$ | 56.2 | 35.8 | 74.2 | $53 \cdot 4$ |

Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| - | - | - | - | - | - | - | - | - | - | - | - |  |
| 75 | 52 | 79 | 49 | 71 | 58 | 48 | 37 | 43 | 35 | 7 | 2 | 1 |
| 71 | 54 | 83 | 51 | 63 | 50 | 46 | 37 | 40 | 37 | 21 | 5 | 2 |
| 77 | 57 | 81 | 54 | 60 | 44 | 60 | 38 | 47 | 37 | 24 | 14 | 3 |
| 77 | 60 | 82 | 54 | 59 | 47 | 49 | 38 | 37 | 30 | 30 | 13 | 4 |
| 78 | 68 | 89 | 64 | 50 | 36 | 43 | 36 | 39 | 24 | 23 | 16 | 5 |
| 71 | 54 | 88 | 64 | 61 | 44 | 47 | 31 | 43 | 21 | 30 | 14 | 6 |
| 77 | 52 | 84 | 66 | 63 | 39 | 47 | 35 | 35 | 30 | 30 | 23 | 7 |
| 73 | 62 | 75 | 61 | 53 | 45 | 36 | 28 | 40 | 33 | 23 | 5 | 8 |
| 82 | 54 | 85 | 51 | 59 | 42 | 36 | 26 | 39 | 33 | 17 | 9 | 9 |
| 85 | 62 | 88 | 55 | 64 | 35 | 47 | 29 | 37 | 32 | 13 | -12 | 10 |
| 81 | 59 | 89 | 60 | 64 | 36 | 40 | 29 | 42 | 34 | 4 | -23 | 11 |
| 85 | 54 | 90 | 61 | 61 | 38 | 43 | 23 | 37 | 32 | 13 | -6 | 12 |
| 81 | 64 | 90 | 61 | 62 | 37 | 39 | 24 | 36 | 32 | 32 | 11 | 13 |
| 82 | 54 | 89 | 62 | 66 | 36 | 34 | 21 | 36 | 27 | 32 | 17 | 14 |
| 71 | 50 | 81 | 63 | 61 | 49 | 35 | 24 | 32 | 21 | 29 | - 3 | 15 |
| 79 | 55 | 69 | 45 | 55 | 33 | 33 | 24 | 35 | 18 | 16 | $-22$ | 16 |
| 82 | 61 | 71 | 43 | 62 | 34 | 34 | 29 | 33 | 23 | -16 | -27 | 17 |
| 82 | 66 | 75 | 47 | 53 | 43 | 38 | 29 | 36 | 22 | -2 | -12 | 18 |
| 83 | 57 | 64 | 49 | 52 | 46 | 47 | 25 | 33 | 25 | 3 | -14 | 19 |
| 84 | 60 | 59 | 47 | 54 | 48 | 57 | 29 | 32 | 23 | $-7$ | -15 | 20 |
| 70 | 54 | 59 | 37 | 64 | 45 | 58 | 29 | 33 | 25 | $-1$ | -20 | 21 |
| 66 | 40 | 63 | 40 | 58 | 44 | 60 | 46 | 34 | 24 | 14 | $-3$ | 22 |
| 56 | 50 | 68 | 40 | 67 | 50 | 63 | 52 | 36 | 30 | 13 | 5 | 23 |
| 67 | 50 | 73 | 39 | 73 | 44 | 60 | 41 | 32 | 24 | 9 | -4 | 24 |
| 63 | 49 | 74 | 45 | 67 | 49 | 45 | 33 | 27 | 19 | 8 | - 3 | 25 |
| 62 | 40 | 68 | 53 | 65 | 49 | 40 | 34 | 25 | 18 | 19 | -10 | 26 |
| 67 | 39 | 56 | 44 | 52 | 42 | 45 | 27 | 23 | 17 | 17 | 11 | 27 |
| 65 | 53 | 58 | 44 | 52 | 37 | 30 | 21 | 25 | 15 | 19 | 10 | 28 |
| 66 | 57 | 64 | 44 | 60 | 42 | 35 | 20 | 21 | 13 | 16 | 6 | 29 |
| 77 | 49 | 68 | 43 | 55 | 43 | 41 | 19 | 14 | 4 | 18 | 10 | 30 |
| 77 | 55 | 76 | 40 | - |  | 39 | 23 |  |  | 11 | 3 | 31 |
| 74.5 | $5+5$ | 754 | $50 \cdot 8$ | 60.2 | 42.8 | $44 \cdot 3$ | $30 \cdot 2$ | 33.9 | $25 \cdot 3$ | 14.8 | $-0 \cdot 1$ |  |

Table LX.-Halifax, Nova Scotia.


Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max | Min. | Max. | Min. |  |
| - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | - | - | - | 0 | - |  |
| 75 | 52 | 74 | 57 | 72 | 46 | 58 | 46 | 47 | 35 | 25 | 14 | 1 |
| 63 | 56 | 78 | 53 | 69 | 57 | 58 | 42 | 52 | 35 | 39 | 23 | 2 |
| 69 | 56 | 80 | 51 | 70 | 51 | 57 | 37 | 56 | 44 | 34 | 25 | 3 |
| 87 | 55 | 84 | 54 | 72 | 50 | 70 | 89 | 47 | 34 | 34 | 22 | 4 |
| 83 | 68 | 81 | 52 | 70 | 48 | 65 | 50 | 47 | 27 | 38 | 18 | 5 |
| 76 | 65 | 90 | 59 | 58 | 43 | 58 | 45 | 41 | 25 | 36 | 20 | 6 |
| 79 | 51 | 90 | 67 | 68 | 43 | 66 | 50 | 47 | 80 | 41 | 29 | 7 |
| 70 | 52 | 82 | 66 | 67 | 42 | 55 | 39 | 60 | 39 | 38 | 24 | 8 |
| 76 | 56 | 89 | 63 | 60 | 45 | 57 | 34 | 63 | 52 | 37 | 23 | 9 |
| 67 | 53 | 88 | 59 | 60 | 45 | 67 | 33 | 56 | 44 | 25 | 14 | 10 |
| 79 | 56 | 89 | 60 | 72 | 42 | 56 | 40 | 50 | 44 | 13 | 5 | 11 |
| . 64 | 57 | 85 | 57 | 70 | 45 | 52 | 32 | 50 | 44 | 35 | 5 | 12 |
| . 87 | 53 | 85 | 63 | 70 | 41 | 59 | 37 | 47 | 42 | 39 | 25 | 13 |
| . 86 | 58 | 80 | 60 | 71 | 41 | 51 | 81 | 49 | 40 | 39 | 32 | 14 |
| 82 | 61 | 83 | 61 | 65 | 47 | 54 | 41 | 43 | 35 | 39 | 15 | 15 |
| 83 | 55 | 74 | 56 | 63 | 40 | 42 | 32 | 47 | 32 | 39 | 6 | 16 |
| 76 | 56 | 74 | 57 | 63 | 37 | 50 | 38 | 34 | 28 | 7 | -1 | 17 |
| 74 | 58 | 74 | 52 | 61 | 44 | 43 | 33 | 36 | 26 | 34 | 1 | 18 |
| 83 | 60 | 73 | 52 | 55 | 49 | 52 | 29 | 35 | 26 | 43 | 18 | 19 |
| 74 | 58 | 75 | 53 | 53 | 48 | 52 | 31 | 39 | 27 | 21 | 11 | 20 |
| 71 | 57 | 66 | 47 | 63 | 44 | 52 | 34 | 39 | 36 | 20 | 8 | 21 |
| 73 | 54 | 62 | 47 | 69 | 40 | 51 | 43 | 45 | 32 | 19 | 9 | 22 |
| 71 | 53 | 72 | 46 | 71 | 41 | 60 | 47 | 40 | 35 | 24 | 15 | 23 |
| 61 | 54 | 73 | 48 | 65 | 45 | 60 | 49 | 41 | 36 | 22 | 15 | 24 |
| 71 | 57 | 74 | 47 | 66 | 51 | 64 | 44 | 40 | 35 | 19 | 5 | 25 |
| 71 | 59 | 65 | 59 | 56 | 47 | 55 | 41 | 40 | 31 | 31 | 5 | 26 |
| 73 | 53 | 76 | 51 | 57 | 48 | 53 | 36 | 40 | 30 | 28 | 9 | 27 |
| 72 | 49 | 70 | 50 | 63 | 46 | 40 | 32 | 35 | 26 | 28 | 13 | 28 |
| 74 | 54 | 73 | 47 | 62 | 42 | 47 | 81 | 35 | 26 | 25 | 9 | 29 |
| 82 | 59 | 72 | 48 | 65 | 54 | 42 | 28 | 29 | 18 | 37 | 17 | 30 |
| 68 | 60 | 74 | 48 |  | . | 49 | 27 | - | - | 31 | 4 | 31 |
| 74.8 | 55.7 | 77.5 | 54.5 | 64.5 | $45 \cdot 3$ | 54.4 | $37 \cdot 8$ | $44 \cdot 3$ | $33 \cdot 8$ | $30 \cdot 3$ | $14 \cdot 1$ |  |

Table LXI-Sydney, Nova Scotia.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | - | - | - | - | - | - | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ |
| 1 | 39 | 19 | 30 | 7 | 27 | 16 | 33 | 28 | 38 | 30 | 70 | 38 |
| 2 | 38 | 16 | 45 | 21 | 24 | 14 | 35 | 23 | 41 | 32 | 78 | 52 |
| 3 | 43 | 31 | 32 | 6 | 24 | 12 | 33 | 22 | 41 | 30 | 79 | 55 |
| 4 | 36 | 9 | 40 | 7 | 28 | 4 | 34 | 17 | 41 | 30 | 61 | 43 |
| 5 | 12 | 6 | 23 | -12 | 35 | -7 | 33 | 21 | 49 | 30 | 6.4 | 43 |
| 6 | 25 | 8 | 28 | -12 | 41 | 22 | 34 | 29 | 60 | 29 | 72 | 54 |
| 7 | 26 | 14 | 44 | 28 | 40 | 23 | 40 | 28 | 46 | 36 | 56 | 45. |
| 8 | 17 | 7 | 28 | 4 | 43 | 30 | 39 | 27 | 38 | 34 | 64 | 39. |
| 9 | 30 | 14 | 15 | 0 | 48 | 24 | 38 | 32 | 50 | 35 | 57 | 35. |
| 10 | 35 | 29 | 11 | 3 | 31 | 24 | 41 | 31 | 66 | 39 | 49 | 43. |
| 11 | 35 | 1 | 22 | $-7$ | 33 | 25 | 36 | 28 | 54 | 40 | 51 | 42 |
| 12 | 16 | - 1 | 41 | 22 | 35 | 24 | 40 | 26 | 49 | 34 | 73 | 46. |
| 13 | 15 | -12 | 33 | 20 | 40 | 28 | 46 | 28 | 43 | 35 | 79 | 58 |
| 14 | 16 | -14 | 23 | 9 | 38 | 30 | 40 | 34 | 42 | 33 | 77 | 60 |
| 15 | 25 | -10 | 28 | 10 | 31 | 13 | 40 | 33 | 48 | 32 | 78 | 59. |
| 16 | 31 | 3 | 42 | 27 | 27 | 18 | 51 | 34 |  | 30 | 66 | 54 |
| 17 | 30 | 9 | 36 | 19 | 30 | 13 | 53 | 35 | 45 | 28 | 81 | 55 |
| 18 | 34 | 10 | 32 | 8 | 37 | 16 | 45 | 35 | 64 | 27 | 81 | 61 |
| 19 | 43 | 34 | 34 | 10 | 22 | 9 | 52 | 29 | 52 | 39 | 83 | 63 |
| 20 | 46 | 25 | 35 | 10 | 16 | 3 | 45 | 29 | 41 | 38 | 82 | 64 |
| 21 | 28 | 6 | 30 | 19 | 27 | - 5 | 47 | 29 | 55 | 37 | 75 | 63 |
| 22 | 7 | 1 | 36 | 5 | 34 | 25 | 45 | 26 | 57 | 34 | 74 | 54 |
| 23 | 25 | $-4$ | 32 | 5 | 37 | 28 | 45 | 29 | 54 | 40 | 74 | 53 |
| 24 | 25 | 3 | 8 | -13 | 36 | 16 | 37 | 28 | 61 | 35 | 73 | 54 |
| 25 | 12 | $-7$ | 18 | 12 | 40 | 10 | 40 | 27 | 67 | 35 | 64 | 56 |
| 26 | 16 | -15 | 23 | 14 | 37 | 24 | 39 | 26 | 48 | 41 | 73 | 54 |
| 27 | 18 | 0 | 32 | 3 | 34 | 27 | 34 | 29 | 67 | 43 | 74 | 55 |
| 28 | 31 | 4 | 29 | 8 | 40 | 26 | 39 | 31 | 78 | 44 | 75 | 54 |
| 29 | 38 | 8 | 27 | 8 | 47 | 24 | 49 | 31 | 74 | 44 | 76 | 50 |
| 30 | 39 | 2 | - |  | 47 | 31 | 53 | 30 | 44 | 32 | 63 | 49 |
| 31 | 18 | 2 |  |  | 41 | 29 |  |  | 59 | 32 | - | - |
|  | 27.3 | 6.4 |  | $7 \cdot 5$ | $34 \cdot 5$ | 18.6 | $41 \cdot 2$ | 28.5 | 52.4 | $34 \cdot 8$ | 708 | 51.8 |

Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| - | - | $\bigcirc$ | - | - | - | - | - | - | $\bigcirc$ | $\bigcirc$ | - |  |
| 70 | 52 | 73 | 54 | 66 | 50 | 63 | 42 | 43 | 35 | 38 | 21 | 1 |
| 69 | 48 | 72 | 48 | 69 | 55 | 58 | 43 | 43 | 31 | 39 | 33 | 2 |
| 73 | 54 | 78 | 47 | 66 | 55 | 57 | 37 | 51 | 39 | 39 | 31 | 3 |
| 79 | 58 | 84 | 59 | 64 | 54 | 58 | 31 | 55 | 37 | 37 | 25 | 4 |
| 75 | 54 | 82 | 63 | 68 | 53 | 67 | 50 | 40 | 32 | 36 | 25 | 5 |
| 72 | 53 | 85 | 61 | 61 | 45 | 60 | 44 | 36 | 26 | 34 | 28 | 6 |
| 75 | 53 | 86 | 61 | 55 | 48 | 61 | 50 | 40 | 22 | 41 | 28 | 7 |
| 64 | 51 | 85 | 66 | 59 | 45 | 52 | 38 | 55 | 38 | 38 | 25 | 8 |
| 61 | 48 | 82 | 63 | 55 | 45 | 50 | 34 | 60 | 54 | 33 | 23 | 9 |
| 69 | 50 | 88 | 64 | 52 | 48 | 52 | 33 | 60 | 40 | 32 | 19 | 10 |
| 74 | 52 | 90 I | 64 | 55 | 43 | 58 | 39 | 45 | 39 | 19 | 3 | 11 |
| 78 | 53 | 90 | 65 | 60 | 40 | 45 | 35 | 45 | 38 | 34 | - 2 | 12 |
| 82 | 57 | 85 | 58 | 61 | 38 | 53 | 36 | 49 | 40 | 35 | 24 | 13 |
| 76 | f 4 | 87 | 63 | 69 | 38 | 48 | 32 | 45 | 40 | 39 | 25 | 14 |
| 74 | 43 | 84 | 64 | 66 | 46 | 51 | 39 | 41 | 39 | 38 | 27 | 15 |
| 73 | 47 | 71 | 54 | 61 | 40 | 55 | 35 | 40 | 34 | 38 | 14 | 16 |
| 72 | 48 | 65 | 50 | 53 | 38 | 48 | 37 | 36 | 30 | 14 | - 1 | 17 |
| 74 | 60 | 71 | 53 | 63 | 38 | 45 | 36 | 35 | 30 | 21 | 6 | 18 |
| 80 | 60 | 67 | 47 | 62 | 40 | 44 | 30 | 34 | 31 | 42 | 21 | 19 |
| 78 | 54 | 71 | 45 | 50 | 41 | 51 | 29 | 40 | 28 | 23 | 13 | 20 |
| 80 | 57 | 62 | 47 | 57 | 53 | 46 | 28 | 38 | 26 | 22 | 11 | 21 |
| 69 | 45 | 66 | 44 | 65 | 31 | 46 | 26 | 38 | 32 | 23 | 12 | 22 |
| 65 | 41 | 62 | 48 | 66 | 43 | 59 | 43 | 39 | 32 | 24 | 11 | 23 |
| 62 | 54 | 62 | 48 | 60 | 46 | 52 | 42 | 42 | 36 | 26 | 16 | 24 |
| 73 | 57 | 65 | 45 | 65 | 43 | 65 | 46 | 41 | 39 | 24 | 20 | 25 |
| 73 1 | 52 | 69 | 54 | 55 | 44 | 53 | 42 | 41 | 36 | 28 | 21 | 26 |
| 69 | 54 | 73 | 53 | 52 | 46 | 53 | 38 | 41 | 32 | 27 | 21 | 27 |
| 76 | 51 | 70 | 50 | 63 | 43 | 45 | 36 | 36 | 28 | 26 | 17 | 28 |
| 69 | 64 | 65 | 44 | 64 | 42 | 40 | 32 | 34 | 28 | 24 | 20 | 29 |
| 75 | 55 | 60 | 51 | 53 | 47 | 43 | 32 | 30 | 21 | 37 | 22 | 30 |
| 75 | 54 | 60 | 51 | - | - | 44 | 36 | - |  | 31 | 19 | 31 |
| 72.7 | 62.6 | 745 | 543 | 60.7 | $44 \cdot 6$ | 523 | 37. | $42 \cdot 4$ | $33 \cdot 8$ | 31.0 | 18.7 |  |

Table LXII.-Truro, Nova Scotia.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Hax. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | - | - | $\bigcirc$ | - | - | - | $\bigcirc$ | 9 | - | - |
| 1 | 41 | 30 | 31 | 14 | 27 | 21 |  |  | 45 | 35 | 72 | 38 |
| 2 | 39 | 29 | 50 | 25 | 24 | 14 | - |  | 43 | 33 | 80 | 53 |
| 3 | 41 | 30 | 26 | 2 | 23 | 10 | - | - | 44 | 32 | 80 | 55 |
| 4 | 30 | 12 | 39 | 11 | 25 | - 9 | - | - | 39 | 32 | 64 | 45 |
| 5 | 12 | 5 | 23 | - 7 | 32 | 1 | - |  | 52 | 32 | 71 | 46 |
| 6 | 29 | 5 | 28 | - 9 | 40 | 26 | - | - | 44 | 31 | 67 | - |
| 7 | 27 | 8 | 40 | 28 | 40 | 27 | - | - | 51 | 42 | 58 | 51 |
| 8 | 21 | -13 | 33 | 14 | 53 | 35 | - | - | 56 | 44 | 63 | 43 |
| 9 | 32 | 11 | 16 | 4 | 45 | 25 | - | - | 54 | 39 | 65 | 47 |
| 10 | 38 | 23 | 17 | 8 | 29 | 21 | - | - | 68 | 44 | 71 | 53 |
| 11 | 35 | 2 | 28 | -12 | 31 | 24 | - | . | 60 | 45 | 62 | 56 |
| 12 | 17 | 2 | 40 | 28 | 40 | 21 |  | - | 56 | 38 | 72 | 55 |
| 13 | 16 | 2 | 37 | 25 | 49 | 30 | - | - | 53 | 40 | 78 | 59 |
| d4 | 18 | -13 | 27 | 18 | 38 | 21 | - | - | 42 | 33 | 77 | 61 |
| 15 | 25 | 6 | 32 | 18 | 22 | 7 | - | - | 49 | 34 | 76 | 60 |
| 16 | 33 | 4 | 39 | 32 | 29 | 14 | - |  | 49 | 29 | 75 | 56 |
| 17 | 21 | 11 | 33 | 22 | 27 | 17 | - | - | 54 | 26 | 77 | 57 |
| 18 | 36 | 10 | 31 | 19 | 32 | 20 | - | - | 62 | 27 | 74 | 59 |
| 19 | 44 | 36 | 34 | 25 | 20 | 4 |  | - | 57 | 46 | 81 | 59 |
| 20 | 46 | 28 | 34 | 22 | 25 | 6 | - | - | 55 | 41 | 83 | 63 |
| 21 | 28 | 6 | 26 | 12 | 32 | 6 | - | - | 67 | 32 | 74 | 62 |
| 22 | 11 | $-1$ | 29 | 4 | 41 | 30 | - | - | 55 | 40 | 70 | 57 |
| 23 | 25 | $-3$ | 29 | 14 | 32 | 27 |  |  | 48 | 36 | 65 | 50 |
| 24 | 27 | 7 | 14 | -14 | 35 | 24 | - | - | 59 | 27 | 71 | 46 |
| 25 | 15 | $-4$ | 21 | -15 | 40 | 23 | - | - | 66 | 33 | 71 | 56 |
| 26 | 18 | $-7$ | 21 | 10 | 39 | 29 | - | - | 54 | 39 | 70 | 54 |
| 27 | 26 | -11 | 25 | 1 | 39 | 33 | - |  | 72 | 42 | 79 | 51 |
| 28 | 28 | 11 | 29 | $-1$ | 44 | 34 | - | - | 78 | 46 | 74 | 58 |
| 29 | 38 | 20 | 25 | 14 | 45 | 30 | - | - | 70 | 47 | 80 | 60 |
| 30 | 39 | 1 |  |  | 42 | 29 | - | - | 48 | 36 | 67 | 56 |
| 31 | 21 | 6 |  |  | 39 | 27 | - | - | 63 | 28 | - | - |
|  | 28.2 | $7 \cdot 7$ | 21.5 | 10.8 | $34 \cdot 9$ | 20.2 | - | - | $55 \cdot 3$ | 36.4 | 72.5 | 54.0 |

Maximum and Minimum Temperature, 1876

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| - | - | $\bigcirc$ | Q | - | 8 | - | 8 | - | - | - | - |  |
| 74 | 55 | 79 | 58 | 7.1 | 40 | 58 | 50 | 43 | 32 | 26 | 11 | 1 |
| 69 | 48 | 76 | 57 | 65 | 58 | 56 | 38 | 44 | 31 | 37 | 23 | 2 |
| 71 | 58 | 78 | 48 | 65 | 54 | 56 | 31 | 57 | 41 | 33 | 28 | 3 |
| 76 | 60 | 79 | 50 | 65 | 46 | 62 | 31 | 55 | 39 | 34 | 25 | 4 |
| 74 | 62 | 78 | 48 | 67 | 42 | 66 | 53 | 41 | 25 | 32 | 7 | 5 |
| 74 | 53 | 80 | 57 | 55 | 44 | 61 | 38 | 39 | 25 | 35 | 20 | 6 |
| 68 | 47 | 88 | 63 | 60 | 44 | 61 | 49 | 46 | 22 | 37 | 21 | 7 |
| 70 | 54 | 82 | 66 | 64 | 34 | 50 | 38 | 61 | 46 | 35 | 18 | 8 |
| 71 | 53 | 83 | 57 | 56 | 45 | 46 | 35 | 63 | 58 | 30 | 13 | 9. |
| 70 | 52 | 8.5 | 52 | 55 | 40 | 53 | 26 | 59 | 42 | $20^{\circ}$ | 12 | 10 |
| 74 | 56 | 79 | 54 | 65 | 36 | 53 | 40 | 53 | 42 | 12 | - 9 | 11 |
| 84 | 57 | 78 | 52 | 64 | 43 | 44 | 30 | 54 | 43 | 32 | -11 | 12 |
| 80 | 60 | 83 | 58 | 64 | 32 | 53 | 35 | 47 | 41 | 32 | 21 | 3 |
| 79 | 58 | 80 | 60 | 66 | 37 | 46 | 25 | 44 | 40 | 37 | 26 | 14 |
| 77 | 62 | 86 | 59 | 68 | 38 | 61 | 40 | 40 | 35 | 39 | 26 | 15 |
| 74 | 51 | 73 | 51 | 60 | 36 | 56 | 31 | 36 | 32 | 36 | 9 | 16 |
| 80 | 49 | 69 | - | 57 | 30 | 46 | 38 | 33 | 28 | 1 | -6 | 17 |
| 79 | 59 | 70 | 50 | 65 | 35 | 42 | 31 | 32 | 27 | 23 | -6 | 18 |
| 85 | 60 | 76 | 45 | 64 | 46 | 4. | 29 | 34 | 29 | 41 | 16 | 19. |
| 81 | 58 | 76 | 55 | 58 | 47 | 5.3 | 27 | 38 | 28 | 19 | 7 | 20 |
| 74 | 58 | 61 | 45 | 62 | 44 | 54 | 31 | 40 | 30 | 18 | 6 | 21 |
| 78 | 47 | 60 | 43 | 64 | 35 | 52 | 39 | 41 | 33 | 16 | -1 | 23 |
| 77 | 52 | 61 | 41 | 64 | 35 | 66 | 48 | 40 | 34 | 23 | 13 | 23: |
| 63 | - | 66 | 49 | 70 | 41 | 61 | 53 | 40 | 35 | 18 | 12 | 24 |
| 74 | 67 | 72 | 40 | 66 | 44 | 60 | 43 | 41 | 36 | 17 | 5 | 25 |
| 77 | 53 | 70 | 61 | 63 | 47 | 51 | 39 | 38 | 34 | 25 | 3 | 26. |
| 68 | 50 | 69 | 54 | 60 | 48 | 48 | 41 | 38 | 28 | 23 | 2 | 27 |
| 79 | 46 | 63 | 52 | 60 | 45 | 43 | 33 | 35 | 27 | 24 | 2 | 28 |
| 73 | 54 | 65 | 47 | 63 | 32 | 41 | 29 | 34 | 26 | 30 | -4 | 29 |
| 74 | 60 | 63 | 50 | 63 | 52 | 39 | 30 | 26 | 14 | 33 | 12 | 30. |
| 65 | 54 | 6; | 46 |  |  |  | 22 |  |  | 29 | 17 | 3 L |
| 74.9 | 51.8 | 74.2 | 52.2 | 63.0 | 41.6 | $52 \cdot 5$ | $36 \cdot 3$ | $43 \cdot 1$ | 33.4 | 27.4 | 10.0 |  |

Table LXiII.-Charlottetown, P. E. Island.

| Day. | January. |  | February. |  | Marcb. |  | A pril. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | 0 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |  | 33 | $\stackrel{\square}{\square}$ | $\bigcirc$ | 32 | 71 | - |
| 1 | 41 | 27 | 28 | 15 | 25 | 15 | 33 | 26 | 41 | 32 | 71 | 47 |
| 2 | 38 | 27 | 43 | 10 | 18 | 12 | 37 | 25 | 43 | 32 | 73 | 53 |
| 3 | 40 | 28 | 12 | -1 | 22 | 10 | 34 | 20 | 40 | 30 | 80 | 41 |
| 4 | 29 | 9 | 28 | 5 | 22 | 8 | 35 | 19 | 42 | 30 | 43 | 39 |
| 5 | 10 | 4 | 14 | -15 | 33 | 10 | 34 | 27 | 47 | 32 | 61 | 42 |
| 6 | 26 | 7 | 30 | -17 | 40 | 23 | 34 | 26 | 47 | 34 | 61 | 52 |
| 7 | 24 | 9 | 41 | 26 | 37 | 17 | 40 | 25 | 50 | 40 | 55 | 43 |
| 8 | 14 | 0 | 29 | 6 | 43 | 21 | 37 | 31 | 49 | 34 | 57 | 41 |
| 9 | 26 | 13 | 10 | 2 | 42 | 20 | 40 | 30 | 47 | 38 | 63 | 46 |
| 10 | 35 | 25 | 14 | 3 | 27 | 21 | 37 | 30 | 56 | 40 | 59 | 51 |
| 11 | 30 | 2 | 31 | -2 | 29 | 19 | 36 | 29 | 43 | 34 | 57 | 50 |
| 12 | 10 | -2 | 38 | 24 | 36 | 20 | 37 | 29 | 49 | 35 | 64 | 50 |
| 13 | 9 | -4 | 34 | 19 | 42 | 24 | 47 | 28 | 51 | 37 | 76 | 56 |
| 14 | 9 | -3 | 20 | 11 | 37 | 14 | 40 | 35 | 42 | 34 | 73 | 55 |
| 15 | 24 | 4 | 31 | 16 | 20 | 6 | 40 | 35 | 45 | 38 | 71 | 57 |
| 16 | 32 | 10 | 36 | 30 | 24 | 14 | 49 | 35 | 46 | 32 | 72 | 57 |
| 17 | 14 | 8 | 32 | 17 | 24 | 14 | 48 | 35 | 49 | 35 | 75 | 57 |
| 18 | 37 | 9 | 31 | 17 | 28 | 11 | 43 | 33 | 59 | 36 | 79 | 60 |
| 19 | 41 | 3.3 | 32 | 21 | 14 | 3 | 47 | 32 | 55 | 39 | 79 | 69 |
| 20 | 41 | 21 | 33 | 19 | 20 | 5 | 47 | 30 | 49 | 35 | 81 | 63 |
| 21 | 23 | 2 | 25 | 16 | 30 | 6 | 46 | 33 | 60 | 33 | 72 | 62 |
| 22 | 6 | -4 | 28 | 8 | 38 | 26 | 42 | 30 | 56 | 42 | 74 | 57 |
| 23 | 23 | -1 | 27 | 1 | 33 | 26 | 45 | 28 | 49 | 32 | 68 | 53 |
| 24 | 24 | 2 | 3 | -16 | 34 | 24 | 34 | 24 | 59 | 33 | 69 | 55 |
| 25 | 9 | -2 | 17 | -16 | 34 | 24 | 40 | 24 | 61 | 37 | 69 | 57 |
| 26 | 11 | -2 | 21 | 9 | 35 | 26 | 39 | 26 | 56 | 37 | 72 | 56 |
| 27 | 25 | -6 | 25 | 8 | 36 | 31 | 36 | 28 | 68 | 44 | 74 | 55 |
| 28 | 26 | 11 | 24 | 1 | 43 | 32 | 37 | 30 | 72 | 47 | 75 | 59 |
| 29 | 37 | 14 | 25 | 14 | 42 | 33 | 40 | 30 | 56 | 40 | 76 | 58 |
| 30 | 36 | 0 | - | - | 42 | 30 | 60 | 30 | 46 | 36 | 67 | 54 |
| 31 | 17 | -1 |  |  | 40 | 29 |  | - | 63 | 35 |  |  |
|  | $24 \cdot 7$ | $7 \cdot 6$ | $\because 62$ | $7 \cdot 8$ | 31.9 | 18.4 | $40 \cdot 1$ | $28 \cdot 7$ | $51 \cdot 5$ | 358 | 68.9 | 52.8 |

Mavinum and Minimum Temperature, 1876.

|  |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| $\bigcirc$ | - | - | 9 | $\bigcirc$ | - | - | $\bigcirc$ | - | - | 0 | - |  |
| 67 | 55 | 73 | 57 | 65 | 47 | 54 | 47 | 42 | 35 | 36 | 19 | 1 |
| 64 | 54 | 74 | 57 | 67 | 58 | 56 | 47 | 45 | 38 | 36 | 32 | 2 |
| 69 | 56 | 82 | 59 | 64 | 53 | 54 | 39 | 53 | 39 | 34 | 30 | 3 |
| 81 | 62 | 80 | 63 | 67 | 52 | 60 | 47 | 51 | 37 | 34 | 24 | 4 |
| 78 | 63 | 80 | 62 | 63 | 48 | 60 | 48 | 38 | 33 | 30 | 21 | 5 |
| 66 | 54 | 85 | 64 | 55 | 46 | 57 | 40 | 36 | 29 | 32 | 24 | 6 |
| 75 | 52 | 82 | 66 | 56 | 45 | 58 | 46 | 44 | 30 | 35 | 28 | 7 |
| 63 | 54 | 84 | 68 | 58 | 41 | 48 | 40 | 55 | 43 | 31 | 16 | 8 |
| 63 | 52 | 80 | 64 | 53 | 41 | 45 | 37 | 57 | 43 | 28 | 16 | 9 |
| 66 | 50 | 86 | 65 | 51 | 45 | 53 | 34. | 44 | 39 | 22 | 9 | 10 |
| 68 | 58 | 88 | 68 | 63 | 45 | 52 | 38 | 49 | 40 | 11 | 0 | 11 |
| 78 | 57 | 83 | 65 | 57 | 49 | 43 | 36 | 49 | 41 | 31 | 7 | 12 |
| 81 | 64 | 81 | 63 | 60 | 45 | 54 | 35 | 47 | 42 | 32 | 23 | 13 |
| 71 | 60 | 81 | 63 | 65 | 47 | 42 | 29 | 43 | 37 | 32 | 26 | 14 |
| 72 | 61 | 84 | 66 | 63 | 53 | 55 | 39 | 38 | 33 | 37 | 16 | 15 |
| 73 | 56 | 73 | 52 | 59 | 42 | 42 | 33 | 35 | 30 | 35 | -4 | 16 |
| 74 | 53 | 66 | 52 | 58 | 44 | 44 | 36 | 32 | 27 | -3 | -13 | 17 |
| 77 | 64 | 70 | 57 | 62 | 43 | 40 | 34 | 32 | 28 | 26 | -8 | 18 |
| 77 | 62 | 71 | 51 | 64 | 48 | 43 | 34 | 32 | 28 | 37 | 13 | 19 |
| 78 | 61 | 70 | 54 | 57 | 49 | 50 | 35 | 36 | 29 | 12 | 0 | 20 |
| 70. | 57 | 61 | 49 | 61 | 44 | 46 | 36 | 37 | 29 | 14 | 0 | 21 |
| 72 | 55 | 60 | 48 | 63 | 40 | 49 | 42 | 40 | 32 | 15 | 0 | 22 |
| 70 | 57 | 59 | 52 | 67 | 50 | 55 | 47 | 40 | 34 | 23 | 12 | 23 |
| 64 | 57 | 60 | 48 | 64 | 48 | 58 | 50 | 40 | 36 | 18 | 13 | 24 |
| 73 | 58 | 70 | 46 | 64 | 47 | E6 | 46 | 39 | 36 | 17 | 9 | 25 |
| 75 | 58 | 71 | 61 | 59 | 47 | $5]$ | 41 | 37 | 33 | 22 | 10 | 26 |
| 71 | 55 | 70 | 59 | 57 | 49 | 48 | 39 | 35 | 27 | 19 | 9 | 27 |
| 72 | 57 | 62 | 54 | 57 | 49 | 40 | 32 | 31 | 26 | 22 | 11 | 28 |
| 71 | 60 | 61 | 49 | 63 | 48 | 41 | 31 | 32 |  | 18 | 13 | 29 |
| 76 | 60 | 63 | 47 | 61 | 53 | 39 | 33 | 24 | 18 | 25 | 16 | 30 |
| 66 | 58 | 61 | 49 | - |  | 43 | 32 |  |  | 28 | 10 | 31 |
| $71 \cdot 6$ | 57.4 | $73 \cdot 3$ | $57 \cdot 3$ | $60 \cdot 8$ | $47 \cdot 0$ | 49.6 | 38.8 | 404 | 33.2 | $25 \cdot 7$ | $12 \cdot 3$ |  |

Table LXIV.-Georgetown, P. E. Island.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Nin. | Max. | Min. |
|  | - | - | - | - | - | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| 1 | 42 | 27 | 29 | 13 | 30 | 18 | 34 | 27 | 39 | 31 | 74 | 45 |
| 2 | 38 | 27 | 45 | 31 | 20 | 9 | 35 | 26 | 48 | 31 | 78 | 48 |
| 3 | 42 | 31 | 33 | 0 | 29 | 12 | 32 | 20 | 45 | 30 | 81 | 54 |
| 4 | 32 | 12 | 36 | 0 | 24 | 5 | 33 | 16 | 43 | 29 | 55 | 41 |
| 5 | 14 | 5 | 18 | $-12$ | 35 | 8 | 35 | 25 | 51 | 30 | 70 | 40 |
| 6 | 25 | 5 | 30 | -15 | 44 | 24 | 34 | 28 | 55 | 33 | 62 | 46 |
| 7 | 25 | 9 | 43 | 29 | 39 | 17 | 43 | 28 | 49 | 38 | 56 | 44 |
| 8 | 14 | 0 | 30 | 8 | 46 | 18 | 36 | 30 | 63 | 35 | 61 | 39 |
| 9 | 27 | 13 | 12 | 4 | 45 | 23 | 43 | 31 | 48 | 35 | 57 | 42 |
| 10 | 35 | 25 | 15 | 5 | 30 | 21 | 41 | 30 | 60 | 40 | 58 | 47 |
| 11 | 35 | -2 | 4 | -4 | 31 | 22 | 39 | 29 | 53 | 36 | 54 | 45. |
| 12 | 14 | -3 | 39 | 23 | 37 | 20 | 39 | 28 | 53 | 35 | 64 | 50 |
| 13 | 9 | -5 | 35 | 18 | 39 | 26 | 48 | 27 | 53 | 34 | 80 | 56 |
| 14 | 12 | -3 | 22 | 12 | 40 | 25 | 41 | 35 | 44 | 33 | 78 | 58 |
| 15 | 27 | 2 | 28 | 16 | 24 | 6 | 46 | 34 | 50 | 33 | 75 | 59. |
| 16 | 33 | 16 | 39 | 25 | 24 | 14 | 54 | 35 | 52 | 33 | 71 | 53: |
| 17 | 26 | 7 | 34 | 23 | 24 | 10 | 54 | 34 | 53 | 30 | 80 | 54 |
| 18 | 34 | 7 | 34 | 16 | 29 | 16 | 49 | 33 | 64 | 33 | 80 | 61 |
| 19 | 47 | 33 | 34 | 15 | 20 | 5 | 50 | 31 | 57 | 42 | 82 | 59 |
| 20 | 45 | 35 | 35 | 21 | 19 | 5 | 49 | 28 | 85 | 35 | 83 | 64 |
| 21 | 30 | 5 | 29 | 16 | 25 | 2 | 51 | 33 | 58 | 31 | 75 | 63. |
| 22 | 8 | -4 | 33 | 10 | 37 | 23 | 49 | 28 | 60 | 40 | 77 | 60 |
| 23 | 23 | -1 | 30 | 14 | 39 | 25 | 43 | 28 | 49 | 33 | 72 | 55. |
| 24 | 12 | 8 | 15 | -14 | 37 | 25 | 38 | 25 | 67 | 29 | 74 | 51 |
| 25 | 12 | -5 | 16 | -14 | 38 | 25 | 42 | 23 | 69 | 38 | 72 | 57 |
| 26 | 15 | -6 | 23 | 0 | 35 | 24 | 40 | 28 | 58 | 36 | 74 | 55 |
| 27 | 19 | -2 | 26 | 5 | 35 | 30 | 40 | 28 | 72 | 45 | 70 | 53. |
| 28 | 29 | 10 | 30 | 4 | 45 | 35 | 39 | 30 | 78 | 45 | 76 | 57 |
| 29 | 40 | 14. | 30 | 14 | 40 | 32 | 43 | 30 | 60 | 41 | 79 | 58. |
| 30 | 38 | 1 | - |  | 44 | 32 | 48 | 29 | 49 | 31 | 66 | 54 |
| 31 | 20 | -3 | - |  | 42 | 30 | . |  | 65 | 31 | . | . |
|  | 26.5 | 8.4 | $29 \cdot 2$ | $9 \cdot 1$ | $33 \cdot 7$ | $18 \cdot 9$ | $42 \cdot 2$ | $28 \cdot 6$ | $55 \cdot 2$ | 34.8 | $71 \cdot 1$ | $53 \cdot 3$ |

Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max | Min. |  |
| - | - | 0 | Q | - | - |  | 9 | - | - | . | - |  |
| 71 | 53 | 74 | 56 | 69 | 46. |  | - | 44 | 34 |  | . | 1 |
| 70 | 49 | 76 | 55 | 67 | 57 | - | - | 46 | 33 | - | - | 2 |
| 72 | 55 | 83 | 55 | 64 | 54 | - | - | 55 | 39 | - | - | 3 |
| 82 | 60 | 86 | 62 | 68 | 52 | - | - | 55 | 38 |  | - | 4 |
| 78 | 64 | 86 | 58 | 67 | 51 | - | - | 40 | 33 | - | - | 5 |
| 67 | 53 | 89 | 64 | 58 | 48 | - | - | 38 | 27 | .' | - | 6 |
| 76 | 51 | 88 | 66 | 58 | 44 | - | - | 41 | 26 | - | - | 7 |
| 70 | 55 | 85 | 69 | 61 | 39 | - | - | 59 | 40 | - | - | 8 |
| 66 | 51 | 84 | 63 | 56 | 40 | - | - | 63 | 52 | - | - | 9 |
| 67 | 47 | 88 | 63 | 52 | 46 | - | - | 55 | 40 | - | - | 10 |
| 71 | 57 | 90 | 67 | 60 | 45 | - | - | 48 | 39 | - | - | 11 |
| 82 | 54 | 85 | 65 | 60 | 45 | - | - | 47 | 41 | - | - | 12 |
| 85 | 61 | 83 | 62 | 61 | 42 | - | - | 48 | 43 | - | - | 13 |
| 77 | 59 | 84 | 60 | 67 | 44 | - | . | 45 | 38 | - | - | 14 |
| 74 | 60 | 85 | 66 | 67 | 49 | - | - | 41 | 34 | - | - | 15 |
| 73 | 55 | 76 | 52 | 59 | 40 | - | - | 37 | 30 | - | - | 16 |
| 76 | 50 | 66 | 49 | 59 | 47 | - | - | 25 | 28 | - | - | 17 |
| 80 | 62 | 73 | 54 | 62 | 44 | - | - | 34 | 29 | - | * | 18 |
| 78 | 62 | 70 | 50 | 61 | 52 | - | - | 34 | 27 | - | - | 19 |
| 83 | 60 | 73 | 59 | 56 | 48 | - | - | 38 | 28 | - | - | 20 |
| 73 | 57 | 64 | 49 | 59 | 44 | - | - | 39 | 32 | - | - | 21 |
| 72 | 53 | 61 | 49 | 65 | 37 | - | - | 42 | 32 | - | - | 22 |
| 70 | 57 | 61 | 47 | 68 | 46 | - | - | 40 | 34 | - | - | 23 |
| 62 | 56 | 63 | 49 | 64 | 44 | . | - | 42 | 35 | - | - | 24 |
| 73 | 59 | 71 | 43 | 64 | 45 | - | - | 41 | 37 | - | - | 25 |
| 76 | 56 | 73 ! | 60 | 59 | 47 | - |  | 39 | 34 | - | - | 26 |
| 72 | 55 | 72 | 60 | 56 | 50 | - | - | 36 | 30 | - | - | 27 |
| 76 | 56 | 65 | 51 | 60 | 48 | - | - | 37 | 28 | - | - | 28 |
| 71 | 57 | 64 | 52 | 65 | 44 |  |  | 35 | 24 | - | - | 29 |
| 75 | 60 | 65 | 47 | 69 | 52 | - |  | 35 | 21 | - | - | 30 |
| 69 | 59 | 63 | 49 |  |  |  |  |  |  |  | - | 31 |
| 738 | $56 \cdot 2$ | 75*7 | 56.5 | 617 | $46 \cdot 3$ |  |  | 43.2 | 33.7 |  | - |  |

Table LXV.-Bathurst, New Brunswick.

| Day. | January. |  | February. |  | March. |  | A pril. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | $\bigcirc$ | $\bigcirc$ | , | - | - | - | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| 1 | - | , | 24 | $-6$ | 17 | $-9$ | 38 | 25 | 38 |  | 82 | 50 |
| 2 | - | - | 42 | 0 | 18 | $-6$ | - | . | 40 | 24 | 75 | 52 |
| 3 | 39 | 27 | 8 | $-8$ | 29 | -6 | 43 | 19 | 47 | 30 | 67 | 40. |
| 4 | 20 | 5 | 16 | $-3$ | 28 | 10 | ? 4 | 4 | 37 | 23 | - | - |
| 5 | 8 | $-4$ | --3 | $-23$ | - | - | 32 | 17 | 46 | 27 | 46 | 38 |
| 6 | 13 | 3 | - | - | 45 | 3 | 38 | 24 | 42 | 23 | 57 | 42 |
| 7 | 12 | $-5$ | 39 | $-20$ | 35 | 10 | 40 | 27 | $\cdot]$ | - | 65 | 41 |
| 8 | 6 | $-17$ | 26 | 3 | 24 | 14 | 32 | 26 | 42 | 32 | 57 | 36 |
| 9 | - |  | 12 | $-8$ | 29 | 18 | - | . | 43 | 32 | 54 | 40 |
| 10 | 28 | 8 | 14 | -14 | 26 | 16 | 40 | 29 | 48 | 31 | 55 | 44 |
| 11 | 28 | $-5$ | 19 | -14 | 24 | 18 | 43 | 30 | 45 | 33 | - | - |
| 12 | 4 | -6 | 35 | 16 | - | - | 43 | 30 | 48 | 36 | 72 | 41 |
| 13 | 11 | $-5$ | - |  | 38 | 21 | 44 | 19 | 48 | 29 | 78 | 51 |
| 14 | 9 | $-16$ | 26 | 2 | 36 | 1 | 41 | 31 | - | . | 78 | 61 |
| 15 | 15 | -10 | 25 | 15 | 18 | 3 | 46 | 30 | 46 | 31 | 74 | 59 |
| 16 | - | - | 38 | 15 | 25 | 6 | - | - | 48 | 33 | 69 | 56 |
| 17 | 11 | -13 | 30 | 15 | - | - | 50 | 34 | 50 | 30 | 86 | 62 |
| 18 | 26 | 10 | 33 | 23 | 20 | 5 | 41 | 31 | 57 | 41 | - | - |
| 19 | 35 | 26 | 30 | 16 |  |  | 42 | 29 | 57 | 41 | 87 | 62 |
| 20 | 35 | 20 |  |  | 30 | 0 | 49 | 24 | 56 | 32 | 83 | 66 |
| 21 | 21 | $-3$ | 32 | 13 | 24 | - 4 | 46 | 29 | . | . | 78 | 63 |
| 22 | 6 | $-8$ | 27 | 1 | 40 | 22 | 43 | 29 | 63 | 32 | 72 | 57 |
| 23 | - | . | 25 | $-10$ | 34 | 25 |  |  | 58 | 34 | 72 | 53 |
| 24 | 10 | $-13$ | -8 | $-17$ | 36 | 10 | 43 | 23 | . | . | 72 | 51 |
| 25 | 11 | -. 9 | 18 | $-13$ | 32 | 0 | 37 | 151 | 74 | 31 | - |  |
| 26 | 12 | -12 | 23 | 6 | - | - | 36 | 10 | 58 | 33 | 72 | 50 |
| 27 | 8 | -18 |  |  | 36 | 20 | 35 | 27 | 72 | 42 | 67 | 54 |
| 28 | 22 | -- 9 | 35 | -2 | 42 | 25 | 39 | 30 | . | . | 84 | 58 |
| 29 | 35 | 5 | 28 | 5 | 38 | 20 | 39 | 30 | 60 | 38 | 77 | 56 |
| 30 | - |  | - |  | 39 | 31 | . |  | 56 | 37 | 69 | 48 |
| 31 | 20 | -16 | - | - | 38 | 22 | . | . | 73 | 37 32 | 69 | 48 |
|  | 18.2 | $-26$ | 23.8 | -2.8 | $30 \cdot 8$ | $10 \cdot 6$ | 40.5 | $25 \cdot 1$ | 52.0 | 32•1 | $71 \cdot 3$ | $51 \cdot 3$ |

Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max | Min. | Max. | Min. | Mas. | Min. |  |
| . | $\bigcirc$ | \% | 5 | $\bigcirc$ | $\bigcirc$ | - | - | 48 | $\bigcirc$ | 37 | $\bigcirc$ |  |
| . |  | 76 | 52 | 62 | 4 |  |  | 48 | 33 | 37 | 14 | 1 |
| - | . | 83 | 52 | 64 | 52 | 60 | 33 |  | - | 38 | 27 | 8 |
| 69 | 52 | 88 | 57 |  |  | 58 | 31 | 47 | 35 |  |  | 3 |
| 86 | 52 | 85 | 60 | 69 | 46 | 64 | 42 | 45 | 34 | 37 | 20 | 4 |
| 80 | 62 | 88 | 66 | 62 | 45 | 64 | 39 | - | . | 30 | 17 | 5 |
| 64 | 52 |  | . | 53 | 43 | 47 | 32 | 44 | 22 | 37 | 22 | 6 |
| 82 | 51 | 90 | 64 | 63 | 45 | 50 | 39 | 39 | 27 | 38 | 21 | 7 |
| 78 | 62 | 82 | 63 | 59 | 36 |  |  | 43 | 34 | 22 | 8 | 8 |
| - 1 | - | 94 | 69 | 53 | 40 | 45 | 32 | 43 | 37 | 21 | -3 | 9 |
| 72 | 55 | 98 | 62 |  |  | 53 | 28 | 41 | 33 |  |  | 10 |
| 78 | 58 | 92 | 66 | . |  | 47 | 34 | 41 | 36 | 20 | -4 | 11 |
| 90 | 53 | 87 | 67 |  | 1 | 47 | 34 | - |  | 27 | -9 | 12 |
| 83 | 64 | . | - | . | - | 44 | 29 | 41 | 34 | 27 | 13 | 13 |
| 72 | 54 | 94 | $6 \pm$ |  |  | 39 | 25 | 43 | 34 | 25 | 19 | 14 |
| 74 | 54 | 87 | 64 |  | - | - |  | 37 | 24 | 32 | 11 | 15 |
| - | . | 68 | 49 |  | - | 41 | 30 | 37 | 22 | 17 |  | 16 |
| 83 | 48 | 72 | 51 |  |  | 43 | 32 | 31 | 20 |  |  | 17 |
| 85 | 67 | 76 | 51 | 55 | 39 | 44 | 32 | 36 | 24 | 5 | -14 | 18 |
| 72 | 67 | 72 | 52 | 58 | 49 | 50 | 30 |  |  | 29 | 1 | 19 |
| 87 | 58 |  | - | 56 | 46 | 52 | 29 | 32 | 17 | 10 | - 3 | 20 |
| 76 | 57 | 64 | 44 | 55 | 35 | 47 | 33 | 37 | 28 | 9 | - 7 | 21 |
| 70 | 47 | 59 | 46 | 63 | 46 |  |  | 37 | 31 | 13 | -15 | 22 |
| - | . | 66 | 52 | 63 | 42 | 52 | 34 | 37 | 30 | 15 | -13 | 23 |
| 69 | 55 | 70 | 44 |  |  | 58 | 43 | 37 | 31 |  |  | 24 |
| 65 | 54 | 67 | 42 | 60 | 44 | 57 | 41 | 35 | 30 |  |  | $2 \overline{0}$ |
| 70 | 53 | 67 | 54 | 64 | 46 | 48 | 36 |  |  | 28 | - 1 | 26 |
| 74 | 52 |  | . | 57 | 48 | 45 | 34 | 38 | 23 | 18 | $-3$ | 27 |
| 69 | 50 | 64 | 45 | 55 | 44 | 36 | 29 | 32 | 23 | 23 | - 7 | 28 |
| 69 | 57 | 62 | 48 | . |  |  |  | 32 | 24 | 23 | - 3 | 29 |
| . | . | 62 | 47 | 65 | 39 | 44 | 28 | 32 | 16 | 30 | -3 | 30 |
| 45 | 51 | 71 | 45 |  |  | 38 | 24 |  |  |  |  | 31 |
| $75 \cdot 7!551$ |  | 77.2 | 54.7 | 60.0 | 436 | $48 \cdot 9$ | $32 \cdot 8$ | 386 | $28 \cdot 1$ | $24 \cdot 4$ | 3.5 |  |

## Table LXVI.-Chatham, New Brunswick.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | 1 | $\bigcirc$ | $\stackrel{\circ}{\circ}$ | 14 | 2 | 7 | $\stackrel{\circ}{37}$ | $\stackrel{\circ}{27}$ | 0 | $\stackrel{\circ}{33}$ | - 8 | 0 47 |
| 1 | 41 | 29 | 30 | 14 | 22 | 7 | 37 44 | 27 20 | 37 42 | 33 32 | 88 | 47 49 |
| 2 | 38 | 25 | 51 | 1 | 23 |  |  |  |  |  |  |  |
| 3 | 40 | 20 | 9 | - 6 | 31 | 6 | 43 | 15 | 47 | 29 | 75 | 41 |
| 4 | 23 | 4 | 17 | - 1 | 30 | 4 | 33 | 7 | 44 | 27 | 43 | 38 |
| 5 | 7 | -4 | 4 | -17 | 40 | 4 | 33 | 21 | 59 | 31 | 54 | 38 |
| 6 | 18 | 5 | 30 | -16 | 47 | 29 | 39 | 25 | 51 | 30 | 69 | 49 |
| 7 | 13 | -9 | 42 | 20 | 39 | 12 | 46 | 23 | 51 | 37 | 63 | 43 |
| 8 | 16 | -19 | 28 | 3 | 24 | 10 | 34 | 30 | 50 | 35 | 68 | 36 |
| 9 | 19 | 11 | 15 | -10 | 32 | 18 | 40 | 30 | 65 | 35 | 61 | 47 |
| 10 | 31 | 14 | 18 | - 4 | 24 | 16 | 41 | 30 | 54 | 40 | 54 | 48 |
| 11 | 22 | -3 | 20 | -9 | 27 | 17 | 43 | 31 | 44 | 38 | 54 | 43 |
| 12 | 5 | - 7 | 36 | 6 | 35 | 18 | 44 | 28 | 60 | 36 | 76 | 44 |
| 13 | 12 | -12 | 31 | 11 | 37 | 22 | 52 | 22 | 58 | 34 | 78 | 52 |
| 14 | 13 | -22 | 24 | - 4 | 37 | $\theta$ | 38 | 33 | 49 | 35 | 80 | 57 |
| 15 | 20 | - 5 | 32 | 15 | 20 | 3 | 44 | 32 | 47 | 35 | 80 | 57 |
| 16 | 19 | -2 | 40 | 29 | 29 | 10 | 51 | 32 | 47 | 31 | 79 | 50 |
| 17 | 11 | -6 | 32 | 20 | 20 | 13 | 51 | 35 | 64 | 27 | 87 | 54 |
| 18 | 33 | 11 | 35 | 21 | 18 | 6 | 52 | 32 | 61 | 36 | 86 | 54 |
| 19 | 48 | 33 | 34 | 20 | 15 | -4 | 49 | 30 | 59 | 45 | 83 | 54 |
| 20 | 39 | 14 | 32 | 14 | 32 | 1 | 51 | 28 | 63 | 38 | 84 | 57 |
| 21 | 14 | - 4 | 35 | 11 | 27 | 5 | 53 | 28 | 76 | 33 | 79 | 51 |
| 22 | 7 | - 7 | 27 | 3 | 44 | 27 | 46 | 31 | 61 | 47 | 75 | 47 |
| 23 | 12 | -11 | 27 | -10 | 37 | 22 | 46 | 28 | 60 | 35 | 72 | 40 |
| 24 | 12 | -6 | -8 | -18 | 40 | 10 | 44 | 23 | 74 | 32 | 71 | 32 |
| 25 | 16 | -9 | 17 | -16 | 40 | 5 | 48 | 19 | 52 | 37 | 73 | 42 |
| 26 | 17 | $-10$ | 25 | 7 | 33 | 26 | 40 | 21 | 69 | 32 | 74 | 43 |
| 27 | 15 | -11 | 36 | - 4 | 35 | 30 | 36 | 30 | 73 | 44 | 80 | 44 |
| 28 | 22 | -11 | 30 | 2 | 42 | 31 | 45 | 30 | 83 | 45 | 82 | 46 |
| ${ }_{6} 9$ | 36 | 16 | 27 | 9 | 38 | 31 | 50 | 31 | 63 | 44 | 81 | 54 |
| 30 | 36 | 8 |  |  | 42 | 30 | 40 | 26 | 58 | 35 | 68 | 51 |
| 31 | 24 | -15 |  |  | 40 | 21 |  |  | 73 | 31 |  | - |
|  | $22 \cdot 1$ \| |  | $26 \cdot 9$ |  | $32 \cdot 5$ | 14.8 | 44.0 | 26.5 | 58.1 | 385 | $73 \cdot 5$ | 470 |

Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | Norember. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| - | - | - | - | - | - | - | - | - | 0 | - | - |  |
| 69 | 54 | 82 | 56 | 63 | 47 | 55 | 43 | 52 | 32 | 34 | 16 | 1 |
| 66 | 52 | 84 | 51 | 66 | 54 | 58 | 40 | 45 | 36 | 36 | 30 | 2 |
| 72 | 54 | 91 | 56 | 63 | 50 | 61 | 35 | 47 | 37 | 35 | 28 | 3 |
| 84 | 64 | 88 | 59 | 69 | 46 | 67 | 43 | 42 | 32 | 35 | 20 | 4 |
| 82 | 62 | 94 | 62 | 65 | 45 | 57 | 39 |  | 27 | 33 | 18 | 5 |
| 68 | 52 | 92 | 65 | 54 | 40 | 47 | 33 | 43 | 23 | 34 | 22 | 6 |
| 81 | 49 | 92 | 68 | 63 | 46 | 53 | 41 | 37 | 23 | 36 | 22 | 7 |
| 81 | 62 | 86 | 60 | 64 | 35 | 44 | 35 | 44 | 35 | 24 | 7 | 8 |
| 67 | 55 | 92 | 60 | 60 | 38 | 47 | 29 | 43 | 34 | 21 | 1 | 9 |
| 76 | 55 | 98 | 61 | 64 | 39 | 52 | 29 | 42 | 33 | 19 | 4 | 10 |
| 82 | 58 | 98 | 65 | 69 | 40 | 48 | 36 | 42 | 37 | 14 | -10 | 11 |
| 90 | 55 | 93 | 63 | 85 | 43 | 46 | 31 | 43 | 39 | 25 | -10 | 12 |
| 86 | 64 | 94 | 63 | 67 | 38 | 43 | 29 | 43 | 34 | 26 | 8 | 13 |
| 80 | 57 | 93 | 65 | 73 | 39 | 40 | 26 | 42 | 35 | 31 | 15 | 14 |
| 74 | 56 | 89 | 65 | 64 | 50 | 46 | 33 | 36 | 26 | 31 | 9 | 15 |
| 74 | 53 | 69 | 52 | 59 | 32 | 34 | 31 | 39 | 22 | 16 | -12 | 16 |
| 83 | 51 | 74 | 50 | 65 | 32 | 41 | 31 | 33 | 20 | 2 | -16 | 17 |
| 88 | 65 | 76 | 50 | 63 | 38 | 45 | 30 | 38 | 23 | 17 | -16 | 18 |
| 77 | 58 | 76 | 48 | 58 | 48 | 50 | 29 | 34 | 18 | 29 | 3 | 19 |
| 87 | 57 | 61 | 50 | 61 | 49 | 57 | 31 | 32 | 23 | 8 | - 5 | 20 |
| 79 | 58 | 61 | 46 | 61 | 41 | 55 | 30 | 38 | 28 | 8 | -13 | 21 |
| $7 \pm$ | 49 | 60 | 47 | 73 | 37 | 51 | 38 | 37 | 23 | 9 | $-17$ | 22 |
| 65 | 56 | 66 | 46 | 76 | 45 | 54 | 48 | 37 | 31 | 15 | $-8$ | 23 |
| 62 | 55 | 73 | 46 | 71 | 10 | 62 | 49 | 37 | 33 | 23 | 8 | 24 |
| 78 | 55 | 79 | 43 | 73 | 42 | 60 | 44 | 36 | 31 | 20 | 0 | 25 |
| 72 | 53 | 80 | 54 | 68 | 49 | 50 | 34 | 39 | 29 | 29 | $-6$ | 26 |
| 74 | 51 | 73 | 51 | 56 | 44 | 47 | 33 | 36 | 22 | 17 | -10 | 27 |
| 76 | 52 | 63 | 45 | 56 | 42 | 37 | 31 | 30 | 23 | 25 | 0 | 28 |
| 68 | 59 | 66 | 48 | 67 | 40 | 42 | 28 | 31 | 21 | 25 | $-3$ | 29 |
| 83 | 58 | 64 | 47 | 66 | 52 | 45 | 30 | 22 | 16 | 30 | 13 | 30 |
| 69 | 56 | 75 | 46 | - |  | 41 | 25 | - | . | 23 | 10. | 31 |
| 764 | $55 \cdot 9$ ! | $80 \cdot 1$ | 54.4 | 618 | $42 \cdot 6$ | 49.7 | $34 \cdot 2$ | 388 | 28.5 | 23.8 | 3 |  |

Table LXVII.-Fredericton, New Brugswick.

| Day. | January. |  | February. |  | March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. 1 | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | $\bigcirc$ | $\stackrel{\circ}{ }$ | $\stackrel{\circ}{ }$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\stackrel{\circ}{\circ}$ | $\bigcirc$ | $\stackrel{\circ}{\circ}$ | $\bigcirc$ |
| 1 | 46 | 30 | 34 | 21 | 24 | 2 | 38 | 26 | 40 | 32 | 60 | 37 |
| 2 | 40 | 30 | 42 | 1 | 24 | 8 | $4 \pm$ | 21 | 47 | 29 | 86 | 37 |
| 3 | 40 | 18 | 7 | $-7$ | 30 | 3 | 45 | 24 | 47 | 27 | 82 | 42 |
| 4 | 29 | 4 | 24 | 3 |  | 9 | 39 | 18 | 44 | 31 | 45 | 39 |
| 5 | 10 | -2 | $\dot{\circ}$ | -21 | 40 | 1 | 36 | 28 | 54 | 27 | 52 | 39 |
| 6 | 17 | 7 | 34 | -21 | 47 | 27 | 39 | 26 | 45 | 36 | 68 | 48 |
| 7 | 17 | -1 | 43 | 28 | 39 | 17 | 45 | 24 | 59 | 40 | 70 | 50 |
| 8 | 16 | - 5 | 31 | 0 | 32 | 12 | 36 | 29 | 56 | 38 | 71 | 39 |
| 9 | 21 | 14 | 15 | 9 | 35 | 24 | 38 | 29 | 62 | 42 | 58 | 46 |
| 10 | 27 | 13 | 20 | 1 | 25 | 16 | 42 | 30 | 55 | 44 | 61 | 51 |
| 11 | 18 | - 3 | 33 | - 7 | 28 | 20 | 45 | 32 | 46 | 40 | 61 | 49 |
| 12 | 8 | -5 | 40 | 19 | 39 | 18 | 49 | 27 | 59 | 36 | 72 | 51 |
| 13 | 8 | -16 | 35 | 8 | 40 | 25 | 54 | 20 | 58 | 38 | 77 | 54 |
| 14 | 12 | -24 | 24 | -8 | 35 | 6 | 43 | 34 | 52 | 33 | 82 | 54 |
| 15 | 22 | -2 | 39 | 15 | 19 | 0 | 47 | 32 | 52 | 30 | 76 | 56 |
| 16 | 25 | -2 | 40 | 25 | 27 | 7 | 53 | 32 | 52 | 27 | 78 | 51 |
| 17 | 15 | -7 | 26 | 17 | 22 | 13 | 52 | 32 | 64 | 25 | 84 | 55 |
| 18 | 37 | -13 | 33 | 16 | 19 | 4 | 48 | 29 | 57 | 35 | 84 | 61 |
| 19 | 48 | 35 | 30 | 15 | 16 | 0 | 50 | 32 | 58 | 41 | 80 | 61 |
| 20 | 37 | 16 | 29 | 12 | 27 | 4 | 50 | 29 | 71 | 43 | 82 | 60 |
| 21 | 16 | -1 | 28 | 10 | 38 | 8 | 50 | 31 | 76 | 36 | 78 | 58 |
| 22 | 6 | $-5$ | 33 | 6 | 38 | 28 | 50 | 32 | 55 | 46 | 74 | 54 |
| 23 | 19 | -9 | 21 | -12 | 33 | 19 | 53 | 26 | 61 | 35 | 73 | 48 |
| 24 | 18 | -2 | -10 | -20 | 36 | 7 | 48 | 27 | 74 | 32 | 73 | 42 |
| 25 | 7 | $-7$ | 23 | -14 | 38 | 4 | 49 | 23 | 62 | 38 | 81 | 54 |
| 26 | 15 | -9 | 18 | 4 | 38 | 27 | 43 | 24 | 63 | 33 | 78 | 55 |
| 27 | 30 | 15 | 23 | -1 | 40 | 32 | 47 | 29 | 81 | 40 | 85 | 54 |
| 28 | 30 | 6 | 29 | -4 | 44 |  | 45 | 32 | 84 | 50 | 86 | 59 |
| 29 | 38 | 22 | 26 | 8 | 40 | 30 | 49 | 33 | 64 | 47 | 86 | 69 |
| 30 | 32 | 11 |  |  | 40 | 30 | 40 | 31 | 60 | 37 | 77 | 56 |
| 31 | 25 | -17 |  |  | 39 | 26 |  |  | 73 | 39 |  |  |
|  | $23 \cdot 6$ |  | 26.8 | $3 \cdot 5$ | $32 \cdot 8$ | 14.6 | $45 \cdot 3$ | 28.1 | 59.1 | 36.1 | 74.1 | $50 \cdot 6$ |

Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
|  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | - | - | - | - | - | - | - |  |
| 74 | 53 | 83 | 52 |  | 45 | 53 | 41 | 53 | 38 | 22 | 14 | 1 |
| 63 | 51 | 83 | 52 | 65 | 53 | 57 | 35 | 46 | 38 | 37 | 20 | 2 |
| 71 | 53 | 86 | 50 | 68 | 49 | 60 | 32 | 55 | 39 | 35 | 27 | 3 |
| 85 | 60 | 87 | 57 | 67 | 44 | 65 | 41 | 46 | 30 | 37 | 22 | 4 |
| 85 | 62 | 90 | 58 | 61 | 47 | E4 | 36 | 43 | 25 | 32 | 20 | 5 |
| 68 | 51 | 92 | 62 | 63 | 44 | 56 | 34 | 40 | 20 | 31 | 18 | $\bigcirc$ |
| 80 | 47 | 93 | 67 | 65 | 44 | 55 | 41 | 42 | 29 | 36 | 16 | 7 |
| 82 | 59 | 83 | 62 | 58 | 38 | 48 | 34 | 47 | 40 | 27 | 14 | 8 |
| 78 | 57 | 85 | 58 | 62 | 44 | 44 | 27 | 43 | 39 | 27 | 11 | 9 |
| 80 | 55 | 92 | 59 | 64 | 40 | 54 | 27 | 44 | 38 | 18 | $-7$ | 10 |
| 85 | 57 | 93 | 60 | 70 | 41 | 46 | 33 | 43 | 39 | 4 | -i7 | 11 |
| 89 | 50 | 891 | 59 | 64 | 44 | 45 | 31 | 44 | 42 | 23 | -16 | 12 |
| 88 | 59 | 86 | 58 | 65 | 40 | 52 | 30 | 44 | 38 | 24 | 10 | 13 |
| 82 | 55 | 86 | 63 | 71 | 39 | 37 | 23 | 43 | 35 | 32 | 21 | 14 |
| 77 | 55 | 87 | 62 | 60 | 50 | 40 | 29 | 37 | 26 | 37 | - 2 | 15 |
| 80 | 51 | 70 | 55 | 58 | 35 | 36 | 29 | 39 | 25 | 19 | 12 | 16. |
| 88 | 53 | 73 | 48 | 62 | 32 | 43 | 35 | 33 | 24 | $-5$ | -19 | 17 |
| 88 | 64 | 73 | 49 | 59 | 40 | 46 | 34 | 39 | 26 | 10 | -15 | 18 |
| 87 | 61 | 73 | 46 | 56 | 49 | 48 | 29 | 35 | 22 | 14 | 2 | 19 |
| 87 | 56 | 65 | 50 | 55 | 48 | 59 | 26 | 33 | 25 | 7 | $-5$ | 20 |
| 88 | 69 | 61 | 45 | 62 | 43 | 55 | 30 | 40 | 32 | 4 | -16 | 21 |
| 74 | 47 | 62 | 47 | 68 | 38 | 54 | 44 | 38 | 34 | 10 | -6 | 22 |
| 63 | 54 | 65 | 44 | 69 | 42 | 61 | 48 | 39 | $3 \pm$ | 18 | 9 | 23 |
| 60 | 50 | 74 | 46 | 70 | 44 | 60 | 48 | 39 | 34 | 20 | 8 | 24 |
| 77 | 46 | 80 | 41 | 69 | 45 | 59 | 39 | 35 | 28 | 16 | 4 | 25 |
| 69 | 48 | 77 | 56 | 65 | 43 | 50 | 35 | 35 | 27 | 19 | - 3 | 26 |
| 73 | 44 | 66 | 47 | 67 | 45 | 44 | 33 | 32 | 26 | 20 | -11 | 27 |
| 73 | 50 | 64 | 43 | 57 | 42 | 37 | 29 | 31 | 24 | 24 | 3 | 28 |
| 70 | 55 | 68 | 51 | 67 | 34 | 43 | 28 | 30 | 22 | 19 | -7 | 29 |
| 81 | 57 | 69 | 49 | 65 | 51 | 44 | 27 | 23 | 14 | 29 | 16 | 20 |
| 73 | 54 | 73 | 47 |  |  | 48 | 21 |  |  | 19 | 7 | 31 |
| 77.9 | 54.0 | $78 \cdot 4$ | 53.0 | 63.9 |  | 50.2 | 33.2 | $39 \cdot 8$ | 30 | 21.5 |  |  |

Table LXVIII.-St. John, New Brunswick.

| Day. | January. |  | February. |  | March. |  | A pril. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | - | - | - | - | - | - | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ |
| 1 | 33 | 15 | 29 | 8 | 28 | 20 | 43 | 30 | 43 | 30 | 62 | 42 |
| 2 | 22 | 8 | 32 | 15 | 29 | 10 | 35 | 25 | 52 | 31 | 78 | 45 |
| 3 | 38 | 14 | 37 | 6 | 30 | 20 | 38 | 24 | 42 | 31 | 77 | 60 |
| 4 | 31 | 21 | 30 | 12 | 30 | 15 | 32 | 21 | 37 | 30 | 64 | 38 |
| 5 | 28 | 4 | 38 | -11 | 20 | $-1$ | 30 | 19 | 31 | 29 | 47 | 37 |
| 6 | 13 | -2 | 11 | -12 | 34 | 10 | 38 | 20 | 51 | 28 | 77 | 41 |
| 7 | 37 | 1 | 37 | 9 | 33 | 7 | 37 | 29 | 48 | 25 | 78 | 60 |
| 8 | 38 | 17 | 36 | 10 | 27 | 5 | 41 | 25 | 42 | 32 | 64 | 40 |
| 9 | 25 | 15 | 13 | $-5$ | 44 | 27 | 33 | 26 | 38 | 34 | 51 | 39 |
| 10 | 32 | 23 | 10 | $-5$ | 37 | 23 | 38 | 31 | 56 | 34 | 57 | 36 |
| 11 | 35 | 23 | 11 | 0 | 37 | 28 | 45 | 30 | 62 | 49 | 50 | 39 |
| 12 | 27 | 15 | 39 | 4 | 38 | 27 | 40 | 32 | 55 | 32 | 73 | 42 |
| 13 | 27 | 13 | 30 | 19 | 38 | 29 | 42 | 28 | 48 | 30 | 77 | 56 |
| 14 | 24 | 3 | 29 | 18 | 39 | 32 | 47 | 29 | 39 | 35 | 80 | 55 |
| 15 | 23 | 6 | 32 | 16 | 36 | 29 | 37 | 27 | 47 | 30 | 79 | 58 |
| 16 | 26 | 14 | 27 | 18 | 33 | 23 | 43 | 30 | 48 | 33 | 74 | 46 |
| 17 | 30 | 13 | 35 | 27 | 37 | 20 | 44 | 31 | 40 | 29 | 73 | 47 |
| 18 | 26 | 12 | 35 | 22 | 41 | 22 | 52 | 32 | 51 | 23 | 67 | 44 |
| 19 | 38 | 15 | 34 | 23 | 37 | 25 | 44 | 32 | 59 | 34 | 53 | 43 |
| 20 | 48 | 33 | 32 | 22 | 32 | 15 | 40 | 30 | 59 | 39 | 82 | 46 |
| 21 | 35 | 15 | 31 | 8 | 32 | 12 | 43 | 33 | 56 | 37 | 83 | 61 |
| 22 | 18 | 2 | 37 | 25 | 39 | 17 | 42 | 31 | 56 | 40 | 76 | 60 |
| 23 | 18 | 0 | 9 | 20 | 43 | 33 | 42 | 29 | 66 | 43 | 77 | 56 |
| 24 | 25 | 10 | 30 | 14 | 40 | 32 | 37 | 27 | 52 | 39 | 76 | 53 |
| 25 | 24 | -2 | 30 | 0 | 38 | 23 | 40 | 27 | 57 | 35 | 70 | 48 |
| 26 | 16 | - 3 | 27 | 6 | 38 | 20 | 48 | 25 | 59 | 36 | 75 | 64 |
| 27 | 10 | $-5$ | 32 | 19 | 35 | 20 | 34 | 30 | 62 | 37 | 77 | 58 |
| 28 | 24 | $-3$ | 32 | 20 | 36 | 32 | 48 | 31 | 73 | 43 | 71 | 51 |
| 29 | 26 | 4 | 35 | 29 | 39 | 32 | 47 | 33 | 72 | 53 | 81 | 65 |
| 30 | 40 | 0 |  |  | 36 | 32 | 53 | 37 | 57 | 35 | 69 | 42 |
| 31 | 16 | 2 |  |  | 41 | 31 | - | - |  | 32 | - |  |
|  | 27.0 | 10.5 | $27 \cdot 6$ | $12 \cdot 3$ | 31.4 | 22.4 | 38.7 | 32.0 | 50.0 | $34 \cdot 2$ | $69 \cdot 2$ | $48 \cdot 2$ |

Maximum and Minimum Temperature, 1876.

| July. |  | August. |  | September. |  | October. |  | November. |  | December. |  | Day. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |  |
| $\stackrel{9}{5}$ | $\bigcirc$ | - | $\stackrel{\circ}{\circ}$ | $\bigcirc$ | $\stackrel{ }{\circ}$ | - | - | - | $\bigcirc$ | - | $\bigcirc$ |  |
| 52 | 38 | 69 | 54 | 59 | 48 | 54 | 44 | 39 | 31 | 38 | 33 | 1 |
| 57 | 47 | 73 | 50 | 67 | 50 | 60 | 45 | 38 | 35 | 35 | 32 | 2 |
| 79 | 50 | 81 | 49 | 67 | 52 | 58 | 43 | 37 | 27 | 37 | 34 | 3 |
| 75 | 51 | 84 | 56 | 59 | 49 | 58 | 34 | 50 | 26 | 37 | 30 | 4 |
| 69 | 57. | 84 | 57 | 66 | 46 | 65 | 38 | 48 | 37 | 35 | 24 | 5 |
| 70 | 52 | 85 | 58 | 63 | 50 | 62 | 39 | 38 | 26 | 29 | 24 | 6 |
| 62 ! | 42 ! | 79 | 56 | 60 | 43 | 68 | 40 | 31 | 26 | 38 | 29 | 7 |
| 70 | 43 | 71 | 55 | 55 | 46 | 56 | 45 | 43 | 26 | 27 | 28 | 8 |
| 59 | 46 | 83 | 62 | 53 | 41 | - 49 | 35 | 61 | 40 | 30 | 22 | 9 , |
| 60 | 43 | 88 | 64 | 51 ! | 48 | 50 | 34 | 59 | 37 | 30 | 26 | 10 |
| 70 | 40 | 79 | 56 | 52 | 45 | 57 | 37 | 38 | 32 | 32 | 20 | 11 |
| 73 | 47 | 71 | 52 | 57 | 43 | 49 | 38 | 40 | 31 | 25 | 12 | 12 |
| 76 | 51 | 77 | 58 | 57 | 39 | 48 | 37 | 39 | 36 | 42 | 22 | 13 |
| 80 | 56 | 93 | 62 | 66 | 44 | 46 | 33 | 40 | 38 | 32 | 22 | 14 |
| 78 | 51 | 86 | 67 | 71 | 44 | 46 | 34 | 43 | 39 | 43 | 22 | 15 |
| 76 | 54 | 80 | 49 | 60 | 46 | 52 | 37 | 42 | 38 | 44 | 26 | 16 |
| 73 | 49 | 64 | 39 | 54 | 40 | 49 | 37 | 38 | 36 | 40 | 11 | 17 |
| 74 | 47 | 64 | 45 | 55 | 39 | 48 | 35 | 38 | 36 | 25 | 18 | 18 |
| 78 | 53 | 60 | 51 | 54 | 42 | 46 | 31 | 37 | 33 | 37 | 19 | 19 |
| 65 | 51 | 63 | 43 | 49 | 42 | 45 | 34 | 36 | 30 | 31 | 20 | 20 |
| 79 | 60 | 56 | 44 | $6 \pm 1$ | 37 | 43 | 30 | 31 | 25 | 27 | 19 | 21 |
| 71 | 48 | 56 | 52 | 56 | 37 | 44 | 28 | 33 | 23 | 30 | 24 | 22 |
| 56 | 45 | 63 | 46 | 56 | 37 | 47 | 38 | 38 | 32 | 29 | 14 | 23 |
| 59 | 51 | 69 | 48 | 52 | 43 | 46 | 38 | 39 | 32 | 25 | 15 | 24 |
| 80 | 53 | 67 | 48 | 53 | 42 | 58 | 44 | 41 | 36 | 22 | 17 | 25 |
| 79 | 58 | 74 | 51 | 60 | 41 | 63 | 45 | 42 | 39 | 23 | 13 | 26 |
| 70 | 51 | 69 | 57 | 57 | 38 | 52 | 42 | 45 | 35 | 31 | 21 | 27 |
| 74 | 52 | 69 | 62 | 50 | 41 | 49 | 39 | 43 | 33 | 32 | 24 | 28 |
| 80 | 55 | 65 | 58 | 62 | 45 | 44 | 33 | 33 | 30 | 27 | 20 | 29 |
| 69 | 55 | 64 | 52 | 55 | 44 | 46 | 28 | 37 | 28 | 37 | 25 | 30 |
| 81 | 60 | 60 | 50 |  |  | 42 | 25 |  |  | 34 | 27 | 31 |
| 71.0 | $52 \cdot 0$ | 72.6 | 53.3 | 56.0 | $43 \cdot 5$ | $49 \cdot 6$ | $37 \cdot 2$ | $38 \cdot 3$ | $33 \cdot 1$ | 31.5 | 23.0 |  |

Table LXIX.-Percentage of Cloud in each month, and for the year 1876, at certain Stations in the Dominion of Canada.


## Table LXIX.-Percentage of Cloud in each Month, \&c.-Continued.



## Table LXIX．－Percentage of Cloud in each Month，\＆c．－Continued．

|  |  | 号 | $\begin{aligned} & \text { 를 } \\ & \text { 島 } \end{aligned}$ | ｜定 | 家 | $\stackrel{0}{\Xi}$ | 家 |  |  | ｜r | 它 | 这 | $\stackrel{\text { 可 }}{\stackrel{\text { dren }}{\sim}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Prince Edward Island． |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Georgetown ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 59 | 60 | 63 | 69 | 59 | 57 | 47 | 30 | 43 |  | 85 | － | － |
| Charlottetown ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 64 | 66 | 69 | 72 | 60 | 62 | 57 | 40 | 52 | 70 | 86 | 61 | 63 |
| Mean for P．E．Island． | 62 | 63 | 66 | 70 | 59 | 39 | 52 | 35 | 47 | 70 | 86 | 61 | 61 |
| Manitoba． |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fort Garry ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 40 | 40 | 48 | 43 | 49 | 43 | 37 | 46 | 47 | 55 | 65 | 45 | 46 |
| Winnipeg．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 45 | 35 | 47 | 36 | 49 | 46 | 40 | 49 | 41 | 55 | 60 | 43 | 45 |
| Mean for Manitoba．．．．．．．．．．．．．．．．． | 42 | 37 | 47 | 40 | 49 | 44 | 38 | 48 | 44 | 55 | 63 | 44 | 46 |
| British Columbia． |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spence＇s Bridge．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 50 | 59 | 56 | 48 | 43 | 46 | 44 | 49 | 39 | 45 | 55 | 59 | 49 |
| Esquimalt ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 61 | 70 | 70 | 55 | 56 | 55 | 34 | 37 | 45 | 63 | 66 | 79 | 58 |
| Mean for British Columbia．．．．．． | 56 | 64 | 63 | 51 | 491 | 50 | 39 | 43 | 42 | 54 | 60 | 69 | 53 |
| New／oundland． |  |  |  |  |  |  |  |  |  |  |  |  |  |
| St．Johns ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 66 | 80 | 70 | 85 | 67 | 61 | 65 | 54 | 61 | 67 | 87 | 85 | 69 |
| Harbor Grace． | － | － |  |  |  | 74 |  | 44 | 58 | 64 |  |  |  |
| Channel ．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 89 | 74 | 77 | 65 | 80 | 86 | 75 |  | － | 82 | 77 | 88 |  |
| Fogo ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 62 | 64 | 61 | 67 | 57 | 57 | 60 | 38 | 54 | 72 | 79 | 80 | 63 |
| Mean for Newfoundland．．． | 64 | 82 | 71 | 65 | 63 | 63 | 52 | 60 | 77 | 67 | 85 | 91 | 70 |
|  | 68 | 75 | 70 | 70 | 67 | 68 | 63 | 49 | 62 | 74 | 82 | 86 | 69 |
| North－West Territory． |  |  |  |  |  |  |  |  |  |  |  |  |  |
| York Factory．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 46 | 45 | 33 | 61 | 49 | 45 | 52 | 46 | 69 | 74 | 52 | 52 | 52 |
| Fort Calgary．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  | 19 | 30 | 38 | 37 | 49 |  |  | 51 |  |
| Swan River．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 35 | 32 | 46 | 47 | 56 | 46 | － |  | － |  |  |  |  |
| Fort Macleod．．． |  |  | $\cdots$ |  | － | 30 | 44 | 45 | 49 | 52 | 55 | 60 | － |

Table LXX．－Rainfall，in inches，in each month，and in the year 1876，at the several Stations in the Dominion of Canada，the Stations in Ontario being divided into Districts．

|  | 宮 | 菷 | 遏 | 寄 | 灾 | 号 |  |  | 比 | $\dot{0}$ ¢ O U O | 这 | 这 | 芯 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ontario． <br> West and South－West District． |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Windsor ．．．．．．．．．．．．．．．．．．．．．．．．．．． | 1－07， | 275 | $2 \cdot 06$ | $1 \cdot 44$ | $3$ | $1 \cdot 59$ | 3.45 |  | $2 \cdot 29$ | 193 | $1 \cdot 33$ | $0.0$ | 22.73 |
| Port Stanley．．．．．．．．．．．．．．．．．．．．．．．． | 2－13 | 345 | 220 | 2．77 | 283 | 189 | 2.82 | $2 \cdot 31$ | $4 \cdot 13$ | 3.60 | 1.76 | 0.00 | 2988 |
|  |  |  |  |  |  |  |  |  |  |  |  | 0.00 | 31•77 |
| Granton | $2 \cdot 24$ | 262 | 223 | $3 \cdot 8{ }^{\text {i }}$ | $5 \cdot 10$ |  | $2 \cdot 18$ | 183 | $2 \cdot 39$ | 543 | $1 \cdot 41$ | 0.00 | $31 \cdot 77$ |
| Woodstock ．．．．．．．．．．．．．．．．．．．．．．．．． | $2 \cdot 85$ | $2 \cdot 63$ | $0.99{ }^{1}$ | $4 \cdot 15$ | 356 | 3.21 | 470 |  | 213 | 4.00 | $2 \cdot 34$ | 0.00 | $31 \cdot 30$ |
|  | 2.05 |  |  |  |  |  |  |  |  |  |  |  |  |
| Ingersoll | 2.05 |  | 2.00 |  | 3．16 | 2.55 |  |  |  |  | $2 \cdot 14$ |  | 2967 |
| Simcoe | 254 | $2 \cdot 54$ | 0.97 | $3 \cdot 60$ | $2 \cdot 75$ | 1.93 | 433 | 396 | $2 \cdot 31$ | $2 \cdot 77$ | $2 \cdot 69$ |  | $30 \cdot 38$ |
| Aylmer |  | $3 \cdot 45$ | 2.45 | $3 \cdot 68$ | $3 \cdot 74$ |  | 348 | 1－17 | 3．16 | 4.81 | 249 |  |  |
| －ylmer |  | ， | 2 | । | ， |  |  |  |  |  |  |  |  |
| Port Dover | 2.64 | $2 \cdot 27$ | 1.92 | 3.72 | 1.87 | 1－28 | $5 \cdot 14$ | $3 \cdot 43$ | $2 \cdot 20$ | 332 | 133 | 0.00 | $29 \cdot 75$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Brantford．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | ${ }^{1} 98$ | $1.66$ | $1 \cdot 14$ | $3 \cdot 82$ | ${ }^{2} 77$ | $2 \cdot 64$ | $3 \cdot 27$ | $0 \cdot 13$ | 1.85 | 243 | 191 |  | $23 \cdot 59$ |
| Hamilton | 4.50 | 0．57； | $0 \cdot 64$ | $1 \cdot 61$ | 1.72 | 1.21 | $4 \cdot 99$ | $1 \cdot 43$ | 3.53 | 365 | 3.23 | $0 \cdot 00$ |  |
| Mean of District | 2.44 | 2．41 | 1.66 | $3 \cdot 17$ | 3．06 | $2 \cdot 11$ | 4＇12 | 179 | 2.65 | 361 | $2 \cdot 13$ | 0.00 | $29 \cdot 15$ |
| North and North－West District． |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Little Current．．．．．．．．．．．．．．．．．．．．．． | 230 | $0 \cdot 73$ | 0.94 | $2 \cdot 00$ | $2 \cdot 64$ | 2．78 | 4.86 | $1 \cdot 67$ | $1 \cdot 94$ | 218 | $6 \cdot 72$ |  | $28 \cdot 76$ |
| Parry Suund．．．．．．．．．．．．．．．．．．．．．．．． | 1.80 | 1.08 | 1.73 | 1.24 | $4 \cdot 50$ | 1.54 | 3.66 | $5 \cdot 46$ | 1.90 | 5.01 | 290 | 0.00 | 30.82 |
| Presqu＇Jle | $2 \cdot 90$ | 0．67 | $0 \cdot 74$ | 1－30 | $3 \cdot 69$ | $1 \cdot 30$ | $3 \cdot 12$ | 1•16 | $3 \cdot 49$ | $4 \cdot 29$ | 1.50 | 0.00 | 24－16 |
|  | 2.55 | 1－18 | $1 \cdot 20$ | 091 | $2 \cdot 92$ | 185 | $2 \cdot 16$ | $1 \cdot 62$ | $3 \cdot 22$ | 398 | $2 \cdot 11$ | 0.00 | 23•70 |
| Sau | 25 |  |  | ， |  |  |  |  |  |  |  |  |  |
| Point Clark． | 1.23 | 1.06 | $0 \cdot 59$ | 1．39＇ | $3 \cdot 73$ | $1 \cdot 14$ | $3 \cdot 55$ | 0.92 | $2 \cdot 18$ | $2 \cdot 68$ | 1.92 | 0.00 | $20 \cdot 39$ |
| Kin | 1－84 | 0.52 | 0.75 | $2 \cdot 22$ | 3．55 | $1 \cdot 76$ | $3 \cdot 37$ | 1－19 | $2 \cdot 42$ | 6•18 | 3•19 |  | $26 \cdot 99$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Goderich | $1 \cdot 60$ | $1 \cdot 26$ | 1－27 | $1 \cdot 72$ | $5 \cdot 27$ | 1.91 | 1.62 | $0 \cdot 78$ | $2 \cdot 43$ | $2 \cdot 68$ | 1．61） | $0 \cdot 00$ | $22 \cdot 14$ |
|  |  | 2.05 | $1 \cdot 40$ | $2 \cdot 10^{\prime}$ | 5•75 | $2 \cdot 45$ | $1 \cdot 60$ | $1 \cdot 10$ | $3 \cdot 68$ | $2 \cdot 97$ |  |  | 27.58 |
| Goderich（Lighthouse）．．．．．．．．．． | $2 \cdot 30$ | 2.05 | 140 |  | 5．75 | $2 \cdot 45$ | 1.60 | 110 | 368 |  | 218 |  | 2758 |
| Stratford．．．．．．．．．．．．．．．．．．．．．．．．．．．． | $2 \cdot 39$ | $2 \cdot 30$ | 1.40 | 2.97 | $4 \cdot 77$ | 3.01 | $3 \cdot 71$ | 0.81 | 2.21 | 5．52 | 1.48 | 000 | $30 \cdot 57$ |
| Orillia．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | R | R | R | 0．59 | $3 \cdot 35$ | 397 | 277 | 080 | $2 \cdot 11$ | 3.43 | 1.55 | 0.00 | $18 \cdot 57$ |
|  | $1 \cdot 28$ | 0.61 | $1 \cdot 14$ | 1•13 | 2.93 | 345 | $2 \cdot 30$ | 1.68 | $2 \cdot 98$ | $3 \cdot 39$ | $1 \cdot 70$ | $0 \cdot 00$ | 22－59 |
| Stayner．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Gravenhurst．．．．．．．．．．．．．．．．．．．．．．．． | 1.95 | 0.33 | $1 \cdot 66$ | 1－52 | $4 \cdot 52$ | 187 | $3 \cdot 04$ | 1.45 | 1.93 | $5 \cdot 82$ | $2 \cdot 08$ | 0.00 | $26 \cdot 17$ |
|  |  | 0.07 |  | 0.84 |  | $4 \cdot 01$ |  | $2 \cdot 46$ | $2 \cdot 92$ | 5•18 | 1.75 |  |  |
| Seely ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 176 |  |  |  |  |  |  |  |  |  |  |  |  |
| atrice． |  |  | 89 | $1 \cdot 24$ | $4 \cdot 11$ | $4 \cdot 16$ | $4 \cdot 49$ | $2 \cdot 92$ | $2 \cdot 64$ | 5.05 | 2.29 | 0.00 |  |
|  |  |  |  |  |  |  |  |  | 305 | $3 \cdot 69$ | $1 \cdot 25$ | $0 \cdot 00$ | $22 \cdot 63$ |
| Barrie ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 157 |  |  |  |  |  |  |  |  |  |  |  |  |
| N | 0.24 | 0.00 | 0.74 | 0.85 | $2 \cdot 70$ | 280 | $2 \cdot 40$ | 0.50 | $2 \cdot 20$ | 3.04 | $0 \cdot 46$ | $0 \cdot 00$ | 15.93 |
|  |  |  |  | 0.85 | $3 \cdot 35$ | $2 \cdot 81^{\prime}$ | 360 | $0 \cdot 15$ | $2 \cdot 10$ | $2 \cdot 67$ | 103 | $0 \cdot 00$ | $18 \cdot 64$ |
| Georgina．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | $1 \cdot 17$ | $0 \cdot 40$ |  |  | 335 | 281 | 36 |  |  |  |  |  |  |
| Mean of Dist | 1.68 | 0.77 | 1.07 | 1－41 | $3 \cdot 82$ | 2.69 | 323 | $1 \cdot 48$ | 2.55 | 3.99 | 2－10 | R | 24－79 |

Table LXX．－Rainfall in each month，and in the year 1876．－Continued．

|  |  |  | － | 宝 | 兑 | $\xrightarrow{\text { B }}$ | $\stackrel{\square}{\square}$ | 苼 |  | ¢ ¢ ¢ 0 0 | 岕 | 岕 <br> 品 <br> U <br> O． <br> 0 | － |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Untario．－Con． <br> Central District． <br> Brampton | $2 \cdot 10$ | $1 \cdot 40$ |  | 1.20 | $3 \cdot 10$ | 1－20 | $3 \cdot 60$ | $0 \cdot 10$ | 2.60 | 2.50 | 1.40 | $0 \cdot 00$ | 21－20 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Brampton <br> Newmarket $\qquad$ | 1－15 | 0.75 |  | $0 \cdot 71$ |  | 1－37 |  |  |  |  |  |  |  |
|  |  |  |  |  | 1.83 |  | $3 \cdot 19$ |  |  |  | 1.13 | 0.00 | 14．61 |
| Toronto．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 1.96 | $2 \cdot 30$ |  |  |  | 1－59 | 3.29 | R |  |  | 175 | 0.00 | 21.06 |
| Toronto．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  | 323 |  |  |  | －45 | 1.43 |  |  |  |
| Fort Dalhousie | $\begin{aligned} & 1 \cdot 36 \\ & 1 \cdot 91 \end{aligned}$ | $\begin{aligned} & 1.06 \\ & 2.72 \end{aligned}$ |  | $1 \cdot 82$ | 1.25 |  | $2 \cdot 70$ |  | 240 $2 \cdot 0$ | $1 \cdot 96$ | $2.33[0.00$ |  | 16.58 |
|  |  |  |  | $2 \cdot 40$ | 1．51 | $0 \cdot 72$ | 3.02 | 0.00 |  | $1 \cdot 59$ | $2 \cdot 01$ | $0 \cdot 00$ | 1896 |
| Mean of District．．．．．．．．． | 1.70 | $1 \cdot 65$ | $1 \cdot 00$ | $1 \cdot 5$ | $2 \cdot 18$ | 1－16 | $3 \cdot 16$ | 0．12 | 2.28 | 1．92 | 1•72 | 0.00 | 18．42 |
| North－East and East District． | $2 \cdot 12^{\prime}$ | 0.46 |  | 130 | $2 \cdot 31$ |  | $1 \cdot 62$ | $2 \cdot 01$ | $4 \cdot 17$ |  |  |  |  |
| Cornwall．．． |  |  | $1 \cdot 17$ |  |  | 273 |  |  |  | 2.59 | $\begin{gathered} 1.87: 0.00 \\ \square: s i \end{gathered}$ |  | $22 \cdot 35$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Peterborough | 1.64 | $2 \cdot 11$ | 0.39 | 2.07 | 2.64 | $1 \cdot 40$ | 3．84 | 0.75 | 1．89 | 2.43 | 1.31 |  | 20．47 |
| Lakefield． |  |  |  |  |  |  |  | － |  | $2 \cdot 04$ |  | 0.00 |  |
| Norwood | 0.27 | $2 \cdot 45$ | 0.97 | $1 \cdot 33$ | 1－12 | 167 | $3 \cdot 10$ | 0.57 | 275 | 1.27 | － |  | － |
| Belleville | 2.53 | 2．17 | 0.98 | 1.42 | $2 \cdot 39$ |  | $2 \cdot 42$ | 0.46 | 2.77 | $3 \cdot 41$ | $3.09 \quad 0.00$ |  | 2442 |
| Kingston | $2 \cdot 29$ | 0.84 | 1.99 | $1 \cdot 57$ | 0.98 | 202 | $3 \cdot 12$ | 0.36 | $2 \cdot 40$ | 161 | $2 \cdot 05$ | 0.00 | $19 \cdot 23$ |
| Brockville | 1.64 | 0.50 | $2 \cdot 54$ | $1 \cdot 97$ | 2.04 | 2.06 | $3 \cdot 12$ | 0.64 | 2.98 | $2 \cdot 15$ | 1.80 | 0.00 | 21.14 |
| Fitzroy Earbor．．．．．．．．．．．．．．．．．．．．．． | $1 \cdot 10$ | $0 \cdot 15$ | 0.74 | 108 | 2.30 | R | 2.86 | 0.67 | 1.94 | 1.04 | 1.42 | 0.00 | 13.30 |
| Pembroke | 1．04 | $\begin{gathered} \mathrm{R} \\ 0.84 \end{gathered}$ | $\begin{array}{c\|c} 0.57 & 1.46 \\ 0.59 & 0.37 \end{array}$ |  | $\begin{gathered} 3.90 \\ 1.61 \end{gathered}$ | $\begin{aligned} & 3 \cdot 54 \\ & 3 \cdot 18 \end{aligned}$ | $\begin{aligned} & 3.49 \\ & 2.64 \end{aligned}$ | $\begin{aligned} & 1.41 \\ & 0.20 \end{aligned}$ | $\begin{aligned} & 2 \cdot 62 \\ & 3 \cdot 70 \end{aligned}$ | $\begin{aligned} & 2 \cdot 31 \\ & 1 \cdot 62 \end{aligned}$ | 2．57 | $0 \cdot 00$ | 22.91 |
| Ottawa．． | $1 \cdot 30$ |  |  |  | 1.60 |  |  |  |  |  | $0 \cdot 00$ | 17.63 |  |
| Mean of District | 1.55 | 1.06 | $1 \cdot 10$ | l－40 |  | $2 \cdot 14$ | $2 \cdot 15$ | $2 \cdot 91$ | 0.79 | $2 \cdot 80$ | 2－05 | 2.03 | 0.00 | 19.98 |
| Mean for Ontario． | 1.84 | 147 | $1.21{ }^{\prime}$ | 1.89 | 280 | $2 \cdot 03$ | $3 \cdot 36$ | 1.05 | 257 | 289 | 1.99 | 000 | 23．10 |
| Huntingdon． | $2 \cdot 30$ | $1 \cdot 20$ | 1.10 | 1.84 | 2．73 | 3.78 | 3.57 | 3.26 | 3.54 | $2 \cdot 02$ | $1 \cdot 73$ | 0.00 | 27.07 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Montreal | 1.87 |  |  | 1.03 | 3.45 | $3 \cdot 21$ | $4 \cdot 33$ | 1.98 | $5 \cdot 51$ | $2 \cdot 64$ | $1 \cdot 76$ |  |  |
| Brome |  |  |  |  |  |  |  |  |  | $2 \cdot 69$ |  | 0.00 |  |
| Danvilie | R | $2 \cdot 10$ |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | R |  |  | $8 \cdot 3$ | $2 \cdot 72$ | $6 \cdot 58$ | $2 \cdot 05$ | 1.04 |  | $31 \cdot 45$ |
| Quebec（Observatory） | $0 \cdot 79$ | $0 \cdot 30$ | $1 \cdot 47$ | $0 \cdot 32$ | $2 \cdot 64$ | $4 \cdot 89$ | $3 \cdot 59$ | $1 \cdot 76$ | 2.91 | $2 \cdot 15$ | 0.84 |  |  |
| Quebec（Citadel）．． | R | R | R | 0.51 | $3 \cdot 32$ | $5 \cdot 02$ | 5．12 |  |  | 2.76 | 0 |  |  |
| Qu | 1.61 |  |  |  |  |  |  |  |  | 2 | 1.7 |  | $24 \cdot 76$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Father Point． | $0 \cdot 10$ | 0.00 |  |  |  |  | $4 \cdot 90$ | 1－82 | $2 \cdot 99$ |  |  |  |  |
| Cranbourne | 1.58 |  |  |  |  |  |  |  |  |  | 1. |  |  |
|  | 15 | 0 | 1 |  |  | 4－76 | $4 \cdot 94$ | $1 \cdot 64$ | 4.58 | $2 \cdot 07$ | $0 \cdot 84$ | 000 | $24 \cdot 29$ |
| Carleton |  |  |  |  |  |  |  |  |  |  |  | \％${ }^{\text {a }}$ |  |
| Ohicontim |  |  |  |  |  | 4.85 | 4.60 | $2 \cdot 38$ | $3 \cdot 76$ | 1.83 | $0 \cdot 70$ | 0.00 |  |
| Mean for Quebec ．．．．．．．． |  |  | 0.89 | 0.67 | $3 \cdot 10$ | $4 \cdot 30$ | 4.92 | $2 \cdot 16$ | $4 \cdot 10$ | 254 | $1 \cdot 37$ | 0.00 | 2577 |

Table LXX.-Rainfall in each Month. and in the Year 1876.-Continued.


## -Snow included.

Table LXX.-Rainfall in each Month, and in the Year, 1876.—Continued.


Ta ble LXXI.-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 1876.


Table LXXI.-Quarterly Rainfall at the several Stations, \&c.-Continued.


Table LXXI.-Quarterly Rainfall at the several Stations, \&c.-Continued


Table LXXI. -Quarterly Rainfall at the several Stations, \&c.-Continued.


Table LXXII.-Number of days of Rain in each month, and in the year 1876, at the Stations in Table.


Table LXXII－Number of days of Rain in each month，and in the year 1876，at the Stations in Table．

|  | 守 |  | $\begin{aligned} & \text { घं } \\ & \text { ed } \\ & \text { y } \end{aligned}$ | 室 | $\stackrel{\Delta}{\Xi}$ | $\underset{⿷ 匚}{\stackrel{\circ}{E}}$ | 灾 | $\begin{aligned} & \stackrel{0}{0} \\ & 0 \\ & \stackrel{0}{0} \\ & \stackrel{3}{4} \end{aligned}$ |  | $\begin{aligned} & \dot{\Phi} \\ & \stackrel{0}{\circ} \\ & 0 \\ & \stackrel{0}{0} \\ & 0 \end{aligned}$ |  | 宫 | 岕 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ontario．－Con． $\qquad$ Quebec． <br> Huntingdon $\qquad$ <br> Montreal．．．．． $\qquad$ <br> Brome． $\qquad$ <br> Danville $\qquad$ <br> Quebec（Observatory） $\qquad$ <br> Quebec（Citadel）． $\qquad$ <br> Quebec（Mr．Bell）． $\qquad$ <br> Father Point $\qquad$ $\qquad$ <br> Carleton $\qquad$ <br> Chicoutimi $\qquad$ <br> Mean for Quebec $\qquad$ |  | 4 | 6 | 10 | 14 | 11 | 11 | 4 |  | 5 | 4 | 0 | 90 |
|  | 4 | 1 | 3 | 7 | 10 | 5 | 7 | 2 | 6 | 4 | 3 | 0 | 52 |
|  | 12 | 7 | 6 | 13 | 13 | 8 | 15 | 2 | 16 | 12 | 13 | 0 | 117 |
|  | 5 | 6 | 3 | 11 | 7 | 6 | 10 | 3 | 12 | 9 | 10 | 0 | 82 |
|  | 10 | 7 | 5 | 12 | 13 | 7 | 9 | 0 | 15 | 9 | 14 | 0 | 101 |
|  |  |  | 4.6 | 10 | 11 | $7 \cdot 4$ | 104 | $2 \cdot 2$ | 12.2 | $7 \cdot 8$ | 88 | 0.0 | 88.4 |
|  | 9 | 3 | 4 | 7 | 13 | 10 | 12 | 4 | 12 | 13 | 8 | 0 | 95 |
|  | 6 | 5 | 4 | 9 | 11 | 7 | 12 | 4 | 7 | 8 | 7 | 0 | 79 |
|  |  |  |  |  |  |  |  | － |  | 12 | 8 | 0 | ． |
|  | 6 | 3 | 5 | 5 | 5 | 5 | 9 | 3 | 8 | 12 |  | ： | ． |
|  | 12 | 5 | 5 | 10 | 15 | 14 | 15 | 3 | 12 | 13 | 11 | 0 |  |
|  | 11 | 2 | 10 | 9 | 11 | 14 | 12 | 3 | 18 | 13 | 13 | 0 | 116 |
|  | 9 |  | 11 | 10 | 15 | 8 | 14 | 4 | 15 | 14 | 11 | 0 | 112 |
|  | 5 | 1 | 5 | 9 | 10 | 4 | 6 | 3 | 15 | 10 | 6 | 0 | 74 |
|  | 6 | 2 | 3 | 7 | 12 | 12 | 8 | 4 | 11 | 8 | 6 | 0 | 79 |
|  | 5 | 3 | 8 | 8 | 14 | 14 | 10 | 4 | 17 | 15 | 14 | 0 | 112 |
|  | 7.7 | $2 \cdot 8$ | $6 \cdot 1$ | $8 \cdot 2$ | 118 |  | 109 | 3.6 | 12.8 | 11.8 | 93 | 0.0 | $94 \cdot 8$ |
|  | 8.3 | $4 \cdot 3$ | 5.8 | 91 | $12 \cdot 9$ | $10 \cdot 1$ | $10 \cdot 7$ | $4 \cdot 9$ | 12 | 11.4 | 9 | 0.1 | $99 \cdot 2$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 5 | 4 | 6 | 9 | 16 | 13 | 12 | 3 | 10 | 14 | 12 | 0 | 104 |
|  | 7 | 4 | 5 | 10 |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 10 | 21 | 15 | 17 | 9 | 16 | 17 | 12 | 0 | 133 |
|  |  |  |  |  |  |  |  |  |  | 11 | 10 | 0 |  |
|  | 6 | 3 | 4 | 3 | 16 | ：5 | ¢12 | 6 | 12 | 9 | 10 | 0 | 96 |
|  | 4 | 1 | 7 | 5 | 12 | 13 | 13 | 8 |  |  |  |  |  |
|  |  |  |  |  |  | 13 | 13 | 8 | 15 | 16 | 11 | 0 | 105 |
|  | 5 | 1 | 4 | 4 | 13 | 14 | 14 | 7 | 14 | 13 | 8 | 0 | 97 |
|  | 2 |  |  |  |  |  |  |  |  |  | ， |  |  |
|  | 1 | 0 | ＇ |  |  |  |  |  |  |  |  |  |  |
|  | 1 | 0 | － |  |  |  | 16 | 11 | 10 | 12 | 9 | 0 |  |
|  | 7 | 3 | 8 | 4 | 18 | 16 | 20 | 9 | 18 | 14 | 8 | 0 | 125 |
|  |  |  |  |  |  |  |  | 4 | 5 | 5 |  |  |  |
|  |  |  |  |  |  | 22 | 12 | 10 | 15 | 11 |  | 0 |  |
|  | 4.6 |  |  | $5 \cdot 8$ | 16.0 | 15.4 | $14 \cdot 5$ | $7 \cdot 4$ | 12.8 | 12.9 | 10.0 |  | 107.4 |

Table LXXII.-Number of days Rain in each month, and in the year 1876, at the Stations in Table.

|  | 空 |  |  | $\begin{aligned} & \text { 葆 } \\ & \hline \end{aligned}$ | $\underset{\underset{\sim}{3}}{\stackrel{y}{3}}$ |  |  |  |  | ¢ 0 0 0 0 0 |  | - | $\underset{\sim}{\text { ¢ }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New Bronswick. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| St. John ......... .................. | 6 | 7 | 11 | 11 | 17 | 18 | 12 | 6 | 9 | 12 | 12 | 4 | 125 |
| Bass River......... ................. | 6 | 2 | 10 | 9 | 15 | - | - | 11 | 9 | . | - |  |  |
| Chatham ............................ | 6 | 2 | 9 | 11 | 14 | 14 | 15 | 11 | 10 | 13 | 12 | 0 | 117 |
| Fredericton ................. ........ | 4 | 7 | 12 | 13 | 18 | 17 | 16 | 12 | 13 | 13 | 12 | 0 | 137 |
| Batburst. | 0 | 1 | 1 | 3 | 9 | 9 | 11 | 3 | 3 | 9 | 9 | 0 | 58 |
| Dorchester....... ........ ........... | 5 | 6 | 16 | 7 | 17 | 11 | 14 | 7 | 9 | 7 | 13 | 2 | 164 |
| Daihousie........................... | 0 | 1 | 2 | 5 | 14 | 15 | 14 | 7 | 9 | 8 | 5 | 0 | 80 |
| St. Andrews ................... ..... | 5 | 5 | 9 | 9 | 16 | 8 | 11 | 4 | 8 | 9 | 12 | 3 | 99 |
| Mean for N. Brunswick .. | 4.0 | 39 | 88 | $8 \cdot 5$ | $15 \cdot 0$ | 13•1 | 13.3 |  | 88 | 10.1 | $10^{\circ} 7$ | 1.3 | $105 \cdot 1$ |
| Halifax ...... ...... ............. .... | 7 | 7 | 10 | 16 | 21 | 23 | 20 | 10 | 14 | 17 | 14 | 7 | 166 |
| Truro .................. ....... ...... | 5 | 8 | 7 | - | 19 | 16 | 16 | 10 | 15 | 13 | 13 | 6 |  |
| Digby ................................. | 4 | 7 | 7 | 10 | 15 | 16 | 14 | 7 | 9 | 11 | 12 | 5 | 117 |
| Beaver Bank........................ | 6 | 4 |  | - | 16 | 12 |  | 8 | 11 | 10 | 12 | 4 |  |
| Wolf ville ............................ | 4 | 5 |  |  |  |  | - | - |  |  |  |  | - |
| Sydney ....... ......... ............. | 7 | 5 | 8 | 8 | 16 | 16 | 19 | 15 | 13 | 16 | 18 | 7 | 148 |
| Glace Bay ........................... | - | - | - | . | - | 13 | 12 | 11 | 5 | 11 | 11 | 3 |  |
| Cow Bay .............. ........ ..... | 4 | 2 | 3 | 6 | 9 | 9 | 14 | 9 | 6 | 13 | 10 | 7 | 92 |
| Port Hastings...................... | 4 | 5 | 2 | 0 | 6 | 6 | 7 | 5 | 5 | 3 | 4 | 0 | 47 |
| Baddeck............................. | 0 |  | - |  | 3 |  | 8 | 3 | 4 | $\delta$ | 7 | 3 |  |
| Mean for N. Scotia ........ | $4 \cdot 4$ | $5 \cdot 4$ | $6 \cdot 1$ | 80 | 13.1 | $13 \cdot 9$ | 138 | 87 | $9 \cdot 1$ | $11 \cdot 3$ | $11 \%$ | 47 | $109 \cdot 7$ |
| St. John............................... | 4 | 3 | 13 | 4 | 11 | 8 | 13 | 7 | 14 | 22 | 15 | 7 | 121 |
| Harbor Grace ........ , ............. | - |  |  |  | - | 12 |  | 9 | 14 | 20 |  |  |  |
| Channel............................. | 2 | 1 | 3 | 5 | 11 | 6 | 8 | - | - | 8 | 7 | 3 | - |
| Bay St. George .................... | 1 | 1 | 4 | 3 | 7 | 7 | 9 | 8 | 3 | 10 |  | 3 |  |
| Fogo ............. ................... | 1 | 1 | 1 | 3 | 6 | 9 | 9 | 11 | 8 | 11 | 5 | 1 | 66 |
| Hearts Countent................... |  |  |  |  |  |  |  |  |  | 19 | 15 | 8 |  |
| Mean for Newfoundland. |  | 1.5 |  | $3 \cdot 7$ |  | $8 \cdot 4$ | 9•7 | 87 |  | 15.0 | 10.5 | 41 | 87.7 |

Table LXXII.-Number of days of Rain in each month, and in the year 1876, at the Stations in Table.


Table LXXIII－Quarterly number of Days of Rain，with the number of Days of Snow，during the Year 1876.

|  | $\stackrel{\dot{4}}{\stackrel{\Delta}{B}}$ |  |  |  | ${\underset{j}{\dot{E}}}_{\dot{y}}^{\circ}$ | Number of Days of Snow． |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | $\underset{\substack{\text { e } \\ \text { en } \\ \text { a } \\ \infty \\ \infty}}{ }$ |  | 辰 | 定 | $\dot{玉}$ | $\begin{aligned} & \dot{4} \\ & \stackrel{8}{0} \\ & \stackrel{0}{0} \\ & 0 \end{aligned}$ |  |  | － |
| Ontario． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| （Windsor．．．．．．．．．．．．．．．． | 19 | 34 | 30 | 14 | 97 | 1 | 5 | 12 |  | － |  | 6 | 8 | 32 |
| ¢ Port Stanley．．．．．．．．．． | 26 | 45 | 44 | 27 | 142 | 5 | 13 | 14 | 1 | － | 6 | 9 | 22 | 70 |
| ．${ }_{\sim}^{*}$ Granton．．．．．．．．．．．．．．．． | 21 | 30 | 29 | 22 | 102 | 10 | 14 | 15 | 3 | － | 7 | 9 | 19 | 67 |
| $\triangle$ Woodstock | 31 | 43 | 34 | 23 | 135 | 15 | 12 | 12 | 3 |  | 6 | 10 | 19 | 77 |
| \＃Ingersoll．．．．．．．．．．．．． | 19 | 25 | 26 | 15 | 85 | 6 | 8 | 8 | － | － | 4 | 3 | 10 | 38 |
| ，Simcoe．．．．．．．．．．．．．．．．． | 19 | 27 | 35 | 27 | 108 | 5 | 8 | 7 | － |  | 2 | 6 | 9 | 37 |
| －Aylmer ．．．．．．．．．．．．．．．．． |  | 42 | 34 | 27 |  |  | 13 | 17 | 3 | － | 7 | 6 | 12 |  |
| 8 Port Dover．．．．．．．．．．．． | 25 | 31 | 35 | 21 | 112 | 4 | 7 | 11 | － | － | 1 | 3 | 20 | 46 |
| E Brantford． | 23 | 40 | 29 | 24 | ${ }^{116}$ | 14 | 12 | 9 | 2 | － | 3 | 9 | 17 | 76 |
| （Hamilion ．．．．．．．．．．．．．． | 16 | 22 | 17 |  | 69 | 7 | 9 | 7 |  | － | 3 | 4 | 16 | 46 |
| Mean of District．．． | $22 \cdot 6$ | 339 | $31 \cdot 3$ | 21.8 | ．109．6 | 73 | $10 \cdot 1$ | 11.2 | $1 \cdot 2$ | － | $3 \cdot 9$ | 6.5 | $15 \cdot 2$ | 55.4 |
| （Little Current．．．．．．．．］ | 8 | 21 | 20 | 14 | 63 | 3 | 4 | 7 | 1 | 1 | 3 | 3 | 7 | 29 |
| Parry Sound．．．．．．．．．． | 17 | 37 | 35 | 31 | 120 | 15 | 15 | 13 | 5 | － | 6 | 8 | 17 | 79 |
| Presqu＇Ile ．．．．．．．．．．．．．． | 13 | 30 | 24 | 19 | 86 | 9 | 12 | 11 | 3 |  | 2 | 10 | 18 | 65 |
| Saugeen．．．．．．．．．．．．．．．． | 24 | 32 | 33 | 30 | 119 | 17 | 16 | 15 | 5 |  | 8 | 11 | 21 | 93 |
| Point Clark．．．．．．．．．．． | 20 | 41 | 29 | 30 | 120 | 15 | 15 | 17 | 4 | － | 5 | 7 | 19 | 82 |
| ：Kincardine．．．．．．．．．．．． | 18 | 30 | 23 | 25 | 45 | 11 | 12 | 11 | 2 | － | 4 | 4 | 13 | 57 |
| －ั Goderich ．．．．．．．．．．．．． | 25 | 47 | 33 | 24 | 129 | 14 | 7 | 12 | 4 |  | 10 | 8 | 19 | 74 |
| ジ凶 Goderich（Lighth＇s） | 20 | 45 | 29 | 22 | 116 | 9 | 10 | 14 | 4 | － | 6 | 12 | 18 | 73 |
| S Stratford．．．．．．．．．．．．．． | 20 | 34 | 27 | 22 | 103 | 9 | 12 | 11 | 3 | － | 7 | 8 | 15 | 65 |
| \％Orillia ．．．．．．．．．．．．．．．．． | 15 | 38 | 35 | 24 | 112 |  | 15 | 14 | 8 |  | 6 | 5 | 15 | 76 |
| ＇甘̇太 Stayner ．．．．．．．．．．．．．．． | 18 | 35 | 31 | 21 | 105 | 14 | 13 | 13 | 4 | － | 7 | 8 | 15 | 74 |
| Gravenhurst．．．．．．．．．． | 16 | 34 | 29 | 20 | 99 | 12 | 13 | 14 | 5 | 1 | 7 | 7 | 16 | 75 |
| 俍 Seely ．．．．．．．．．．．．．．．．．． | 15 | 41 | 37 | 23 | 116 | 11 | 9 | 9 | 2 | － | 6 | 8 | 8 | 53 |
| Beatrice ．．．．．．．．．．．．．．． |  | 30 | 28 |  |  |  |  | 11 | 7 | － | 3 | 6 | 7 |  |
| Barrie | 13 | 34 | 33 | 26 | ｜106 | 14 | 13 | 12 | 5 | － | 8 | 6 | 14 | 72 |
| N．Gwillimbury．．．．．． | 6 | 18 | 10 | 13 | 47 | 9 | 6 | 7 | 4 | － | 2 | 3 | 9 | 40 |
| Georgina ．．．．．．．．．．．．．． | 18 | 44 | 27 | 26 | 115 | 15 | 10 | 15 | 6 |  | 3 | 9 | 11 | 69 |
| Mean cf District．．． | 167 | $35 \cdot 7$ | $28 \cdot 3$ | $23 \cdot 1$ | $\|1028\|$ | $11 \cdot 9$ | $11 \cdot 4$ | $12 \cdot 1$ | 42 |  | $5 \cdot 5$ | 7.2 | 14.2 | 66.6 |

Table LXXIII.-Quarterly Number of Days of Rain, \&c.---Continued.


## Table LXXIII.---Quarterly Number of days of Rain, \&c.--Continued.



Table LXII.-Quarterly number of days of Rain, \&c.-Continued.


Table LXXIV．－Average depth of Rain，in inches，in the several Provinces in the Dominion of Canada in each month，and in the year 1876.

|  | Montils， 1876. |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 灾 | 茐 | ¢ 号 可 | 家 | $\underset{\underset{\sim}{\underset{\sim}{*}}}{\dot{\sim}}$ | $\stackrel{\leftrightarrow}{\square}$ | $\underset{\square}{8}$ |  |  | 苟 |  |  | 岕 |
| Ontario： | in． | in． | in． | in． | in． | in． | in． | in． | in． | in． | in． | in． | in． |
| W．and S．W．District．．．．．．．．．．．．．．．．．．．．．． | 2.44 | $2 \cdot 41$ | 1.66 | 3.17 | 3.06 | $2 \cdot 11$ | $4 \cdot 12$ | $1 \cdot 79$ | 2.65 | 3.61 | $2 \cdot 13$ | 0.00 | 2915 |
| N．and N．W．District．．．．．．．．．．．．．．．．．． | 1.68 | 0.77 | 1.07 | 1.41 | 3.82 | 2．69 | 3.23 | $1 \cdot 48$ | $2 \cdot 55$ | 399 | 2．10 | R | 24.79 |
| Central District．．．．．．．．．．．．．．．．．．．．．．．．．． | $1 \cdot 70$ | 1.65 | 1.00 | 1－59 | $2 \cdot 18$ | $1 \cdot 16$ | $3 \cdot 16$ | $0 \cdot 12$ | $2 \cdot 28$ | 1.92 | 1.72 | 000 | 18.48 |
| N．E．and E．District．．．．．．．．．．．．．．．．．．．．．． | 1.55 | 1.06 | $1 \cdot 10$ | 1.40 | $2 \cdot 14$ | 2．15 | 2.91 | $0 \cdot 79$ | $2 \cdot 80$ | $2 \cdot 05$ | $2 \cdot 03$ | 0.00 | 1998 |
| Contario | $1 \cdot \varepsilon 4$ | $1 \cdot 47$ | 1.21 | 1.89 | $2 \cdot 80$ | 203 | 336 | 1.05 | 2.57 | 289 | $1 \cdot 99$ | 000 | $23 \cdot 10$ |
| Quebec．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 1.03 | 0.69 | 0.89 | 067 | $3 \cdot 10$ | 430 | 4.92 | $2 \cdot 16$ | $4 \cdot 10$ | 2.54 | 1.37 | 0.00 | 25.77 |
| New Brunswick ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | $1 \cdot 26$ | 1.72 | 2.89 | $1 \cdot 16$ | 3.18 | $3 \cdot 11$ | 3.52 | 2.07 | 262 | $4 \cdot 12$ | 5.52 | 0.34 | 31－51 |
| Nova Scotia．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | $1 \cdot 14$ | 1.81 | 2.38 | $1 \cdot 35$ | 358 | 3.96 | 360 | 401 | 3.22 | $4 \cdot 28$ | 480 | 096 | 35.09 |
| Prince Edward Island．．．．．．．．．．．．．．．．．．．．．．．．． | 1.01 | 0.62 | 1－52 | 1.24 | 2.35 | 259 | $4 \cdot 26$ | 2.78 | $1 \cdot 46$ | 389 | 363 | 0.78 | $26 \cdot 13$ |
| Manitoba ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 0.00 | 0.00 | 0.00 | 0.23 | 2.35 | $4 \cdot 49$ | 342 | 8.26 | 1.09 | 005 | 0.00 | 0.00 | 19.89 |
| British Columbia ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | $1 \cdot 19$ | $2 \cdot 70$ | $1 \cdot 81$ | 0.45 | 0.61 | 0.48 | 031 | 0.84 | 0.89 | $1 \cdot 66$ | $2 \cdot 30$ | 0.96 | 14．20 |
| Newfoundland ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 0.61 | 0.55 | $1 \cdot 79$ | $1 \cdot 47$ | 3.50 | $2 \cdot 39$ | 305 | $5 \cdot 63$ | 4 | 386 | 380 | $1 \cdot 41$ | $32 \cdot 78$ |

Table LXXV.-Differences between the Rainfall in inches during the year 1876, in the several Provinces of the Dominion of Canada, and the average Rainfall derived from six or more years.


Table LXXVI.-Quarterly average depth of Rain in the several Provinces of the the Dominion of Canada, and the average depth of Snow in each month, and in the year 1876.


Table LXXVII.-Average number of Days of Rain in the several Provinces of the Dominion of Canada in each month and in the year 1876 .


Table LXXVIII．－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 1876.

|  | Quarterly number of Days Rain． |  |  |  |  | Number of Days of Snow． |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| － | 亗 | 它 | 岕 | $\begin{aligned} & \text { 号 } \\ & \stackrel{y}{3} \\ & \stackrel{3}{3} \end{aligned}$ | $\underset{\sim}{\text { Higu }}$ |  | $\begin{aligned} & \text { d } \\ & \text { 岂 } \\ & \text { D } \\ & \text { a } \end{aligned}$ | $\begin{aligned} & \text { B } \\ & \text { U } \\ & \text { B } \\ & \text { N } \end{aligned}$ | 芜 | $\dot{y}$ | 茄 | 免 | 㟔 | － |
| Ontaho： |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| W．and S．W．District．．．．．．．． | 22.6 | 33.9 | $31 \cdot 3$ | $21 \cdot 3$ | i 006 | $7 \cdot 3$ | 10.1 | 11.2 | 1.2 |  | $3 \cdot 9$ | 65 | 15.2 | 55.4 |
| N．and N．W．District．．．．．．．． | 16.7 | $35 \cdot 7$ | $28 \cdot 3$ | $23 \cdot 1$ | 1038 | 11.9 | 114 | $12 \cdot 1$ | 4.2 | $0 \cdot 1$ | $5 \cdot 5$ | $7 \cdot 2$ | $14 \cdot 2$ | 666 |
| Central District．．．．．．．．．．．．．． | 17.6 | 23.4 | 24.8 | 16.6 | 88.4 | 74 | 90 | 96 | 2.0 |  | 3.2 | 46 | 14.6 | 50.4 |
| N．E．and E．District ．．．．．．．．． | 16.6 | $29 \cdot 8$ | $27 \cdot 3$ | 21.1 | 918 | 11.2 | $11 \cdot \mathrm{C}$ | 101 | 4.4 | 0.2 | 23 | $3 \cdot 1$ | 129 | 55.2 |
| Ontario | $18 \cdot 4$ | $32 \cdot 1$ | 28.0 | $20 \cdot 7$ | 902 | $9 \cdot 4$ | $10 \cdot 4$ | $10 \cdot 8$ | $2 \cdot 9$ | $0 \cdot 1$ | 3.7 | $5 \cdot 4$ | $14 \cdot 2$ | 56.9 |
| Qucbec ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 12.6 | 37.2 | $34 \cdot 7$ | $22 \cdot 9$ | 1074 | 127 | $11 \cdot 7$ | 158 | 9.2 | 1.4 | 4.5 | 46 | $14 \cdot 2$ | 74.1 |
| New Brunswick．．．．．．．．．．．．．．．．．．．． | 16.7 | $36 \cdot 6$ | $29 \cdot 7$ | $22 \cdot 1$ | 1051 | $10 \cdot 4$ | 79 | $8 \cdot 3$ | 6.8 | 1.6 | $2 \cdot 8$ | 29 | $11 \cdot 3$ | 52.0 |
| Nora Scotia ．．．．．．．．．．．．．．．．．．．．．．．． | 15.9 | 350 | 31－6 | $27 \cdot 2$ | 1097 | 9.7 | 127 | 63 | 8.4 | 3.0 | 2.2 | 24 | 110 | 55．7 |
| Prince Edward likand ．．．．．．．．．．． | 18.0 | 37.5 | 350 | 205 | 1200 | 11.5 | 11.5 | $8 \cdot 0$ | 105 | 1.0 | 1.0 | 2.0 | $10 \cdot 0$ | $55 \cdot 5$ |
| Mauitola．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 0.0 | 233 | 330 | $2 \cdot 6$ | 589 | 100 | 90 | 70 | 20 | 17 | 47 | $12 \cdot 3$ | $6 \cdot 3$ | 53.0 |
| Eritish Columbia．．．．．．．．．．．．．．．．．．． | 25.5 | 230 | 195 | 25.5 | 93.5 | 25 | 25 | 60 |  |  |  | 20 | 2.0 | 15．0 |
| Nenfoundland．．．．．．．．．．．．．．．．．．．．．． | $8 \cdot 7$ | ． 209 | 28.2 | $29 \cdot 9$ | $87 \cdot 7$ | 14.0 | 13.3 | 52 | 73 | 35 | 20 | 27 | $12 \cdot 0$ | $60 \cdot 0$ |

Table LXXIX.—Daily Mean Temperature from January, 1875 to June, 1876, at Fort Rae, Great Slave Lake, N. W. T., from observations made at 7 A.m. 2 and 9 p.m., daily, by Mr. Andrew Flett, H. B. Company.


Table LXXX.-Abstract of Meteorological Observation made during the year 18 git at Fat liar. Nonth-Viest Territory, by Mr. Andrew Flett, Hudson Bay Company.


Table LXXXI.-Daily Mean Temperature and the Maximum and Minimung Temperatures for each' day from May to November 1875, inclusiyes from observations made at Fort Simpson, N.W. Territory, by Mr, J.L. Onions, Hudson Bay Company and the Rev. Mr. Garrioch.


Table LXXXII.-Abstract ol' Meteorological Observations, made during the year 1875, at Fort Simpson, Mackenzie! River, North-West Territory, by Mr. J. S. Onions, Chirf Trader, Hudson Bay Company, and the Rev. Mr Garrioch.


Table LXXXIII-Daily Mean Temperature, also the Highest and Lowest Temperatures, from bi-monthly observations by the Medical Officers of N.W. Mounted Police Force at Fort Walsh, N.W.T., during the year 1876.

| , | Junc. |  |  |  | July. |  | August. |  |  | September. |  |  | October. - |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\dot{\ddot{E}}$ | $\begin{aligned} & \dot{\overline{\tilde{x}}} \\ & \stackrel{y}{y} \end{aligned}$ | $\begin{aligned} & \stackrel{\text { B }}{\substack{c}} \\ & \stackrel{y}{\vec{E}} \end{aligned}$ | $\begin{aligned} & \dot{x} \\ & \\ & \\ & =1 \end{aligned}$ | $\dot{\overline{\#}}$ |  | $\begin{gathered} \text { S } \\ \\ \\ \hline \end{gathered}$ | $\underset{\underset{\sim}{\underset{~}{E}}}{ }$ |  | 总 | $\stackrel{\dot{\Xi}}{\Xi}$ |  |  | 产 |  | - | $\stackrel{\text { - }}{\text { - }}$ |
|  | $\bigcirc$ |  |  |  | - | - | $\bigcirc$ | $\bigcirc$ | - |  | - | $\bigcirc$ | $\bigcirc$ | - | - |  |
| 1 | 322 | 38 | 28 | 66.8 | 86 | 44 | 64.3 | 74 | 50 |  |  |  | $52 \cdot 3$ | 76 | 28 | 1 |
| 2 | $40 \cdot 7$ | 52 | 30 | $62 \cdot 3$ | 75 | 52 | 63.1 | 74 | 45 |  | . | - | 43.6 | 58 | 3 | 2 |
| 3 | $49 \cdot 5$ | 66 | 36 | 610 | 72 | 50 | 62.2 | 78 | 4 |  | 71 | 56 | $35 \cdot 3$ | 41 | 26 | 3 |
| 4 | 52.5 | 70 | 40 | $59 \cdot 6$ | 72 | 42 | $62 \cdot 3$ | 80 | 46 | $55 \cdot 7$ | 68 | 45 | $52 \cdot 5$ | 64 | 38 | 4 |
| 5 | $62 \cdot 9$ | 73 | 46 | 62.0 | '7 | 46 | $60 \cdot 4$ | 73 | 45 | $54 \cdot 1$ | 64 | 50 | 51.8 | 64 | 39 | 5 |
| 6 | 62.0 | 70 | 54 | 47.3 | 50 | 44 | $64 \cdot 7$ | 81 | 35 | 52.7 | 60 | 40 | 44.0 | 57 | 30 | 6 |
| 7 | $5.3 \cdot 7$ | 57 | 48 | $5 \pm 6$ | 57 | 41 | $75 \cdot 3$ | 92 | 58 | 538 | 69 | 37 | 42.0 | 54 | 26 | 7 |
| 8 | 593 | 74 | 48 | $48 \cdot 7$ | 50 | 46 | 68.4 | 86 | 50 | $52 \cdot 8$ | 63 | 48 | 42.1 | 60 | 24 | 8 |
| 9 | 53.7 | 68 | 42 | 52.4 | 60 | 46 | $49 \cdot 8$ | 60 | 38 | 52.0 | 60 | 48 | $46 \cdot 0$ | 56 | 31 | 9 |
| 10 | 54.1 | 64 | 44 | 55.5 | 68 | 43 | $54 \cdot 1$ | 69 | 35 | 53.3 | 63 | 47 | $39 \cdot 2$ | 54 | 22 | 10 |
| 11 | 49.7 | 58 | 38 | 50.6 | 56 | 44 | 56.3 | 68 | 45 | $48 \cdot 7$ | 51 | 46 | $39 \cdot 8$ | 61 | 20 | 11 |
| 12 | 585 | 72 | 38 | $54 \cdot 1$ | 62 | 42 | $48 \cdot 4$ | 59 | 35 | 51.4 | 57 | 42 | $40 \cdot 8$ | 57 | 29 | 12 |
| 13 | $62 \cdot 3$ | 74 | 47 | 51.8 | 58 | 46 | 50.3 | 56 | 42 | 508 | 66 | 34 | $37 \cdot 5$ | 50 | 26 | 13 |
| J4 | 54.7 | 66 | 48 | $57 \cdot 1$ | 68 | 39 | $50 \cdot 7$ | 68 | 30 | $51 \cdot 0$ | 66 | 30 | $35 \cdot 7$ | 53 | 16 | 14 |
| 15 | $59 \cdot 1$ | 72 | 40 | 61.6 | 70 | 52 | $59 \cdot 0$ | 64 | 54 | $55 \cdot 3$ | 73 | 40 | 46.8 | 71 | 32 | 15 |
| 16 | $61 \cdot 6$ | 72 | 49 | $60 \cdot 3$ | 68 | 51 | $60 \cdot 9$ | 68 | 52 | 50.8 | 58 | 43 | $49 \cdot 9$ | 69 | 34 | 15 |
| 17 | 61.2 | 73 | 44 | 6 | 74 | 50 | 63. | 78 | 48 | $49 \cdot 7$ | 66 | 34 | $49 \cdot 8$ | 65 | 36 | 17 |
| 18 | 63.5 | 76 | 44 | 61 | 76 | 44 | 62.5 | 80 | 44 | 51.7 | 70 | 32 | 452 | 51 | 35 | 18 |
| 19 | 63.0 | 78 | 46 | 63-4 | 74 | 50 | $60 \cdot 8$ | 72 | 44 | $52 \cdot 1$ | 64 | 40 | $44 \cdot 0$ | 48 | 40 | 19 |
| 20 | 70.8 | 89 | 48 | $65 \cdot 3$ | 80 | 46 | 63.8 | 77 | 52 | $53 \cdot 7$ | 64 | 34 | $32 \cdot 1$ | 37 | 30 | 20 |
| 21 | 70.4 | 80 | 60 | 55.7 | 60 | 50 | $59 \cdot 0$ | 72 | 46 | $55 \cdot 2$ | 66 | 46 | $38 \cdot 8$ | 49 | 28 | 21 |
| 22 | 61.8 | 72 | 55 | $61 \cdot 1$ | 75 | 50 | $56 \cdot 7$ | 70 | 41 | $45 \cdot 8$ | 58 | 36 | $38 \cdot 4$ | 50 | 30 | $2 ?$ |
| 23 | 60.3 | 74 | 48 | $65 \cdot 7$ | 82 | 48 | $51 \cdot 3$ | 54 | 46 | $47 \cdot 4$ | 54 | 34 | 34.0 | 38 | 30 | 23 |
| 24 | $63 \cdot 5$ | 76 | 46 | 68.4 | 78 | 54 | 54.0 | 61 | 30 | $41 \cdot 7$ | 56 | 30 | $32 \cdot 5$ | 40 | 27 | 24 |
| 25 | 56.5 | 66 | 38 | $67 \cdot 2$ | 78 | 55 | 52.0 | 68 | 29 | $43 \cdot 5$ | 64 | 25 | $35 \cdot 7$ | 45 | 26 | 25 |
| 26 | 50.2 | 68 | 32 | $66 \cdot 5$ | 80 | 50 | 57-1 | 70 | 42 | 53 | 76 | 30 |  | 67 | 31 |  |
|  |  |  |  |  |  |  |  |  |  |  |  | 30 | 4 | 07 | 31 | 26 |
| 27 | $50 \cdot 3$ | 66 | 34 | 60.0 | 76 | 48 | 58.0 | 73 | 38 | $48 \cdot 7$ | 60 | 38 | $44 \cdot 4$ | 58 | 36 | 27 |
| 28 | E6. 3 | 63 | 42 | 62.7 | 79 | 50 | 59.0 | 60 | 40 | 399 | 57 | 19 | $45 \cdot 4$ | 57 | 34 | 28 |
| 29 | $55 \cdot 3$ | 62 | 42 | $68 \cdot 1$ | 88 | 47 |  |  | - | 43.5 | 60 | 28 | $39 \cdot 2$ | 44 | 28 | 29 |
| 30 | 60.6 | 72 | 46 | 68.2 | 86 | 50 |  |  |  | $41 \cdot 3$ | 63 | 21 | $29 \cdot 3$ | 36 | 22 | 30 |
| 31 |  |  |  | 650 | 73 | 52 |  |  |  |  |  |  | 24.9 | 26 | 23 | 31 |
|  | $57 \cdot 0$ | 89 | 28 | 50.2 | 86 | 42 | 58.8 | 92 | 29 | $49 \cdot 0$ | 72 | 19 | 41-2 | 76 | 16 |  |

Table ${ }^{\prime}$ LXXXIV.---Daily Mean Temperature from December, 1874, to December, 1875, inclusive, at Fort Macleod, N.W. Territory, from obserrations made by the Medical Officers of the N.W. Mounted Police.


The ©'servations in Alugust 28th, 1875, were taken every second hour, day and night; subsequently, at 6 a.m., noon, and 6 p.m.

Table LXXXV.-Mean Daily Temperature, Daily Maximum and Mini Observations by Hospital Steward

mum Temperatures at Swan River Barracks, North-West Territory, from Price, North-West Mounted Police.


Table LXXXVI—Abstract of Meteorological Observations made during the year 1875, at the Lighthouse, S.W. Point of the Island of Anticosti, Gulf of St. Lawrence, by Mr. Edward Pope, in charge of Lighthouse.


- The monthi: Heans arederived fom the ulservations at 8 am . and 8 pm .

Table LexXXVII.-Abstract of Meteorological Obseivations made during the year 1876, at the Lighthouse, Point Lepreaux, New Brunswick, by Mr. George Thomas, in charge of Lighthouse.


APPENDIX No 2

## annual report of TICE Manetic observatory, toronto, for (alendar yelr ENied 31st dechuber, 1596, By Celas. Carpmade, M.a., F.r.ass. Late fellow of st. JOHN゙S COLlege, cambridula, Activi marector.

Sin, -The Direetor of the Observatory, Prof. Jingstun, being absent through ill health, I have the honour ot submitting a Report for the year ended 3 list Docember, 1876.

The general objects of the institution, ab also a detailed aceount of the instraments employed, having leen riven in the yearly Report for 18.4 , 1 shall now merely refer to the gencral mature of the work carried on in the past twelve months.

The ordinary magnetical and meteorolorical observations taken six times a day, namely, at 6 a.m., 8 a.m., $\geq$ p.m., $\pm$ p.m., 10 p.m. and midnight, Toronto time; ats also the recrular monthly observation for the absolute determination of t e magnetic elemente, have been carried on as in former years.

The Photograjhic, Barograph and Thermograph,* mentioned in the last report, were set in operation early in tho sour. The traces from these instruments have been, on the whole, most satisfuelory:

Owing, however, to the largely increated amount of work in connection with the Meteorological Office, dovolving lately upon the staff' of the Observatory, a portion only of these traces have been measured, and their results tabulated.

The Photographic self-recording Declinometer, Horizontal, and Vertical force instruments in the underground chamber, which had not been in use for some time, were set in operation in May, and continued recording until September; but the results not boing altogether satisfactory, the instruments were dismounted and some slight improvements made; they woro again remounted, readjusted, and commenced working by list January, 1877.

## ASTRONOMICAL OBSERVATIONS.

The Observatory is not furnished with apparatus suitable for astronomical research. Our astronomical observations are not made in the interests of astronomy, but aro subserviont to othor purposes, and aro almost entirely confined to transits for time.

The correct time, determined at this establishment, is necessary for onr magnotical and meteorological observations. It is also the standard by which all the cooks and watches in Ontario havo been regulated for more than thirty years; and, for more than five years, the Observatory has riven time daily to the city by striking all the fire alam bells at a fixed instant (11:55 a.m.).

[^3]
## EXTRANEOUS WORK.

There are sundry services iendered to the public which add considerably to our work, and which, although they do not strictly form part of the duties of the staff, are naturally associated will them. The following are some of the services referred to :-

1. Giving information on scientific subjects to visitors.
2. Supplying information by telegraph and matil to applicants in Canada and - other countries.
3. Examining instruments brought for compatison.

The operation*, howerer, inder the title of extraneous work, which hare occupied the most prominent place in late jears, are thove of the Meteorological olfice, which originated at the Toronto Observatory, and bave been carried on since to a great extent by the labours of its staff.

## BUILDINGS AND PREMISES.

No pecuniary provision was ever made for keeping the residences of the staff in repair; and, although a small part of the income of the Observatory has occasionally been appliod to save the buildings from ruin, it is quite inadequate to keep them in a condition compatible with tho health and comfort of the occupants, or the ultimate safety of the buildings themselves.

The summary of the expenses of the establishment, in the fiscal year ended 30th June, 1876 , amounted in all to $\$ 4,801.19$.

I cannot close my Report without referring to the loss sustained by the staff of the Observatory by the death in September last of Cumberland Sturgeon, our late messenger, after a faithful service in this establishment of seven years.

The above is respectfally submitted.

CHAS. CARPMAEL, Acting Director.

## To the Honorable

The Minister of Marine and Fisheries, Ottawa.


## APPENDIX No. 3.

## REPORT OF THE IIRECTOR OF THE OBSERVATORY AT KINGSTON ONTARIU, FOR TIE CALENDAR YEAR ENDED 31st DECEMBER, i876.

Kingeton, 6th February, 186i.
Sir,-I have the honour to transmit to you the Repnrt of the Kingston Ubservatory for the pant year. The lomal time has been cegularly giren, as usual, to the city. A new clock. however, will have $t$, he set up it the Olwervatory window for the more gencoal lenetit, wreplace one which hay been injured by boys throwing stome in the park. This has been guared asamst for the future, and the repairs necensay from year to year, so an to bed the baldins in onder, have been made
 past year, and the protersonsand calets of the $\therefore 1$ lit: $y$ blewe will bave at all times atcen to the Obervatory the the prome of wisise anil recoring instraction in the lise of the instruments.

> I have the honour to be. sir,
> Your most obedient servant,
> JAS. WiLLIAMSON,
> Director of Obercatory, Kingstor:,

To the IIon. 入labert J. Smith,
Minister of Manime abl Fi-heries.

## APPENDIX No. 4.

## REPORT ON THE MONTREAL OBSERVATORY FUR THE (ALENDAR YEAR ENDED 31st DECEMBER, 1876.

Montreal; 31st December, 1876.
Sir,-- In submitting the annual Report of the MeGill College Observatory for the year just closed, I have to state that the work continues the same as during the past two years, and that the instruments in use are, without addition or alteration, those described in my yejort for last yeal.

We havestill to regret the absence of a thermograph and barograph from our instruments, and the consequent imperfection in the observation of the temperature and barometric pressure.

The situation of the thermometer-housc has hitherto been a great inconvenience, especially for the night observations. I amglad now to report that, while the thermometers are still quite as effectually protected from raliation an in the old porition, they have been so puacel that they may be rearhed through an enclosed pasage from the Observatory.

For a desuription or the extent and scope of our work, I beg to refer jou to my report for the year $1-7!$.

The distribution of the yearly $G$ overnment grant still continnes to be :--

$$
\begin{aligned}
& \text { To First Observer, as part salary............................... } 8.0000 \\
& \text { "Secrod " "........................ } 22800 \\
& \text { Oeca-inal asistaneo................................................... 72 } 60 \\
& 5.5000 \\
& \text { I hare the honour to be, Sir. } \\
& \text { Your obedient servant. } \\
& \text { C. H. McLEOD, } \\
& \text { Directir of Observatory. }
\end{aligned}
$$

To the Howorable
The Minister of Marine and Fixheries.

## APPENDIX No. 5.

## 3EPPORT OF TEE DIRECTOR OF THE QUEBEC OBSERVATORY FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1876.

Sur,-In sulbmitting my Report of thin establishment for the jear ending 31st December, 187 fi , I may mention that the routine duties have been carried on as "isual, and that "Time" was given not only to the shipping, but sent to various divoctions to those who required it.

The Meteorolorical Observations have been forwarded to Toronto three times each day, and I am glad to say that the weather probabilities, as issued from Toronto, thave been fultilled in most casea, conducing to the welfare of the farmer.

I have the honour to be Sir, Your obedient servant, E. D. ASHE, Director of Observatory.
The Honourable
The Minister of Marine and Fisheries, Ottawa.

## APPENDIX No. 6.

## REPORT OF THE DIRECTOR OF THE TIME BALL AT ST. JOHN, N.B., FOR THE CALENDAR YEAR ENDED 31st DECEMBER, 1876.

St. John, 13th February, 1877.

Sir,-I have the honor to report, for your information, a statement in regard to the Time Ball.

The Time Ball, which is situated on the top of the Customs buildings, has been regularly dropped every day at one o'clock, p.m., (Sundays excepted), only during three days in August there was an interruption, at which time an accidont occurred to the iron bar which requires to be pulled briskly to release the ball; this and some other necessary repains were done by Messrs. Allan Bros.

The Time Ball from exposure became rusty, and required painting and gilding; this was also attended to, but did not interfere with its working, it being regularly dropped precisely at one o'clock, giving shipmasters an opportunity of correcting: their chronometers while on board ship. Many shipmasters prefer not disturbing their chronometer if they can get a reliable standard time to correct by. Of this, I think, they are quite satisfiel from the number of enquiries at my establishment for cards giving the necessary information.

I have the honour to be, Sir,<br>Your obedient servant, GEO. HUTCHINSON, Jon.,<br>Director of Time Ball.

## The Hovorable

The Minister of Marine and Fisheries, Ottawa.

SUPPLEMENT No. 4

TO TIIE NINTH ANNUAL REPORT OF THE

MINISTER OF MARINE AND FISHERIES, FOI THE YEAR 1876.

## REPORT

# COMMISSIONER OF FISHERIES 

FOR THE YEAR ENDLNG 31st DECEMBER,

$$
1876 .
$$



OTTAWA:
printed by maclean, roger \& CO., Wellington street 1877.

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## THE CANADIAN FISHERIES.

REPORT OF W. F. WHITCHER, Esq.,

Commissioner of Fisheries

FOR

## 1876.

> Department of Marine and Figherins, Fisheries Branch, Ottawa, 30 th December, 1876.

To the Hon. A. J. Smite,
Minister of Marine and Fisheries.
Sir,-A preliminary report which I had the honour to address to you for submission to Parliament at the opening of the present Session, described the general $r_{\text {esults of }}$ fishing operations and the state of the fisheries service during the past year. It also explained that the returns from various fishing districts were necessarily incomplete, and that these deficiencies affected particularly the statistical information on which the usual statements detailing the produce of the Canadian Fisheries are founded. These tables are now completed. They show that, considering the prevalent depression in other branches of industrial commerce, the fishing industry and fish trade of the country are, comparatively speaking, in a thriving condition.

## PRODUCE AND VALUE OF CANADIAN FISHERIES.

The gross value of the produce of these fisheries in 1876 is $\$ 11,147,590$. This amount includes the value of fish taken in British Columbia and Manitoba, $\$ 135,287$. The catch of these two Provinces not having been reckoned in the tables for 1875 any comparison between that year and the present one must be made without reckoning such sum. The increased value of this year's production is therefore $\$ 661,917$. Reference to the comparative tables at foot will show of what particulars this total difference consists. It should be observed that in the case of Prince Edward Island, the whole produce of the fisheries for trade and home use has been accounted in this year's returns; but in former years only the quantities exported were included in the official returns. A staff of fishery officers being now organized in that Province, we are enabled to procure more complete information.

## COMPARATIVE STATEMENT

Of Production in each Branch of Fishing within the respective Provinces in 1875 and 1876.

PROVINCE OF NOVA SCOTIA.

| Kinds of Fish. | 1875. |  | 1876. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantities. | Value. | Quantities. | Value. |
|  |  | \$ |  | \$ |
| Codfish ....................... | 484,342 cwt. | 2,058,453 50 | 509,968 cwt. | 2,549,840 00 |
| Herrings................. ..... | 121,338 brls. | 485,352 00 | $165,142 \frac{1}{2}$ brls. | 660,570 00 |
| do smoked............ | 45,700 boxes. | 11,425 00 | 51,310 boxes. | 12,827 50 |
| Mackerel...................... | 91,235 brls. | 912,350 00 | 70,964 brls. | 709,640 00 |
| do preserved.......... | 21,400 cans. | 3,210 00 | 30,820 cans. | 4,623 00 |
| Haddock...................... | 3,845,278 lbs. | 230,716 68 | 13,679,214 lbs. | 820,752 84 |
| Pollack........................ | 38,771 cwt. | 135,698 50 | 34,852 cwt. | 121,982 00 |
| Hake............................ | 16,685 " | 58,397 50 | 25,955 " | 90,842 50 |
| Halibut....................... | 556,915 lbs. | 33,414 90 | 941,200 lbs. | 56,47200 |
| Salmon, pickled............ | 1,335 brls. | 24,030 00 | 1,3691 ${ }^{1} \mathrm{brls}$. | 24,651 00 |
| do fresh, in ice....... | 465,232 lbs. | 69,784 80 | 475,304 lbs. | 71,295 60 |
| do smoked............. | 16,330 " | 2,449 50 | 30,118 " | 4,517 70 |
| do preserved ......... | 124,600 cans. | 31,150 00 | 30,820 cans. | 4,623 00 |
| Alewives..................... | 13,237 bris. | 46,329 50 | 7,611 brls. | 26,638 50 |
| Trout........................... | 56,630 lbs . | 3,397 80 | 77,940 lbs. | 4,676 40 |
| Smelts........................... | 365,300 " | 21,918 00 | 431,625 " | 25,897 50 |
| Shed ......... ....................... | 7,976 brls. | 63,808 00 | 5,5772 brls. | 44,62000 |
| Eels.............. .............. | 1,731 " | 15,579 00 | 1,723 " | 15,507 00 |
| Bass ............................ | 2,750 lbs. | 16500 | 8,055 lbs. | 48330 |
| Oysters. ........................... | 1,655 brls. | 4,965 00 | 1,040 brls. | 3,120 00 |
| Lobsters....................... | 4,524,122 cans. | 1,131,030 50 | 3,348, 720 cans. | 502,308 00 |
| Fish Guano.............. .... | 817 tons. | 12,255 00 | 1,383 $\frac{1}{2}$ tons. | 20,752 50 |
| Fish used as manure...... | 1,353 brls. | 67650 | 3,291 brls. | 1,645 50 |
| Cod Tongues and Sounds | 1,201 '6 | 8,407 00 | 868 | 6,078 00 |
| Fish Oils.......... ........... | 321,366 gals. | 208,887 90 | 345,674 gals. | 224,688 10 |
| Fiesh Fish, sold in Halifax fish market... ......... | .. ................... |  |  | 20,000 00 |
|  |  | 5,573,851 58 |  | 6,029,049 94 |

PROVINCE OF NEW BRUNSWICK.

| Codish.. .................... | 109,340 cwt. | 464,695 00 | 74 | cwt. | 331,870 00 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Herrings. | 126,495 brls. | 505,980 00 | 133,117 | bris. | 532,468 00 |
| do smoked............ | 596,300 bozes. | 149,075 00 | 497,008 | boxes. | 124,252 00 |
| Mackere!..................... | 6,1372 brls. | 61,375 00 | 3,034 | brls. | 30,340 00 |
| do preserved. | 39,980 cans. | 5,997 00 | 1,8i0 | cans. | 27000 |
| Haddock..................... | 850,650 lbs. | 51,039 00 | 1,393,550 | lbs. | 83,613 00 |
| Pollack. | $5,980 \mathrm{cwt}$. | 20,930 00 | 13,154 | cwt. | 46,039 00 |
| Hake. | 29,817 " | 104,359 50 | 32,415 |  | 113,452 50 |
| Halibut.. | 16,100 lbs. | 96600 | 73,300 | lbs. | 4,398 00 |
| Salmon, pickled | 2,299 brls. | 41,382 00 |  | brls. | 15,498 00 |
| do fresh, in ice....... | 1,031,789 lbs. | 153,268 35 | 671,027 | lbs. | 100,65405 |
| do smoked | 41,550 boxes. | 6,232 50 | 49,000 |  | 7,350 00 |
| do preserved.......... | 333,412 cans. | 83,353 00 | 113,200 | cans. | 16,980 00 |
| Alewives... | 33,016 brls. | 115,556 00 | 19,239 | bris. | 67,301 50 |
| Trout. | 60,490 lbs. ${ }^{\text {c }}$ | 3,629 40 | 62,180 | lbs. | 3,730 80 |
| Smelts... ....................... | 1,086,280 " | 65,17680 | 1,559,200 |  | 93,55200 |
| Shad. | 6,4192 brls. | 51,356 00 | 4,870 | brls. | 38,960 00 |
| Eels. | 1,241 | 11,169 00 |  |  |  |
| Bass. | $12,036 \mathrm{lbs}$. | 7,442 16 | 288,859 |  | 17,331 <br> 23 <br> 23 <br> 1 |
| Oysters . ..................... | 10,020 bris. | $\begin{array}{r}30,060 \\ 438,011 \\ \hline 00\end{array}$ |  | brls. eans. | 23,73300 212,45355 |
| Lobsters, preserved........ | 1,752,046 cans. | $\begin{array}{r}438,01150 \\ 2,700 \\ \hline\end{array}$ | 1,416,357 | eans. | 13,035 00 |
| Fish used as m | 4,370 brls. | 2,185 00 | 5,196 |  | 2,598 00 |
| Cod Tongues and Sounds | 1,014 68,643 gals. | $\begin{array}{r} 7,098 \quad 00 \\ 44.61795 \end{array}$ | 75 97,107 | " | 525 63,119 55 |
| , | 68,643 gals. | 2,427,654 16 |  |  | 1,953,388 49 |

## COMPARATIVE STATEMENT.---Continued

PROVINCE UF QUEBEC.

| Kinds of Fish. | 1875. |  | 1876. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantities. | Value. | Quantities. | Value. |
|  |  | \$ cts. |  | $\$$ cts. |
| Summer Cod-fishery ...... | 117,935 qutls. | 589,675 00 | 185,165 qutls. | 925,825 00 |
| Autumn do ...... | 22,779 do | 113,895 00 | 40,931 do | 204,655 00 |
| Herrings, pickled........... do smoked | 50,059 brls. | 250,295 00 | 105,454 brls. | 42],816 00 |
| do do fresh water..... |  |  | 832 boxes. 62 brls. | $\begin{array}{r} 20800 \\ 3250 \end{array}$ |
| Mackerel....... .............. | 6,493 brls. | 64,930 00 | 4,975 do | 49,750 00 |
| Haddock ..................... | 126 qutls. | 63000 | 347 qntls, | 1,73500 |
| Ling .......................... | 33 do | 16500 | 1,149 do | 5,745 00 |
| Halibut ..................... | 201 brls. | 1,206 00 | 183 brls. | 1,098 00 |
| Salmon, pickle? ........... | 1,392 do | 22,272 00 | 2,216 do | 35,456 00 |
| do fresh in ice ...... | 299,873 lbs. | 14,993 65 | 267,276. lbs. | 13,363 83 |
| $\begin{array}{ccc} \text { do } & \text { do } & \ldots . . . . \\ \text { do } & \text { smoked } & \ldots . . . . \\ \hline \end{array}$ |  |  | 8,421 pieces. | 8,421 00 |
| do preserved........... | 105,206 cans. | 26,301 | 1 box. | 400 |
| Longe, trout.. ............... | 250 brls. | 6,250 00 | 50,901 cans. | 7,635 15 |
| Winnonish .. | 9,050 pieces. | 2,262 50 | 3,000 pieces. | 75000 |
| Tuladi ....................... | 150 brls. | 1,200 00 | 3,900 pieces. | 150 |
| Trout (sea)................. |  |  | 1632 brls. | 1,30800 |
| do grey .................. | 259 brls. | 2,072 00 | , |  |
| do speckled ............. | 11,000 lbs. | 1,100 00 |  |  |
| Sturgeon..................... | 279 brls. | 2,232 00 | 447,200 lbs. | 35,566 00 |
| Bar and Whitefish ......... | 3,735 doz. | 2,23200 7,470 00 | 10, 509.2 bris. | 4,476 00 |
| Shad............................. | 134,992 pieces. | $\begin{array}{r}\text { 7,470 } \\ 13,499 \\ \hline 180\end{array}$ | 10,209 doz. | 20,418 00 |
| Sardines .................... | 1,037 brls. | 13,499 5,185 | 142,405 pieces. | 14,240 50 |
| Eels ........................... | 1,38 Drls. | 5,185 00 | 1,830 ${ }^{\text {d }}$ brls. | 9,152 50 |
| do ............................ | 266,619 pieces. | 26,661 90 | 291,737 do | 47000 |
| Pibe.. ....... .............. | 200 brls. | 2,000 00 | 291,737 pieces. 400 brls. | 29,17370 4,00000 |
| Pickerel...................... | 304 do | 3,040 00 | 405 do | 4,00000 6,950 |
| Tom Cod..................... | 20,400 bush. | 10,200 00 | 22,000 doush. | $\begin{array}{r}6,950 \\ 11,000 \\ \hline 100\end{array}$ |
| Small Fish ................... | 2,563 brls. | 10,20075 640 | 22,000 bush. | 11,000 00 |
| Other Fish (local consumption) |  |  | 3,015 brls. | 1,50750 |
| Mixed Fish ......... .......... | 23,407 brls. |  |  | $\begin{array}{r} 50000 \\ 9765000 \end{array}$ |
| Maskinonge .................... | 850 pieces. | $\begin{array}{r}11,035 \\ 1,700 \\ \hline 1\end{array}$ | 19,530 617 | 97,650 00 |
| Seals $\qquad$ do skins. $\qquad$ | 24,369 do | 146,214 00 | 617 pieces. | 1,234 00 |
| Porpoises <br> do skins | 104 pieces. | 1,696 00 | 9,915 pieces. | 12,393 75 |
| Lobsters, preserved......... | 86,964 cans. | 21,741 00. | ${ }_{215}^{212}$ pieces. | 84800 |
| Fish and Clams used as bait and manure......... | $23,881 \mathrm{brls}$. | 21,74100 5,970 | 245,335 cans. | 36,800 25 |
| Cod Tongues and Sounds | 23,881 398 do | 5,970 <br> 2,786 | 74,640 brls. | 32,700 00 |
| do Roes................ ...... | 624 do | 4,992 00 | 177 do | 1,593 00 |
| do Oil ....................... | 113,469 galls. |  | 118.7.71 ........ |  |
| Seal Oil...................... | 98,709 do | 49,354 50 | 118,271 gals. | 59, 13550 |
| Whale Oil ................... | 22,781 do | 49,354 50 | 55,126 do | 27,563 00 |
| Poryoise Oil................. | 2,667 do | 16,22480 2,133 | 9,618 9,610 | $\begin{aligned} & 4,80900 \\ & 7,68400 \end{aligned}$ |
|  |  | 1,596,758 15 |  | 2,097,667 18 |

## COMPARATIVE STATEMENT.-Continued. <br> province of ontario.

| Kinds of Fish. | 1875. |  | 1876. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantities. | Value. | Quantities. | Value. |
|  |  | \$ cts. |  | \$ cts. |
| Whitefish do | 25,573 brls. | 255,730 00 | 11,999 brls. | 119,990 00 |
|  |  |  | 1,052,490 lbs. | 52,624 50 |
| Trout .............................. | 8,965 brls | 89,650 00 | 471,402 pieces. | 47,140 20 |
| Herrings ..... .................. | 9,400 do | 89,650 56,400 00 | 11,744 brls. | 117,440 00 |
| Sciscos ${ }^{\text {a }}$....................... | 196 do | 1,27400 | 10,781 ${ }^{316}$ do | 53,90750 1,580 00 |
| Maskinongé ..................... | 246 do | 1,230 00 | $641 \frac{1}{2}$ do | 1,580 <br> 3,207 <br> 10 |
| Bass ......... ................... | 823 do | 4,750 00 | 879 do | 3,29750 4,39750 |
| Pike ............................ | 748 do | 3,740 00 | $680 \frac{1}{2}$ do | 3,40\% 50 |
| Pickerel...................... | 3,881 do | 19,405 00 | 2,300 do | 11,500 00 |
| Coarse fish .............. . .. | 4,330 do | 21,650 00 | 5,510 do | 22,040 00 |
|  |  | \$453,194 00 |  | 437,229 $7 \theta$ |

PROVINCE OF PRINCE EDWARD ISLAND.

| Codfish | 14,359 cw | 30,159 03 |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Herrings | 2,366 brls. | 8,375 64 | $14,866 \mathrm{brls}$. | 37,165 00. |
| Mackerel ...................... | 19,789 " | 197,890 00 | 25,383 * | 203,064 00 |
| Haddock .. |  |  | 336 lbs. | 2016 |
| Hake.. ........................ |  |  | 14,862 cwt. | 52,017 00 |
| Salmon, pickled .......... |  |  | 1, 63 brls. | 1,134 00 |
| do tresh in ic |  |  | 2,000 lbs. | 30000 |
| do preserved ........ | 11,308 cans. | 3,41893 | 1,000 cans. | 12000 |
| Alewives .................... |  |  | 660 brls. | 2,310 00 |
| Sea Fish, fresh ............. | 2,200 lbs. | 11000 |  |  |
| Trout ........ |  |  | 7,600 lbs. | 45600 |
| Other kinds | 200 tons. | 10,748 00 |  |  |
| Bags .. . |  |  | 6,000 " | 36000 |
| Oysters. | 41 brls. | 8200 | 7,9n5 brls. | 22,71500 |
| Lobsters ................ ..... | 151,248 cans. | 47,876 00 | 362,676 cans. | 43,521 12 |
| Cod Tongues and Sounds |  |  | 594 brls. | 4,158 00 |
| Fish Oil...................... | 517 galls. | 23780 | 16,487 galls. | 1(1),716 55 |
|  |  | 298,927 40 |  | 494,967 08 |

PROVINCE OF MANITOBA.

| Whitefish. |  |  | 73,535 pieces. | 3,676 75 |
| :---: | :---: | :---: | :---: | :---: |
| Sturgeon...................... |  | .... | 600 | 3,000 00 |
| Gold Eyes.................... |  | ... | 481,200 " | 9,624 00 |
| Perch, Bass and Suckers |  | ........ ....... ...... | 46,500 " | 1,395 00 |
| Pike ................... ...... |  |  | 37,900 " | 1,895 00 |
| Catfish............... ........ | ....................... | ............. | 55,000 -" | 11,000 00 |
|  |  | ...................... |  | 30,690 75 |

PRUVINCE OF BRITISH COLUMBIA.

| Salmon, pickled ........... |  |  | -1,140 brls. | 6,609 00 |
| :---: | :---: | :---: | :---: | :---: |
| do preserved ......... | .......................... | ...... ........ ....... | -499,824 cans. | 72,164 00 |
| Mixed Fish .. ................ |  | ......... ............. | 165 brls. | 90000 |
| Fish Oils ...................... | . ............... .... | ...... ........ ........ | *50,124 galls. | 25,024 00 |
|  |  | ............... |  | 104,697 00 |

[^4]General Recapitulation of the Yield and Value of Fisheries

| Kinds of Fisb. | Nova Scotia. |  | New Brunswick. |  | Quebec. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\stackrel{3}{\square}$ |  | 当 | 䔍 | $\stackrel{\text { ® }}{\stackrel{\text { d }}{\text { ¢ }}}$ |
|  |  | - ets. |  | \$ cts. |  | \$ cts. |
| do $\qquad$ Qntls. | 509,968 | 2,549,840 00 | 66374 | 331,870 00 | 226,096 |  |
| Herrings, pickled ............ Brl : | 165,142i | 660,570 00 | 133,117 | 532,468 00 | 105,454 | 130,480 00 |
| do smoked.......... Boxes. | 51,310 | 12,827 50 | 497,008 | 124,252 on | ${ }^{832}$ | 20800 |
| doSciscosh water....... Brls. <br> Mackerel <br> f................... do <br> do <br> do <br> dopreserved .......Cans. |  |  |  |  | $6 \frac{1}{2}$ | 3250 |
|  | 70,964 | 709,64000 | 3,034 | 30,340 00 | 4,975 | 49,750 00 |
|  | 30,820 | 4,623 00 | 1,800 | 27000 |  |  |
| Haddock .................................................... do do | 13,679,214 | 820,752 84 | 1,393,550 | 83,613 00 | .......... |  |
|  |  |  |  |  |  | 00 |
|  | 34,852 | 121,982 00 ? | 13,154 | 46,03900 |  |  |
|  | 25,955 | 90,842 50. | 32,415 | 113,452 50 |  |  |
| Halibut .............................. Lbs. do do | 941,200 | 56,472 00 | 73,300 | 4,398 00 |  |  |
|  | 1,369 | 24,651 00 |  | 15,498 00 | 183 2,216 | 1,098 35,456 00 |
|  | 475,304 | 71,295 60 | 671,027 | 100,654 05 | 267, 276 ${ }^{2}$ | 13,363 83 |
|  |  |  |  |  | 8,421 | 8,421 00 |
|  | 30,118 | 4,517 70 | 49,000 | 7,350 00 |  |  |
|  | 30,820 | 4,63300 | 113,200 |  |  | 400 7,63515 |
| Alewives ...................... Brls. | 7,611 | 26,638 50 | 19,229 | 16,980 67,301 50 | 50,901 | 7,635 15 |
|  | 77,940 | 4,676 40 | 62,180 | 3,730 80 |  |  |
|  | ...... ....... |  |  |  | $163 \frac{1}{2}$ | 1,30800 |
|  |  | . | ............ | ............... | 447,200 | 35,566 00 |
| do dodo <br> Winnonish....................eces.. |  |  |  |  |  |  |
|  | ........ | .......... |  |  | - 559 | 75000 4,47600 |
|  | ......... |  |  |  |  |  |
|  | . | ............... |  |  | 10,209 | 20,418 00 |
|  | ....... ...... | ....... ........ |  | ....... ........ |  |  |
|  |  |  |  | ....... ....... | .......... |  |
|  | 5,5772 | 44,62000 | 4,870 | 38,960 00 |  |  |
| Sardines................................ Brls. |  |  |  |  | 142,405 | 14,24050 |
|  |  |  |  |  | 1,83012 | 9,152 50 |
| Eels ................................................ | 1,723 | 15;50700 | 1,096 | 9,864 00 | 47 | 47000 |
| Pike ................................Brls. |  |  |  |  | 291,737 | 29,173 70 |
|  |  | ..... .... .- |  |  | 400 | 4,000 00 |
| Bass..................................... do |  |  | - | - ...t. |  |  |
|  |  |  |  |  | 695 | 6,950 00 |
| do $\qquad$ $\qquad$ $\qquad$ Lbs. Perch, Bass and Suckers..Pieces | 8,055 | 48330 | 288,859 | 17,331 54 |  |  |
| Maskinunge.................... Bris.do............. Pieces. |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Coarse Fish..........................irls. |  |  |  |  | 617 | 1,234 00 |
| Sinelt.............................Lbs. | 431,625 | 25,897 50 | 1,559,200 | 93,552 00 |  |  |
| Catfish |  |  |  |  | 3,015 | 1,50750 |
| Tom Cod .................... Bush. |  | - | ............. | ........ |  |  |
|  |  |  |  |  | 22,000 | 11,000 00 |
| Mixed Fish.................... Brls. |  |  |  |  |  | 50000 |
| Oysters............................. do | 1,040 | 3,120 00 |  |  | 19,530 | 97,650 00 |
|  | 3,348,720 | 502,308 00 | 1,416,357 | $\begin{gathered} 23,733 \\ 212,453 \\ 55 \end{gathered}$ | 245,335 | 36,800 25 |

within the Dominion of Canada, for the Year 1876.


General Recapitulation of the Yield and Value of Fisheries


## within the Dominion of Canada, for the Year 1876..-. Continued.



*These figures are taken from Custom House returns of Exports.

## Grneral Statement showing the Quantity and Value of Fish and Products of Fish exported from the Dominion of Canada during the Fiscal Year ending 30th June, 1876.



General Statement showing the Quantity and Value of Fish, \&c.Dominion of Canada.-Continued.


General Statement showing the Quantity and Value of Fish, \&c.Dominion of Canada.-Continued.


## General Statement showing the Quantity and Value of Fish, \&c.-

 Dominion of Canada.-Continued.| Articles. | Countries. | Goods, the Produce of Canada. |  | Goods, not the Produce of Canada. |  | Total Exports, Produce and not Produce. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Quantity. | Value. | Quantity. | Value. | Quantity. | Value. |
| Lobsters; preserved | Great Britain.....United Sta ${ }^{\text {a }}$.es....Newfoundland... | $\begin{gathered} \text { Lbs. } \\ 3,745,512 \\ 787,349 \end{gathered}$ | $\begin{gathered} \$ \\ 460,606 \\ 106.099 \end{gathered}$ | Lbs. 318 | $35^{\circ}$ | Lbs. <br> 3,745,830 | $\underset{460,641}{\$}$ |
|  |  |  |  | ............ | ${ }^{-\ldots . . . . . . . . . . . ~}{ }^{35}$ | 787,349 | 106,099 |
|  |  | $\begin{aligned} & 787,349 \end{aligned}$ | 106,099 1,417 |  |  | 12,470 | 1,417 |
|  | British W. Indies | 24,300348 $\quad \begin{array}{r}\text { 3,154 } \\ 25\end{array}$ |  |  | ............. | 24,300 | 3,154 |
|  | Danish W.Indies |  |  | ... |  | 348 | 25 |
|  | French W.Indies | 196 | 24320 | ................. | ................. | 2,544 | 320 |
|  | St. Pierre et Mi. ${ }^{\text {Prance }}$ | 2,544 |  |  |  |  |  |
|  | quelon... | 48 |  |  |  | 48 | 8 |
|  | Madeira ........... | 1,200 | 129 |  |  | 1,200 | 129 |
|  | Australia.......... | 1,000 | 120 |  | ....... | 1,000 | 120 |
|  |  | 4,574,967 | 571,902 | 318 | 35 | 4,575,285 | 571,937 |
| Bait. | $\left\lvert\, \begin{array}{r} \text { St. Pierre et Mi-i } \\ \text { quelon........... } \end{array}\right.$ | $\mathrm{Brls}_{1}$ |  |  |  | Brls. ${ }_{1}$ | 3 |
| Salmon, fresh....... | United States.....Danish W. Indies | Lbs. <br> 577,739 | 73,745 |  | ... | 577,739 | 73,745 |
|  |  | 1,290 |  | ................ |  |  |  |
|  | Hayti.............. | 150 | 18 | ............. |  | 1,290 | 18 |
|  | $\left\lvert\, \begin{array}{\|c\|} \text { Madeira ........... } \\ \text { St. Pierre et Mi- } \\ \text { quelon.......... } \end{array}\right.$ | 270 | 590 | ...................... | \|.... ........ | 270 | 27 |
|  |  | 4,917 |  |  |  | 4,917 | 590 |
|  |  | 584,366 | 74,534 | ... .......... |  | 584,366 | 74,534 |
| Salmon, Smoked... | Great Britain.....United States.... | $\begin{gathered} \text { Lbs. } \\ 28,700 \\ 28,701 \end{gathered}$ | $\begin{gathered} 45 \\ 3,293 \end{gathered}$ |  | ............... | $\begin{gathered} \text { Lbs. } \\ 28,70 \\ 28,701 \end{gathered}$ | $\begin{array}{r} 45 \\ 3,293 \end{array}$ |
|  |  |  |  |  |  |  |  |
|  |  | 29,101 | 3,338 | ........ .... | .. ... | 29,101 | 3,338 |
| do Canned...... |  | $\begin{aligned} & \text { Lbs. } \\ & 400,777 \\ & 216,641 \end{aligned}$ | 51,381 |  |  | ${ }_{400,777}$ | 51,381 |
|  | Great Britain.....1United States.... |  |  | ... | ............. |  |  |
|  |  |  | 27,337, |  | .............. | 216,641302 | 27,33745 |
|  | $\left\lvert\, \begin{aligned} & \text { Pritish W. Indies } \\ & \text { Branch W.Indies } \\ & \text { Fren }\end{aligned}\right.$ | $\begin{array}{r} 216,641 \\ 302 \\ 696 \end{array}$ |  |  | -............... |  |  |
|  |  | 696 | 351 | . |  | $\begin{aligned} & 302 \\ & 696 \end{aligned}$ | 351 |
|  | French W.Indies | 100 | $\begin{array}{r} 2,101 \\ 15,2+2 \end{array} .$ |  | ..... | 18,394 | 2,10115,242 |
|  |  | 126,320 |  |  | ................ |  |  |
|  | Anstralia. ........ |  |  |  |  |  |  |
|  |  | 763,220 | 96,475 |  | ............. | 763,220 | 96,475 |
|  |  | Brls. ${ }^{310}$ | 9.90 |  |  |  |  |
| do Pickled..... | Great Britain..... |  |  |  |  | 3101,515 | 22, 950 |
|  |  | 1,515 | 22,171 | ................. | .............. |  |  |
|  | British W. Indies, | 1,123: | 17,229 |  |  | 1,12356 | 17,229722 |
|  |  | ${ }^{56}$ | ${ }^{722}$ 588, |  | .............. |  |  |
|  | \| SpanishW.Indies ${ }^{\text {D }}$ | 42 |  |  | ....... ..... |  | 588 |
|  | \| Dayti.............| | 135 | $\begin{array}{r} 1571 . \\ 1,661 \end{array} .$ |  | .............. | 135 | ${ }_{1,661}^{157}$ |
|  | $\left\|\begin{array}{\|c\|}\text { British Giana.... } \\ \text { Australia........ } \\ \text { iSandwichislands }\end{array}\right\|$ | 249 | $\begin{aligned} & 1,080 \\ & 3,250 \end{aligned}$ |  |  | $\begin{aligned} & 249 \\ & 658 \end{aligned}$ | 1,0803,250 |
|  |  | 658 |  |  |  |  |  |
|  |  | 4,107 | 47,808 |  |  | 4,107! | 47,808 |

General Statement showing the Quantity and Value of Fish, \&c.Dominion of Canada.-Continucd.


General Statement showiug the Quantity and Value of Fish, \&c.Dominion of Canada.-Continued.

| Articles. | Cocitries. | Goods, the Prodece of Canada. |  | Goods, not the Produce of Canada. |  | Total Exports, Produce and not Prodoce. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Quantity. | Value. | Quantity. | Value. | Quantity. | Value. |
| Othe: Articles...... | Great Britain . |  |  |  | S |  | 5 |
|  | United States..... | ................. | $\begin{array}{r} 1,075 \\ 14,308 \end{array}$ | ................. |  |  | 1,075 4,303 |
|  | British W. Indies | ............. | 14,308 289 | .............. | ... | -1. | -289 |
|  | Spanish W.Indies | .............. | 16167 | ........ | . ......... | .............. \| | 161 |
|  | Danish W. Indies | ... ..... |  | ... | ........... | . | 67 |
|  | St. Pierre et Mi - |  | 67 12 | ......... | . . ........ | ............... | 12 |
|  | quelon........... | .... | 15 | ........... |  |  | 15 |
|  | France.. | ... | 2,043 |  |  |  | 2,043 |
|  | Madeira .......... | ......... | 49250 |  |  |  | 45 |
|  | South America... Australia.......... | .............. |  | .... .... | .. ......... | ........... | 25. |
|  | Italy. ................. |  | 50 |  |  |  | 50 |
|  |  | - | $\underline{18,31}$ | -........... | $\cdots$ |  |  |
|  |  | $\cdots$ | 18,343 |  |  | .............. | 18,343 |

Total Value of Fish and Products of Fish Exported from the Dominion of Canada during the Fiscal Year ending 30th June, 1876.


General Statement showing the Quantity and Value of Fish and Products of Fish Imported in the Dominion of Canada, during the Fiscal Year ending 30th June, 1876.


General Statement showing the Quantity and Value of Fish, \&c.Dominion of Canada.-Continued.

| Articles. | Countries. | Imported. |  | Entered for Home Consumpiton. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Quantity. | Value. | Quantity. | Value. | Duty. |
| FREE-Continued. |  | Brls. | \$ | Brls. | \$ |  |
| Fish, including Cod, Faddock, Ling and Pollock, Pickled <br> do do Smoked $\qquad$ | United States....... | 3 | 20 | 3 | 20 | ................. |
|  |  | L.bs. |  | Lbs. |  |  |
|  | United States....... | 1,001,644 | 58,141 | 1,001,644 | 58,141 | .............. |
| do Mackerel, fresh..... | United States........ | Lbs. 3,018 | 225 | Lbs. $3,018$ | 225 |  |
| do do Pickled ........ | United States........ | Brls. 731 | 5,871 | Brls. 731 | 5,871 | ... |
| do Halibut, fresh ...... | United States........ | Lbs. 12,490 | 503 | Lbs. 12,490 | 503 |  |
| do do Picklcd ........ | United States........ | Brls. ${ }^{\text {9 }}$ | 89 | Brls. 9 | 89 |  |
| do Herring, fresh...... | United States....... | Lbs. $152,797$ | 3,014 | $\begin{aligned} & \text { Lbs. } \\ & 152,797 \end{aligned}$ | 3,014 | ................. |
| do do Pickled ....... | Newfoundland ..... | Brls. 4,574 | 17,973 | Brls. 4,574 | 17,973 | ................. |
|  | United States.......\| St.Pierre et Miq'lon | 3,421 <br> 88 | 13,383 | 3,421 88 | 13,383 <br> 352 | .................. |
|  |  | 8,083 | 31,708 | 8,083 | 31,708 | ................. |
| do do Smoked ....... | United States....... | Lbs. $550,682$ | 18,945 | Lbs. $550,682$ | 18,945 | ................. |
| Sea Fish, other, fresh ..... | United States....... | $\begin{aligned} & \text { Lbs. } \\ & 238,866 \end{aligned}$ | 7,202 | I،bs. $238,866$ | 7,202 |  |
| do do Pickled....... | United States.. ..... | Brls. 204 | 8961 | Brls. $204$ | 896 |  |
| do do Preserved...... | United States........ | Lbs. 5,888 | 577 | Lbs. $\overline{5}, 888$ | 577 | ... |
| Fish, Ojsters, fresh....... U | United States....... | Brls. 12,271 | 89,457 | Brls. 12,271 | 89,457 | ........ ......... |

General Statement showing the Quantity and Value of Fish, \&c.Dominion of Canada.-Continued.


General Statemeft showing the Quantity and Value of Fish, \&c.Dominion of Canada.-Coutinued.


Total Value of Fish and Products of Fish Imported in the Dominion of Canada, during the Fiscal Year ending 30th June, 1876.

| Cocntries. | Impurted. | Entered for Home Consumition. |  |
| :---: | :---: | :---: | :---: |
|  | Value. | Value. | Duty. |
|  | \$ | \$ | \$ cts. |
| Great Britain ............. .................. ....... ........ | 9,119 | 10,397 | 1,743 16 |
| United States................................................. | 692,855 | 693,212 | 2,198 48 |
| France........................ .............. .................... | 1,821 | 2,061 | 36068 |
| China ...................................... ................... | 233 | 16 | 288 |
| Norway............................................ . .......... | 24 | 2.4 | 210 |
| Newfoundland ............................. .......... ...... | 745,977 | 735,805 | - |
| St. Pierre et Miquelon....................................... | 5,822 | 5,822 | ...................... |
| Total........................................... | 1,455,851 | 1,447,427 | 4,30730 |

Statement showing the Quantity and Value of and Products of Fish Exported from the Dominion of Canada, during the six months ending 31st December, 1876.


## Statement showing the Quantity and Value of and Products of Fish, Exported, \&c.-Continued.

| Articles. | Countries to which Exportad. | Goods, the Prodece of Canada. |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Quantity. | Value. | Duty. |
| Mackerel, pickled | Great Britain | Brls. ${ }_{10}$ | \$ 4 |  |
|  | \|United States..................... | 28,776 | 241,100 | ............ |
|  | British West Indies ........... | 9,617 | 67,586 | .............. |
|  | Spanish Weat Indies......... | 4,740 | 32,516 | ............ |
|  | Danish West Indies........... | 235 | 1,892 | ............. |
|  | Dutch West Indies............ | 8 | 75 | .............. |
|  | Hayti...................... | 735 | 5,725 | ............. |
|  | British Guiana................ | 790 | 5,614 | ... ......... |
|  |  | 44,911 | 354,552 | ... |
| Halibut, pickled............................ | Great Britain.................... <br> United States. | Brls. |  |  |
|  |  | 1 | 10 | ............. |
|  |  | 42 | 132 | .............. |
|  |  | 43 | 142 | .............. |
| Herring, fresh ............................... | United States.................. | Lbs. $1,111,500$ | 8,345 |  |
| do pickled............................ | Great Britain................... | Brls. |  |  |
|  |  | ${ }^{432}$ | 1,519 | ........... |
|  | United States................... | 32,324 | 117,240 | .............. |
|  | Newfoundland ................. | 248 | 768 | .............. |
|  | British West Indies .......... | 28,009 | 98,877 | .............. |
|  | Spanish West Indies ......... | 11,237 | 40,779 | .............. |
|  | Danish West Indies .......... | 2,543 | 9,066 | ........... |
|  | French West Indies......... | 50 | 125 | .............. |
|  | Dntch West lndies............ | 19 | 72 | ...........m. |
|  | Hayti ................ ........... | 75 | 300 | .............. |
|  | British Guiana................ | 2,330 | 9,355 | ..... |
|  | Snint Pierre ................... | 1,076 | 4,304 | .............. |
|  |  | 78,343 | 283,405 | ......... ... |
| fo smoked.. | Great Britain .............. ... | Lbs. |  |  |
|  |  | 272,990 | 19,207 | ............. |
|  | United States.................. | 439,948 | 10,361 | ...... ........ |
|  | Newfoundland ................ | 5,626 | 203 | . |
|  | British West Indies .......... | 120,933 | 3,924 | ............ |
|  | Spanish West Indies ......... | 18,675 23,549 | 710 | ............. |
|  | French West Indies............ | 53,912 | 1,545 | ...... .......... |
|  | Dutch West Indies ............ | 4,490 | 124 | . |
|  | Hayti ................ ........... | 21,425 | 700 |  |
|  | British Guiana................. | 1,467 | 35 |  |
|  | Madeira ......................... | 746 | 35 | ............ |
|  | Saint Pierre .................... | 36,686 | 1,162 | ........... |
|  |  | 1,000,447 | 38,694 | . |
| Sea Fish, other, fre3h..................... | United States.. ...... ... ... | Lbs. |  |  |
|  |  | 1,315 | 130 | ... |

Statement showing the Quantity and Value of and Products of Fish, Exported, \&c.-Continued.

| Articles. | Countries to which Exported. | Goods, the Prodoce of Canada. |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Quantity. | Value. | Duty. |
|  |  | Brls. | \$ | \$ cts. |
| Sea Fish, other, pickled.................. | United States....... ........... | $\begin{array}{r}783 \\ \hline\end{array}$ | 9,907 | ............ |
|  | British West Indies .......... | 1,207 | 5,825 | ............. |
|  | Danish West Indies .......... | 15 803 | 68 4,440 | ............. |
|  | Bayti ..... ..................... | 803 | 4,440 | .............. |
|  | $\left\lvert\, \begin{aligned} & \text { British Guiana................. } \\ & \text { Saint Pierre ................. }\end{aligned}\right.$ | 50 3 | 250 12 | ............ |
|  |  | 2,861 | 20,502 | .............. |
| do preserved.. ............. | Great Britain................... | Lbs. $5,504$ | 54 | ............... |
| Oysters, fresh | Great Britain $\qquad$ <br> United States. $\qquad$ <br> Newfoundland $\qquad$ <br> St. Pierre $\qquad$ | Brls. 32 | 90 | ......... |
|  |  | 99 | 337 | ............... |
|  |  | 109 | 204 | ............... |
|  |  | 28 | 74 | ........... |
|  |  | 268 | 705 | .... |
| Lobsters, preserved | Great Britain $\qquad$ <br> United States.. <br> British West In..... $\qquad$ <br> Spanish West Indies $\qquad$ <br> Brazil $\qquad$ <br> Madeira $\qquad$ <br> St. Pierre $\qquad$ <br> Hayti $\qquad$ | $\xrightarrow{\text { Lbss. }}$ |  |  |
|  |  | $3,735,04$ 559,938 | - 02,677 | ............... |
|  |  | 8,606 | 1,059 | ............... |
|  |  | 40 | 5 | .................. |
|  |  | 288 | 36 | .............. |
|  |  | 144 | 27 | ............... |
|  |  | 126 | 27 | .............. |
|  |  | 288 | 60 | ............... |
|  |  | 4,303,434 | 483,621 | ............... |
| Salmon, fresh | Great Britain United States | Lbs. |  |  |
|  |  | $\begin{array}{r} 4,800 \\ 332,403 \end{array}$ | $\begin{array}{r} 700 \\ 29,659 \end{array}$ | ........ |
|  |  | 337,203 | 30,359 | ............... |
| do smoked | United States.... ................British West Indies .......... |  |  |  |
|  |  | 17,912 234 | 2,161 31 | .................. |
|  |  | 18,146 | 2,192 | .............. |
| do canned | Great Britain $\qquad$ <br> United States.. $\qquad$ <br> British West Indies $\qquad$ <br> Madeira $\qquad$ <br> Australia. $\qquad$ | Lbs. |  |  |
|  |  | 393,235 19,078 | 54,433 2,497 | ............... |
|  |  | $\begin{array}{r}192 \\ \hline 84\end{array}$ | $\begin{array}{r}2,16 \\ \\ \hline\end{array}$ | ....... |
|  |  | 144 | 27 | ...... ........ |
|  |  | 162,432 | 23,400 | ................. |
|  |  | 574,973 | 80,373 | ............ |

Statement showing the Quantity and Value of and Products of Fish, Exported, \&c.-Continued.

| Articles. | Cocntries to whichExported. | Goods, the Prodoce of Canada. |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Quantity. | Value. | Duty. |
| Eslmon, pickled |  | Brls. | \$ | S $\mathrm{ct}_{3}$. |
|  | Great Britain .................! | 468 | 4,637 | ............ |
|  | United States...... ...... .a. | 2,502 | 33,087 | ............. |
|  | British West Indies ..... .... | ${ }^{560} 124$ | 5,814 | ................. |
|  | Danish West Indies ............ | 24 | 377 | ................. |
|  | Dutch West Indies............: | 8 | 135 | ............ |
|  | $\left\lvert\, \begin{aligned} & \text { British Guiana...... ..... ..... } \\ & \text { Madeira }\end{aligned}\right.$ | 48 3 | 645 | ...... ...... |
|  | Australia............................... | 294 | 2,553 | -.............. |
|  |  | 4,031 | 48,250 | ...... |
| Fish, all other, fresh ...................... |  | . ......... | 40 |  |
|  |  | ........... | 38,388 | ........ |
|  |  | ....... | 38,428 | .............. |
| Fisl, all other, pickled................... | Great Britain <br> United States <br> British West Indies <br> France | Brls. |  |  |
|  |  | 473 | 1,733 | …......... |
|  |  | $\begin{array}{r} 4,573 \\ 75 \end{array}$ | 17,698 400 | -............. |
|  |  | $\begin{array}{r}75 \\ 431 \\ \hline\end{array}$ | $\begin{array}{r} 400 \\ 2,000 \end{array}$ | -.............. |
|  |  | 5,552 | 21,831 | ............. |
| Fish Oil, Whale............................ | Great Britain .....................United States ............. | Gals. |  |  |
|  |  | 5,510 | 3,931 | ............ |
|  |  |  |  |  |
|  |  | 8,780 | 5,586 | .... |
| do Cod............... ............... | Great Britain. United States. Newfonndland Spanish West Indies | Gals. |  |  |
|  |  | 76,161 | 41,392 | \|..... ....... |
|  |  | $\begin{array}{r}51,192 \\ 400 \\ \hline\end{array}$ | 24,891 200 | ....... |
|  |  | 150 | 106 | ....... |
|  |  | 127,903 | 66,589 | ............ |
| do otber............................. |  | Gals. |  |  |
|  |  | $\begin{array}{r} 831 \\ 22,0 \times 1 \end{array}$ | $\begin{array}{r} 745 \\ 20,221 \end{array}$ | ................. |
|  |  | 22,902 | 20,966 | ............. |
| Furs aud Skins, the produce of marine animals. | Great Britain .................................................. |  |  |  |
|  |  | .................... | $\begin{array}{r} 17,379 \\ 3,483 \end{array}$ | …........... |
|  |  | .............. | 20,862 | ......... ..... |

## "General Statement of the Fisheries, showing the Quantity and Value Exported, \&c.-Continued.



RECAPITULATION.

| Total Exports to do | United States. <br> Other countries | $\begin{array}{r} \quad 783,653 \\ 2,755,347 \end{array}$ |
| :---: | :---: | :---: |
|  |  | 3,539,000 |

Statement showing the Quantity and Value of Fish, and Products of Fish, Imported and Entered for Consumption in the Dominion of Canada during the six months ending 31st December, 1876.


Statement showing the Quantity and Value of Fish, Imported, \&c.Dominion of Canada.-Conttnued.


Statement showing the Quantity and Value of Fish Imported, \&c.Dominion of Canada.-Continued.

| Articles. | Countries whence <br> Imported. | Imported. |  | Entered for Mome Conscmption. |  | Dutr. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Quantity. | Value. | Quantity. | Value. | Amount Received. |
| FREE-Continued. |  | Galls. |  | Galls. |  |  |
| Oysters, shelled, in bulk....... | United States.... | 39,494 | 37,652 | 39,494 | 37,653 |  |
| iobsters, fresh .................... | United States..... | Brls. ${ }_{247}$ | 1,259 | Brls. | 1,259 |  |
| do preserved, in cans... | United States..... Newfoundland... | 34,651 | 4,778 | 34,651 | 4,778 |  |
|  |  |  |  |  |  |  |
|  |  | 73,523 | 10,723 | 72,523 | 10,723 | ............ |
| Fish-bait ............................ | United States.... | lerls. 435 | 1,887 | Brls. 435 | 1,887 | ........ ..... |
| do Clams or other ....... | Onited States..... | Brls. ${ }_{77}$ | 392 | Brls. | 392 |  |
| Fish, Salmon, Fresh............... | United States.... | $1,254$ | 77 | Lbs. 1,254 | 77 |  |
| do Smoked.......... | United States..... | $\begin{aligned} & \text { Lbs. } \\ & \text { 11,195 } \end{aligned}$ | 607 | $\begin{aligned} & \text { Lbs. } \\ & \text { 11,195 } \end{aligned}$ | 607 | .......... |
| do Canned........... | United States.... | Cans. $97,076$ | 11,737 | Cans. 97,076 | 11,737 |  |
| do Pickled........... | United States..... | Brls. | 776 | Brls. $73$ | 776 | ............... |
| Fish: other, Fresh.......... .i.. | United States..... | 2,673 |  | ............... | 2,673 | ............... |
| do Pickled........... | United States. ... | Brls. $333$ | 1,560 | Brls. $333$ | 1,560 |  |
| Fish Oil, Whale................... | United States..... | Galls. 1,502 | 1,341 | Galls. 1,502 | 1,341 |  |
| do Cod...................... | Great Britain..... <br> United States..... <br> Newfoundland... | Galls. |  | Gails |  |  |
|  |  | 512 | 553 | 512 | 553 | ........ ..... |
|  |  | 29,755 | 13,958 | 29,755 | 13,958 | ............... |
|  |  | 14,578 | 9,303 | 14,578 | 9,303 | ...... ........ |
| do Other.................. | United States..... Newfoundland... | 44,845 | 23,814 | 44,545 | 23,814 | ............... |
|  |  | Galls. 109,433 |  | Galls. |  |  |
|  |  | $\begin{array}{r} 109,433 \\ 8,044 \end{array}$ | $\begin{array}{r} 40,613 \\ 4,225 \end{array}$ | 109,433 8,044 | 40,613 4,225 | ...... |
|  |  | 117,477 | 44,838 | 117,477 | 44,838 | ............... |

## Statement showing the Quantity and Value of Fish Imported, \&c.llominion of Canada.-Continued.



RECAPITULATION.

| Total Dutiable $\qquad$ $\qquad$ do Free $\qquad$ $\qquad$ | $\begin{array}{r} \$ \\ 37,700 \\ 886,846 \end{array}$ | .............. | $\begin{gathered} \$ \\ 37,990 \\ 886,846 \end{gathered}$ | $\underset{6,545}{\mathbb{S}} \underset{79}{ } \text { cts. }$ |
| :---: | :---: | :---: | :---: | :---: |
| Total Imports of Fish and Products of <br> Fish, for six months ending 3lst <br> December, 1876....... <br> $\mid \ldots . . . . . . .$. | 924,546 | ............. | 924,836 | 6,545 79 |

## FISH TRADE OF CANADA.

Last year's report embodied an advance statement from the Customs Depart. ment of fish exports and imports for the six months ending 31st Deecmber, 1875, in order to complete the transactions in this business from the close of the fiscal to the end of the calendar year. A similar half-yearly statement for 1876 is now appended to this report; for which also I am indebted to the Department of Customs. With a view to facilitate comparison, the tables of trade in products of the fisheries for the whole of the financial year from 30 th June, 1875, to 30 th June, 1876, are likewise published herewith. Comparing the exports of fish and fish oils for the fiscal years 1875 and 1876 , there is an increase in the latter over the former year amounting to $\$ 120,694$; and a decrease of imports amounting to $\$ 144,439$. The total figures in each \{year stand thus:-

Exports in 1875..................................................... \$5,380,527
lmports in 1875 .................... ................................. $1,600,290$
Exports in 1876 .................................................... 5,501,221
Imports in 1876 .................................................... $1,455,851$
Of these values the sum of $\$ 1,644,828$ represents fish produce exported to United States markets, and $\$ 3,735,699$ exported to other countries, in 1875 ; the value of fish products imported from the United States in the same year is 8742,823 ; and the value imported from other countries is $\$ 857,467$; in 1876 the value of fish exports to the United States is $\$ 1,475,330$; and to other countries $\$ 4,025,891$; and of fish imports from the United States $\$ 692,855$; and from other countries, $\$ 762,996$.

Comparing the exports and imports of fish and fish oils during the six months ending 31st December, 1375 and 1876, respectively, the figures stand thus:-

Exports in half-year 1875 ........................................ $\$ 3,502,200$
Imports do 1875 ....................................... 361,918
Exports do $1876 \ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . . .$. 3,539,000
Imports do $1876 \ldots \ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . .$. ....... 924,546
The proportion of these values chargeable to the United States and to other countries, respectively, is as follows:-

## In last six months of 1875-

Exported to United States............................................. $\$ 999,650$
do other countries......................................... 2,502,550
Imported from United States...................................... 337,846
do other countries .................................... 24,072
In last six months of 1876-
Exported to United States................................................ 8783,653
do other countrics...................... .................. 2,755,347
Imported from United States.................................... 444,920
do other countries..................................... 479,626
$5-d 3^{*}$

The following comparative table shows the several kinds and values of fish of which the above totals are composed, so far as regards the United States:-


Exports.
Codfish, including Haddock, Ling
and Pollock, dry salted...... 131,729
do wet " ...... 24,367
do pickled ......... 8
Mackerel, fresh...................... 4, 78.8
do pickled .................. 405,638
Halibut, " ................... 811
Herring, fresh........................ 12, 867
do pickled..................... 122,667
do smoked .................... 23,162
Sea fish, other, pickled............. 5,513
do proserved.
$-\quad 500$
................... 218
Oysters, fresh...................... 134 48,2.2
do in cans.
Lobsters, fresh
do preserved ................. 89,403
Fish Bait
Salmon, fresh
28,182
do smoked ...................... 1,164
do canned........ ............. 24,616
do pickled....... ............... 17,403
81,082
2,700
6,869
4,642
20
91
2,332
611
Fish, all other, fresh............... $40,664 \quad 8,036$
do pickled............ 13,491
363
Fish Oil, whale....... ............. 3,514 3,812
do cod........................ 29,075
do other.................... . 5,470
Furs or skins of marine animals 850
Other Articles........................ 14,134
Tish preserved in oil.
3,640
Fish caught in the inland lakes. ....
$\mathbf{5 , 4 4 3}$
22,475

1,051

Value of produce of Fisheries exported to United States for last six months of 1876 .... . $\mathbf{8 8 3 , 6 5 3}$

Valde of produce of Fisheries imported from United States for last six months of 1876 .

8444,920

Exports.
as follows:-
Codfish, including Haddock, Ling
and Pollock, fresh............. 8,502
do do dry salted....... 134,555
do do wet.............. 11,022
do do pickled........... 180
do do smoked .........
... 26,799
Mackerel, canned..................... 1,051 do fresh....................... ... do pickled .... ............... 241,100
Halibut, do .................. 132
do fresh
...
Herring, fresh ........................ 8,345
do pickled .................... . 117,240
do smoked...................... 10,361
Sea Fish, other, fresh............... 130 do pickled............ 9,907 246
do preserved........ ...
Oysters, fresh in shell.............. 337
do do incans.
do do in bulk
...
Lobsters, fresh.
do preserved.................. 62,677
Salmon, fresh.
29,659
do smoked ..................... 2,161
do canned .................... 2,497
do pickled.
33,087
Fish, all other, fresh.............. 38,388 do pickled........... 17,693







Other Articles ..... 4,3746-d $3 \frac{1}{2} x$

Imports.
as follows:-
\$89,474
93,016
2,847
324

148
11,853
73
213
635
23,238
9,703

$$
21
$$24640916,186

$$
85,010
$$

37,652
...
1,259
5,395
77
607
11,737
776
2,673
1,560
1,341
13,958
843.

43,310
11,526

6-d $3 \frac{1}{2} x$.

| Fish Bait......................... | 1,887 |  |
| :---: | :---: | :---: |
| do Clams or other......... | 392 |  |
| Fish, salted or smoked.......... | 1,441 | - |
| do other, preserved in oil...... ... | 8,2¢5 |  |
| \$783,653 | \$444,920 |  |

The foregoing statements suggest certain important considerations in connection with our fisheries, namely :-

1. 'I'heir yearly increasing productiveness;
2. Their unfailing contribution to the support of the population in labor and food;
3. Their influence as an incentive to industrial enterprise;
4. Their great value as a staple of trade ;
5. The gradually increasing independence of our fishing interests of United States markets;
6. And the growing importance of their produce as regards the increase of our mercantile marine, the extension of foreign commerce, and the development of our natural resources.

## EXPENDITURES AND RECEIPTS.

The following statements exhibit the respective amounts expended and collcoted during the fiscal year ending 30 th June, 1876 , and the current expenses and collections from 1st July to 31st December, 1876. The expenditure for the period first above named is sub-divided for the several Provinces and services, as follows :-

## ontario.

Fishery Overseers' salarios and disbursements...... \$12,815 73
Fish-breedıng.................................................. 12,920 90
$\$ 25,73663$
QUBBEC.
Fishery Overseers' salaries and disbursoments.... . \$14,982 65
Fish-breeding ................................................. 10,05806
Fisheries' protection vessel, maintenance............. 17,832 82
" " " repairs and outfitting. 6,00000
NOVA SCOTIA.
Fishery Overseers' salaries and disbursements ..... 駺 14,65576
Fish-breeding ..... 7,194 01
21,849 77
NEW BRUNSWIOK.
Fishery Overseers' and Inspector of Fisheries' salaries and disbursements. ..... $\$ 10,08037$
Fish-breeding ..... 1,882 41
11,962 T 78
PRINCE EDWARD ISLAND.
Water Bailiffs' salaries. ..... \$ 46102
Total expenditure \$108,18373
And for the subsequent half-year as below :-
Ontario, Fishery Overseers' salaries and disbursements. \$7,866 86
Quebec do • do ..... 9,55487
Nova Scotia do do ... 7,604 98
New Brunswick do do ..... 5,159 00
Fisheries protection steamer "Lady Head" ..... 11,699 96
Fish-breeding ..... 15,07006
Prince Edward Island and Manitoba ..... $1,290 \quad 56$
British Columbia ..... 40000
Total $\$ 58,64629$
The Collections during the fiscal year are arranged under the following.heads:-ontario.
Rents, license fees, fines and confiscations. ..... \$4,596 71
quebec.
Rents, license fees, fines and forfeitures ..... 6,44090
nova scotia.
Tax on catch, fines and forfeitures ..... 44260
NEW BRUNSWICK.
Rents, taxes on catch, fines and forfeitures, ..... 2,030 91
BRITISH COLUMBIA.
Rent of fishing station ..... 10500
Total ..... $\$ 13,61612$

Of this sum, $\$ 15$ has been credited by the Department of Finance to Casual Revenue.

The receipts for the next six months are as follows:-
Ontario, rents and fees, fines and confiscations................82,779 80
Quebec, do. do. ............... 3,448 70
Nova Scotia, do. do. ............... 42000
New Brunswick do. do. ............... 53417

Total.....................................................87,182 67
Lease and License dues being payable invariably in advance, they are easily collected, and no arrears accrue. The whole amount collected in the last tiscal year is less than the sum received for the previous year. This decrease is due partly to the reduced rate of license fees charged for salmon fishing stations, and partly to the fact'that some of the best angling rivers on the North Shore, such as the Mingan, the Romaine and the Natashquan, were unoccupied last season, and consequently no rents were derived therefrom.

## LICENSES ISSUED.

There were 689 Fishery Licenses issued in Ontario, 606 in Quebec, 55 in New Brunswick and 14 in Nova Scotia, making together 1,364 .

## STAFF OF FISHERY OFFICERS.

In 1876 the Staff of Fishery officers consisted of the following :-
Ontario--Fishery Overseers (ex officio Magistrates) and Fishery Guardians. ..... 80
Quebec-Fishery Overseers (ex officio Magistrates) and Fishery Guardians ..... 85
Nova Scotia-Insiector, Fishery Overseers (ex officio Magis- trates) and Fishery Wardens. ..... 234
New Bronswick - Inspector, Fishery Overseers (ex officio Magistrates) and Fishery Wardens. ..... 100
Prince Edward Island-Fishery Overseers (ex officio Magis- trates) and Water Bailiffs. ..... 18
Manitoba-Fishery Overseer (ex officio Magistrate). ..... 1
Commander and crew of Fisheries Protection Steamer "Lady Head " ..... 24

Additions to the Staff were made in 1876 as follows:-
Ontario ..... 3
Quebee ..... 5
Nova Scotia. ..... 5
New Brunswick ..... 10
British Columbia ..... 1
Prince Edward Island. ..... 14
Crew of Fisheries Protection Steamer "Lady Head". ..... 2

Making altogether 582 Fishery Officers now employed in the Outside Service.
This regular Staff receives occasional aid from lock-masters on the Government sanals, and lighthouse keepers, which arrangement saves employing in certain places other Fishery Officers at separate salaries.

## REPOBTS OF FISHERy OFFICERS.

Detailed reports of the various Fishery Officers engaged in the service are *printed in the Appendices. They embrace particulars of the year's business in each fishery district; and also give details respecting the quantity and value of fish caught in subdivisions of the respective fishery districts, together with much interesting matter relative to the condition of every fishing, the state of the rivers, the observance of fishery laws, and proceedings taken for violations of the same.

## SALMON ANGLING.

The total sum accruing as rents under leases of angling privileges is $\$ 3, \mathbf{9 9 5}$.
The salmon caught by anglers with artificial flies numbered 2,880. The extreme heat of the past summer and consequent low water interfered with the sport of angling, although most of the streams were full of fish. The local Fishery Overseers and Wardens report that during the autumn months the spawning beds were covered with breeding fish, and salmon try were abundant. It is impossible to state the whole expenditure in rents, outfit, expenses, etc., which sportsmen incurred; but it is probable that the outlay of private persons on the thirty-two rivers fished by these angling parties was about $\$ 30,000$.

## FISH CULTUBE.

The Dominion Government has now seven pnblic establishments devoted to the atificial reproduction of fish, as follows:-At Newcastle and Sandwich, Ontario; Tadousac, Gaspé Basin and Restigouche, Quebec; Bedford, Nova Scotia; Miramichi New Brunswick.

At Newcastle, Ontario, over a million and a half of vivified zalmon eggs were deposited in a healthy state on the hatching troughs in the fall of 1876, together with 150,000 whitefish eggs and about 10,000 California salmon ova presented by the United States Fisheries Commissioner, Professor S. F. Baird. Upwards of oight millions of whitefish eggs were successfully laid down in the Sandwich establishment. The Tadousac establishment has one million of salmon eggs in excellent condition, together with 30,000 sea trout spawn and 5,000 California salmon ova. The establishment at Gaspe Basin has 920,000 salmon eggs on the rills, which at the latest dates were doing well. The number of salmon ova deposited at the Restigouche establishment was 720,000 , and at Miramichi it was reported that there were 640,000 . The suddenness of winter and early formation of ice in the Restigouche and Miramichi rivers unfortunately prevented the gathering of a larger stock of spawn. The establishment at Bedford Basin, near Halifax, has over a million of salmon eggs in a thriving condition. The total number of ova now in these establishments, which will be hatched during the spring of 1877, and distributed amongst the rivers of each of the Provinces, thus amount to $13,675,000$ —say $14,000,000$. This is a most gratifying prospect.

There are two serious defects connected with several of our fish-hatcheries, namely: the want of rearing ponds for the fry when first liberated as fish babies, unable to take care of themselves or to escape from the numerous and voracious enemies which are everywhere ready to intercept, harrass and devour them; and thewant of places to impound the adult fish for the purjowe of procuring spawn and milt. The present defective system is costly and laborious, and some better means must be devised. At Newcastle these difficulties have been overcome by artificial improvements, which local features and peculiurities regrarding the habits of salmonhave rendered feasible; and at Tadousac the natural facilities are remarkably good. It is hoped that by next season the existing defects at other places will be remedied.

## SHIINIENT OF FISH EGGS TO GREAT BRITAIN.

Conformably with the request of Hon. Mr. Blake, several thousands of whitefish and salmon eggs were shipped in January last to the Marquis of Exeter, to be placed in the ponds of His Lordship's estate. Owing to the detention which occurred during the stoppage of the Grand Trunk Railway, these eggs were too far advanced to. escape injury, and most of them had hatched out and died on the voyage. A batch subsequently taken charge of by Mr. Begg reached England in good condition, although they hatched out immediately on arrival, and were saved in Professor: Buckland's tanks at Kensington.

In the transport of these eggs, the fishery officers received active assistance from the post office and railroad officials, and through the cordial aid of the mail clerks on board the Atlantic steamers every necessary precaution was observed.

## OALIFORNIA SALMION FRY.

It is proposed to put into the River Escoumain, about twenty miles east of Saguenay, the young California salmon hatched from eggs courteously sent by the United Fisheries Commission. This river, once famous for salmon, was utterly ruined by a mill-dam and by spearing. It does not now contain a solitary salmon. 'Ihis deposit will therefore try the probability of these Pacific salmon thriving on the Atlantic coast. and will test the very interesting question of their instinctive return to the place of their growth.

## MILL REFUSE.

The injurious and illegal practice of emptying mill offals from lumber manufactories into the rivers and streams has not been sensibly diminished. As the statutes prohibiting such disposal of the refuse from saw mills admit of exemptions, the parties interested, to whom this habit is a slovenly sort of convenience and a saving of expense, are not slow to assert the impossibility of adapting their mills to dispose of the offals in any other way. This assertion raises a question as to the facts on each application to be exempted, and requires investigation into every case. But as Whe attendant trouble and expense would be considerable, it is recommended that certain pattern instances should be selected from which to judge of the practicability of compliance in all other similar cases. There should not, as a rule, be any exemptions as to the coarser offal ; but as regards sawdust, this special enquiry might be applicable. After determining that it is necessary for the public interest to compel any parties to comply with the statutes by disposing of sawdust otherwise than by placing it in the streams, the next step would be to determine how and at what cost itcan be done. An enquiry on these points needs to be of a practical character, and demands qualifications of a professional and mechanical kind. It should be thorough enough, and completely trustworthy, so as to carry the confidence of the public and the manufacturers. Whenever the practicability of conforming to the law at reasonable cost was thus established in different localities, the statutory prohibitions should be rigorously enforced; otherwise it would be better to repeal the Statute of 1873 altogether.

## OYSTER FISHERY.

We continue still to take all of our Oyster supply from the United States without making any userul efforts to preserve the remnant of our own or to cultivate new beds. If nothing better can be accomplished, I would suggest the closure of these fishings between 1st June and 15th September for thrce successive years. It is doubtful, however, if this will result in any permanent improvement unless accom. panied by skilled attention to the use of artificial aids and practical cultivation.

The decline of Oyster Fisheries in certain parts of Great Britain is now the subject of investigation by a Government Commission. This Commission already affirms.
the causes of declension are precisely the same as have been experienced in Canada these are over-fishing, catching immature fish, and fishing at inappropriate periods of the year. These malpractices are so well known in Canada and have been so often described and remedies prescribed in our fishery reports, without producing anything satisfactory, that it seems useless to further enlarge upon them.

## LOBSTER FISHERY.

Official enquiries into the applicability of the altered regulations affecting this fishery which had been adopted last summer are not yet complete. When sufficiently advanced to admit of basing thereon distinct recommendations for the perpetuation of our lobster supply, it is probable that the necessary restrictions will be applied in accordance with the local variations which are observable in the reproductive habits of lobsters.

## RESERVED WATERS.

The experimental reservation of Rice Lake, and permitting the fish to be caught with lines under licenses, has proved beneficial to the inhabitants and tourists. It has occasioned complaints on the part of steamboat and railway corporations, but does not appear very clear that the alleged decrease of foreign passenger traffic really is attributable to the license system. The small charge made for "Permits" is but an insignificant tax on aliens for the enjoyment of excellent sport which has been rendered attractive by spirited outlay and official supervision on the part of Canadians.

Should it be found convenient during the ensuing season to apply the same system to the waters in the vicinity of the Thousand Islands, I strongly recommend its adoption.

## TRAWLING WITH LINES.

Setting "bultows" or trawls for codfish is represented to be a practice injurious to the fisheries, and has on that account been petitioned against. The Department has inquired into this mode of fishing as practised at various localities, but has not yet found sufficiont reason for interfering with it to the extent of prohibition. 'There are circumstances under which its restriction would prove advantageous to certain communities of fishermen; and where such is the case, and the local benefit sought after can be gained at the expense of strangers without unduly reducing the catch of fish on which trade depends, some modified regulations should be provided.

## SEINING CODFISH.

This habit also has its opposants. Many remonstrances have reached this Department and received careful consideration. Attention is respectfully directed to the remarks by Commander Lavoie on this subject. Without adopting unreservedly his
views, I do not hesitate to say that, in this, as in all other instances of deep sea fishery, it appears highly desirable to abstain from interference as much as possible.

## ONTARIO SALMON,

Although great numbers of Salmon have been artificially bred during a few fears past on the borders of Lake Ontario, many of which were, however, distributed in other and distant places, the quantities caught by nets and sent to market are, comparatively speaking, very small. Fish are plenty enough, but until late in the autumn they remain so far from shore, and are so scattered about the open lake, that the difficulty and expense of capturing necessitate some experimental ventures in deep-water fishing such as nobody has yet undertaken. It was the practice formerly to capture salmon near or in the tributary streams and creeks when they approached the shore, or entered these tributarics for the purpose of spawning. Probably, too, when food was abundant along the shores they frequented the shoal waters to feed throughout the summertime. In 1875 the Department tried the experiment of catch. ing a limited quantity, near Newcastle, with trap nets. This proved feasible, about 120 salmon being caught in a short while. They were sold on the markets for $\$ 192.24$. It was found that, to admit of securing fish in paying numbers, it would be Pecessary to alter the law prohibiting their capture after July, as they were most numerous just at the end of the legal netting season. Consequently the time was extended ly an Order in Council for fifteen days; and to afford an opportunity for others to fish, four stations were defined and the privilege of using trap-nets thereon for the current season was let by public competition. Owing to the cost of nets and the shortness of the time allowed to use them, parties were unwilling to pay anything considerable for the licenses. But the trial sufficed to show that, under more favorable circumstances, an extensive salmon fishery might be established. The fishermen took 411 fish, weighing from eight to eighteen pounds each, which were also sold in neighbouring markets. It is suggested that leases for these privileges from three to five years be granted, and, if found desirable, that a still further extension of the fishing scason should be allowed. The chief objection to such letting for several years would be the probable inadequacy of a fixed rent based on the present small yield, as it is reasonable to anticipate a yearly and large increase of fish in that vicinity owing to the proximity of the public fish-hatchery from which immense numbers are being turned into the lake. If the lessees were made liable to pay a fair percentage, rated on the gross proceeds of the fishing, the Department could well afford to accept such nominal rent at the outset as may accord with the reasonable views of tenderers. Should this suggestion be adopted, the terms ought to be made known at an early date in order that due preparations can be made. I think that the Department should reserve the liberty of occup.ying one or two places nearest the creek on which the Government establishment exists for purposes connected with the enterprise. If it is deemed advisable to catch a moderate number of fish for public supply, the greatest care should be taken to avoid coming unfairly into competition with private enterprise.

## PROTECTION OF BAR-FISH.

This fishery in the neighbourhood of Quebec has suffered considerably from indiscriminate pursuit. There is some difference of opinion as to the time of spawning peculiar to the striped bass which frequent the upper St. Lawrence. Commander Lavoie, and the Local Fishery Overseer at L'Islet, examined into the matter last summer, and although they found that the close season fixed by the fishery laws was, in the main, accurate, they do not advise its rigid enforcement. They, however, strongly urge that steps be taken to stop the wasteful capture of young bar-fish by means of small meshed seines. As this abuse is already pro ${ }^{-}$ hibited by the fishery laws its practice can have been possible only through negligence or inefficiency on the part of local fishery officers.

PRINCE EDWARD ISLAND.
Several Fishery Overseers and Wardens having been appointed, the fishery laws have been carried out so far as they are practically applicable to the condition of things. As soon as possible, however, the Provincial Acts still in force should be replaced by suitable regulations. These regulations could be adopted only after careful examination on the spot, for which purpose a competent person should be instructed to make personal inquiry, visiting each of the districts, consulting with the local Fishery Officers and others, and to report his suggestions for your consideration. In the absence of a General Inspector, Mr. Isatac Thompson, Fishery Overseer for Queen's County, is a suitable person to be entrusted with this duty.

## BRITISE COLUMBIA.

The report of the Inspector of Fisheries for this Province gives an interesting account of the coast and inland fisheries which appear to be attracting the attention of calitalists. It reems impracticable at present to ascertain what quantities of fish are consumed by the inhabitants, but the exportable produce of the fisheries is valued for last year at $\$ 104,697$. These fisheries afford a vast field for the employment of capital and enterprise.

Respecting the adoption of fishery regulations the Inspector observes:-
" With regard to the provisions of the Fshery Act at large, there are many portions which, under the showing I have made, are necessarily inapplicable to this Province. Their application, indeed, would in some cases entirely neutralize all fishing operations: for instance of the salmon, at present the most lucrative. I have therefore assumed that such portions only of the Act as are obviously of general application shall be locally adopted. Without, therefore, interfering captiously, and injuriously, as I conceive, with existing practices, I shall continue, as hitherto, to exercise a watchful surveillance for the common benefit, reporting from time to time the result of my observations, and, under your sanction, extending such further protective portions of the law as may be found nocessary or expedient."

This course is considered prudent, and it is presumed will receive your official sanction.

It having been urgently represented that parties were using giant powder and other explosive compounds to kill fish, a prohibitory Order was passed by the Governor-General in Council and promptly communicated to the Inspector, by whom this nefarious habit was peremptorily stopped.

## MANITOBA.

A full description of the fisheries of this Province is contained in the report of the lccal fishery officer. There does not seem to be any urgent necessity as yet for adopting stringent regulations, although attention will soon be required towards the increasing endeavours of parties to ply the fishings unduly whilst the fish are engaged in multiplying their species. The value of fish taken during the season is estimated at $\$ 30,590$.

## PORTAGE ISLAND, N. B.

The deed of transfer of Portage Island, Mir., sent for execution, as amended and approved by the Admiralty authorities, embodies conditions not contemplated by the eriginal Order of the Governor General in Council accepting its surrender. These conditions are incompatible with legal control and due regulation of the use of fishing berths around that Island. It is therefore respectfully suggested that this surrender be not completed, but that the holdings of tenants of "fishing lots" may continue to be dcalt with by the Admiralty Agents as regards whatever legal "rights" may have been conveyed to them; and that the fishing privileges be disposed of under the fishery regulations irrespective of such titles.

## FIGE-CULTURISTE' SOCIETY.

The usual annnal meeting of the Americam Fish-Culturists Association will be held at New York in February next; but I regret that the Session of the Dominion Parliament will prevent my attendance. If possible, Mr. Wilmot should attend. Both of us were invited to join the members of this Association at Philadelphia during the Centennial Exbibition, when an extra session was convened. Absence from home on urgent duty compelled us to forego the pleasure. The uniform courtesy and cordial co-operation extended to us, as Canadians, by the Federal Fisherios Commission and the State Fishery Commissioners, on behalf of the common cause of improving the fisheries and increasing the food of the people, are most gratifying.

## CONCLUEION.

The fishery staff of outside officers now numbers about 600 persons. Many of these individuals have served for several years without any increase of pay, and others have had but very slight additions to their salaries, although in nearly every case there has been considerable extension of duty; and the experience of each efficient officer renders his service increasingly valuable. The scale of salaries,
always extremely low, ought to be revised. There are numerous instances of positive and some cases of relative injustice, all deserving of adjustment. I am bound to say that the best fishery officers in the employ of this Department are stimulated into special activity and general efficiency much more by sportsmanlike interest in the business than by any actual or prospective advantages of a personal nature. At a time when the state of the public finances necessitates the observance of rigid economy, the claims of even the most deserving public officials, which it may in effect be the truest economy to satisfy, are apt to be set aside without even the poor appreciation of acknowledgment. It seems to me, nevertheless, to be my duty, knowing what is required of the officers under me, and how they fulfil their daties, to represent the facts in the hope, sooner or later, that circumstances shall favour such representation to their practical benefit.

I have the honour to be, Sir;
Your obedient servant,
W. F. WHITCHER,

Commissioner of Fisheries $\rightarrow$

## APPENDICES.

## FISHERIES.

## ANPENDIX No. i.

Schedule of Fishery Officers in the Provinces of Ontario, Quebec, Nora Scotia, New Brunswick, Prince Edward Island, British Columbia, and Manitoba, appointed under the Fisheries Act [1868], with Districts, Post Office Address, Salary, \&c., \&c., 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.


## Schedule of Fishery Officers in the several Provinces, etc.-Continued.

PROVINCE OF ONTARIO.-Conlinue.l.


## Schedule of Fishery Officers in the several Provinces, etc.-Continued.

PROVINCE OF QUEBEC.


## Schedole of Fishery Officers in the several Provinces, etc.-Continued.

PROVINCE OF QUEBEC.-Continued.

| Name. | District. | Address. | Overseer or Warden. | Salary. |
| :---: | :---: | :---: | :---: | :---: |
|  | Brought foruard... |  |  | 4,520 00 |
| G. Boulet....... ......Natashquan District, from River Nabisippi to Point Kegascha.......... |  | Montmagny ............... | Uverseer... |  |
| J. Legouvó........... | St. Augustine Division, from Cape Whittle to Checrtica.. | Pacachoo ................. | Warden ... | 10000 |
| W. I. Whitley...... | Bonne Esperauce Division, from Checatica to Blanc Sablon. $\qquad$ | Bonne Espérance Amberst | $\left\|\begin{array}{cc} \text { do } \ldots . \end{array}\right\|$ | 5000 |
| J. J. Fox............ | Magdalen Islands........................... |  |  | 5000 |
| W. U. Willis......... F. W. Austin..... | Waters in District of St. Franciz ...... Sherbroo |  | do ... | 15000 |
| Fi. IV. Austin....... | District of Montreal and Richelieu, togetber with Richelieu River and tributaries $\qquad$ | Chambly.............. ... |  | 20000 |
| S. F. Copp........... | Lake Memphremagor, in the Counties of Stanstead and Brome. $\qquad$ | Georgeville ............. | do $\ldots$ | 200 |
| J. B. Chevalier..... | Richelieu River, from St. John to Lake Champlair ................... | St. Jean, Iberville | do $\quad \cdots$ | 10000 |
| Pierre Latrarerse.. | Sorel and adjoining islands ............. | SoreI......................... | Guardian | 10000 |
| Y E. Luke .. ........ | Nississquoi Bay in Lake Champlain and Pike River. | Pbillıpsburg | Overseer... | 5000 |
| Andrew Watt. | Cbateanguay River and tributaries ... <br> River Chateauguay, from mouth to village ... | Inntingdou <br> Chateauguay Basin | do | 5000 |
| Alexander Benton.. | The inland waters in rear of the County of Argenteuil | ost Rirer, P.O., Hnr- |  |  |
| I. J. Loranger...... | The inland waters of the County of Terrebonne. $\qquad$ <br> Total. $\qquad$ | St. Saureur............... | $\begin{array}{ll} \text { do } & \ldots \\ \text { do } & \ldots \end{array}$ | $\begin{array}{r} 3000 \\ 10000 \end{array}$ |
|  |  |  |  | 5,800 00 |

PROTINCE OF NOVA SCOTIA.


## Schedule of Fishery Officers in the several Provinces, etc.-Contiuued.

PROVINC F OF NOVA SCOTIA.-Continued.


## Schedule of Fishery Officers in the sereral Provinces, etc.-Continuen

PROVINCE OF NOVA SCOTLA-Continued.


Schedule of Fishery Officers in the several Provinces. etc.-Continued. PROVINCE OF NOVA SCOTIA.-Continucl.


## Schedule of Fishery Officers in the several Provinces, etc:-Continued.

PROVINCE OF NOVA SCOTLA.-Continued.

| Name. | District. | Address. | Overseer or Warden. | Salary. |
| :---: | :---: | :---: | :---: | :---: |
|  | IIalifax County.-Continued. <br> Middle Musquodoboit |  |  | $\begin{gathered} \$ \\ 6,1 \in 0 \\ 0,0 \end{gathered}$ |
| Patrick Hughes ... | Tangier River | Tangier Ri | Warden.... | 3000 3000 |
| Neil McLean......... | Pennart Rive | Hubbard's Cov |  |  |
| Jas. Gardner........ | Nusquodoboit Barbor | Musquodoboit Harbor |  | 3000 |
| John Taylor ....... | Little Musquodoboit River | Little Musquodoboit |  |  |
| Geo. Parkcr .. | Cpper Musquod | \|Opper Musquodoboit |  | 300 |
| John Frazer | Moser's River and Ecu | I River Moser's River.............. |  | 3000 |
| Geo. Kiezer .. | Lake Porterand strean | Lake Porter. |  | 3.3000 |
|  | IIants County. |  |  |  |
| P. S. Burnham.. ... | Hants County, Western Division, from | Windsor |  |  |
| John W. Dinsmore | Shubenacadic River from Stewiacke |  | Orersecr .. | 10000 |
|  |  | Shubeuacrdie | Oremecr - |  |
| James Mosher | Rivers Meander and Hebert, from | Subenacadi |  | 30 |
| T. B. O'Brien | East Division from Walton to | 3rooklyn |  | 3000 |
|  | hester line. | Maitland | erseer | 10000 |
| Joseph Mosber | Keusetcook River, from its mouth to head of tide $\qquad$ |  |  |  |
| James M. O'Brien.. | Walton and Leluncicook Rivers ........ |  | Warden ... | 3000. |
|  | Incerness County. |  |  |  |
| Hugh Gillis ........ | Inverness County, East Division........ | Forks, Marg |  |  |
| Nurdoch A. Russ Peter Condy |  |  |  | $\begin{aligned} & 1000 \\ & 100 \\ & 100 \\ & 00 \end{aligned}$ |
|  | From mouth of Margaree River to South-west Chanel | S. IW Marare w. |  |  |
| Neil Meliay ........ | Upper waters and tributaries, Mar- <br> paree River | S. IV. Margaree, II. 0 | do ... | 2500 |
| Joinn Cameroun .... | garee River ............... Inverness Connty, Western Divisiou. |  | Warden .. | 2500 |
|  | Mabou River ................... ........... | River inlabita | Overseer | 10000 |
| Michael McDonald | River Dennis | River Deanis, $\mathrm{W} .0 . . . . .$. | Wardea | 25 (1) |
| Donald McDounld. | River Inhabitants.. | River Inhabitants, W.O | do | 25 2500 |
| Angus Cameron ... | do |  | do | 2500 |
| Hugh Cameron...... |  | Broad Cove |  | 2500 |
| James MeGarry .... | Ainslie Lake |  |  | 2500 |
| Kenneth McKonzie | Crowlis Bridge to liead of river | Big Intervale, N. E |  | 9500 |
| Malcolm Mcleod Mark Crowdis. | From Crowdis Bridge to | $\underset{\text { do }}{\text { Margaree }} \underset{\text { do }}{\text { do }}$.......... | $\begin{array}{ll} \text { do } & \ldots \\ \text { do } & \ldots \\ \hline \end{array}$ | $\begin{aligned} & 25 \\ & 20 \\ & 20 \\ & 00 \end{aligned}$ |
|  | east Margare River ....... ........ |  |  | 2008 |
| George Ingraham.. | From Crowdis Bridge to Forks, North-east Margaree River |  |  |  |
| John Carroll |  | do do |  | 500 |
|  | Chapel ........... |  |  |  |
| Donald McDonald..Matcolm McKay ... | Whycocomagh Bay | Whycoconare |  | 2500 |
|  | Tront River ........ | Lake Ainslie ............... |  | $\begin{aligned} & 25 \\ & 20 \\ & 20 \end{aligned} 00$ |
|  | King's County. |  |  |  |
| Adolphus Bisbop... John E. Starr.... | King a County <br> do | Kentville.................. Urerseer... |  |  |
|  |  | Port Williann................ | do $\ldots$ | $\begin{aligned} & 12500 \\ & 250 \\ & 250 \end{aligned}$ |
|  |  |  |  | 7,820 00 |

## Schedule of Fishery Officers in the several Provincès, etc.-Continued.

PROVINCE OF NOVA SCOTIA.-Continued.

| Name. | District. | Address. | Overseer <br> or <br> Warden. | Salars. |
| :---: | :---: | :---: | :---: | :---: |
| W. McIntyre..... ... <br> Irad Benjamin. John Buclanan..... | Brought forward |  |  | $\begin{array}{cc} \stackrel{\mathrm{cts}}{\mathrm{~s}} & \text { cts. } \\ 7,820 & 00 \end{array}$ |
|  | Kings County.-Continued. |  |  |  |
|  | Annapolis | Kentrille. | Warden ... | 3000 |
|  | Gasperaux | Gasperaux |  | 2000 |
|  |  |  |  | 2000. |
|  | Lunenburg County. |  |  |  |
| Geo. Redden ......... | Lunenburg County, East Division, Niddle, Gold, Martins and Mushamush Rivers. | Chester............. ..... | Orerseer.. |  |
|  |  |  |  | 100 2500 250 |
| Jas. Corkum ... | Middle River |  | do | 2500 |
| Wm. Mosher... | Lower Gold River | do |  | 2500 |
| John Hutt ..... | Middle Gold River | Beech Hill, Chester. |  | 2506 |
| Edward lioylan. | Gold River, Upper..... .................. | New Ross |  | 2500 |
| Jas. Langille... | Martin's River. | Chester. |  | 12500 |
| Hy. S. Jost........... | Lunenburg County, West Division... | Lunenburg. | Overseeri... | $1000 \%$ |
| John Artz | Wilkie's Cove. <br> Wilkie's Cove to Henry Koch's. |  | Warden ... |  |
|  |  | Bridgervater |  | 2500 |
| Jas. Mossman........ | From Heary Kocl's to Knock's........ | Lunenburg |  | 2500 |
| Edward Mlorgan.... | Knuck's to source of Lahave River..... | Lahave River, New Germany, W.0........ |  |  |
| John Andrews Geo. A. Nesbit...... Eli Hebb............. | Mushamush River.......................... | Mahone Bay........ |  | 2500 |
|  | Petite River, mouth to Wallace Brook | Petite River |  | 2500 |
|  | Petite River, from Wallace Brook to |  |  |  |
| William Craft...... | Enst Gold River, from Bongald's Point to Gold River Branch, thence to Clark's, Clinton's and Heury's Lakes................................. | Conquerall... ........... | do .... | 2500 2500 |
|  |  |  |  |  |
|  | Pictou County. |  |  |  |
| John McDouald.... | Picton County, East Division, including Sutherland's, French and Barney's Rivers, Bailey's Brook and shore fishery from Picton Harbor, Eastward to County Line........ | Ponds, W. O.............. Barney's River, W.O... | Overseer... | 170 0\% |
| J. McKar.. | Barney's River.............................. |  | Warden | 2500 |
| Donald Rankin. | Sutherland Rive | New Glasgow. |  | 2500 |
| William Stewart.... | French River. | Freqch River |  | 2500 |
| $\begin{aligned} & \text { Dan McLean......... } \\ & \text { Darid Marshall..... } \end{aligned}$ | Pictou Connty, West Division, including Middle, West, Cariboo, Tonev and John Rivers... | Bailey's Brook, W.O.... <br> New Glasgow | ${ }_{\text {O versee }}^{\text {do }}$ | 3000 |
|  |  |  |  |  |
| John Turner.. | French River............................... | Frencl River.............\| | Warden ... | 2500 |
| Wm. Smith..... | East Rirer... | East River................ |  | 2500 |
| Robert Archibald.- | Middle River | Middle River. |  |  |
| Wm. Evans.. ....... | West River | West River. |  |  |
| A. McKenzie........ | Toney River | Toney River......... ..... |  |  |
| David Langille.... | River John................... | River John.. ....... . | do |  |
| George McKenzie.. | Barney's River, from McDonald's Bridge to Head........... ................. Curried forward.. $\qquad$ | Barney's River, W.O... | do | 2500 2500 |
|  |  |  |  | , 055 ¢ 0 |

## Schedule of Fishery Officers in the several Provinces, etc.-Continued.

PROVINCE OF NOVA SCOTIA.-Con inued.


## Schedule of lishery Officers in the several Provinces, etc.-Continued.

PRUVINCE OF NOVA SCOTIA.-Contimued.


Schedule of Fishery Officers in the several Provinces, etc.--Continued.
PROVINCE OF NEW BRUNSWICK.

i Includes boat hire.

## Schedule of Fishery Officers in the several Provinces, etc.-Continued.

PROVINCE OF NEW BRUNSWICK.-Continued.


## Schedule of Fishery Officers in the several Provinces, etc.-Conlinued.

PROVINCE OF NEW BRUNSWICK.-C'ontinued.


## Schedule of Fishery Officers in the several Provinces, etc.-Continued.

PRUVINCE OF NEW BRUNSTICK.-Continued.


Schedule of Fishery Officers in the several Provinces, etc.-Continued.
PROVINCE OF NEW BRUNSWICK.-Contınued.


PROYINCE OF PRINCE FDWARD ISLAND.

|  | 'Queon's C'ounty. |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Jinar 'i'hompron.... | Queen's County | Charlottetown. | Orerseer... |  |
| Erren (lark ........ | Dunk River.... | do . | Warden ... | 30 Cl |
| Dichatel Reaty ..... | Winter River | do | do | 3000 |
| James Clow........ | do | do | do | 3000 |
| Lionel Grarnam.. | do | d. | do ... | 3000 |
| Win, Whitehead... | South West River | do | do ... | 3000 |
| Thimas Murplyy.... | Tront River...... | d. | do $\ldots$ | 3000 |
| Moderick Morison. alez McRae | Pinette nud Flat Rivers ................... | do | do .... | 3000 |
| Drvid Rattray...... | TIuntley and | do | do | 3000 |
| John Mc. Millan...... | Vernon Rivir........... .................... | do | do $\begin{aligned} & \text { do }\end{aligned}$ | 30 300 00 |
|  | Prince County. |  |  |  |
| John Clark.......... | Prince County.. | Alberton, 「.O. | Overseer... |  |
| Martin McPhec...... | Nail Pond and Skinner's Pond........... | Nail lond................. | Warden ... | 15000 |
| James T'. Reid...... | Minimigash........ ............................. | Minimigash | Warden ... | 30 <br> 3000 <br> 00 |
| James Ramsay...... | Lot 13, Trout River | Lot 13........ | do $\begin{array}{ll}\text { do } & \cdots\end{array}$ | 30 300 00 |
| Iugh McIntosh.... | Lotlt do | do 14. | do $\quad$... |  |
| ]'eter H. Perry.. ... | Tignish, Lots 1 and 2 | Tignish. | do |  |
| Abraham Wall...... |  | Lot $25 . . . . .$. | do |  |
| Patrick McBride... | do do |  |  | 3000 |
| William Burns .... | do do | do |  | 3000 |
| Nat. Mcaribur. | Lot 12, or the Nario | Lot 12 |  | 3000 3000 |
|  | King's County. |  |  |  |
| Martin MacInnis... | King's County |  |  |  |
| John Crane. ........ | Morell River.. | Morell River | Orerscer... | 15000 |
| James MacInnis...... | do | Morell River.............. | Warden ... | 3000 |
| John MacGuire ..... | do | do | do ... | 3000 |
| James MacAulay... | Midgell River | Midurell River | do $\begin{aligned} & \text { do } \\ & \text { do }\end{aligned}$ | 3000 |
| Patrick MacInnis.. | North Lake | Nidgel River | do $\quad .$. | 3000 |
| Wm. R. Dingwell.. | Bay Fortune Rirer ............................... | North Lake. | do . | 3000 |
| John Brien........... | Nautrage River...................................... | Naufrage.................. |  | 3000 |
| Thomas Clay........ | Grand River.... | Grand River.............. | do . | 3000 |
| Duncan D. Campbell. $\qquad$ | Montague Riv |  | do $\quad .$. | 3000 |
| Francis Cook........ | Murray Harbour. ....................................... | Murray Harbour .......... | $\begin{array}{ll}\text { do } \\ \text { do } & . . \\ \end{array}$ | $\begin{aligned} & 3000 \\ & 3000 \end{aligned}$ |
|  | Total ........... ............... | ................................ |  | \$1,320 |

## Schedule of Fishery Officers in the several Provinces, etc.--Continued. PROVINCE OF BRITISII COLVMEIA.



PROVINCE OF MANITOBA.

| Donald Gunn....... Manitoba..............................................ittle Britain.............. | Overseer... | 20000 |
| :--- | :--- | :--- | :--- | :--- |



Total
$\$ 34,93300$

## A. J. SMITH,

 Minister of Marine, etc.W. F. Whitcher,

Commissioner of Fisheries.

## Al'PENDIX No. 2.

Statement of Expenditure on account of Fisheries, for the Fiscal Year ended 30th June, 1876.


Statement of Expenditure on account of Fisheries, etc.-Continued.


Statement of Expenditure on account of Fisheries, etc.-Continued.


Statement of Expenditure on account of Fisheries, etc. - Continued.


Statement of Expenditure on account of Fisheries, etc. - Continuad.


Statement of Expenditure on account of Fisheries, etc. - Continued.


Statenient of Expenditure on account of Fisheries, etc. - Continued


Statement of Expenditure on account of Fisheries, etc. - Gontinued.


Statement of Expenditure on account of Fisheries, etc.-Coniinued.


Statement of Expenditure on account of Fisheries, etc.-Continued.


Statement of Expenditure on account of Fisheries, etc.--Continued.

| To whom paid. | Service. | Amount. | Total. |
| :---: | :---: | :---: | :---: |
|  | Brought forward..................... | $\$ 17500$ | $\begin{gathered} \$ \text { cts. } \\ 8,7012 \mathrm{~L} \end{gathered}$ |
|  | County of Yarmouth.-Continued. |  |  |
| William Prosser...... ...... | Twelve months' salary, to 30th June, 1876 ............ | 2500 2500 |  |
| Eustace Nicker8on ......... | do do | 2500 |  |
| Jerome Doucette........... | do do | 3000 |  |
| Vital Muise.......... .... | do do | 2500 |  |
| Joseph M. White........... Williom Thurston | $\stackrel{\text { do }}{\text { Three monthi' }}$ galary, to 30th June, $1876 . . .$. | 2500 625 |  |
| Isaac J. Hingley........... | Twelve months' disbursements, to 31st Dec., 1875... |  | 33625 |
| John Fitzgerald ...... ...... | do do | 5985 |  |
| D. McRea, jun .............. | do do | 5085 |  |
| John McDonald............. | do do | 3900 |  |
| Thomas Graham........... | do do | 3290 |  |
| York Barrington........... | do do | 3250 |  |
| A. McDonald................ | do do | 5000 |  |
| William Blsir............... | do do | 1780 |  |
| James Bonyman...... ..... | do do | 1170 |  |
| James W. Davidson........ <br> James A. Tory. | do do | 30 <br> 3450 <br> 18 |  |
| Louis A. Melançon.......... | do do | 1950 |  |
| John McDaniel............. | do do | 3940 |  |
| A. W. McDonald ........... | do do | 3640 |  |
| Jobn Cameron.............. | do do | 2173 |  |
| E. H. Ballam.. .............. | do do | 3500 |  |
| T. B. O'Brien............... | do do | 4685 |  |
| Duncan Cameron ........... | $\begin{array}{ll}\text { do } \\ \text { do } & \text { do } \\ \text { do }\end{array}$ | 3500 |  |
| M. A. Ross.................... | do do | 4500 |  |
| J. E. Starr.................. | do do | 5000 |  |
| Hugh Gillis..... | do do | 2000 |  |
| J. 日. Morehouse ........... | do do | 4500 |  |
| W. H. Ryer ${ }_{\text {George Reden }}$ | $\begin{array}{ll}\text { do } \\ \text { do } & \text { do } \\ \text { do }\end{array}$ | 8644 |  |
| Enos Gardner.................. | do do do | 50 80 80 |  |
| A. Sishop .................... | do do | 4000 |  |
| Prancis Quinan............. | do do $\ldots$... | 5000 |  |
| James King................. | do do | 2000 |  |
| Peter Coady ................. | $\begin{array}{ll}\text { do } \\ \text { do } & \text { do } \\ \text { do }\end{array}$ | 2009 |  |
| R. J. Pollack '............... | do do | 4000 |  |
| s. T. N. Sellon ............... | do do | 550 13949 |  |
| E.J. Tobin.................\| | do do | 13000 |  |
| W.'P. Fairbanks............. | do do | 17800 |  |
| W. Andersin ................... | $\begin{array}{ll}\text { do } \\ \text { do } & \text { do } \\ \text { do }\end{array}$ | 25047 |  |
| J. W. Burke ..................... | $\begin{array}{ll}\text { do } & \text { do } \\ \text { do }\end{array}$ | 11585 6100 |  |
| E. C. Borden ................. | do $\begin{aligned} & \text { do } \\ & \text { do } \end{aligned}$ | 6100 30 |  |
| D. S. Hamilton.. | Ten months' salary as Inspector of Fisheries, N. $\ddot{S}$., to 30th A pril, 1876 |  |  |
| Receirer-lieneral | Superannuation tax on $\underset{\text { P }}{ }$. S. Hamilton's salary........ | 1,14330 2333 |  |
| W. H. Rogers................. | Eleven months' salary as Fisliery Officer, N.S., to 31st May, 1876. |  |  |
| Receiver-General .......... |  | 718 1600 |  |
| W. H. Wylde.. .............. | One month's salary as Inspector of Fisheries, N.S., to 31st May, 1876 |  |  |
| Receiver-General........... | Superannuation tax on W. H. Wylde's salary ........ | 11433 467 |  |
|  | Carried forward...................... | 4,015 79 |  |

Statement of Expenditure on account of Fisheries, etc.-Continued.


Statement of Expenditure on account of Fisheries, etc.-Continued.


Statement of Expenditure on account of Fisheries, etc.-Continued.


Statement of Expenditure on account of Fisheries, etc.-Continued.


## Statement of Expenditure on account of Fisheries, etc.-Continued.



Statement of Expenditure on account of Fisheries, etc.-Continued.


Statement of Expenditure on account of Fisheries, etc.--Continued.


Statement of Expenditure on account of Fisheries, etc.-Continaed.

\begin{tabular}{|c|c|c|c|}
\hline To whom raid. \& Scrvice. \& Amount. \& Total. <br>
\hline \& Brough forwar l ..... ............... \& $$
\begin{gathered}
\vdots \mathrm{c}!\mathrm{s} . \\
13,43500
\end{gathered}
$$ \& \$ cts. <br>
\hline \& Fisin-Dieemisi.-Conientued. \& \& <br>
\hline Jolin Muwat ................ \& Petty cxpenses ............................................ \& 1647 \& <br>
\hline Robert Horan................. \& $\underset{\text { do }}{\text { Assistance }}$ in $\underset{\text { do }}{\text { daking fish............................................................... }}$ \& 5200
4200 \& <br>
\hline E. Mann....................... . \& do do ............................................. \& 1600 \& <br>
\hline Wm. Dunnville............. \& do do \& 4200 \& <br>
\hline Jno. Ferguson.............. \& do do .. ..... ........................... \& 1600 \& <br>
\hline Aler. Mowat................. \& do do ............... ........... ..... \& 3400 \& <br>
\hline James Miles................... \& do
do
do
do \& 1000
2000 \& <br>
\hline R. Nelson.................... \& do do ............................................... \& 3400 \& <br>
\hline Jno. P. Mowat.............. \& do do do ................................. \& 3400 \& <br>
\hline Alex. Duncan................. \& Suilding dam........ \& 100

20 \& <br>
\hline F. Moore ..... \& Attendance at establishment \& 6500 \& <br>
\hline J. W. Cullen................ \& Salmon twine for nets.......... \& 2600 \& <br>
\hline R. Kerr..................... \& Vehicle hire, distributing fry. ........................... \& 2000 \& <br>
\hline Jno. Morat...... ............. \& Lumber and cartage ...... .................. .............. \& 3600 \& <br>
\hline  \& Freight on twine and ropes... ...................... .............. \& \& <br>

\hline R. McCord....................... \& Telegrams..................................................... \& | 1 |
| :--- |
| 7 |
| $00_{6}^{64}$ | \& <br>

\hline W. Robertson............... \& Making nets............................................................. \& 1000 \& <br>
\hline G. E. Asker \& Two months' salary as Caretaker...................... \& -10 00 \& <br>
\hline P. Vibert ...................... \& Twelve months' salary as officer in charge of FishBreeding Establisument at Gaspé Basin \& 840
30000 \& <br>
\hline Juo. Davis, sen............... \& To pay laborer's wages, canoe, borse hire, etc \& 4294 \& <br>
\hline James Coffin .................... \& Work and improvements of grounds \& 3650 \& <br>
\hline W. Jno. Coffin............... \& do do \& \& <br>
\hline Wm. C. Davis ..... ........ \& do do ................... ... \& 1200 \& <br>
\hline Robert S. Coffin............ \& do do ..................... \& 2600 \& <br>
\hline James St. Croir. ............. \& do do do .................... \& 2385 \& <br>
\hline Jos. Patterson................. \& $\begin{array}{lll}\text { do } \\ \text { do } & \text { do } \\ \text { do } & \text { al................ }\end{array}$ \& 5500 \& <br>
\hline  \& do do $\quad$................... \& 1040 \& <br>
\hline Felix Coffin:................ \& do do .................... \& 1430
780
788 \& <br>
\hline Robert S. Cotin.... .......1 \& do do ${ }_{\text {do }}$ do.................. \& 780 \& <br>
\hline David Morgan................. \& do do do ................. . \& 7318 \& <br>
\hline Lowndes Bros................ \& \& $\bigcirc 275$ \& <br>
\hline John \& Elias Collas ......| \& Hard ware, etc., for improvements of grounds. \& ${ }_{4}^{4} 20$ \& <br>
\hline P. Vibert.................... \& Account of sundries and disbursements in connection with improvements of grounds \& $\begin{array}{r}984 \\ \hline 29\end{array}$ \& <br>
\hline Jno. Leboutillier \& Co... \& Zinc, cordage, etc................... ......................... \& 2199
6083 \& <br>
\hline John Daris.. ................... \& Labour and materials supplied...................... \& 18853 \& <br>
\hline Montreal Telegrapli Co... \& Carpenter's work \& 15540 \& <br>
\hline Jos. Cass... \& Labour at Establishment.................................................... \& 727 \& <br>
\hline Jas. Coffin................... \& do do ........................... \& 1635 \& <br>
\hline John Davis.. \& Distribution of salmon fry \& 1790 \& <br>
\hline R. Miller.................... \& do do ...................................... \& 1880 \& <br>
\hline E. Maloney. ......... .......... \& do do do \& 4310 \& <br>
\hline J. Lawrence .... ...........! \& do do \& 1600 \& <br>
\hline C. H. Burman .............. \& do do do \& \& <br>
\hline Henry Davis................ \& do do \& \& <br>
\hline
\end{tabular}

Statement of Expenditure on account of Fisheries, etc.--Conlinued.


Statement of Expenditure on account of Fisheries, etc.-Continued.


Statement of Expenditure on account of Fisheries, etc.-Continued.


Statement of Expenditure on account of Fisheries, etc.-Contiuued.


## Statement of Expenditure on account of Fisheries, etc.-Continued.



Statement of Expenditure on account of Fisheries, etc.-Continued.


Statement of Expenditure on account of Fisheries, etc.-Continuéd.


WM. SMITH,<br>Deputy Minister of Marine, etc.

## John Tiliton, Accountant.

## APPENDIX No. 3:


#### Abstract

REPORT OF THE CRUISE OF THE GOVERNMENT STEAMER "LADY HEAD" IN THE PROTECTION OF THE FISHERIES OF THE GULF AND RIVER ST. LAWRENCE, DURING THE SEASON OF 1876, UNDER. command of napoleon lavoie, esq., Fishery officer.


L'Islet, 31st December, 1876.

## To the Honorable A. J. Smith, Minister of Marine and Físheries.

Sir,--In transmitting herewith my eighth annual report on the result of thecruise of the steamer Lady Head in the waters of the Gulf and Lower St. Lawrence for the past season, it is my pleasant duty to again bring under your notice the mar'ked improvement effected in the Fisheries' Protection Service by the substitution of steam for sails. My last report showed the unusual incrense of the fishing population on the Gulf shores, especially during the fishing season; the necessity of being able to visit oftener places where fishing is carried on; the inerease of the fisheries interest, and the numerous improvements wrought in the models of American fishing schooners, which enabled them to compete with the fastest sailing ressels and so eseape capture. I also drew attention to the fact that the Fisheries' Protection Scrvice had become more efficient, whilst the protection given to our people was far nore reliable; but, at the same time I pointed out the great defect of the steamer Glendon, placed under my command, which consisted in ber extreme slowness; this reduced to a great extent the advantages of a steamer "wer a sailing ressel, whilst it entailed considerably more expenses without proportionate advantages.

You were pleased to take into your favorable consideration the remarks which I made on this subject, and to replace the Glendon this season by tho Lady Head, a versel immensely supurior to the former in every respect. The result has been a marked improvement in the Service, as well as an economy in time and expeuse.

## DATE OF OLR DEPARTURE FROM QLEBEC.

Although we were ready to leave Quebec by the first of May, news received from different parts of the coast-from Gaspe and the Maritime Provincesannounced the fact that the Gulf was blocked with ice, and that several steamers were detained, being unable to force their way through it. We were therefore compelled to defer until the middle of May our departure for Pictou, to which port we hud to take the steamer Glendon and receive the Lady Head in exchange. This date was howerer quice early enough, as the Glendon was able only with the greatest difficulty, to cut her way through the ice, besides losing two anchors and chains at Point St. Peter, where she was compelled to seek shelter and wait for an opening in the ice. At last, on the 5th June, we embarked on the Lady Head and were ready to
leave Pictou for the Gulf. No injury resulted to the Fisheries' Service from this delay; the same causes which prevented the Lady Head from sooner entering the Gulf, also prevented other vessels, and we were ready when navigation opened, and fishing began.

Our cruiso lasted five months. During that period wo visited Magdalen Islands three times, the coast of Labrador twice, and four times the principal fishing posts of the North Shore, from Natashquan to St. John River. We also visited Bay des Chaleurs three times; the coast of Gaspe and that of the North Shore, from Moisie to Point des Monts, twice; and five or six times the Island of Anticosti.

## IMPORTANCE OF THE GULF FISIIERIES.

A question which necessarily recurs every year in this report, and the importance of which cannot be underrated, is that of the magnitude of our fisheries. They are increasing in an encouraging ratio, and the number of fishermen, as well as fishingboats, increases also. Codfishing alone gives employment to more than $8,000 \mathrm{men}$, without reckoning women and children; hundreds of vessels and thousands of sailors are engaged in it, and its products reach to several millions of dollars' worth. This fishery of itself demands particular attention on the part of the Government and justifies all the endeavours made to foster and encourage it. Our fisheries are, at the present time, the greatest source of wealth in Canada, as the incalculable richness of our mines is as yet hardly developed. Let it be remembered that the fisheries afford an inexhaustible field for industry. It is the easiest and least expensive of all industries, and if it is beset with some dangers, these diminish every day, thanks to the progress of science and the improvements made in navigation.

The united Provinces, now forming the Dominion, offer every day more advantages and inducements to provide an intercolonial market, which, if not yet of sufficient importance, may still acquire great dimensions, owing to the numerous means of inter-provincial communication now existing. This home trade has greatly increased during the past ten years, owing to the efforts made everywhere to prevent any interruption and to ensure its regular course during all seasons. It is not, therefore, only in view of our dealings with foreign countries, but also with regard to our domestic trade that our fisheries deserve the greatest consideration. As is the case with all other industries, that of the fisheries carries others along with it, especially those which immediately follow in its wake-such as the building of vessels. The time has arrived when it is no longer sufficient to have within our reach boundless wealth. constantly accessible, without availing ourselves of it. Were these treasures reserved only for the inhabitants of our Dominion, we might be justified in remaining in placid inaction, certain as we should be in awakening of having nothing else to do but to open our hands, and to see them filled with treasures, but we have to compete with a formidable rival, who has but one step to make to be on the same field where we are engaged ourselves-a rival who is much our superior in point of fishing material, and in the inprovements which he makes in them every year. Consequent on the advantages it has enjoyed since the passing of the Treaty of Washington, American competition may prove fatal to us if we do not keep up with it, and if our fishing vessels are not built, manned, and supplied in such a way as to be able to compete with those of the intelligent and enterprising fishermen of New England. There is no use shutting our eyes to a question of such vital importance, and every possible means must be taken to counterbalance our inferiority until it has entirely ceased to exist.

Domestic consumption of the produce of the fisheries was much larger this year than heretofore; the means of communication finding a powerful auxiliary in the Intercolonial Railway which enabled the transmission from all parts of the Gulf shores, in a few hours, of salmon, cod, halibut, and lobsters, preserved in ice in all their delicacy, and at greatly reduced prices; so that the most delicious fish came within the reach of everyone's purse.

# (GENERAL REMARKS ON THE GULF FISHERIES DURING THE SEASON OF 1876. 

## Cod-fishery.

As I shall have more than once occusion to remark, whilst treating oî the several fisheries carried on in the Gulf of St. Lawrence; latst season's oporations did not legin under the most favorable auspices. A complete failure was even for some time apprehended, which would have caused the utter ruin of our fishermen. There is no doubt that the migration of bait, or of small fish on which cod feeds, must govern the movements of those as well as of other fish risiting the shores of the gulf, and also determine their arrival on our coasts; but the late appearance of cod and other kinds of fish, when bait had already been abundant for three or four weeks previous, prores conclusively that the migration of these fish may be governed by other causes, and that we must look also to the temperature of the witer, to the currents, winds, \&c., as influences which must be taken into consideration when explanations are desired. for occurrences similar to that of last year. The arrival of almost every kind of fish was. dolayed for sereral days, but cod appeared the last, except on the coast of Labrador. Salmon was about the only fish which came at the usual season; but on account of other circumstances the catch was not so large as it might have been. The ice and the fieshets in our rivers were the principal obstacles to the salmon fisherv; and although cod appeared as late as August, it yiclded such a large catch afterwards that the result of the fishery was very satisfactory and exceeded by several thousands of quintals the yield of 1570 , whilst the value of the produce was about 23 per cent greater than that of last year.

## Salm.on Fishery.

I have just stated that salmon fishing could not be carried on with all the required facilitice last spring; but notwithstanding the difficulties experienced in setting the nets, this fishery yielded more than last year in quantity, and the value was about the same as regards pickled salmon; fresh salmon sold by the pound, shewing a slight decline.

## Mackerel Fishery.

Mackerel was caught only at Magdalen Islauds, and even then during the past season for the first time; the fish, however, sold for $\$ 4$ per barrel more than in 1875 ; realizing $\$ 10$ this year as against $\$ 6$ last season.

## Halibut Fishery.

Fishing for halibut being hardly carried on within the limits of my division it is useless to speak at any length about it. As these fish are caught only when fishing for cod, and as fishermen were four weeks without fishing, it is not to be wondered that the statistics show a decrease in the yield of this fishery.

## Herring Fishery.

Although but a few hundred barrels of herring were taken on the coasts of Labrador, and a small quantity on the south shore ; the immense catch at Magdalen Islands compensates for the deerease experienced elsewhere.

## Seul Fishing and Hunting.

Of all the produce yielding profit to our fishermen which failed in the most signal manner, must be reckoned seal fishing and hunting; owing to contrary winds and cold which prevailed throughout the fishing season. In 1575, 24,369 soals were killed in one way or another; this year we record only 9,515 .

> Whale Fishery.

The whale fishery also exhibits a decline of nine whales or of 11,413 gallons of oi

## Lobster Fishery.

The yield of the lobster fishery has considerably increased, owing to this industry luing carried on on a larger scale at Magdalen Islands.

Taken as a whole, the season now ended may be called a good fisling season, ruperior even to that of last year ; as cod, salmon, herring, de., which are the staple articles of life for the rreat majority of fishermen, were sutficiently abundant and the prises very remunerative.

The seal, whale and lobster fisheries comparatively occupy but a very small number of persons; their influence on the welfare of the people in general must in consequence be sinall. On the other hand, the produce of the several fisheries commanded a better sale than usual, although not compensating for the decrease in quantity.

The following table will show at a glance the increase of each particular fishery. For more ample details, the statistics published at the end of each division may he consulted.
(implarative Statement of the value of the several fisheries in the Gaspé,
Bonarenture, Labrador, Magdalen Islands and Anticosti divisions, during the years 1875 and 1866 .

| Kinds of Fish. | Value. |  |
| :---: | :---: | :---: |
|  | 1875. | 1876. |
|  | \$ cts. | \$ cts. |
| Cod ........ ... ........................... ........ ...................................... | 691,270 00 | 1,110,480 00 |
| Herring. ....... ................ ........ ......................................... .... | 217,645 00 | 387,014 00 |
| Mackerel............. ................... ................. ........ .................... | 64,93) 00 | 49,75C 00 |
| Haddock..... ...... ........................... .......................... ............. | 63000 | 1,735 00 |
| Ling ...... .......... ........ ................................................. ........ | 16500 | 5,745 00 |
| Halibut................. ........ ..... .............. ...... ............. ... ............ | 88800 | 1,098 00 |
| Salmon... ....... ...... ........ ............. ......................... ........ ......... | 59,113 15 | 56,458 98 |
| Trout ....... ............. ................................................... ........ | 97600 | 1,308 00 |
| Eels ..... ........ ............. ......................................................... | 13200 | 47000 |
| Sardines................. .............. ..................... .......................... |  | 4000 |
| Lobsters...... ........ ................................................................. | 21,741 00 | 30,800 25 |
| Other fish................. ..... ........ ............... ............................... |  | 50000 |
| Cod tongues and sounds........................................................ | 2,786 00 | 1,593 00 |
| Seals................. .................................................. ................ | 146,214 00 | 12,018 75 |
| Porpcises........................... ..................... .... ......... ...... ......... | ............. | 8, 4000 |
| Oil............. . ...................... ..................................... ........ | 124,327 40 | 89,749 00 |
| Fisl used as bait and manure.................................................... | 5,858 75 | 28,080 00 |
| Total ..... ......................... ............................... | 1,336,676 30 | $\begin{aligned} & 1,782,879 \quad 98 \\ & 1,336,676 \quad 30 \end{aligned}$ |
| Increase.................................... . . . . . . . . . . . . . . . | .. .... | 446,203 68 |

This division which comprises an extent of coast of two hundred and tweniy-fon miles, offers everywhere the greatest possible inducements for carrying on tioning. The soil, which equals the best land anywhere in our country, possesses advantages which are found nowhere else, and the settler can find on the land as well as on the sea, an abundant supply of food, and become wealthy in a few years, should lie be able to properly divide his labor and combine his operations. In previous reports I alluded to the voyages of early French navigators who visited these shores,--of the first outfitters and of their setilements; I spoke of the attacks to which they were exposed, and of the injuries which hostile foreign vessels often inflicted upon them; I explained how slow was the progress of this fine country, since the wealthy Jersey firms had obtained a hold upon it, and began to take adsantage of its rich fisheries. I shall not now return to this subject, but will only remarls that a complete revolution is on the eve of being effected in the future of Gaspesia; the progress of civilization spreads on all sides, influencing even the haughty masters who were opposed to its march. They will, sooner or later, be compelled to follow it, leaving behind them this odious selfishness which, up to the present time, has regulated their commercial transactions.

I shall have occasion, in the body of this report, to speak of the improvements which we must make in the building of our vessels, should we desire to compete without disadvantage against our American neighbours. It must not, howerer, be expected that these improvements will be accomplished by our fishermen alone, for the precarious position in which most of them are compelled to live positively forbids it; and it is on this account that I am once more compelled to speak of one of the most important questions relative to our fisheries. I allude to a matter of which I treated at longth in previous reports, and upon which I dwelt so strongly that I am led to believe happy and real results have already sprung therefrom. This question relates to the state of vassalage to which Canadian fishermen are reduced, towards the large commercial firms of Gaspé and Bonarenture, a state of vassalage which destroys every liberty of action and prevents them from securing by their labors the protits indispensable to the improvement of their boats, outfit and position. This state of dependence has been in existence for nearly a century. I wrote a short account of it in my last rejort; I explained how the founder of a firm which bas since become most powerful, had instinctively found tho means of keeping these fishermen under its power, in diverting them from agricultural pursuits, and in securing to his own account most of the lands bordering on Bay des Chaleurs. The possession of land ensures independence; whoever is a proprictor is free. Mr. Robin was aware of the wisdom of this truth inscribed in the history of every people; and he begran his operations by monopolising the labor of each individual who was doomed to come in contact with him. Thus' it is that fishermon from Gaspé and Bonaventure remained poor and in astate of dependeney, while these firms grew richer every day. However, truth cumpels me to add that up to the present date agricultural products hardly found a market in the Lower St. Lawrence, and that the only means of disposing of them was to sell them to these very firms which were keeping fishermen in a state of dependency, whilst they fixed the price of produce in the same manner as they now regulate the price of fish, by welling theil goods and provisions at their own prices. I have no intention whatever to repeat the details and explanations which I gave in provious reports upon this point, the thing would be tedious and useless; besides the causes are now the same, and the results, it is to bo hoped, will soon disappear.

The abundant harvests which have been secured during the past two years both from the land and from the sea, seem to call upon fishermen to make unusual efforts in order to redeem their libert:, which they will secure only by clearing the forest still covering the land. As aheady remarked, the past season has been one of abundance for Caspesia; the field gave the richest harvest seen for many seasons past, especially in crops of hay, vegetables and roots; this result being due to
farorable weather and to the large quantity of manure at the disposal of the inhabitants. To this abundant harvest must be added a successful cod-fishery. The migration of the fish was, it is true, delayed for five or six weeks, but the fishery nevertheless, gave a large profit, owing to high prices. I had occasion last year to remark that, owing to the spirit of liberality of certain firms in Gaspe, cod-fish sold towords the end of the season at a reasonable price. All the firms this year rivalled each other in generosity ; this brought the price of fish to such a figure as had never been known before. I am led to believe that prices of sale were even higher than prudence commanded in view of the figures offered on foreign markets. However; I presume that this is one of the inconveniences which may be expected when things must be balanced. Until the year of 1875 , merchants did not pay sufficiently ; this season, they paid too much. The result must be that, at a future period they will linow how to keep the middle collrse between two extremes, which will enable both fishermen and merchants to enjoy their wealth and take advantage of it for their own good and that of their country. I was compelled on several occasions to allude to the injustice done towards fishermen with regard to the price offered for their fish. Should my remarks have in any manner contributed to bring about the present change, I shall easily be comforted against the harmless attacks made upon me by my friends from Jersey, or their representatives at Paspebiac and elsewhere. And, if by my writing and representations I have succeeded in opening the eyes of our fishormen and making then understand that they can shake off the yoke which has oppressed them so long, this is all the honor and reward I desire when I may have abandoned the fisheries' protection service in which I have now been engaged for the past eight years.

Before leaving this subject, I might be allowed to add, if not to justify these merchants from having dealt hardly with our fishermen, at least to give them some sort of consolation; that they are not the only oncs who thus take advantage of fishermen, and that their mode of trading is not quite new. There are other countries having sea coasts where cod-fishing is practised on a large scale, and where, for centuries past, fishermen are also kept in a state of iron bondage. In Norway, for instance, each fisherman has an account opened with the merchant. What he purchases is carnied to his debit; and on the other side is entered the fish which he brings. Goods are marked at a high figure, and the price of fish is fixed by the Board of Trade at Loffoden; the latter is always rated so low that few fishermen, it any, can get out of debt. Those who are lucky enough to escape for some time are sure to fall back sooner or later within the grasp of merchants, such is the improvidence of these poor people who live luxuriously when fishing is prosperous, without any regard to the future. There is, moreover, a rule amongst merchants there that none of them can lend money or advance goods and provisions to any fisherman dealing with another merchant. In this manner, they are always sure to remain in a state of bondage. Norway merchants, it will thus be seen, are far ahead of tho.e of our own country. Let us, however, quit these antiquated practices of wheh we find so many examples in the old countries, but which cannot last long in a young country like ours, and let us hope that, with the help of new communications springing up everywhere, Gaspesia will soon take its rank among the wealthiest and most productive counties of Canada. Thanks to the Intercolonial Railway, new openings will occur for the agricultural products of Gaspesia and unexpected prospects will open for its fishermen. But, in order to attain that end, the work for which the Intercolonial Railway was huilt can, at best, be only an auxiliary for these remote regions. They nust be placed in communication with that great railway system by a lin of steamers connecting Gaspé, Perce and Paspebiac, with Dalhousie and Camphelton. The opening of such a line will be the signal of independence and of the rising prosperity of Gulf fishermen. How casy it will then be for them to sell their fish fresh, and to choose their market, whilst fairly settlingtheir own prices. They will then have at last found a market, and will no longer be at the mercy of greedy speculators. The free sale of the rich products of their fishery will cause emulation which will give rise to the desire of acquisition, and
beiore long porhaps these poor fishermen who can now barely make a living out of a hard and dangerous labour, may become land owners and independents. From this hour will date the true era of the colonization of the counties of Gaspé and Bonaventure; and such an example will only show once more the truth of the assertion that no system of colonization is possible and that it cannot be successfully carried out, except it has means of communication at its disposal.

After the following preliminary remarks I intend treating of each separate fishery of this Division in detail, setting forth all the facts which may be of interest.

## Cod Fishery.

Although cod fishing is not practised on the coasts of Gaspé with as much energy and on such a large scale as on those of Newfoundland and the Maritime Provinces, it is, however, the principal occupation of the largest portion of the people and the staple article of commerce of this division. Hundreds of men, without reckoning an almost equal number of shoremen, women and children, were during this season engaged in the curing of codfish; and two hundred sshooners, besides flat boats and other boats, were likewise engraged in fishing pursuits on the coasts of Gaspe and Bonaventure. It is known that these fishermen seldom go further than from the banks fronting our shores. We must, however, except those who, now and then, repair to the banks of Miscou or Orphans; so that, being in the immediate neighbourhood of the riehest cod-fishing banks of the world, they gather but the slightest part of the crop, leaving to fishermen firm the United States, France and the Maritime Provinces, who are either more clear-sighted or enterprising, the chance of making fortunes which they lose themselves. It in, however, probable that, owing to the large expense attending such undertakings, the want of capital has, up to the present date, been the main reason preventing the extension of this industry which has proved such a source of wealth to our neighbours. Let it be hoped that our eyes will soon be opened to the importance of this fishery, and that our Maritime population assisted by patriotic and intelligent capitalists, will soon engage on the fishing banks in a competition which will help to bring them out of the state of inferiority in which they are placed towards foreign fishermen. Newfoundland will this year afford us an example of what the energy of fishermen and the liberality of outfitters can do when they have at heart the progress of one of their country's industries. This population made the same reflection we have just made ourselves; the people have at length understood that they could as well as Americans, Frenchmen and other strangers who come to tisli upon the banks at their own doors, compete with them and have their share of this wealth lying rifht at their feet. Up to the present date, fishermen from Newfoundland had neslected to carry on fishing on the banks which, according to the French and Americaus, is the most remunerative mode of fishing, but they are now putting upice houses to preserve bait and improving the structure of their vessels according to the best models, and several of them will be sent to the banks early in the spring. There is nothing, therefore, to prevent fishing on the banks from becoming in atew years an important branch of our industries. Up to the present time, fishermen on the coasts of Newfoundland drew no other profits from bank fishing than those resulting from the sale of bait; we ought also to be able to understand that wo can do more than we do, especially when we have only one step to make to reach these banks where everything would be to our advantage. A large number of fishormen were of opinion that cod remained on the banks in the middle of the Gulf during winter, because it was found there late in the fall and early in the spring; but experience shows that these fish return to deeper water, and on $t$ ncean banks, after visiting the Gulf for purposes of reproduction. It is on these banks that its voracious appetite finds sufficient food for its sustenance.

Having in my last report spoken at length of the reproductive powers of cod, as well as of the large extent of our tishing banks and of the probable impossibility of destroying the species by human means, owing to the extent of the breeding grounds which comprise the sea itself; I shall only add that, for one reason or anothor, these fish may temporarily abandon cortain shores where they no longer find suitable food,
either because this fool may hare changed its place or been destroyed on the spot, or that other physical reasons may be assigned, such as the temperature of the water and the currents; the winds may detain them in deeper and more temperate waters, or draw them towards localities where they were not expected; still, for all these reasons, no one can positively affirm that the species has decreased in an appreciable manner. Each of these reasons have already more than once influenced the migrations o cod-fish, and been the cause of considerable damage to the outfitters who were at a loss to explain these extraordinary phenomena which kept away the accustomed wealth.

Cod is one of the first fish to enter the Gulf of St. Lawrence in the spring, and as carly as the months of May and June, it is seen everywhere on the coasts of Gaspe in pursuit of herring or capelin schools, upon which it principally feeds at this time of the year. During the present season, however, this migration did not follow its usual course, and although bait made its appearance at its accustomed period, cod arrived only about the end of July, when capelin and herring bad abandoned we shores to retiro into deep water. On different occasions did fishermen from Percé, Grand Ricer and Pabos, tired with waiting, go and seek fortune at distances of thirty miles outside, on the Miscow and Orphans' banks during the months of June and July and asmany times did they returu withouteven having had a bite. What can possibly have been the cause of this delay, if not the temperature of the water? Observing minds have noticed, long ago, that this greatly influenced the migration of fish, and especially of cod ; and the peculiaritics of the migration of these tish on our coasts, during the present season, are an undeniable proof of this fact. In the course of an ordinary season, these fish appear on the const of Gaspe towards the end of May, and June is one of the best fishing months; whilst on the north shore and upon the coast of Labrador, cod usually appears about the end of June or the beginning of July. It was the reverse this year; but the ice followed quite a different course to the usual one. The south shore of the Gulf, from Prince Edward Island and Magdalen Islands up to St. Anne des Monts; and the north shore, from Natashquan up to the Seven Islands, was surrounded with ice until June; whilst the Strait of Belle Isle was free as early as the middle of April. Therefore, on the 29th June, which is considered to be about half of the fishing season on the south shore, the most successful barges in Percé had hardly secured more than eight quintals of fish, whilst at Bonne Esperance, on the coast of Labrador, the catch was by boat full from the lith lune; a thing which had never been heard of before the present season. At Blanc Sablon and at Forteau several good hauls were made about that period, and fishermen attributed their success to the high temperature of the water. On the French coast of Newfoundland, cod struck one month earlier than usual this spring, so much so that during the month of July a vessel loaded with fresh dried cod-tish left Port Saunders for France.

Cod-fishing was carried on on the south shore, from Matane to Bonaventure. These fish are sometimes caught as high as Rimouski, going up the river, and even at Carleton, in Bay des Chaleurs; but these are exceptional cases.

When I visited the coast of Gaspé, during the month of Augutt, most of the fishermen had given up all hopes; a few fish were, however, caught near shore, where, in ordinary seasons, they had disappeared for two or three seasons past. This led to the expectation that they would, in time, return on the banks where they could be caught, and that they would remain there longer than usual. This surmise was realized, and fall fishing was so abundant that, after losing nearly two months during the best period, it even surpassed that of last year in the quantity as well as in the value of tish caught. At latest dates, on the 6 th December, cod-fishing was still being carried on at Gaspé Bay, and on that day one fisherman caught five drafts within a few hours.

All the fishing posts on the Gaspe coast were not equally favored with the visit of cod. As already stated, capelin had disappeared when cod struck in, so that fishermen were compelled to wait the appearance of herring, which failed in several places, especially from l'Anse au Gris Fond to Mont Louis; but this fish was abundant
everywhere, and the catch would have been an extraordinary one, had that essential object, bait, been easier to procure. The localitie: where cod was most abundant were Ste. Anne des Monts, Grand Grève, Percé, Grand River, Pabos, Newport and Port Daniel. On the Miscou and Orphans' banks, cod was thick during the month of September; one barge alone caught thirty-six drafts in eight hours; four other boats brought hack one hundred and thirty drafts, after fishing from six o'clock in the morning till two o'clock in the afternoon. At Grand River and Pabos, some boats took as many as one hundred and fifty quintals, and the average catch in these places is from ninety to one hundred quintals. Cod struck at Ste. Anne des Monts only during the month of August. Bait was scarce, but fishermen being unwilling to lose such a rich harvest, employed, during the whole fishing time, several boats to procure from the north shore, distant some forty-five to sixty miles, clams, gathered among the rocks at low tide. It is calculated that no less than five thousand bushels of clams were thus carried away. With the help of this bait, fishermen from Ste. Anne and Cape Chatte caught abont 6,000 quintals of fish more than last year. The locality which yielded the poorest catch was Bonaventure; the average catch of each boat being only from eighteen to twenty quintals.

Col-fishing was formerly divided into summer and fall fishing; no such distinction is, however, made at the present date, as all the fish canght on the south shore is dried for foreign marlsets. This fishery is carried on with hook and line, or with bultows. This last method requires a large supply of bait, but it is generally superior to hand-lines for bank fishing. Some fishermen claim that it is an injurious mode of fishing, but $T$ think this is an error, and in my humble opinion, would recommend a more general use of these engines, which fish constantly, whilst fishermen take an absolutely necessary rest after a hard day's work.

Most of the cod caught on the coast of Gaspe is exported to foreign countries, especially to Italy, where the fish from Norway successfully competes with it; to Brazil and to the West Inclies, where it is of a superior quality.

I have already remarked that Gaspé merchants grave very high prices for cod this year, much higher, according to my opinion, than they were justified in doing on accunt of the price of these tish on foreign markets. It is rather difficult to give a correct return of prices on foreign markets, but according to information upon which I think I can rely, it appears that the price of cod ruled during the summer from $\$ 5.40$ to $\$ 6.60$, whilst this fish sold in (rispé from $\$ 4$ to $\$ 5$, and even as high as $\$ 5.60$ per quintal. I am also male to understand that merchants lost from 4 to $4 \frac{1}{2}$ per cent. per tub on several lots of $i \leqslant-h$; but it must have been in bad condition.

Whilst I am on this matter, I shall take the present opportunity to correct an error which I made in my report of last year with regard to the price of cod. In order to give an idea of the enormous profits realized by merchants from Gaspé,' in their dealings with fishermen, I was led to state, through an involuntary mistake, that the purchase price as well is the price of sale of fish, formed a net profit. This error was very properly pointed out to me; but every correction being made there still remains dount one hundred per cent. profit on the sale of fish, and at least fifty per cent. on the stale of goods, which is not so bad after all. This error fortunately injured nolvoly, and if it be such a crime to allude to the enormous profits which are thus realizel at fishermen's cost, how much greater must be the sins of those hardened traders who, for a century past, have speculated upon the toils, labour and life of fishermen.

The pleasant harbour of Gaspe, which is one of the chief marlzets for the codfish trade, did not exhibit its usual activity during the first months of the season, which fact is exjlained by the closing of Messis. Lowndes'saw mills, and by the consequent depression in the lumber trade. But later in the season, the fish trade brought with it an unu:ual activity. The quantity of fish received was so large that several cargoes had to be stored for next year. At Paspebiac, which is the other market for cod on the Gaspé shores, thirty-seven vessels were loaded with dry fish, and 63,122 quintals were exported. The quantity of codfish caught on the coast of Craspe during the present season, amounted to 11,906 quintals, realizing a value of $\$ 59,530$.

## Return of Vessels engaged in the Fish Trade which took Cargoes at Gaspé, in 1876.

PORT OF GASPE.


Return of all Ships and Vessels that have Cleared
PORT OF NEW


DOMINION.

Outwards, with Fish only, Season of 1876.
carlisle.

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| 7,814 | $\dddot{4}$ |  | 2 | 114 |  | 122 |  | 1 | 620 |  | 20 | 1 |  |  |
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| 26,616 | 173 |  |  |  |  | 121 |  | 24 | 95 |  |  |  | 2 |  |
| 26,616 | 173 |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  | 182 | 6,118 | 3 | 4,787 | 19 | 249 | 4 | 25 | 2,318 | 1 | 20 | 1 | 2 |  |
| 35,34 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Return of all Ships and Vessels that have Entered Inwards, coastways, with Fish only, Season of 1876

PORT OF NEW CARLIELE.

| Date <br> of Report, | Names of Vessels. | Tons. | Men. | From Whence. |  |  |  |  |  | 皃 |  | 䔍 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1876. |  |  |  |  |  |  |  |  |  |  |  |  |
| June 10. | C. R. C... | 248 |  | Arichat. ........ .......... ..... | 1,864 |  |  |  |  |  |  |  |
| do 26..... | Erening Star. ........ ....... ..... | 28 |  | Caraquet........................... | 135 |  |  | ............ |  |  |  |  |
| do 28..... | Diton..................................... | 78 |  | North Shore.................... | 2 | ....... .. |  |  |  |  |  |  |
| July 4..... | Epot .................................. | 10 | 3 | Oaraquet.. ..... ................. |  |  |  |  |  |  | 4 |  |
| Alıg. 10.... | O. Blanchard......................... | 260 | 12 | Arichat............................ | 895 | 120 |  |  |  |  |  |  |
| do 19..... | Diton...... | 78 |  | Perce............................. | 800 |  |  |  |  |  |  |  |
| do $19 \ldots$. | Northern Chief....................... | 50 |  | Cape Breton..................... | 34t |  |  | ..... ...... | \|........... |  |  | .......... |
| do 2l...... | M. Georgiana........................ | 95 |  | Gaspé .............. .............. | 1,073 | ............ |  | ........... |  |  |  | ......... .. |
| do 30..... | Diton........ ............ ....... ...... | 78 |  | Percé............. .............. | 460 |  |  |  |  |  |  |  |
| Sept. 4..... | Hare .................................... | 23 |  | Uaraquet..... ............. ..... | 170 |  |  |  |  |  | ........... | .......... |
| do 6.... | Northern Chief... .................. | 50 |  | Cape Breton..................... | 600. |  | ............ |  |  | $20$ |  |  |
| do 8...... | Paspebiac ............................. | 57 | 6 | Caraquet........................ | 521 | - ..... |  |  |  |  | $\cdot$ | ............ |
| do 22.....! | Prspebiac ............................ | 57 | 6 | Arichat............................. | 258 |  |  |  |  | 258 | .... ...... |  |
| do 27..... | G. D. T......... ...... ............. | 1181 | 7 | Percis............................ | 696 | ............ |  |  |  |  | ... ........ |  |
| do 27..... | Hamatope . . . . . . . . . . . . . . . . . . . . | 761 | 7 | Caraquet........................ | 1,531 | ............ | - |  |  |  |  |  |
| Oct. 4..... | Hare ... . .. . ......................... | 23 |  |  |  |  | 5 |  |  | ...... ..... | . |  |
| do 4.... | Replevin | 5 | $\xrightarrow{3}$ | do ......................... |  |  |  |  | 3 |  |  |  |
| do 7...... | C. R. C............. ....... .. .... ... | 248 |  | Arichat......... ...... . ....... | 1,100 | ............ |  |  |  | 904 | ...... |  |
| do 9...... | Paspebiac. ........................... | 57 | 5 | Uaraquet............... ........ | . $3 . . .$. |  | 4 | ............ |  |  |  |  |
| do 9..... | Berver.............. ........... ........ | 15 |  | do $\qquad$ | 335 |  |  |  | $* * * *$ | ........... | . ......... |  |
| do 16...... | Diton ........ .......................... | 78 | 7 | Perce............................ | 653 |  |  |  | \|............ | ............ |  |  |
| do 19..... | Beaver.......... ....................... | 15 | 2 | Caraquet................. ...... | 480 |  | 4 | ........... | 1 |  |  |  |
| do 26...... | Beaver.......... ........ .............. | 15 | 2 | dy ....... ............... | 360 | ........... |  |  | 1 | ... | ...... ..... | \|...... ..... |
| do 28...... | Amelia................... . ..... ...... | 91 | 5 | Perce. ....... ................... | 2,005 | ............ | $\stackrel{3}{2}$ | ........... |  | .....r...... | ........... | . |
| Nov. 3..... | Fly...... ........ ..... ........ ........ | 9 10 | 2 | Caraqnet....... ............... . |  |  | 2 |  |  |  | ........ |  |
| do 7..... | Fppot ..... .......................... ..... | 10 | 2 | du |  | 750 | ... |  | ............ |  | ......... | ... |
| do 7...... | Fly .......................... ........... | 9 | 2 | do ...... .......... ........ |  | 650 | 4 |  |  | . $\cdot$.......... | ... |  |
| do $10 \ldots$. | Fly,.......................... ............ | 9 139 | 8 | do ........................ | 932] | 200 | 24 | - 200 | . ..... ... | ........ | . | ........... |
| do 10..... | "85".................. ......... ........ | 139 | 8 | Arichat.......................... | 932 | 1750 | ... | ......... | . | ........ | .......... | . ${ }^{\text {. }}$. |
| do 13...... | M. Georgianq................ ., ...... | 95 | 6 | Thunder River.................. | 968 | 1,750 | .. | ........ | ... .. |  |  | .......... |



Return of all Ships and Vessels that have cleared Outwards, coastways, with Fish only, Season of 1876.

PORT OF NEW CARLIBLE.

| $\begin{gathered} \text { Date } \\ \text { of } \\ \text { Report. } \end{gathered}$ | Name of Vessels. | Tons. | Men. | To Where. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1876. |  |  |  |  |  |  |  |  |
| July 3...... | Hebe ........................ | 236 | 9 | Cape Core................ | 125 |  |  | ......... |
| do 8...... | Ripple ....................... | 22 | 3 | Pictou .............. ........ | ..... | - | 20 | ........ |
| do 10...... | Mary .......... ............. | 19 | 2 | do $\ldots$................... | ... | \|… | 40 | ........ |
| do 21...... | Ripple ......... .............. | 22 | 3 | Prince Edward Island... |  | ......... | 40 | ......... |
| Sept. 25..... | Providence......... ........ | 81 | 5 | Halitax...................... | .... | 1 | ......... | 50 |
| Oct. 7...... | Paspabiac .......... ........ | 57 | B | Caraquet. ................... |  |  |  | 50 |
| do 21...... | M. Georgiana...... ... .... | 98 | 6 | Gaspe ....................... | 914 |  |  | ......... |
|  | Total, 7 vessels... | 535 | 32 |  | 1,039 | 1 | 100 | 50 |

Return of all Ships and Vessels that have entered Inwards, with Fish only, Season of 1876 .
PORT OF NEW CARLISLE.


## Statement of Arrivals and Sales of Codfish to the Italian Markets, consigned to Maingay, Robin \& Co., during the Seasons of 1875 and 1876.

NAPLES.


Statement of Arrivals and Sales of Codfish to the Italian Markets, consigned to Maingay, Robin \& Co., during the Seasons of 1875 and 1876.-Continued.

NAPLES.


## Salmon Fishery.

Salmon fishing, although not of equal importanco with the cod and herring fishery, is still worthy of consideration, owing cspecially to the intcrest it creates among wealthy classes by what is known as fly-fishing. Now that increased facilities of communications allow of salmon being sent fresh to all markets in North America, this fishery will assume a larger proportion and our fishermen will at last realize how wise and well-timed were the laws which they have been compelled to obey, and which have allowed our rivers to re-stock themselves, when improvident modes of fishing had all but ruined them. Had not the Governinent taken the matter in hand, what would at the present tine be our humiliation in seeing these fine and numerous streams, which strangers so much admire, left to the discretion and caprice of net fishermen who have no other notion but to destroy, without calculating the consequences! To what irretrievable loss and deprivation would we now bo subjected had not the Governmont spent timo and money to protect and increase salmon in theso streams! Tho counties of Gaspé and Bonaventure had, long before the passing of the present fishery law, adopted regulations for the protection of their salmon rivers, but these remained as a dead letter; there being no authority to enforce them. The difficulties which at first beset the enforcement of the Fisheries Act are well known, but the people have now found out that they had everything to gain in complying with its provisions, and by dint of careful attention on the part of fishery officers, all difficulties were conquered; so much so that not more than one or two slight violations of the law occurred during the past season. The result of this state of things is that salmon are more abundant than ever in our rivers, and if the catch is not equally good each year, it is due to causes over which we have no control or to certain local influences which a longer experience will soon cause to disappear.

I shall not touch here upon the natural history or the migrations of salmon. I will merely state that, after completing the work of its reproduction, this fisl returns to the sea late in the fall, in order to recmperate from its loss of flesh and fasting; a large number, however, remains in the rivers during the winter, especially when the water freezes early. This fact thas been noticed during the fall of 1875 in severat streams, especially at Nabissippi, on the north shore, where hunters saw through the ice thousands of salmon, in a space of several miles. The same particularity was noticed in the rivers of the Island of Anticosti; besides it has often occurred in the salmon streams of Gaspé and Bay des Chaleurs. Under such circumstances, these fish descend to the sea only in the epring, when the ice breaks; they are then known under the name of black or foul salmon, and are considered unfit for food. Before the adoption of the prosent Fisheries Act, salmon fishing was carried on with seines, nets, brush weirs, spears and with the fly. Of all these modes of fishing, there remains only net and fly fishing; and even these are practiced with certain restrictions which are well known to every one.

The reproduction of salmon being accomplished under difficult circumstances, there is perhaps not a single ono of the above-mentioned modes of fishing (flyfishing, however, excepted) which might, if carried to excess, not cause the destruction of the species. Net fishing even, which is the least injurious, would soon occasion damage, were not its time and extent regulated. The example of what has occurred at Moisie is before us to prove the truth of ny assertion ; and I feel satisfied that the decrease in the catch of salmon at Gaspé is mainly due to the large number of nets in the rivers. A few years more will also tell us whether similar causes will not produce the same results on the New Brunwick shores of Bay des Chaleurs.

The arrival of salmon was delayed a few days this spring, but so soon as the ice had left the beach some were caught at Gaspé, Port Daniel and Maria. On the 8th June, Mr. Miller, of Port Daniel, set his nets among the floating ice and caught forty fish; another fisherman caught twenty-nine at Maria; which proves that, actuated by its natural instinct, salmon was only waiting for an opening to enter the rivers.

Nothough thi: fish appeared somewhat later than usual on our whores; it was abundant. The rivers were crowded with then; and in spite of ice and freshets which prevented the setting of nets before the end of June, the yield was over that of last year, although at cortain places, such as Restigouche and Gaspé, the catch is somewhat below that of 157.5 . In the upper or western part of this division, the tirst salmon rivers are Cape Chate, Ste. Anne des Monts and Magdalen. No opiuion am be formed of the value of these streams ly the quantity of salmon which was eaught in them tinis rear, it being impossible to set the nets before the end of July, on accuunt of high water; so that Cape Chatte and Ste. Anne rivers gave only three barrels and Mardalen River eleven. These streams, with the exception of Cape Cbatte River. which is a trout stream, are however full of salmon. This explains why anglers had more success than net fishermen in Ste. Anne des Monts diver. They caught 116 tish agrainst 69 in 1875 ; although the number of rods was smaller and the time of fishing shorter. The lessee of Magdalen River caught six fish, having angled ouly one day. According to his statement and that of the local fishery sruardian, the spawning beds were covered with sadmon in the fall.

On the Gaspé coast, from Anse au Gris Fonds to Montlouis, salmon tishing was better than last year; yielding 82 barrels against 66 . This is a very satisfactory rusult, owing to the limited period fishermen were enabled to keep their nets in the water. Mardalen and Ste. Anne des Monts divisions were formerly considered a favorite place of resort for poachers; but the henvy fines imposed in 1875 upon those who violated the law, made them understand that the fishery officors were determined to do their duty, and that it was not an easy matter to escape the vigilance of these efficient oversecrs. Salmon fishing began at Gaspé Basin about the 12th of Junc, that is to say fir suands outsicle the bank; at those in the livers it legan only towards the end of tho sime month. It is useloss to longer close our eyes to plain evidence: and I think it is high time the Department should act upon the surgestion which I made last year, to diminish the number of salmon fishing stations within the rivers and on the shores of the Bay of Gaspé. In a special report, I showed the steady decreane which had taken place in the yield of salmon there during the past tive or six years, and this season again a tremendous decrease is to be noticel. In 1875 , Malbaic and (iaspe stations gave 357 barrels; this season only $2 x$ s, or a falling off of 69 hamels. It is therefore clearly evident that it timely and encregtic measures are not taken, we soon shall have to bemoan the complete ruin of the rivers Dartmonth, York and St. John. Net-fishermen who are afraid to luse their stands will not acknowledse the truo cause of the decrease in the catch which is felt every year; lat they understand it well. It is therefore an abohute necessity to admit the evidence and curtail the number of these stands. In order to render a measure of this kind more acepetable to fishermon, I repeatedly enjoined them this summer to form partnerships of four or five, so as to abolish two dr three statid bolonging to partuers. They will not listen to such an arrangement; every other being considered preterable. I shall have oceasion at a later date to return to this matter in a special report; and I hope that the recommendations I shall then mako will be acceptable, and that these peoplo will understand that the Department has wo other ond in view but their future welfare.

Gaspe Bunin was again last summer honored with the visit of Their Excellencies Lord and Lady Dufferin, who, for a few days enjoyed salmon angling in St. John and York Rivers. It is to be hoper that the suceces Their Execllencies met with, will again induce them to often visit a locality where their arival is always deemed an honour and a piere of good fortme.

The yield of salmon angling was as follows:-


The salmon of Girpe Basin is sold to Messus. Eden and Yeit, who sond it to

Montreal and Quebec by the Gulf Port steamers. The price paid was five cents per pound.

From Grand River to Paspebiac, salmon fishing was about equal to that of last year; it was better than usual at Grand River, the increase being 14 barrels; whilst at Port Daniel there was a falling off of 23 barrels. Between Grand Rives and Newport the increase was 14 barrels. The falling off at Port Daniol is due first to the fact that nets could not be set early enough, owing to the ice; and also because capelin, upon which the salmon feeds, were very scarce in the Bay. The most successful division was that of New Richmond, which left all others far behind. A large decrease was last year suffered, compared withjuthe catch of 1874; but this season, in spite of all the difficulties which fishermen experienced on account of the ice, and although their nets were set much later than usual, this division yielded 324 barrels, besides 50,901 pounds sold fresh; making a total of 4,579 barrels, or $\mathbf{2} 51$ more than in 1875. Fly fishing was as successful as net fishing. Seventeen rods caught in Grand Cascapedia River no less than 369 fisll ; the largest of which weighed 41 pounds. The yield of angling in 1875 amounted only to 242 fish. In Little Cascapedia River two rods caught six salmon in nine days, and 43 were caught with the fly in Bonaventure River, after a fortnight's fishing. These are considered very satisfactory results, as it is only for the past year or two that the obstacles to the ascent of tish were removed from both these streams. They will undoubtedly in a few years become desirable rivers for anglers. As may bo seen by the statistics and reports of each year, netting for salmon in this division is always successful, giving abundant returus to fishermen engaged in it; but it must also be remarked that the number of stands has been maintained within a reasonable proportion, and when it was deemed that one or two stations injured the restocking of rivers, the Department caused them to be removed further. Again, this spring, no less than 431 fathoms of nets were cut off in this division. It will be noticed that the result of fishing was not poorer for all that; fishermen here understand their own interests, and are satisfied with our arrangements, which, in the end, secure to them largo returns each year.

Although salmon is abundan ${ }^{4}$ in Restigouche River, the yield of net fishing seems to be on the decrease, especially on the Quebec side thereof. It possibly might be that ice, temperature of water, freshets, \&c., \&c., may have had some influence in this matter during the past two years, but it is also a fact that the number of salmon stands has increased in quite a fabulous manner from Dalhousic to Petit Rocher; so much so that there were more salmon exported this season from Charlot, Now Mills, and Petit Rocher, than from Campbellton and Dalhousie. It must be remarked that five or six years ago there wore but a few salmon stands on that coast. Another fact worthy of consideration, and which may greatly influence the number of salmon visiting Restigouche River, is that below Dahousie, on the New Brunswick side, the "Sunday clause" is not observed; and as these stands catch no other than the salmon entering Restigouche liver, it naturally follows that the number of fish nust sooner or later be affected thereby. This state of things appcars unjust, both towards Restigouche fishermen and those of Bay des Chaleurs, on the Quebec side. New Brunswick fishermen who do not raise their nets on Sundays are not exposed to heavier or more frequent storms than those of Maria, Carleton and Port Daniel, \&e., \&e.; and when your Department makes such strenuous efforts to secure the re-stocking of our streams-when fisbermen on one side of a shore, which is far less advantageous, and not so rich in fish than that of New Brunswick, are compelled to raise then nets during certain days-I cannot see why others who are in better circumstances should not be required to do the same, and help the restocking of our salmon rivers. I expect, however, that such a stato of things cannot last long.

Salmon net fishing in the division of Restigouche yielded this season 144 barrels, against 185 in 1875 and $27+$ in 1874.

No less than 113 rods angled in the Restigouche River during the past season: their catch amounted to 685 fish. of an average weight of 19 pounds. This modo of fishing yielded 57 I fish in 1875.

The two last weeks in Junc and the first week in July are the bost periods for angling, and sportsmen gencrally arrive too late. There was still another reason for no better sport last season ; the waters kept so high that the fish went straight up to their spawning beds withoat stopping in the pools, which materially interfered with the success of anglers. According to reports given by the local Fishery Overseer there is every sign of good sport in Restigouche River during next season. He states that he has seldom seen as many young salmon as this year in the river.

The total quantity of salmon caught on the coast of Gaspé and Bonaventure was, 1,966 barrels.

## Fish-Breeding Establishments of Restigouche and Gaspe.

Although these establishments are not, properly speaking, under my immediate charge, still, I think it proper to say a word about them here, in ordor to encourage those who have them in charge to renew their exertions, so that we may see fish increase in our waters and the wealth of our fishermen augment accordingly. If the great dangers which natural reproduction has to contend with are taken into consideration, the usefulness of such cstablishments will be easily understood. Indeed some naturalists assert that only about ten per cent, of the eggs of salmon come to life when hatched naturally, and it is calculated that by means of piscicultural establishments, this proportion can be increased to ninety per cent. This has long ago been proved in England and France, and oven in Ontario an establishment of this nature, under the intelligent charge of Mr. S. Wilmot, has given astonishing results. The ${ }^{\text {Fisheries }}$ Department, which so intelligently follows the progress of pisiculture, in order to benefit our fisherics and the country at large, has opened similar establishments at Restigouche and Gaspé, which promise the ${ }^{*}$ most successful results. Mr. Mowat, who has charge of the Restigouche establishment, succeeded this fall in placing upon the hatching troughs no less than 700,000 ora in the best possible condition. It was only during last autumn that eggs could be procured at the Gaspé establishment, and at the latest dates Mr. Vibert had 920,000 ova which all promised to do well. This establishment had, up to the present time, given almost insignificant results; but this is an almost unavoidable state of things, when the person who has charge of such a business must at the same time be pupil and master.

Whilst on this point, I may remark that the greatest difficulty in achieving success is to procuro parent fish for the purpose of sccuring ova. In order to obviate any risk for the future, I would recommend that, at the expiry of the present lease of Dartmouth River, this stream be set apart for the future wants of the Gaspe FishBreeding Establishment. Another means which might be preferable, would be to purchuse from net-fisherinen the salmon caught in their nets, and to replace them in the river when the spawn has been gatherod, thus securing a double advantage. The officers in charge will undoubtedly give you full and complete details on tho result of their operations, but before elosing this article I desire to renew the suggestion which I made in my report of last year, to place an establishment of this kind at Ste. Anne des Monts River, which offers most desirable advantages for such an undertaking. It would cause such benefit to the neighbouring streams and coast, that, in a few years, the profits would have amply reimbursed the few dollars expended for the general advantage.

## RESTIGOUCIIE MISSION INDIANS.

The long-pending question among these Indians of oxchanging the privilege formerly enjoyed of spearing salmon for a stationary fishing stand has at last been settled; and, it must be owned, to their utter advantage, were they intelligent enough to undorstand it once for all and take advantage of this measure to follow the culture of their farms.

When I visited them in the spring, they claimed to be poorer than ever, although
they received more than usual. Besides the revenue of their fishing station, and ans increase in their annual grant; they had had from Mr. Fleming, and other sportsmen on the Restigouche, a good round sum, which was employed in purchasing flour for their greater advantage. This good fortune did not, unfortunately, impress them with a greater inclination for work; they hardly went out of doors during the whole winter and even refused to shovel snow at the Intercolonial Railway stations, with the assurance of earning one dollar a day. Having received their annual grant from the Indian Department, at an early date, they quite naturally spent the whole of it before seed-time had arrived; and when I visited them during the month of June, they were in a complete state of inactivity, speculating upon delusive privileges tospear salmon and trout. Such a measure f am far from recommending to your Department, as it would only serve to render them more vicious, and to deter them from following agricultural pursuits for the sake of spearing a few salmon, which they afterwards trade for tobacco and rum.

Their station is fished for them by Mr. Adams; these Indians being too lazy to do so themselves. Mr. Adams shares in the half of profits under four hundred dollars ; the Indians supplying the nets, and Mr. Adams bearing all other expenses. Above four hundred dollars, the profits return to the Indians. This station yielded this year $\$ 230.00$; half of which was paid them. Mr. Fleming and other sportsmen contributed a fund of $\$ 328.00$; and if to this be added the Government grant and the possession of the finest farms in that part of the country, it will easily be understood that these Indians are treated somewhat like spoiled children. Mr. Mowat reportthat none of them attempted to violate the law this season. Most of the men had profitable employment with angling parties throughout the summer season.

I forgot to mention, whilst speaking of the Restigouche River salmon, that most of it was sold fresh, for five or six cents a pound, and that it was forwarded to Quebee and Montreal markets, where the abundance was so great that prices immediately fell from fifteen to seven cents. Some of it was sent to New York where it fetched twenty-one cents.

## Whale Fishery.

Whale fishing, as well as scal-hunting was not crowned with success this season. I am not sure whether the ice which blocked the Gulf prevented whales from entering therein; but it is nevertheless a fact, that during the whole of our cruise, we met no more than ten or twolve, and whalers also state that they saw only a few, compared to what they were accustomed to meet during other years. Our hardy and persevering whalers had moreover to encounter the greatest dangers, on account of the immense ice-banks which currents brought across their route until the end of August, in the waters where they are in the habit of cruising.

The three Gaspé schooners, Admiration, Capt. Tripp; Lord Douglas, Capt. Baker, and Violet, Capt. Suddard, which secured last season 580 barrels of oil, returned this fall with just one half that quantity, divided as follows:-Admiration, 140 barrels; Lord Douglas, 100 barrels; and Violet, 50 barrels, which yielded 9,368 gallons, sold at the low figure of forty-five cents.

Last scason's whaling is one of the most disastrous experienced for the past four or five years. It is, however, to be hopod that our whalers will not be disheartened. Whales have been known to recede from the Gulf, for ono reason or another, and afterwards to return more numerous than over. These animals wero met with last season as high up as Point des Monts, and an unusually successful hunt would have taken place, had this thing been expected and the weather been more favorable. A single strike of luck is all that is necessary to recover from a succession of failures, and who can say that this will not occur next season? A successful lunt and remuncrative prices are in the order of possible things.

Herring Fishery.
Herring, it is known, is the first fish to visit our slores in the spring. Every one is also aware of the abundance in which it is found at Magdalen Cslands during
the last days of April or the beginniog of May. It usually repairs about the fame time, in immense schools to the bays of Anticosti, Seven Islands, the Cawees, Bay des Chaleurs and Gaspe Bay. This fishing used formerly to be carried on on rather a largo scale in Bay des Chaleurs, especially at Carleton, Maria and Bonaventure, but since the close of Mr. Petry's establishment, and the increase in the price of materials required for the curing and export of this fish, its importance has greatly diminished. The greatest part of what is caught in Bay des Chalcurs is exported to the United States or to the West Indies.

When herring has completed the work of its reproduction, for which parpose it annually repairs to our shores, it scatters all over the Gulf, but no longer in thick schools as in the spring. It is at this point that Gaspe fishermen catch it with nets. to be used as bait for cod fishing. At a later period, about the month of August, it again gathers in schools, and is met with in several places on the north coast, from Caribou Islet to the lower part of Labrador. It is then known under the name of Labrador herring. Although identically the same fish as are found during the spring and summer on the south shore of the Gulf, they do not bear the same appearance, and are worth twice as much as the former, as well on account of their size as of the delicacy of taste. The fall herring caught on the north coast is mostly all disposed of on Canadian markets.

Herring fishing on the Gulf shores is carried on in two ways; either with nets or seines. Higher up the rirer, above Rimouski, these fish are caught in brush fisheries.

Spring herring was most abundant on the south shore, but the ice, which iujured the nets in Bay des Chalcurs, especially at Bonarenture, prevented the possibility of making a good catch. The statistics, however, show that 6,391 barrels were caught, $\mathbf{4 , 7 8 7}$ of which were sent to Boston and Barbadoes; 748 boxes were also smoked. The balance was used on the spot. This fish was very scarce during the whole summer on the coast of Gaspe, except at Port Daniel, whero it was found during the whole season. This injured cod fishing which would otherwise have been much better. The statistics show that above 12,503 barrels of herring were used as bait ibr eodfish.

Fall herring fishing on the north coast was very unsuccossful. A few barrels had been cauglat at Bay des Montons, Natashquan, the Cawees and on the Lower Labrador; several Canadian schooners had already secured their cargoes, when, on the 28th August, occurred a north-east storm, lasting until the 8th September, which drove the fish so far out that this fishery was over for the soason. This storm occasioned the loss of about thirty schooners and of several thousand quintals of cod, which wero washed away by the sea, with barges and flakes, from Pieds Noirs to St. Charles Istand. Horring fishing on the coast of Labrador did not, therefore, exceed 3,000 barrels. In one harbour on the coast of Newfoundland, at Portachoix, there were, on the 1st of Octobor, one hundred and fifty schooners waiting the appearance of herring; at the latost reports, however, theae fish had not arrived, and groat distress was apprehended duriug the winter on the north-west part of the coast of Newfoundland.

This failure in herring fishing cansed great injury to fisbermen from Esquimaux Point, Natashquan and Betchorran, who had already been so unsuccessful in other fishinus during the season. Out of thirty schooners from these places, which used to on overy fall to Quebec, with 300 or 400 barrels of herring, only four went up Jast soason. It will therefere be casily understood what a falling off the failure of this fishery will cause in the resourees of fishermen, and what must be their poverty and destitution, whon it is known that the winter supplies and clothing are usually procured with the proceeds of this fall voyage.

## Lobster Fishery.

Americans, who have few equals in the scienco of working up fishories, having by inconsiderate modes of fishing ruined their lobster fishing grounds on the shores
of Massachusetts and Maine, were unwilling to give up an industry, the value of which they fully appreciated, and in order to continue the same, had to repair to the coasts of Nova Scotia where a large number of firms, Americans as well as English, carry on forty-seven establishments for the canning of lobsters from Sambro to Cape Sable.

Up to the last six or seven years, it had not entored into the mind of anyone to encroach on our grounds, and no Canadian had bethought himself to work up this precious mine of wealth which yielded such large profits to the first companies which undertook the business, when an American firm legan operations at Carleton and Maria. The profits made during the first two or three years astonished every one. But here, as elsewhere, inconsiderate fishing soon ruined the grounds, which now yield but a small share of former revenues. The canning establishment of Carleton, belonging to Messis. Hogg and Walker, has now been removed to New Mills, on the New Brunswick shore of Bay des Chaleurs, where the grounds are not so much ruined as at Carlcton and Maria. The lobsters caught on the Quebec side are carried alive, either in boats or steamers, to New Mills where they are canned.

The ruin of the lobster fishery on the shores of the United States, ought to warn, and at the same time teach us a lesson which we should take advantage of, to regulate with ais little delay as possible the modo of carrying on this fishery, if we would not sufier the same results which are already experienced at Carleton, Maria, and at several other places on the shores of Nova Scotia. But, what are the best means of conciliating all interests, and protecting this fishery, whilst at the same time not discouraging firms engaged in the business of lobster canning? This is the great difficulty; and I must say that, although I have closely watched this fishery for the past four or five years, I am not yet prepared to state which, of all the regulations adopted up to the present time, is the best. An efficient system of protection would be the liberation of all female lobsters with eggs attached, or of those under a certain weight or size; but the difficulty would be to enforce such a regulation. The packers claim that a regulation of this nature is most inconvenient for them, and they will surely not conform to it, unless there are guardians by their side constantly to watch them. Another efficient measure would be the establishment of a close-season. But, how to determine the cxact period? It is now proved beyond contest that the spawning time for lobsters varics according to localities, even in adjoining localities, and differs in each year. For instance, it was noticed that at Carleton, Maria, New Richmond and Port Daniel in 1874, female lobsters carried their eggs from the end of August to the middle of October, whilst this season almost every female had them in August. On the 11th August, I myself examined at Port Daniel fifty female lobsters, thirty-five of which bad eggs attached in an advanced state of maturity. The same observations were made by the local fishery overseers of these divisions. At Gaspé Basin, where Mr. Holliday, of Quebec, has carried on lobster fishing for four or five years, it has been remarked that the female lobsters had eggs mostly in July. At Magdalen Islands, from information supplied by the local fishery overseer, fomale lobsters carried no eggs before the tenth or twelfth of August and by the end of September had all done spawning. My own observations, and what I have learnt from fishermen and orerseers, laid me to believe that the visit of lobsters on our shores. is more or less adranced or delayed according to the temperature of water.

The period and length of the spawning season is also more or less advanced or delayed according to the temperature of the weather. This, aecording to my notions, will explain why female lobsters cast their eggs somer than usual on the shores of Bay des Chalcurs.

In spite of all the difficulties which present themselves in the adoption of a proper close-season for lobsters, I am, however, of opinion that this is the only measure which can assure the protection of the species; and I think it far better to make the close-time longer than shorter, in order to safely cover the spawning period. If measules of some kind are not adopted, unt only the several firms engaged in this industry, but the whole country also will feel the ruin of this fishery on our shores.

The catch of lobsters in Bay des Chaleurs was somewhat larger than that of last ycar' ; but the fishing grounds of Maria, Carleton and New Richmond will require
several years' rest before they become as valuable as formerly. In 1874, no less than 216,432 pounds of lobsters were canned at Maria; 9,315 pounds only in 1875, and about 36,175 pounds this season. At Malbaie, Gaspé, Mr. Holliday preserved 60,000 pounds. He canned 50,000 pounds in 1875 . The grounds where Mr. Holliday carries on his fishing operations are far from being exhausted. Being a clear-sighted business man, he fishes with prudence and even observes, without being compelled to do so, a close-season, which he extends from the first days of August until the fall. By so doing, this gentleman protects an annual source of revenue which is not to be despised, whilst showing at the same time that he fully understands his own interests. Next year, it is expected there will be at Port Daniel, a new canning establishment for salmou and lobsters, which promises to be carried on on a large scale. I think this will tarn out to be a good speculation, there being a plentiful supply of lobsters in that Bay, and salmon being quite abuadant.

## On the Inprocement of our Salmon Rivers.

Every one sces with pleasure the care and attention bestowed by the Fisheries Department towards the improvement of rivers frequentel by salmon, either by euacting laws and regulations which are considered the most proper to attain the end in view, or by appointiug additional guardians in places where they are most needed. Thanks to these energetic measures, the fishery laws are now at well enforced as can be expected, especially in a country like ours, where the large extent of coasts require more than ordinary watchins; the result being that all or very nearly all, are satistied with the present state of affairs. I must add that our fishermen cheerfully comply with these enactments, being fully aware that, sooner or later, they must reap the direct benefit of thiss systom of protection. The violations of the law were very few during last season, and I feel sure that before many years are over, they will form an exception; flshermen being wow convinced that the Department desires nothing else but their success and security. The present system works admirably well, and it would be difficult, I think, to tind a better one.

In order to enable you better to understand the favorable results of the measures adopted by your Department, I shall give statistics of the result of angling in some of the principal salmon rivers, of the comnties of Gaspe, and Bonaventure. Owins to spearing, netting and illegal fishing of all sort, which was formerly carried on without any opposition, theso streans were threatened with impending ruin; but the moment your Department took the matter in hand, they grew up again as if by magic. The following comparative statement will better illustrate my moaning.

Comparatite Statement of salmon angling in the following rivers, in the Counties of Gaspe and Bonatenture.

| River. | No. of Salmon cauglat with the fly. |  |  | Remarks. |
| :---: | :---: | :---: | :---: | :---: |
|  | 1870. | 1875. | 1876. |  |
| Ste. Anne des Monts. | 40 | 69 | 116 | The year 1876 was considered as very |
| York .................... | 165 | 98 | 123 | unfavorable for fly-fishing. The sum- |
| St. John................. | 97 | 36 | 87 | mer was exceedingly warm; the water |
| Dartmouth ............. | 51 | 66 | 58 | kept too low and too clear, and the |
| Grand.................. | 155 | 144 | 151 | fish took the fly with reluctance. |
| Grand Cascapedia... | 205 | 269 | 369 |  |
| Matapedia ............. | 44 | 73 | 73 |  |
| Restigoucle........... | 211 | 401 | 447 |  |
| Total...... ........ | 968 | 1,156 | 1,424 |  |

I do not allude here to salmon rivers on the north coast; the population being more scattered than on the south shore, it follows that violations of the law were fewer, and consequently these streams suffered less from excessive fishing and poaching.

## The Natural Enemies of Salmon.

Amongst the greatest natural enemies of salmon, must be reckoned cormorants and sheldrakes. The latter hatches its brood in the upper part of rivers, and breeds as many as ten or fifteen young ones every year. These feed almost entiroly upon salmon eggs, of which they devour an immense quantity. Cormorants hail from the sea and pay their annual visits to the rivers of Gaspe about the end of August or the month of September. They feed mostly on young salmon. After lilling two of these birds, no less than twelve or thirteen salmon, one year old, were found in their stomachs. This will explain the great havoc they must commit.

The best mcans, according to my knowledge, to remedy this abuse, would be the following: The lessees of salmon angling rivers are all provided with paid guardians. Let them give each of them $\$ 5$ or $\$ 6$ to buy powder and shot with, and I can guarantee that, in a couple of years, the greater part of this useless and injurious vermin will have disappeared. Net fishermen will undoubtedly join with the greatest spirit in this work of extermination. I sincerely hope that the present appeal addressed to our liberal sportsmen, so deservedly popular, will find willing ears. Already a most praiseworthy example in this respect has been set by Mr. Andrew Clerke, of New York, the spirited lessee of Grand River, who has in many other respects also greatly assisted in improving the salmon fishery of that stream. Mr. Clerke, by judiciously and liberally employing kis private fiehery guardians, has now almost exterminated kingfishers, eawbills and other piscivorous birds which formerly infested that locality.

## Return of Fishing Stations, kinds of Vessels, number of Men


kinds of Nets used, kinds of Fish and Fish Oils, \&c., \&c. OF GASPE.

Nets and Seines.


Return of Fishing Stations，kinds of Vessels，number of Men， COUNTY OF

| Namp of Place． | Vessels． |  |  |  | Fishing Boats． |  | Flat Boats． |  |  | $\left\|\begin{array}{l} \dot{0} \\ 0 \\ 9 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{array}\right\|$ | Salmon Nets． |  |  |  | Cod Seines． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $\dot{2}$ | $\begin{gathered} \dot{g} \\ \underset{\text { E }}{0} \end{gathered}$ | 完 |  | $\dot{8}$ | $\stackrel{\text { ® }}{\stackrel{\text { ® }}{ \pm}}$ | $\dot{\Delta}$ | $\stackrel{\text { ¢ }}{\stackrel{3}{\square}}$ |  |  | $\dot{i}$ | － | 离 |  | 号 |  |
|  |  |  | $\$$ |  |  | \＄ |  | \＄ |  |  |  |  | \＄ |  |  | $\$$ |
| Corner of Beach and Canne de Roches．．．．． |  | 158 | 5000 | ${ }^{7}$ | 17 | 850 | 18 | 139 | 32 | 18 | 2 | 190 | 65 |  |  |  |
| Bonaventure Island．．．．． |  | 720 | 28720 | 50 | 77 | 2563 | 26 | 177 | 158 | 102 | 2 | ．．．．．．． |  |  |  |  |
| Percé |  | 50 | 700 | 5 | 160 | 12354 | 73 | 846 | 325 | 270 |  | ．．．．．．．．． |  |  | －．． |  |
| Anse A Beau Fils．．．．．．．．． |  | ．．．．．．｜ | ．．．．．． | ．．．．．． | 23 | 1760 | 19 | 188 | ＋ 46 | 270 |  | ．．．．．．．．． |  |  | … |  |
| Cape Cove |  | 225 | 7500 | 19 | 47 | 4460 | 23 | ， 230 | 94 | ｜－1．70 |  | 300 | 50 |  | ．．． |  |
| Cap D＇Espoir ．．．．．．．．．．． |  | ．．．．．－ | ．．．．．．．． |  | 19 | 1500 | 14 | 140 | 38 | 15 |  | ．．．．．． |  |  | ．． |  |
| Grand River ．．．．．．．．．．．．．．． |  | ．．．． | ．．．．． | ．．． | $\stackrel{27}{100}$ | $\underline{2160}$ | 17 | 170 | 54 | 17 |  | ．．．．． |  |  | ．．．． 1 |  |
| Newport ．．．．．．．．．．．．．．．．．．．．． |  |  |  | ．．．．．．． | －83 | 5880 | 27 | 287 | 166 | 132 | 2 | 200 | 80 | ．．． | ． |  |
| Little Pabos ．．．．．．．．．．．．．．． |  |  |  |  | 63 | 5750 | 28 | 226 | 166 | 98 59 | ${ }_{2}^{2}$ | 260 | 75 |  | －．．． |  |
| Grand Pabos ．．．．．．．．．．．．．．．． |  |  |  |  | 26 | 6800 280 | 25 7 | 307 105 | 126 | 59 20 | 2 | 962 700 | 240 |  |  | 240 |
| Total ．．．．．．．．．．．．．．． |  | 30421 | 46420 | 264 | 1501 | 96846 | 1087 | 10946 | 3001 | 1391 | 103 | 22115 | 7054 |  |  |  |

kinds of Nets used，kinds of Fish and Fish Oils，\＆c．，\＆c．－Continued． GASPÉ．－Continued．

Nets and Seines．

| Herring Seines． | Herring Nets． |  |  | Mackerel Seines． |  | Mackerel Nets． |  |  | Capelin Seines． |  |  | Lannce Seines． |  | Seal | Tets． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\dot{8}$ |  | $\begin{aligned} & \text { 吕 } \\ & \text { 『゙ } \end{aligned}$ |  | 追 | $\dot{B}$ | 或运 | 咢 | $\dot{Z}$ | 这 |  | 宽 | 号 |  | $\stackrel{\text { ® }}{\Xi j}$ | $0{ }_{0}^{\circ}$ |
| $\$$ |  |  | $\$$ |  | \＄ |  |  | \＄ |  |  | \＄ |  | \＄ |  | \＄ | $\$$ |
|  | 31 | 250 | 301 |  |  | 1 | 80 | 10 | 9 | 107 | 2231 |  |  | ．．． |  | ．．． |
| ．．．． | 157 | 4975 | 1541 | $\cdot$ |  | 5 | 144 | 44 | 2 | 64 | 431 | 42 | 60 | ．．．．．．．． | ．．．．． | ．．． |
| ．．．． | 315 | 3558 | 3314 | ． | ．．．．． | 2 | 36 | 12 | 9 | 306 | 225 | 40 | 50 | ．．．．．． |  | ．．． |
| $\cdots{ }^{-.}\|.$.$\| ．．．$ | 54 | 2140 | 568 | ． ．．．．．． |  |  | ．．．． | ．．．．．． | 8 | 366 | 126 | …． | ．．．．． | － |  | ．．． |
| ．．．｜．．．$\ldots .$. | 108 | 4320 | 1100 | 1280 | 200 | 7 | 310 | 80 | 9 | 450 | 250 | ．．．．． | ．．．．． | ．．． |  | ．． |
| ... $\cdots$ <br> ... ... | 50 | 2000 | 777 | … $\cdot \cdots$ |  |  |  | ．．．．．． | ${ }_{2}$ | 110 | 70 | …．．． | ．．． | ．．． |  | ．．． |
| ．．． | 230 | 5744 | 3889 | ．．． |  |  |  |  | 14 | 700 | $7411 .$. |  |  |  |  |  |
| ．．｜．．．.. | 164 | 65501 | 1620 | ． |  | 15 | 750 | 148 | 7 | 420 | $225 .$. |  |  |  |  |  |
| ．．．$\cdot . . \mid$ ．． | 201 | 8074 | 3210 | ．．． |  |  | ．．．．．． | ．．．．．． | 7 | 334 | 375 |  |  |  |  | $\cdots$ |
| $\cdots$ | 60 | 2000 | 720 |  |  |  |  |  | 2 | 140 | 100 |  |  |  |  |  |
|  | 2773 | 82284 | 40520 | $1{ }^{1}$ | 200 | 111 | 4236 | $1 \times 79$ | 126 | 5332 | 490412 | $6 \pm 4$ |  | $\ldots$ |  | $1 i \geqslant$ <br> 1 |

## Return of ${ }^{*}$ Fishing Stations，kinds of Vessels，number of Men， COUNTY

| Name of Station． |  |  |  |  | Summer Fishing． | Fall Fishing． <br> 合 总 0 0 0 | 家 |  |  | 苞 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cap Cha | 2 |  |  |  | 2，200 | 430 | 2 |  | 4 | 150 |
| Ste．Anne des | 3 | 2，225 |  | 1 | 3，580 | 630 |  |  | 3 | 226 |
| Rivière Claude |  |  |  |  | 6018 |  |  |  |  | ．．．．．． |
| Riviere a Pierre |  |  |  |  | 395 |  |  |  |  |  |
| Mont Louis | 16 |  |  |  | 1，500 |  |  |  |  | 11 |
| Ruisseau des Olives |  |  |  |  | 145 |  |  | … |  | 14 |
| Anse Pleureuse ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  | ．．．．．．．． |  | ．．．．．． | 85 |  |  | ．．．． |  |  |
| Gros Mâle ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 15 |  |  | ．．．．．． | 286 |  |  | ．．．．． | ．．．．． |  |
| Manche d＇Epée．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  | 288 |  |  |  |  | 3 |
| Petite Rivière Madeleine ．．．．．．．．．．．．．．．．．．．．． |  |  |  | ．．．． | 53 |  |  |  |  |  |
| Riviere Madeleine．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 11 |  |  | ．．．．． | 260 |  |  |  |  | ．．．．． |
| Cap a l＇Ours．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  | ．．．．． | 77 |  |  |  |  |  |
| Grinde Anse．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  | ．．．．． | 12 | ．．．．．．．．．．． |  |  |  |  |
| Grande Vallée ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 3 |  |  |  | 1，077 |  |  |  |  |  |
| Anse ：rollin ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  | ． | 170 |  |  |  |  |  |
| Petite Yallie |  |  |  | ．．．．． | 198 |  |  |  |  |  |
| Pointe it la Frígate ．．．．．．．．．．．．．．．．．． |  |  |  |  | 295 |  |  |  |  |  |
| Cloridurme ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 9 | ．．．．．．．．．． |  | ．．．．． | 961 |  |  |  |  |  |
| Pointe Siche． |  | ．．．．．．．． | ．．．．．． |  | 615 |  |  |  |  |  |
| Grand Etang．． |  |  | ．．．．．． |  | 1，250 |  |  |  |  |  |
| Anse ì Valeau |  |  |  |  | $\bigcirc 05$ |  |  |  |  |  |
| Pointe Jaune ．． |  |  |  |  | 299 |  |  |  |  |  |
| Fchourie |  |  |  |  | 469 |  |  |  |  |  |
| Petit Cap．． |  |  |  |  | 294 |  |  |  |  |  |
| Petite Riviere au Renard |  | ． |  |  | 432 |  |  |  |  |  |
| Rivière au Renard． |  |  |  |  | 3，$\because 50$ |  |  |  |  |  |
| Anse ì Fugere．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  | 141 |  |  |  |  |  |
| Anse a Gris Fond．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 14 | ．．．．．．．．． |  |  | 3，275 |  |  |  |  |  |
| Trois Ruisseaux．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 1 | ．．．．．．． |  |  | 519 |  |  |  |  |  |
| Anse it la Louise． |  |  |  |  | 691 |  |  |  |  |  |
| Cap des Rosiers | ．．．．．． |  |  |  | 1，937 |  |  |  |  |  |
| Ship Head．．．．． |  |  |  |  | 388 | 224 |  |  |  |  |
| Indian Cove．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  | 205 | 155 |  |  |  |  |
| Grande Greve and St George＇s Cove．．．．．． | 41） | 1，722 | $\cdots \cdots \cdot$ | ｜．．．． | 1，925 | 639 | 50 | 10 |  | 104 |
| Little Gaspé | 821 | 1，000 |  | ; ..... | 95 | 84 |  |  |  |  |
| Cap Aux Os and Seal Rock ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  | 3,182 19 |  |  | 203 | 127 |  |  |  | 20 |
| Peninsula ．．．．．．．． | ．．．．．．． | 19,412 6,083 | ｜．．．．． | ．．．．． | 20 | 68 |  |  |  |  |
| Gaspé Basin．．．． |  | 6，083 <br> 9,135 |  |  |  |  |  |  |  | 60 |
| Sandy Beach |  | 12，282 |  |  | 228 |  |  |  |  |  |
| Douglastown |  | 2.705 |  |  | 353 | 480 |  |  |  |  |
| Seal Cove ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | ．．．．． | 2，661 |  |  | 55 | 4 |  |  |  | 2 |
| Cbien Blanc，\＆c ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  | 1，120 | 860 |  |  |  |  |
| Pcint St．Peter |  | 2，325 |  |  | 3，179 | 499 |  |  |  | 249 |
| Malbay ．．．．．．．．．．．． |  | 1，612 |  |  | 1，840 | 350 |  |  |  | 10 |
| Belle Anse Cove |  | 3，900 | ．．．．．． | ． | 1，840 | 80 |  |  |  | 14 |
| Barachois ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 372 |  |  | ．． | 1，050 | 2，250 |  |  |  |  |
| Corner of the Beach and Canne de Rochee Bonaventure Island |  | 1，800 |  | ． | 710 | 304 |  |  |  | 27 |
| Percé ．．．．．．．．．．．．．．． |  | ．．．．．．．．．．． |  |  | 3，679 | 569 |  |  |  | 24 |
| Anse it Beau fils．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  | 7，092 | 2，501 |  | ．．．．．． |  | 195 |
| Cape Cove ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  | 2，330 | 819 1,525 |  | ．．．．． |  | 73 133 |
| Cap d＇Espoir ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  | 2,330 825 | 1,525 835 |  |  |  | 133 |
| Litule River |  |  |  |  | 1，250 | 1，395 |  |  |  |  |

kinds of Nets used, kinds of Fish and Fish Oils, \&cc., \&c.-Continued. OF GASPÉ.-Continued.


Return of Frshing Stations, kinds of Vessels, number of Men COUNTY.


kinds of Nets used, kinds of Fish and Fish Oils, \&c.-Continued.

## OF GASPÉ.



## RECAPITULATION.

Value of the different Fisheries of Gaspé Division in 1876.


## Return of Fishing Stations, kind of Vessels, number of Men,

 COUNTY OF
kind of Nets used, kindss of Fish and Fish Oils, \&c., \&c. BONAVENTURE.

Nets and Seings.


## Return of Fishing Stations, kinds of Vessels, number of Men,

 COUNTY OF
kinds of Nets used, kinds of Fish and Fish Oils, \&c.---Continued.
BONAVENTURE.

|  |  |  |  |  |  |  | Whale, Seals and Lobstres. |  |  |  | Oils. |  |  | Fish osed as Bait and Manurg. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 薥 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | ..... |  |  |  |  |  | 300 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | 2120 |  | 3.00 | 300 |  |  |
|  |  |  |  |  |  |  |  |  |  |  | -.... | ..... |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | 2400 |  | 20501 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | 800 | 360 | 4200 | 140 |  | 120 |
|  |  |  |  |  |  |  |  |  |  |  |  |  | 120 | 36 | 3660 | 20 |  |  |
| 400 |  | $7 \frac{1}{2}$ |  |  |  | 3 |  |  |  | 408 |  |  | 800 | 420 | 1180 | 4112 | 250 | 168 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | 68927 |  |  |  |  |  |  |  | 5 |
|  |  | 4 |  |  |  |  |  |  |  | 2000 |  |  | ${ }^{16}$ | 15 | 1000 |  | 800 | 10 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | 10 |  |  |  | 5 |
|  |  |  |  |  |  |  |  | ..... |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | - | ......... |  |  |  |  |  |
|  | . |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | ... |  |  |  | ..... |  |  |  |  |  |  |  | ....... |  |  |  |
|  |  |  |  |  |  |  | ...... |  |  |  | ..... |  |  |  |  |  |  |  |
|  | ..... | ..... | ..... | ..... |  |  |  | ..... |  |  |  |  |  |  |  |  |  |  |
|  |  |  | ... | $\cdots$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ....... |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | ... |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 700 |  |  |  |  |  |  |  |  |  |  |  |  | 440 | 966 | 13550 | 4772 | 1050 | 333 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## RECAPITULATION.

Value of the different Fisheries of Bonaventure Division in 1876.


## LABKADOR DIVISION.

The fears entertained during the fall of 1875 , regarding the probable trials to which the greatest part of the population of the north coast would be exposed, especially that of Point des Monts and Mingan, on account of the total failure of the fishery during the season of 1875 , were unfortunately but too well realized, and no one can form an idea of the hardships and sufferings which these poor fishermen had to bear from the month of November to the fifteenth of July last. It was a really painful sight to behold these men, women and children with ghastly faces and emaciated bodies. This poor population received no assistance from the Provincial Government, and as I stated in my last report, there was no locality which deserved it more. Several families from Moisie, Ste. Marguerite and Seven Islands, never saw as much as a thimbleful of flour for seven weeks, and were compelled to satisfy the hunger with boiled clams, painfully torn from the ice. These families had therefore reached the last degree of exhaustion, when the first schooner arrived with provisions. At this supreme moment, when despair, increased by hunger, was on the point of taking hold of parents who could no longer procure their own food and that for their childron, there were found inhuman merchants who were still cruel enough to speculate upon this distress and sufferings. They were not ashamed to sell, by the weight of gold, the mouthful of bread to these poor people who claimed assistance in their pressing need. One of these merchants sold barloy flour eight dollars a barrel; another was not ashamed to give three dollars for the skin of a silver fox, worth fifty: During the month of July, the position of that population had not improved, owing to the total failure of cod fishery; and when I visited Seven Islands and Ste. Marguerite, there were neither flour, meat, fish nor credit w'th merchants. I found these poor people in such a state of destitution, that I took upon myself to assist about a dozen of them out of our own stock of provisions. A $\sim$ most of these familie hailed from Magdalen Islands, I arlvised them to return amongst their people. I promised, on leaving them, to engage their friend to send a ressel to fetch them back, which I easily succeeted in doing ; and a few weeks afterwards, most of the colony which migrated to Seven [slands had returned to Maydalen Islaıds, where it will be a standing lesson against any future attempt at emigration. In the other divisions of the north coast, surh as those of Mingan and Bonne Esperance, the few barrels of flour which were distributed by the Prorincial Government, prevented such distress as that which was noticed at Seven Islands and Ste. Marguerite; still the arrival of the first tralere was anxiously looked for. The failure of the fishery during the first months was not very encouraging, but things fortunately improved towards the end of the season, and fishing gare very satisfactory results. There may be a falling off in certain kinds of fishings, but those upon which fishermen of this division mostly depend, such as cod and salmon fishing, were very satisfactory, as well with regard to the yield as to the value. In 1875, cod fishery yielded for the whole of the north shore 27,260 quintals; in 1874 39,422 , and this seayon 42,907 quintals, which, at $\$ 5$ a quintal, gave \$214,535. To this sum must be added 38,105 gallons of oil, at fifty cents a gallon. I shall give in another place the quantity of fish caught by foreign schooners. In 1875, salmon fishing yielded $1,20 \pm$ barrels, and this season 1,823 . Although there is a falling off in the yield of berring fishing and seal hunting, the former of which gave in $1 \times 75$, 9,105 barrels, against 3,770 this season, and the latter 7,707 seals in 1875, against $\mathbf{5 , 4 5 5}$ this season ; it must be remarked that these products sold for almost twenty per cent more than last year.

There may be some localities on the north shore where sufferings will be great ; for instance, at Esquimaux Point, where fishermen had every possible kind of illluck during the past season, and at Pacachoo, where they were not provided with suitable fishing engines to secure a good catch; but, according to the report of fisbery overseers, provisions are in fair abundance, and as, according to the latest new $\rightarrow$, hunting promised well, this will engage traders to pay an early visit to that part of the coast next spring.

The north hare comprises an extent of const newry 500 miles long, from Point des Monts to Blanc Sablon, and is divided into twis principal parts; the north shore Lroperly so-called, which runs from Point des Monts to Natashquan and the coast of Labrador (Canaca) extendine from Natashquan t: Blanc S: inol. In orler to ficilitate fishery districts, placed under charge of ent of const has beon subdiviled into seven

Trinity Division-From Point dew Monts to Pontecost River;
Moisie Division-From Point Jumbon to Point St. Charles;
Mingan Division- From Esquimâux Point to Sheldrake;
Watshecshoo Division-From a teepetal Bay to Watsheceshoo River;
Natashquan Dirision-From Napitippi River to Kerashea River;
Pacachoo Division-From Cape Whittle to Chicatica;
Bome Esperance-From Chicatic:a to Blanc Sablon, the eastern boundary of Canada.

I think, however, that a far more efficient result would de obtained were eight divisions furmed out of these seven. This is what $I$ said upon that point in my last annual report:
"There is another division on the north coast, which, in order to be efficiently protected, oulht to be divided into two. This division has an extent of coast of from 60 to 10 mile, and comprises Agwanus, Kegashca, Natashqu:n, Washcecontai, Nabissippi and Romaine Rivers. Both divisions of this important fishery district are equally important, but travelling between Natashquan and Kegashea, a distance of $3: 3$ miles, is most difficult, there being no settlements at all, and the coast being unappiotchable. It will, therefore, be easily understood that the Fishery Overseer at Natashquan, who has a good deal to do in guarding this river, can hardly be expected to visit the eastern division, comprising IVegashea, Wisheecootai and Romaine Rivers more than once during the season. This part of the coast being frequenteil ly a large number of foreign fishing vessels, it follows that these rivers are poiched almost evory season without it being possible to detect the violators of the law. Such was the case in Kegashea River this jear. I would, therefore, recommend to divide this district into two divisions, the first comprising Agwanus and Kabissippi rivers; the second, Kegashea, Washeccootai and Romaine Rivers. With such an armagement, buth these divisions would be easily guarded, and the river wonk sowit be re-stocket. Thoy are stuels suenclid and handy salmon streams that they would in a very short time amply repay the Department for the additional outlay."

I :hall not this time return to the history of the first fishermen who visited the nort! const. It is known that several European nations were in the practice of outfittins verels for whale, seal, and cod tisheris. Vestices are still found on certain parts of the coant of extablishments male an carly as the sixteenth and seventeenth centurios. After the Fronch and Spaniards, came the English, Jerseymen, American:, and later, tishemen from the Daritime Provincos. These various mationalities met on the dreary shores of Labrador, energetically talsing advantage of its rich fisherier.

Up to the lati live or six felu's, the stationary fisheries of the division of Labrador, properly so-cilled, were exchasively worked by a Company from Quebec called the Labialior Company. 'They male enormous profits, and the company dissolved when their prodits bern to decrease. The several fishing perst then fell into the bands of private inlividuals who continued their development. At the same time, several Canilian families from St. Thomas, Berthier, and L'Inlet also settled on the north conist.

Another powerful concern, the Hudson's Bay Company, was also engrged in carrying on fishing on the npper part of the coast. It was all-powerful by sea and land, and allowed only its own employes to pursue cod fishing. An Act of Parliament restored thesc waters to our Province, and about 1850 or 1852 there began to arrive from the counties of Gaspé, Bonaventure and Rimouski numerous settler's and fishermen, who took up their abode at Esquimaux Point, Natashquan, Kegashea,

St. John River, Sheldraike, Moisie, \&c., and were soon engaged fishing for cod, which was abundant in all these places.

According to a report made hy my predecessor, Hon. P. Fortin, I find that the population of the coast of Labrador, from Portnenf to Blanc Sablon, amounted in 1852 to 2,055 souls. The census for 1861 sives for the same extent of coast a population of 4,369 souls; but I think that in this census were reckoned, as residents, tishermen who were there only en passant, as the census of 1871 , which is the most complete in Canada, gives as the total popalation 3,699 souls, including that of the Island of Anticosti. From what I can see, there must have been an increase from 1861 to 18.1 ; but since that period the population remained almost stationary, there haring occurred a cerics of had ycars, which carried away several families from the coast, especially fiom the western part of it. I, nevertheless, am under the impression that these were rejuaced by other families in the eastern division. This new migration, which hails from different parts of the coast of Newfoundland, especially from Ronne Bay, Bay of Islands, and Basque Harbour forms a choice and courageous population hardencl to labour. I counted no less than twenty-one of these fimilies at Kegashea, Harrington Ialet, and Matton Bay, where they are very successful in their fishing pursuits.

Drawn thither by the considerable trade which fishing harl created on the north coast, and being anxious to secure their share of it, several large Gaspé firms founded establishments there which now rival the finest and wealthiest on the south sionre.

Fish is, so to sary, tho orly resource of the resident population of the north coast, whilst it is also the sithberticle of trade. During several years the iron mines of Moisio and Mingan, as weil as the canning of salmon at Natashquan, afiorded some employment; kut the commercial depression paralysed these inclustrics and put a stop to all work. There still remains the produce of winter hunting, but wild animals are becoming so scarce that hunters barely succeed one year out of sin. On the coast of Labrudor properly called, where arable lands utterly fail, the population has nothing else to fall back upon for a living except fishing and hunting. In the upper part of the const, from Kegashea to Point des Monts, any fisherman who would take the trouble could succeed in growing the regetables that his family might want during the season, and it is with pleasure that one notices around Jersey establishments as fine vegetable gardens as can be found on the best lands.

Fishermen on the north coast import everything they require, it follows that a large number of chooiers are employed carrying articies of consumption and taking in exchange the produce of the locality. About thirty schooners from Quebec, Gaspé and Halifux are constantly engaged in that trade, from early spring till late in the fall. These ressels, as well as the Packet whith keeps a regular semi-ronthly line between Gaspé, Esquimaux Point, Natashquan and Anticosti, and Mr. Holliday's steamer running fortnightly between Quebec and Moisie, make access to these remote localities a rather easy thing. In my report of last year, I alluded to the necessity of despatching a mail from Bonne Esperance to Mingan, at least once during the winter, so as to meet the postilion leaving the latter place about the middle of winter for Quebec. I am arrare that the inhabitants of Bonne Esperance Division signed and forwarded a petition to that effect. No measure could be more considerate, and no one can form an idea of the hardships which might thereby be spared to a population separated from the rest of the world, and to the wrecked people cast upon these shores during the late seasons, could timely notice be sent, so as to secure early in the spring the necessary relief.

This division being comparatively more exposed than others to disorders and depredations, owing to the influx of strangers during the summer and the absence of magistrac' ; I made it my duty to visit it oftener than other parts of the Gulf. The Fisheries' Protection steamer went twice to Labrador this summer, and we visited the principal posts of the western division tour times. If we except a few quarrels of little importance, and violations of the Fisheries Act, we cannot but feel pleased with the manner in which the law was observed.

Whilst I am on this subject, it may not be out of place to state that it is much to be regretted that the visits of the Stipendiary Megistrate on the north coast do not produce all the good results they should have done. This officer is often placed in rather a ridiculous position, being mitble to piocure the required assistance to have his authority rexpected or his judgments carried out, owing to the enormous costs and difficulty of takiag prisoners to jail. Such cirumstances are evidently more apt to encourage an evil than to repress it. A slight amendment to the law which would allow of taking prisoner's to Percé, where daily communications are easily found, would obviate numerous inconveniences. An untestanding between the local and foderal Governments might also lead to an arrangement which would permit of the officer in charge of the Fisheries' Protection Service in the Gulf baving the orders and judgments of the stipendiury Jagistrate respected, which would create a good example.

## List, of Freighting and Trading; Vossels in the Mingan Division, during the season of 1876 <br> $\qquad$

Name of Vessel. Mastrr. Where Registered.
Laty Youlg.....................Na, Nise B!:ıis............. Quebec.
Florida.......................... Miehel Cinlombe........... . do.
Ste. Anne de Beammont...... (iillert MeNeil........ ... do.
Frank......... ................ . L иis Dugal................. do. do.
Notre !ame des Vietoiren...Joncas.......................... do. do.
Repeal............... .............Andrew Gleanon................Halifax, N.S.
Gava..............................Alex. Romkey............... do.
Elie................................John W. Pitti................. do.
J. W. Arnold.................... William Arnold.............. do. do.
J. L. B........................... Charles Robson............... Gaspé.

S'veedy........................... Astlan......................... .... do.
H:usty............................ Luc:ls............................. .... do.
Wolverine........................ Adams ........ .............. do.
Erin................................ Qaigley...................... do. do.
A. W. C...........................Sannuel Allan ............... Nev Carlisle.

Papliac..........................John Moulin.................. do.
Fly................................X. LeBlanc .................. . do.
Paims........... ...................F. LeBlanc ............... . . do. do.
Dit-On ............................ P. LeMarquand........... . Jersey.
Glenner..........................C. Steams..................... do.
Mary Georgiana................(nnknown).................... do.
Edward Vittery.................Samuel (ieorge.................Brixham, England.
Total 22 Vessels

Roturn of the number and tonnage of vessels, and men belonging to E-quimaux Point, engaged in sciul, cod, and herring fishing, during the season of 1876 :


## Cod Fishery.

There is no need repeating lere what I have alreadry said about explorers who first engaged in cod fishing on the coasts of Labrador, and fishermen who first visited in it; let it suffice to state that these pursuits were first carried out in the divisions of Bonne Esperance, and St. Augustine, as early as the fifteenth and sixteenth centuries. Several historians even place at a much earlier date the establishments which the Spaniards, Portuguese, and French opened for cod fishing on the Labrador coast.

As already explained, it was only in 1850 that fishermen from Gaspé, Bonaventure, and Rimouski, who hat settled on the north coist, began to turn their minds to cod tishing, especially from Natashquan to Caribou Slets, and on that part of the coast of Labrador, properly so called. Seal fishing having ceased to be remunerative, these people had to turn their energies towards the taking of cod It has, therefore, considerably increased since 1852. Before the conquest, the large establishments were located in Boune Espérance Bay, at Salmon Bay, and Blanc Sablon. These establishments have changed hands at the present date, lut several still remain of ımportance, such as those of Natashquan, Esquimaux Point, St. John River, Magpie, Sheldrake, Thunder River, and Moisie. Cod is most generally found in these places, hence the largest establishments are located there.

The season which has just expired, has been a remuneratice one for the north shore fishermen, owing to the high prices paid for fish, especially in the western division. Fishing began under very unfavourable circumstances. Abont the middle of the summer, when fishing is almost considered over, several establishments numbering from eighteen to twenty barges had barely twenty quintals of cod on the flakes. On that part of the coast of Labrador extending from St. Augustine to Blane Sablon there was better success than usual; Codfish struck during the very first days
of June, to the great joy and astonishment of fishermen, who took advantare of this unexpected piece of good-luck to make a remunerative catch. The same reason which was keeping codfish outside the banks in the western part of this division did not exist here; whilst the Gulf was coverel with ice until the month of June, the Strait of Belleisle was open from April and the tumperature of the water was higher than in other parts of the Gulf. The unasually early appearance of cod on this part of the coast of Labrador gave promises of an extraordinary yield, but in the end it proved to be only an ordinary one. The first schools of fish dich not stay long in the emall bays of the coast: they soon went outsile, and in pite of the skill of fishermen and the attraction of the most inviting kinls of bait, cod would not bite. I am led to believe that the reason why these fish kept away from shore was the sudden inpour of fresh water from our rivers. This water being too cold and too soft did not suit the fish, whose natural instinct carried them back to deep water where neither hooks nor seines conld reach them. About the middle of July the schools of cod again hugged the shores, but although these fish were alundant on the banks, especially at Bradore Bay, Belles Amours, Bonve Espérance, Chicatica, Whale Head, and Blanc Sablon, line fishermen reaped no great advantage from it, as the fish would not look at the bait. The average catch with hook and line was from thirty to thirty-five quintals per barge, whilst last year it averaged only from fifteen to twenty quintals. Fishermen of this division who were provided with codfish seines did well; some of them caught 500 quintals; others, son, and some as much as 1,000 quintals of fish. There are, unfortunately, but five or six fishermen owning seines in Bonne Espérance division.

As already stated, cod fishing was not at all encouraging in the western part of this division until the latter part of July; about hat period, fish struck in abundance, and during the short period of three woek«, fishermen had succeeded almost everywhere in making ono of the best fishing seasons which had occurred since 1869. There are but three codfish seines on this pirt of the coast. They belong to fishermen from Sheldrake, who do not succeed equally well, owing to the uneren bottom of the fishing grounds; still, there were some hauls of 50,100 and even 150 quintal: of cod. St. John River, Natashquan, Magpie, Sbeldrake and Musie ace the places where fish struck in greater abundance; the average catch of each boat was from 75 to 80 quintals.

From Seven Islands to Caribou Islets, where fishiner is carried on by people from Rimouski, it was of a very ordinary nature, and legato only late in August. It yielded only 612 quintals of fish divider among thirty tishing boats.

Properly speaking, there is only one fishery on the north coast, the summer fishery, and it lasts only a very short time, about three or four weeks, and sometimers less. When the fishretires to deep water, it might be followed there, but winds are so high and currents are so strong that it would be useless for fishermen to lose their time in continuing to fieh after the summer season.

It has already been shown that cod tishermen on the north coast use both hand lines and seines. Some of them, but very few, still resort to bultow fishing; it is tbose who repair to the banks between Mingan and Anticosti. I was informed this season that several parties in the divisiou of Bonne Espérance were provided with pound or tripp-nets for cod fishing. These fishing engines cannot, however, be used without a special license from jour Department. But, the fishing season is so short, cod is so unreliable it its migrations, and fishing being almost the only resource of the inhabitants of these remote places, that I think they should, with reasonable restrictions, be allowed to use fishing material which would secure their families' bread. On such an isolated and barren coast, tishermen should certicinly have privileges which are denied to more favoured ones. I am perfectly aware that the use of these may give rise to some abuses, but it will always be an ensy thing to remedy them ; bosides these abuses are a mere notbing compared to the immenso advantages which fishermen and the public trade would derive therefrom.

The resident fishermen on the north shore, almost all curo their fish, and sell it afterwards. Traders from Halifax, Quebec, St. John, Newfoundland, \&c., offer a great
competition to Gaspe and Jersey merchants on the coast of Labrador. The former generally offer higher prices than the latter; but, by an exception this yéar, codfish sold higher at Gaspé than everywhere else. Besides schooners from Magdalen Islands and Esquimaux Point, which are in the habit of fishing during the summer within the limits of the divisions of Bonne Esperance and St. Augustine, about one hundred schooners from Nova Scotia, Newfoundland and the United States also repaired thither. The Nova Scotia vessels caught about 700 quintals of fish each, with hook and line, but they had to fish actively during five or six weeks, and experienced a great deal of inconvenience. Those from Newfoundland secured their cargoes of 500 quintals each in a very few days. The Newfoundland schooners are smaller than those from Nova Scotia. Two schooners fiom the United States caught about 900 quintals each, with veines and liuce, which brings the totul quantity of tish caught by these vessels to 61,800 quintals, valued at $\$ 5$ a quintel; say, $\$ 309,000$. This added to 43,907 quintals caught by our own tishermen, forms a total quantity of 104,717 quintals of cod taken on the north coast.

Daring an excursion which I made on the shores of Lalrudor, for the prur]ose of satisfying myself that the fishery laws were duly observed, I discovered a trap-nct set at Perroquets lsland, in Bradbre Bay, by capt. Quigley, of the shooner Garhamel, from Newfoundland. This fishing engine being forbidden by law, I reized it and had it taken on board the Fisheries' Prutection vessel. There wore no less than 100 quintals of cod in this net when confiscated, tas well as two saimon. It had been set only twenty-four hours, and had already caught 200 quintals of col and twosalmon. The cost of this fishing apparatus was $\$ 300$. I returned the net to its owner, who pleaded ignorance of the law, but fined him $\$ 20$.

List of Schooners Fishing for Cod at Bradore Bay, Labrador, during the season of 1876 .

| Name of Vessel. Master. |  | Port. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aurora .............. J. Perchard.......... | 20 | Bay of Islands..... | 7 |  | 1 | 40 |
| George Frogg....... J. Ryan................ | 103 | P. E. Island....... .. | 18 | ........... | 1 | 15 |
| Sweet Home ........ ${ }^{\text {r }}$ rupper ............... | 70 | St. John's, Nfld..... | 18 | ........... | 2 | 60 |
| Frank Erin.. ........ Petitpas ............. | 54 | Shelburne...... ...... | 9 | .... | 1 | 45 |
| Jannett .............. Jasper................. | 50 | Quebec ............... | 9 | 1 | 1 | 30 |
| Maggie ................ Petitpas .............. | 25 | \|Bay of Islands..... | 6 |  |  | 40 |
| Flora................... Morris ................ | 54 | Trinity Bay.......... | 11 | 1 | 1 | 350 |
| Victoria ......... ...... T. Bartellet........... | 70 | Bay of Islands..... | 9 | 1 | 1 | 300 |
| Dreadnaught......... J. Hackett.... ........ | 15 | Bonne Bay........... | 5 | ............ |  | 10 |
| Flash ......... ........\|Pike....... ............ | 42 | Carbonear.......... | 12 |  | 1 | 40 |
| Rump ................. Isaac Crome......... | 39 | Bonne Bay ........... | 10 | 1 | $\cdots$ | 100 |
| Mary Emma ......... $\boldsymbol{P}$. Kin.............. | 25 | Bonne Bay............ | 10 | . | 1 | 250 |
| Happy Home........\| J. Prodrick ........ | 64 | Harbour Grace...... | 8 | 1 | 1 | 60 |
| Suganna .............. G. Murphy............ | 31 | Bay of Islande ..... | 10 | - | 1 | 30 |
| Bay Queen... .......iN. Taylor............ | 55 | St. John's, Nfld..... | 10 | 1 | 1 | 308 |
| Sonora ................ S. Gass............... | 30 | St. John's, Nfld..... | 7 | ........... | 1 | 30 50 |
| Garhamel ............\| Quigley .............. | 30 | St. John, Nild....... | 8 | - | 1 | 50 |
|  |  |  |  |  |  | 1758 |

List of Schooners Fi*hing for Cod at Bonne Esperance, Labrador, during the season of 1876 .

| Name of Vessel. | Master. | $\begin{aligned} & \dot{0} \\ & \dot{0} \\ & \epsilon \\ & \dot{H} \\ & \dot{O} \\ & \dot{0} \end{aligned}$ | Port. | $\begin{aligned} & \text { 总 } \\ & \text { 4 } \\ & \text { © } \\ & \dot{8} \end{aligned}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dial. | Backman ............ | 60 | Lunenbnrg........... | 12 | 1 | ....... | 5 |
| S. Dehel ....... ...... | Smith................. | 42 | do .......... | 13 | ....... | ........ | 30 |
| Ellen Mary........... | Weston .............. | 56 | do .. ........ | 17 | 1 | ......... | 25 |
| River Dale............ | Hoist................... | 6.5 | du ... ........ | 3 | 1 | ........ | 25 |
| L. Q. Batch........... | Wansle................ | 70 | d") .......... | 14 | . | ........... | 20 |
| Prince Consort...... | Echman | 51 | du .......... |  | 1 | .......... | 8 |
| Star.................... | Welch ................ | 80 | du | 8 |  | .. | 4 |
| President........ ..... | Saldiaque............ | 75 | Purt :uı Basque ..... | 6 | 1 | ........... | 2 |
| City Queen.. ......... | Sweeder.............. | 80 | Mahone Bry ......... | 4 | 1 | ........... | 25 |
| Emily................. | Farrell . ............... | 86 | Lunenburg ........... | 14 | 1 |  | 25 |
| Lady Speedwell... | Hekman .............. | 79 | do .......... | 14 | . | . | 40 |
| Letell ................. | Ichkman .............. | 90 | \|La Have.............. | 14 | 1 | ......... | 8 |
| Raspberry ............ | Muirhead . ............ | 66 | St. John, Sfld....... | 10 | ... | ..... | ...... |
|  |  |  |  |  |  |  | 217 |

Codfish Séminy.
Having, durin: the course of the pastoceason, griven more than ordinary attention to the use of seines in cod-fishing, so as to be enabled to give your Dopartment information upon which it might rely; I am able to say that the more I examine this matter, the more I am convinced that those who are opposel to the use of these engines must either labour unter a wrong impression or be actuated by interested motiven, which they do whe eare to make known. Muring my visits to Labrador I visiterl thirteen sifoomers in the haboule of Bome Espérance and neventeen in Bradore Bay, the names of which are given abore. Thirteen of these vesels hailed from Lumenburg, in Novil Scotia. The crews had noscines, but reliel only upon hook and line fishing for the surces of their vorage. The result wats that, aithough fish were abundant, they canch! rery few ; and after a stay of two or three weeks had altogether only about $2: 7$ quintals of fish. The sehooners which I visited in Bradore Bay, being provided with seines, remained on the coast only two or three days, and their catch amounted to 1.758 quintals. It has been alleged that seines were injurious to fishing grounds and desteryed the firli. Nothing can be more ridiculous than sucl an assertion, as cod was most adundant this season in the very localities where seining has been practised for the last two hundred or two hundred and fifty years. With such an abundince of fish as was noticed this scason on the coast of Labrador, one cannot but feel astonished at the boldness of the assertion made by Jersey firms in 187 t, that, should the use of seinos bo not abandoned, cod would disappear from the Giulf in the space of twelve months. Lunenburg fishermen will, however, have no occasion to complain of seines this ycar, as there were none in the waters which they frequented, in spite of which they caught comparatively nothing although the grounds were covered with cod. In the course of conversations with these people, I think I discovered that their great objection to the use of these fishing engines arose not so much from their alleged injurious effects upon fish and fishing grounds as from their cost and the large expense incurred in using them. Nova Scotia fishermen must not also be considered in the same light as those who rely solely upon fishing pursuits for a living. They cultivato their farms, and, during what is known as the dull season, between seedtime and harvest, make a fishing voyage, a little for the enjoyment of the thing and much more for the profits derived
from such a venture. They are not only opposed to seine-fishing, but object also to bultows; hand-line fishing being the only mode of fishing which they deign to tolerate. This is all very fine for people who have other means of subsistence than fishing pursuits; they can indulge in such crotchets. But how will fishermen from Labrador and elsewhere manage to procure bread for their families in seasons like the present one, if they are denied the use of seines?

I not only visited the schooners, but also the grounds where seining was carried on, so as to see that the regulation relative to seine and hand-line fishermen was strictly complied with. 1 heard of no complaint, I also measured the meshes of seines, and found them of the dimension prescribed by law.

## Seal Fishery.

In spite of all the experience and energy displayed by owners of stationary seal fishing stations, and the skill displayed in setting their nets, their endeavours are far from being in all cases crowned with success. From Pacachoo to Blanc Sab on the north coast, neither cod, herring nor even salmon fishing will kindle in the souls of fishermen that enthusiasm which they are perhaps more susceptible of tha others, owing to their hazardous and dangerous mode of life; but seal fishing is the fishery which is spoken of during a whole year, with hopes and confidence, alty ugh a long series of constant ill-success must have disgusted the greatest numbrei them. But it seems as if nature took pleasure in feeding with vain hopes the , wour fishermen, by favouring them at distant periods with successes which as'si.h every one, and thus assist in keeping up expectations so often doomed to disipponntment.

The past year was one of these exceptional reasous, which now and then rerive fishermen by giving them abundance and prusperity.

Seal fishing is practised with nets during the fill and spring. Towards the latter part of November, seals enter the straits of Belle Isle, and tions the north shore, going up sometimes as high as Point des Monts, and even above that point; during last spring, in the month of May, a schooner loaded with timber from Matane, found herself caught in an ice-field upon which thousands of scain were gathered. Nature prompts these animals to thus ascend the Gulf, in order that they should bring forth their young ones on the ice, which they subsequently abandon to return to the cold regions. Nets are set to catch them on their upward migrations. This fishery completely failed last fall, the ice having frozen too early, thas preventing fishermen from setting their nets and the seals from entering the Biays. From this cause this fishery yielded only 59 seals against 182 in 1875, 251 in 1874 , and 1,604 in 1873. Thonsunds of seals were, during the latter period, seen passing along the coast of Labrador during the fall. This lasted for weeks then, but now, a dew isolated herds are seldom seen, and this spectacle lasts only a day or two ; last fali fewer seals were seen than usual. I was for a long time under the impression that this was due to a decrease in the number of the species; but I now perceive that it is nore apparent than real, and that the disappearance of these animals from our shores is due to their inconsiderate killing everywhere in the Gulf and in the waters where they retire during the summer, and this too with destructive engines which are daily becoming more and more fearful and dangerous, rendering these animals more shy. The unusual spring fishery which took place last year from Bonne Esperance to Blanc Sablon seems to confirm that idea. Four or five stations captured 3,027 large seals worth $\$ 5.50$ each. The like of it has never been seen, even during the most prosperous seasons. Had fishermen been provided with suitable nets as formerly, their catch might hàve been double, but these poor people had nothing else but portions of nets, and some of them were so weakened by privations that they had hardly strength enough to take the scals out of the meshes. According to the reports of the oldest residents on the coast, seals were 5--d 7 7
never seen in such abondance as latt apring. How are we to explain sucb an unusual visi: in phaces which seals hall thmerly visited every spring, but which they had abaidonsi fio the past twenty yeurs, umbers we admit the fact that steamers and ocher ves et: could not ceter the Gult carly this spring, and that this circumstance permitiel there arimals to live on the ice tolomg as they liked, leaving it when nature prompera them to doso. Being impeiled ly wother wants than their own instinet, they abundmed the ice to return to the sea by their natural highway, along the shores of Lab,ador. Soveral years may occur betore similar success is met with; but this hats enabled fishermen to recorer their fommer contidence, and I am sure that half of the m hare invested their all in procuring an outfit for next spring's fishing. On other parts of the coast : 390 seals, conmonly known as harbour seals, were caught in nets, or killed with the gun. This number of 3,027 seals, comprising the spring fishery, yielded 20,200 gallons of oil.

## Seal Ininting on the Ice.

If one ware to judge the lare quantity of seals noticed on the ice every sprug in the Gulf, the struit of Belleinle, and in the waters of the Atiantic Ocearn, norit-east of Newfoudland, he would be led to teliere that the immense destruction of the animals which has taken place for the last serenty or ninety years hats had no percertible influnce on the: pecice, but that they have either become more shy or more wary; their instiactive padence teanhy the the atvantage of not coming too year shoie when they can avoid it. The progress which has been made during the past few years in the outfitting. fire hunting these animah, and the incredible destruction which takes place erery year did not fail to draw the attention of naturalists, ontitters and fishermen from England as well is from Norway, Sweden, Germaty and even Newfoundiand. In order to prevent altogether, or at le:st in prirt, the dectruction of females whin they bring forth their young, or before the latter are strong euough and able to talke care of themselves; the Newfoundiand Guvernment tixed upon the 10th of March as the late of departure of steamers for the ice fielis. Among the countries which I have just mentioned, the Chambers of Commerce took hold of the matter, and intend fixing-if they have not alroady done so-a close-seasor for seal hunting in the waters of Greenland and Jan Mayen Island, to which localition alyout 100 vessels repair every spring to hunt these animals. It will never l,e too soon to atopt timely measures in order to protect this source of woalth whieh will always be productive, provided it is used with moderation. The destruction and disappearance of other species of amphibious animals, such as the walrusses which were destroyed ly immoderate tishing, should be a lesson; because in considering and stulying the physiology of seals, it will easily be uncierstood that unlimited hunting must sooner or later cause the ruin of a species which reproduces itsolf only in a limited manner. Our neighbors, who have been taught a lesson in the ruin of their cod and mackerel fisheries, took their precnutions against a similar dauger, in so far as their wealthy fur seal fisheries of Alaska are concerned; thas giving to European nations an example which they might take advantage of. The Americin Government being fully convinced that hunam cupidity and the love of a present gain would soon destroy the rich fisheries of this region, took hold of the matter and did not permit every one who chose to indiscriminately enter into this business; the time and length of fishing have been regulated and limited to a cortain number of persons, who are compelled to take out fishery licenses with a due regard to the propagation of these animals. The results proved the advantages of such a measure in a most satisfactory manner.

Sual-hunting bogan this spring .under very unfavourable circumstances at Newfoundland; the ice was so thick in bays where it had accumulated for a long time, pushed, as it were, by north-east winds, that steamers could not leave at the accustomed period. They succeeded at last in moving a little distance from shore, and brought back, after a short voyage, about 350 large seals, which, taken altogether,
is a rather tair success. It has already been stated how the detention of Newfoundland ste:mers in the ice was of such an adrantage to net fishermen in Bonne Esperance Division. Unfortunately, the schooners firom Esquimaux Point, Natashquan and Betchouan did not meet with the same succens. These sehooncis, to the number of 26 , brought back only 1,983 seals. This will show how smati profits must have been, when they were divided between 260 men, after paying expenses. One of these schooners, belonging to Captain Harvey, was caught in the ice and crushed near Salmon Bay, Anticosti Island. The crew of Captain Jules Poirier's schooner, which was near by, saved the men and 300 seals, which were on board. The unusual thickness of ice and a long prevalence of north-east winds were the cause of our sealers' ill-success; their vessels were unable to make their way through the ice; but the crews were unanimous in saying that seals were as abundant as ever: So long as our people will use the samo kind of ressels they now have for sealing in the Gulf, it will be quite useless to fix a date for their departure, as they are completely at the mercy of the weather. Their hunt cannot, morever; influence, in a noticeable manner, the number of the species, so that it is of very little importance whether they are or are not subject to restrictions.

The total catgh of seals with nets and by schooners on the coast of Labrador is 5,$941 ; 1,983$ of which were killed by schooners; 3,086 with nets, and 872 eitlwr caught in uets or killed with the gun during the summer. This number of soals yielded 33,537 gallons of oil, worth 50 cents a gallon. Pelts sold for $\$ 1.40$ to $\$ 2.25$ each. Last year, the same number of schooners fiom the const of Labrador brought back 6,352 seals.

## Mackerel and Hulibut Fisheries.

I study in vain the fishery statisties of last year so as to be enabled to find therein a few barrels of mackerel firboth the Nom and Sonth shmedivinom. irem not the fanciful migrations or the e ish known, it might be infered that the sperse has been destroyed on our fishing grounds; but subh is not the cae-unlamen causes of temperature and cirreat. untoubedy caned heir migration towads other coasts this season. Mackerel has, befire this, alandoned our riores for a yeur or two ; our neighbous alw expericnced tha same wite of things on their cousts, and, after all, these tish remurned in thicker memols than wer. Of all the inh which fiequent Canadian waters. the e in none, I date sar, upon the reyuar apparance of which so litule reliance can be placed as on mackerel: exceptog always. Matedalen Islands, where they repair ceve $y$ spring and suminer in smaller or larger numbers, so fond are they of these particular shores. Mackerel was abundant for several years in Bay des Chaleurs, Gasjé Bay and Scren Jsiands. Cargoes of this fish used to be caught a Godbout, Cape Chatte and Mucatina; but this Jear a few only were taken in herring nets, and usel as bait for cod. Nackerel were, however, as: abundant as ever at Magdalen Islands, and if the quantity cauht is not up to lust fur's mark, this is due to the appearane of animalcula which floaterl on the surftee of the water, and of which mackerel agneared to be fonder than of hait. These tish usually enter our waters about the middle of July and leave then only towards the end of October. Not a single harrel of mackerel was canght on the north shore this season; the atatistics of last year showed 32 barrels. In 187: 1,323 barrels were caught on the coast of Ganpe; last year, 15 barche, and this season, none at all.

Canadian hislemen do not specially carry on halibut fishing, and it is only accidentally that they catch a few of them whilst fishing for cod, so thit it cannot bo judged from the greater or lesser number of barels which this fishing yiclded in a particular year, whether halibut were more or le-s alundant in the waters of the fiulf; these fish, as well as codfish, having their speciall habitats which suit them and which they prefer resorting to. As our fishormen do not frequent these grounds, it follows that the gield of this fishery must bo verg limited. The coast of Labrador yielded 62 barrels of halibut this season, against 23 lint year; and the south shore,

25 against 37 in 1875 . The grounds which halibut prefer are those of Anticosti, Natashquan, Porroquets Islands, Moisie, and from Seven Islands to Godbout. It is on these rich grounds, better known to the Imericans than to us, that the former carried on these successful firhiugs which I spoke of in my previons reports. Is it not an extraucdinary thing that halibut and mackerel, which have only a comparatively inferior ralue on onr markets, are alway quoted at a high price with our neighbors? They are difficult fish to cure, and this maly explain the difference in price between both markets; and th this i-hory is very uncertain, our people dare not enter in it on account of the possibility of heary lo-ses in time and money. With the exception of the inhabitants of Magdalen Islands and some three or four fishermen from Gaspé, nobody in the whole division placed under my charge takes any interest in either of these fisheries. The i:nportance of this fishery, cven as carried on by strangers, has greatly diminished. Oat of five or six hundred schooners which formerly frequented Bay des Chalcurs, Magdalen Islands, \&c., in search of mackerel, hardly one hundred are now counted. One schooner only, the "W. Merchant," of Gloucester, was this year engaged halibut fishing ; and when I visited her at Esipuimaux Point, she had caught nothing; not even one barrel of herring. The restrictions to which foreigners fishing in our waters were subjected during past years, and the seizures of vessels which were the consequence of violations of Cinadian fishery laws must, undoubtedly, have contribated a great deal to deter Americans from the waters of the Galf, and compelled them to take another direction where they very likely find more remunerative results. In the course of a conversation with the United States Consul at Gaspé, he handed me a newspaper from Gloucester, Mass., which explains in a few words this decrease of American schooners in our waters: "Our large firms" said that paper, "far from curtailing their fishing outfits, have increased them. Most of " them have added another vessel to the number already possessed. The attention of " outfitters seems now to be solely bent upon cod-fishing. In former times, their whole " reliance was placed upon mackerel-fishing which was practised on shore on George's
"Bank or in the Gulf of St. Lawrence, but very little notice is taken of it now ; so
"much so that the total catch of mackerel by our vessels is now reduced to one-tenth " of what it used to be. Several causes have been adduced to explain this change; " but the first is undoubtedly the use of seines. It is almost an impossible thing now " to catch mackerel asformerly, with hook and line, and seining is so uncertain that, " most of the masters were compelled to ibandon this fishery. Mackerel-fishing in " the Gulf of St. Lawrence formerly constiu:" whe occupation of the whole Gloucester "fleet during the fall velunn, but now hardly lifty or sixty schooners are met with in "its waters." The alowe statements agree pertectly with the observations I have made during the past season.
$\Lambda$ few years argo, no more than half-a-dozon Gloucester schooners wore engared cod fishing on the banks; now there are two hundred. No attention whatever was then given to col fishing, but now it has attracted the notice of the trade of Gloucester. Trabibut fishing is another pursuit which is daily growing more and more important fi. (iloncester fishermen, but the latter appear to have aliandoned the Grilf, or rather, the gromdy which these fish formerly frequented. swarl of the finent and swiftest salers of that floet were employed during the whole year, and fitted so as to bo able to carry these fish feoh or naltod. The above will explain the cause of the disppparance of American schooners from our waters. This state of things cannot, howevor, last. The great labumlance of fish in our waters, and the sato harbours which fisaing vessols so easily tind during storms will be sure to bring back American fishermen, when they will have grown tired of the dangers of the banks of the Atlantic.

## Saimon Fishcry.

Seal and herring fishing, which principally formed the chief source of revenue of the inhabitants of the $10 ; 11$ coast, has no longer the same interest; at least if
one may judge by its yicll. The whole attention of these fishermen is now drawn to cod and salmon fisheries.

On the coast al Tabrador proper, most of the resilents, a least the old ones, poscess one on two salmon stands, either within the rivers or in their neighbourhood. These stations were for the most part occupien after the breaking-up of the L: hramer (ompany, long before the passing of any fishery daws. They are located at reasonable distancus apart, and guarded with the erreatet attention by Fishery Overseers, who maintain order amongit fishermen with whel authrity and respect that it is a matter of surprise to see this state of things on a coast where so many people belong to different nationalities.

According to reports made by the oldent fishermen on this cont, salmon fishing was once fabulonsly abudant; so much so, that, in certain rivers, such as st. Paul's River, where the catch at the present date is irom 50 tw barret, no less than from 1,200 to 1,500 barrels were formerly taken.

This happy state of things soon changed as the fishermen became more numerons. When the Government took possowsion of these stremm and regulated the fishing, about twenty years ago, salmon wat all but destroyai. Theg have now returued in abundance almost everywhere; fishermen take advantage of this new state of aftairs, and people can afford themselves the luxury of eating salmon at a moderate price, when they so desire.

The salmon fishing reason just expireal is one of the bet which has been experienceal for a long time on the north shore, especially along the eastern part of it. For easily explained reasons, the large salmon rivers did not yiedd as much as usual, and I believe too that the lessees of the St. John. Moisie and Natashquan will hardly meet their expenses; but it must also be remarked that the decrease in the price of tish on the markets had much to do with this state of things. Silmon ascended these streans in as ereat an abundanee as ever, but the large quantity of snow which fell during the previous winter changed the strems into torrents, and this prevented fishermen from setting their nets as early as usual. Moisie River, which usually yields 800 barrels of salnon. and even more, gave only 200 barrels this somson and 340 in 1875. St. John River, where 135 were caught in 1875 , yielded only 110 this season. A falling off of 95 barels was also experienced at Natashqua River. In small rivers where only a little water is requirel for salmon to go yn. the eateh was on the combary one-third larger than usual, and the tishermen who had the best success were those who vet in the vicinity of rivers, outside the points of lan', eqperially from Vatashquan to Blanc Sablon. It must also be pmonked that cucimstances were exceerlingly favomable to the success of this fishery. First of all, fish arrived early; drawn, I preswne, by the high temperature of water; and the weather kept fine and calm during the whole fishing season. In the neighlinurlinnt if S'. Sohn, Moisie and Crinity Rivers fishing was more suceessful than last yen!; hut the increase in the catch was not proportionally as large as in otho. places. I have no doubt that the abomiance of ice and the temperature of water hand womething to do with this. It is also remarked that tront has decreased on the coast of Lab, ador; still it was ab abondant as ever in Mingan River, in spite of the extermination, on a large seale, which Sir George Gore committed un these fish in 1874 . Buring the month of Se;tember, any one going to fiwh at the falla, roild: catch hem by hundreals, of the tinest quality. It has also been remarked that more salmon ascended Mingan River drring the months of September and October than during July and August; and the local fishery guadian reports this stream as well atocked with fish. The same reports are made by other fishery offiers with regard to the other salmon streams of this division. The matter is easily understood, as salmon being favored by bigh water, aweendel the rivers without being stopped by nets.

During one of my visits to the north shore, I made it my special duty, according to your instructions, to inspect St. Marguerite River in order to advise some method of romoving obstructions to the ascent of salmon in this fine stream. I already stated in a special report that, with the exception of a few rocks which will require
to be blasted at a single place, there are no other impediments." Its course, scattered with picturesque small islands and magnificent spawning beds, would soon make it, a first-class river. The rent derived from that stream would cover the iunount expended in improving it. Another place which requires to be improved it near oneof the falls of Mingan River. When salmon ascends this stream, the fish rest when the waters are high at a certain place, and remain imprisoned when the water falls, being thus left to die there as was the case this season and the year before last. A fow pounds of powder would remove this obstacle ; and it is very desirabie that the Department should incur this slight expenditure in order to improve that passage.

The only salmon rivers on the north coast, which were angled this season, were Moisie, Washecootai and Watsheeshoo. Sportsmen stopped only a few days, but returned much satisfied with their journey.

The total catch of salmon on the north coast this year is 1823 barrels, against 1204 last season. Out of this quantity, Bonne Esperance and Pacachoo divisions. yielded nearly 700 barrels.

In connection with salmon fishing, I had to punish several violations of the fishery laws. These violations occurred in Natashquan division, which is far toollarge in: extent, and which unfortunately had as guardian, a man incapacitated by age and otherwise; here the violations of the law were more numerous and of serious importance.

A fisherman of this division, by the name of Sylvester Kennedy, either through. caprice or bad will, had refused for a couple of years to pay the rent of Agwanus River, which he occupied without license-and whenever the local fishery guardian calied upon him for his rent or for some information on his fishing, he was in the habit of chasing him away, with threats to kill. calling him a robber and boasfing that he recognised no other authority but that of the Queen of England. As this individ- 1 ual openly defied all power in Canada.threatened to ehoot any one who would try and make him pay, was inducing other fishermen to follow in his lead, and that to leavesuch reprehensible conduct unpunished would have been productive of the most dangerous consequences, I was placed under the double necessity of prosecuting him and taking him to jail for having fished without a license. After numerous rlifficulties and considerable expense in bringing him before me, I condemned him, upon confussion of judgment, to pay a fine of $\$ 45$, or in default to three monthe in jail; and as he preferred going to jail to paying, I took him to the Magdalen Islands' jail where he is still. The Department having since cancelled his license, and given it to a member of bis family, I feel quite sure that next spring we shall have serious difficulties with him. His conduct shows what kind of a man we have to contend with, and what steps must be taken in dealingwith such a person. I had another serious case to settle at Washeecootai. The information was as follows: William Foroman, private fishery guardian at Washeecootai River, seined ia that stream and caught about io barrels of salmon, after the lessee had left. Several traders stated that Foreman offered them his fish, but that they would not buy it, suspecting it had beon caught illegally. I have already succeeded in confiscating at Natashguan and Quebec two barrels of this fish, which Foreman's partrier had sold to other parties; but having become acquainted too late with these fucts, I was compelled to postpone until next spring the trial of parties implicated in such illegrl practices. I had to settle an affair of the same nature in. the division of Watsheeshoo. Mr. P. Gendrean, forgetting his duty and his oath of office as Fishery Overseer, allowed Joseph Tangray, in order to reward him for some services, I prosume, to seine salmon in Phiaster Bay River, and one day when Tanquay had gone ap the river with his men, he admitted having caught on different occasions several barrels of fish with the knowledge and consent of the local FisheryOverseer. Being advised of these facts by Gendreau's serpant and Tanguay's mon, I was compelled to inform the Department, and Gendreau was suspended. During the summer, I prosecuted Tanguay for this violation of the law, and upon confossion of judgrent, condemned him to $\$ 15$ fine. His excuse was, that Gendreau gave him per-
mission to scine, stating he might as well kill the salmon as Indians. I cannot understand, however, why this Fishery Overseer could not prevent Indians from violating the law, when it was his duty to do so. At Bay of Rocks, in the division of Bonne Jsperance, I also condemnod a man named Beloin to $\$ 20$ five, for having seined in 1875 in the river of that name; and at Chicatica, I condemned one Morrissey to $\$ 2$ fine for having set a greater extent of nets than his license allowed. Beyond the above infractions which I had to punish, I do not think that the law was, violated elsewhere, and I feel quite sure that the punishment inflicted this season will have a good effect for the future.

## FISHERY OVERSEERS.

Last winter, in a special paragraph of my Report upon Fishery Overseers of the several divisions of the Gulf shores under my charge, I drew the attention of your Department to the necessity of securing Fishery Overseers in each Division-men endowed with sufficient education to enable them to study the natural bistory of fishes, and to be able to understand and account for causes which may influence the greater or less success in fishing in the Gulf or rivers, so as to be able to communicate their opinions; energetic men, fond of their profession, and bold enough to cope, in every instance, with violations of the law. I cannot insist too much upon that point, because with officers deprived of these indispensable qualifications, we shatl never obtain anything but insufficient protection; and fivhermen who willingly and in good faith comply with the law will reap but a precarious success from their labors. Softminded and lazy men, baving no other care than to continue in receipt of the small remuneration which they do not earn, are not only useless, but moreover spoil everything ; and by creating troubles which afterwards occasion much difficulty in settling, often entail more expenses than it is desirable to incur. Generally speaking, I have nothing but eulogiums to pass upon Finhery Oververs in the Counties of Gaspe and Bonaventure; they are fully qualified tor their dutice, and are devoted, body and soul, to the performance of their work. There are some efficient officer's alst on the North coast, but there are others, as explained in the previous article, who are not only worthless, but actually become a real nuisance, either through weakness and ignorance--as Overseers Boulet, of Natashquan, and Gendreau, of Watsheeshoo,-or through cupidity like Foreman. The soonersuch offecrs are replaced, the better it will be both for the Department and dishermen.

In connection with such changes. I shall again refer here to the suggention which I made last winter, - that of diviling the present livision of Natashquan into two, and appointing another Oversce, paid by the Department. This division comprises an extent of coast of from seventy to ninety miles, and includes six or weven very important riscrs. It is natually divided into two by an extent of comet of from twenty to twenty-five miles, "pon which there is not a single dwelling, and its shores present great impediment- to navigation in small loate, which occarions much trouble to a Fishery Overeer. The wetern division of Natablaman thould comprine Agwanus River, which yelds from thirty to fifty barrelv of salmon; Nabionjpi Piver, which is as productive ats the former, and Natasbquan River which requires an officer to ithelf as well as for its neighborhood, where there are two gock stands. The eastern division should comprise Kegushea River, which yielded thiry barreln of salmon thit sea*on, as well as Romaine and Muspuaro Riveis which are cqually $\mathrm{im}_{\mathrm{l}}$ ortant, but wruld yield a great deal more were, they efferently protected. As things are now, the local Fishery Overseer can visit the latter divisiou only once during the season, and this too very often when fishing is over'; so that here, ats elsewhere, poachers who help each other as much as they can, have fine opportunitics. By carrying out the above suggested plan, two good men would find plenty to do in watching each of these divisions, which, if well guarded, would soon reimbure the outlay spent upon their protection. The residents in the eastern division of Natashquan are most of them firsi-class poachers; but it is a very dilficult thing to cutch
them, owing to their isolated p sition and the trombe they tase to peotect each other. They keep iluring the whole summer some sorts of mants on the cliffs, and should a vessel be signalled outside, the whole pupulation is wamed to !on on its gund; and when you land, they look like people who havelly know what is a salmon oi a net. I am satisfied that Foreman's trial will bring tio light sereeal facts which will still more crince the necessity of having two Fishery Oremseers for this division; and I hope

- Jour Department will not wait any lonser in making these approntments. In Bonne Esperance division, soune changes will be required, swine to the enforcement of new regulations relating to col-isining with seines. Mr. Whitely, who is the Fishory Overseer for that division, is a very erod officer, but as he receives only fifty dollars pay, it is a difficult thing for him, as he has a large establishment to conduct, to be constantly lenving his affain to arrange liffoultio, or even to go and eaquire whether there aro any mat dificulties at all. In order to enable him to do so, his pay onght to be increasel; otherwise his owr interests wouk snffer. To avoid this and in order to enable $\mathrm{Mi}^{\text {i }}$. Whitely to enforce the fishery regulations, your Department ought to grive him an increase of pay, which would after all only be simple justice, after twelve years' faithfol services.

I omitted to mention that the Fishery Orerseer of Watsheeshoo requires a lodging of some sort, where he would be independent of fishermen. As it is now, he is compelled to seek hopicality amnng fishermen on that part of the const, who are all more or less arldicted to poaching; so that he sometimes finds himself placed in a rathor delicate position towards these people. I would therefore recommend that this guardian be authorized to spend about $\$ 30$ to procure a tent, or build himself a log-house where he would be at home. Such an arrangement would besides allow him to stop at Grand Watsheeshoo, which is the only important river of this division, and the locality where poaching is mostly carried on. Residing as he does at present at Phiaster Bis, he is at the mercy of people who oblige him, and besides there is no fishery of impurtance carried on at that place.

## INDIANS OF THE NORTH SHORE*

Having taken into consileration the hardships and deprivations suffered by the Mincan Indians in 1874, I thought it my duty last yoar to sursest to your Department the opportunity of grunting them a salmon fishing station in the neighbourhood of thin strean. Owing to the adrancel poriod of the season when we paid our amual visit tu that part of the coast, it was found impossible to complete arrangements so as to mable them to set during the course of that year.

On our arrival at Mingan his seamon, about the emil of June, Indians, with their familio.s, namberine about eighty familios, had just arrised for the mission. They all secmed (h) le healthy and ingond spirits; a mave thing at this period of the year; but this [ prenme, must ine ittributed to the suceestiol hont they had had, and to the provivions with which they were amoly provided. They appeared satisfied with the salmon fishing station your Jemertment had given thom, but did not seem to understand its working; this is why I would recommend that another year this station be fished ly a white man for their profit, on the same comlitions ats the Restionouche stalion. The liriams find it too troublesome to cloan and mond their nets; and the revalt, is they do not catch as many fislo as they should. The first day the nets were sot, I wonty salmon were caught, and aftorwarls, four or five a day.
'The amount of $\$ 375$, distributed among them by the Inclian Dopartment, was by an error, given to Indians hunting in the interior, back of Mingan River, instoad of amongst those who are in the habit of coning to the sea-shore for the mission, and who are proporly known under the denomination "of Mingan Indians. The IIudson's Bay Company's Agent did not, howover, give to the appellation "Mingan Indians" the s:ime interprotation as I do. This error, fortunately, led to no serious results, because of all Indians on that part of the coast, Lhoso of Mingan were the only ones
who were successful in their hunting last fall, and were consequently those who were most entitled to assistance.

The Indians of Natashquan and St. Augustine complaining loudly that there were no provisions for them at the Mission Post, and as there still remained an unexpended balance of $\$ 50$ in the hands of Mr. Scott, the Hudson's Bay Company's Agent, I advised him to divide this sum between these two bands. He did so, and every one was satisfied.

# MISSING 

## PAGE

 NO\#

# MISSING 

PAGE
NO\#

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Return of Fishing Stations, kinds of Vessels, number
LABRADOR

of Men, kinds of Nets used, kinds of Fish and Fish Oils, \&c. DIVISION.

Nets and Seines.


Return of Fishing Stations, kinds of Vessels, number of Men,
LABRADOR


## kinds of Nets used, kinds of Fish and Fish Oils, \&c., \&c.---Conlinued.

 DIVISION.----Continued.
## Nets and Seines.



## Return of Fishing Stations, kinds of Vessels, number of Men

LABRADOR

kinds of Nets used，kinds of Fish and Fish Oils，\＆c．，\＆c．－Continued．

## DIVISION．－Continued．

Nets and Seines．

| Herring Seines． |  |  | Herring Nets． |  |  | Mackerel Seines． |  | Maekerel Nets． |  |  |  | Capelin Seines． |  | Launce Seines． |  |  | Seal Ni．ts． |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 菷 |  | $\stackrel{3}{4}$ | $\begin{aligned} & \text { 急 } \\ & \text { H } \end{aligned}$ | $\begin{aligned} & \stackrel{\dot{3}}{\stackrel{\rightharpoonup}{\infty}} \\ & \stackrel{\rightharpoonup}{2} \\ & \hline \end{aligned}$ |  | $\begin{aligned} & \stackrel{\ddot{\Xi}}{\ddot{\Xi}} \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  | $\stackrel{\stackrel{9}{\tilde{\pi}}}{\underset{\sim}{ت}}$ | $\mid \dot{z}$ | $\stackrel{n}{\pi}$ | $\dot{シ}$ | -誌 |  |
|  |  | \＄ |  |  | \＄ |  |  |  |  | \＄ |  |  | \＄ |  |  | \＄ |  |  | \＄ |  | \＄ |
|  | …．．． | ．．．．． | ．．．．． | ．．．．．．． |  |  |  |  | $\cdots$ | － | ．．． |  |  | ．．． |  |  | ．．． |  |  |  |  |
|  |  |  |  | $\cdots$ | ．．．．． | ．．． |  | － |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 200 | 200 | ．．．．．．． |  | ．．．．．． | ．．． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ．．．．． |  |  |  | ．．．．． | ．．． |  |  |  |  |  |  |  |  |  |  |  |  | ．．．．．． |  |  |
| $3 ;$ | $3369$ | ${ }^{4302}$ | 102 | 3694 | 1490 | 17160 | 120 | 6 | ｜ 340 |  |  | ${ }^{4056}$ | 2971 | 135 | 2132 | 1729 | 90 | 7416 | 4329 |  |  |

## Return of Fishing Stations, kinds of Vessels, number of Men,

LABRADOR

| Name of Station. |  |  |  | Sithon, Smoked, boxes. | Cod, qu | uintals. <br> Fall Fishing. |  | Ling, quintals. | Halibut, barrels. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |
| Godbout ... ..... ................... | 10 |  |  |  |  |  |  |  |  | $\cdots$ |
| Pointe des Monts | 11 |  |  |  |  |  |  |  |  |  |
| Trinity bay and River | 49 | ..... |  |  |  | 2 |  |  |  |  |
| Petit Mai ........ | 9 |  |  |  |  |  |  |  |  | - |
| Islets à Caribou | 23 |  |  |  |  |  |  |  |  |  |
| Pointe aux Anglais | 3 |  |  |  |  | 102 |  |  |  | 11. |
| Caille Rouge ..... |  |  |  |  |  | 274 |  |  | $\cdots$ | 778 |
| Riviere Pentecôte ....... |  |  |  |  |  | 193 |  |  |  | 12 |
| Riviere Ste. Marguerite Sept lsles |  |  |  |  | ........... | 616 | ..... |  |  |  |
| Moisie .... |  | 1500 |  |  |  | 774 |  |  |  | 140 |
| Pigon |  | 103835 |  |  | 240 | 1480 |  | 780 | 2 | 8 |
| Shallop River |  |  |  |  | 360 | 600 |  |  |  |  |
| Sheldrake ..... | 9 |  | ..... |  | -300 | 10 |  |  | ..... | ....... |
| Primrose Cove |  |  |  |  | 28.5 | 462 | .... |  | ..... | ....... |
| Thunder River |  |  |  |  | -19\% | 10 |  |  |  | ....... |
| Indian Harbour |  |  |  |  | - | 410 | .... | .... |  | ... |
| Ridge Point |  |  |  |  | 550 | 316 | ... | .... |  | ....... |
| Tipitagen.... | 21 |  |  |  | 550 | 316 |  |  |  | - |
| Magpie . |  |  |  |  | 430 | 1198 |  | . $\cdot$ |  | . |
| Maguie River | $22^{2}$ |  |  |  | t3~ | 198 | ...... | .... | ..... | ......... |
| St. John River. | 115 |  |  |  |  | 350 |  |  |  |  |
| Lung Point ... | 5 |  |  |  | 1850 | 350 |  |  | 27 | ......... |
| Mingan liver .... | 32 |  |  |  | 1850 | 620 | .... |  | 30 | -....... |
| Esquinaux Point |  |  |  |  | 3639 |  |  |  |  |  |
| Betchouan ..... |  |  |  |  | 750 |  |  |  |  | 1463 |
| Ateepetal Bay |  |  |  |  |  |  |  |  |  | .... |
| Piashter Bay | 5 |  |  |  | 69 |  |  |  |  |  |
| Corneille .... | 15 |  |  |  | 69 | ............ |  | ..... |  | . |
| Grand Watsheeshoo ............ | 1 |  |  |  | 46 |  |  |  | .... | ....... |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Nabissipi ... | 30 |  |  |  | 60 |  |  |  |  | . |
| Nutashquan....... | 2831 |  |  |  | 3530 |  |  |  |  |  |
| Kegaslika River. |  |  |  |  | 50 |  |  |  |  | ........ |
|  |  |  |  |  |  |  |  |  |  |  |
| Washeecoutai Point............... |  |  |  |  | ........... | ........... |  |  | ..... |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Romaine .............................. . | 22 |  |  |  |  |  |  |  |  | ... |
|  |  |  |  |  |  |  |  |  |  |  |
| Cape Whittle......... .................................... $\quad 4 \quad$..................................... |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Whale's Head, Meccatina ...... |  | ........... | ... |  | 142 | - 21 |  |  | ..... | ...... 88 |
|  |  |  |  |  |  |  |  |  |  |  |
| Grand Meccatina River. $\qquad$ <br> Meccatini Island. |  | ........ |  |  | 500 | 85 |  |  |  |  |
|  |  | ......... |  |  | 28 |  |  | ..... |  |  |

kinds of Nets used, kinds of Fish and Fish Oils, \&c.-Continued. DIVISION.

|  |  |  |  |  |  |  | Whales, Porpoises and Seals. |  |  |  | Oiss. |  |  |  | Fish caed as Bait and Manure. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | 50 | 150 |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | ... |  | 40 | 40 | ..... | ...... | 205 |  |  |  |  |  |  |  |  |
|  |  |  | ..... | $\cdots$ | -.... |  | 44 | 44 | .... |  | 264 |  |  |  |  |  |  |  |  |
|  |  |  |  |  | ... |  |  |  |  |  |  |  |  | 44 | 8 | 12 |  |  |  |
|  |  |  |  |  |  |  |  |  |  | 10 |  |  | 20 |  |  |  |  |  | 10 |
|  |  | 6 |  |  |  |  |  |  |  |  |  |  |  | 116 |  |  |  |  |  |
|  |  |  |  |  | .... | ..... |  | ..... |  |  |  |  |  | 333 |  |  |  |  |  |
|  | 2 | 3 |  |  |  | 1 | 10 | 10 | .... |  | 20 |  |  | 566 |  |  |  |  |  |
| 68 |  |  |  | ... |  |  | 30 | 30 |  | ...... |  |  |  | 950 |  |  |  |  |  |
| ...... |  | 15 | ... |  |  | 2 | 40 | 40 | .... |  | 80 |  |  | 1760 |  |  |  |  |  |
|  |  |  | .... |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | .... |  |  | ..... | .... |  |  | ... |  | ${ }_{2981}$ |  |  | .... |  |  |
|  |  | ..... |  |  | ..... | ….. |  | -... |  | ..... |  |  |  | 40 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2500 |  |  |  |  |  |
|  |  |  |  |  |  |  |  | .... |  | ..... |  | ... |  | 488 |  |  |  |  |  |
|  |  |  |  |  |  | ..... |  | ... |  |  | ........ |  |  | 700 |  |  |  |  |  |
|  |  |  |  |  |  |  |  | .... |  |  |  |  |  | 25 |  |  |  |  |  |
|  |  |  |  |  |  |  |  | .... |  |  |  |  |  | 5214 |  |  |  |  |  |
| .... |  |  |  |  |  |  |  |  | ..... | .... | -...... |  |  |  |  |  |  |  |  |
|  | ... | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | 1328 | 1328 |  |  | 6337 |  |  | 2140 |  |  |  |  |  |
|  |  |  |  |  |  |  | 750 | 750 |  |  | 4000 |  |  | 430 |  | \% |  |  |  |
|  |  |  |  |  |  |  | 38 | 38 |  |  | 72 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | 19 | 19 |  |  | 30 | .... | .... | 32 |  |  |  |  |  |
|  |  | 1 | ..... |  |  |  |  |  |  |  |  |  |  | 40 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | 40 |  |  |  |  |  |
|  |  |  |  |  |  |  |  | .... |  |  |  |  |  | 338 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | 40 |  |  |  |  |  |
|  | ..... | 2 | .. |  |  |  | 122 | 122 |  |  | 450 |  |  | 3218. | 143 |  |  |  |  |
|  |  |  |  |  |  |  |  | . |  | ..... |  |  |  | 30 250 |  |  |  |  |  |
|  |  |  |  | . |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | ... |  |  |  |  |  |  |  |  |  |
|  |  |  |  | ..... |  |  |  |  |  | .... |  |  |  | .-..... |  |  |  |  |  |
|  |  |  |  | .... |  |  | 30 | 45 |  |  | 61 |  |  |  |  |  |  |  |  |
|  |  | $\cdots$ |  |  |  |  | 180 | 180 |  |  |  |  |  | 36 |  |  |  |  |  |
|  | . |  | ..... |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | .. |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | 55 |  |  |  |  |  |
|  | .... | ..... | ..... | .... | ..... |  | -....... | ..... | ..... | .... |  |  |  | 93 | ..... |  |  |  |  |
|  | ..... |  | ...... | ..... | ..... |  |  |  |  |  |  |  |  |  |  |  |  |  | . |
|  | ..... | ..... | ..... |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ....... |



[^5]
## kinds of Nets used, kinds of Fish and Fish Oils, \&cc., \&c.---Continued. DIVISION.



RECAPITULATION.

| Fly-fishing :-River Godbout....... .................................. | 2,834 Salmon in lbs. |
| :---: | :---: |
| do do Moisie............................................. | 1,186 do |
| do do Watsheeshoo......... .... ..................... | 400 do |
| do do Washeecootai. ......................... ......... | 210 do |
| Total ...................... .................. | 4,630 lbs. |

Value of the different Fisheries of the Labrador Division in 1876


Mentiou has so often been made of Magdalen Islands in these annual reports ; their history and adrantageons geographical jovition th haval or findury stations, have so often been brought nuder the public notice by fire mere clever wens than mine; that it would seom a wiaste of time to enter into long aletails about thes subject.

I canot, however, prevent quoting what Col. Jos. Bouchelte said about these island: in 143 , so an to show the consile able progress they have made with regard to fishing as well as agricultural pursuits:
"Masdalen Islands belong to the District of Gaspé. Their population reaches about 1,000 souls, mest's composed of Catholic French Acadians. Eleven English and fire Irish families are settled among them, and all those find their mode of living in fishing pursuits. The number of fishing boats is 100 , besides 30 schooners of from 25 to 30 tous. Besides raising a few potatoes, no one seems to have any notion of agriculture on these islands; but as natural meadows and pathage are common, cattle canily find an abundant food.
" The tisheries of these i.slands are of considerable importance, but might bemade suscoptible of a fir greater development, were they judiciously encouraged, being particularly favored both by their situation and their locality. A large revenue was formerls derived from sea-coiv or walsus fishing. They were formerly killed in large numbers; as many as 300 being caught on the échouries or sand banks, where they were in the habit of gathering."

By consulting at the present date the valuable tables of the census of $\mathbf{1 8 7 1}$, it will be found that the total population of the islands was at that period 3,172, divided between 2, 508 Catholics and 364 Protestants. Out of this number, 2,833 were Frepch Canadians; the balance belonging to Scotch and Irish nationalities. These figures will give at approximate idea of the progress made during the past forty years.

If the progles in fishing has been rapid, I am happy to be able to state that that in agriculture has not remained behind. The census of 1871 shows, that, at that date, there were 5,979 acres of land under culture, 7,789 acres under improvement, and 1,705 in 1 winc. The yield of that year was 3,201 bu-helw of pring wheat; 2,512 bushel- of hanley; 13,430 ? whels of oats; 54,418 bushels of potatoos; 14,458 bushels of turnipe; and 4,068 tons of hay.

These figures will help to show the importance of these islands. Thisimportance must necessarily increase in a marked manner, should the scheme brought before the public by the Member for the County of Gaspe be realized. This scheme consists in the bialding of a telegraph line, landing either on Prince Edward Island or on that of Cape Breton. Besides the valuable services which the establishment of such a line would ronfer upon navigation, by permitting to find out the state of the ice in the Gulf, it would be of the greatest assistance to our ressels and fishermen, as the latter could always ascertain the localities where cod, herring, and bait are to be found. It only woo ofteu happens that fishing is a failure because fish did not visit a particular locality whilst they were at the same time abundant elsewhere. Owing to the want of correct, and above all, speedy information, our fishermen are at times compelled to remain with their arms crossed while wealth and abundance are lying at no great distance from them. I entirely share the Member for Gaspe's opinion when he rajs that, "after the building of lighthouses and the opening of postal "communications, there is nothing which can give more impulse to our fisberies than "joining, hy telegraphic lines, the islinds of the Gulf and the remote parts of the north "coast with the main land on the south shore."

Magdalen Islands, to the number of eight or nine, the greatest part of which are joined together by immense chuncs or sand banks, occupy an area of nearly 78,000 acres, forming an irregular group placed at the entrance of the Gulf of St. Lawrence. They were discovered by Jacques C'artier on the occasion of his first voyage to Canada, in 1534. This undaunted discoverer noticed the immense herds of walrus frequenting the shore- of these islands, and a few years afterwads French outfiters and fishermen were made aware of the reat sources of wealth whic: surmounded these shores
where fish of all kinds repair during their annual migrations to the Gulf of St. Lawrence, with a certainty of finding there favour ble biroding prounds and abundant food. Under the French Government, very few fixed establishments were made at the Mawdalen Islands; people used to come in the spring and return to their country during the fall, as it is practised to the present dale by Fiench fikhermen from Newfound land and Miquelon. At the time of the cession of our country to Ergland, there were, however, ten families residing on these islands, who, for the most part, depended upon fishing pursuits for a living, and cultivated only a fow vegetables. The most cxtensive fisheries of the time were those for walrus and seals; the former especially yielded abundantly and returned large profits. These fishings, which had been carried on beyond the limits fixed by nature, had already experienced a ronsiderable falling oft at the time of the conquest; but they were stili considered sufficiently remunerative to tempt an American of the name of Gridley, who started an entablishment on Amherst Island for carrying on fisheries, especially those of herring and cod. This establishment suffered much during the war of American Independence, and was finally abandoned when the walius had completely disappeared from the waters around the Magdalen Islands. Nearly one century has elapsed since that period, and outtitters of the present das who have no longer walrus fishing to enrich them, have replaced it tyy lobster canning. This latter mode of tisbing may not possens the same interest as walrus fishing, but it, nevertheless, yields large profits, as the matter can be ascertained by reterring to the appendices annexed to this report.

When the walrus had disappeayed, the inhabitants of the Islands, whose number had increased by additional immigration from Acadia and St. John's Island, as well as b the adjunction of several English and Jersey familien, were compelled, in order to necure a living, to fall back entirely upon seal hunting, herring, mackerel and cod fishing. Sume of them, being more far-sighted than others, began to clear the lard and raise cattle, without, however, giving anfficient attention to the matter; and even at the present day, in spite of all efforts and adrices, the people cultivate only in a careleys way a suil which is so rich and bountiful, no easy to wort, and which could readily produce sufficient food to sustain a poplation tive or even ten times larger than the present one. Every stranger who has any ileas of agriculture, after visiting these islands, goes away astonished ani sorry at the same time at secing thene fine lands, the greatest part of which his not even seen the plough since they were first cleared, forty or fifty yoars aro. I have already made the following remank, and several others did mo before me: there is, perbips, not a plare in our country where people conld live easier than at the Inlands, were the inhabitants inclinel to rely a little less apon merchints and outitters, and take a larger share of the wealth which is placed at their di- ${ }^{\text {nsanal, }}$ both by neal and land. The Istand of Prince Edward, which incertainly nor to he compared to Magdalen Islands, either with regard to the richnes of its soil or wh the fineries, is there to prove watat n population can do when it is preparel to ade abratage of everything.
 head. Well cultivated farms are conspocuons, and if is noliced that the taste for agricultural pursuits is gralually growne the charings ane endarged, and a little more retiance is placed unen the yod of ambly the -upport of families.

It is noticel that during the past fwems-aix yous, the poulation of AEarlalen lslands has increased very slowly; but it mast alin his remarined that it is ont of this same population that the village of Demamaux Point, Natashana and Kerginhea were formed, which now number $1,4(10)$ soma. .

Three or four gean ag, the ferer of emigration took $\mathrm{l}_{\mathrm{i}}$ id of a large purtion of the inhabitanes, and in then enthusiam, about thity familien sold their fame at a sacrifice, some of them even abondoned them wident selling. in order to sond
 sive years of ansuccessul fishing brought than fimities to the last verge of mivery, and theg would undoubtedy have stirval ian winter, and hawo died of humer, had not Providen o ambel them to timl dams on lar beach, ugon which they fed fir five
or six weeks, until the opening of navigation and the arrival of traders. Sensible to the cries of distress of those unfortunate families, their friends from Magdalen Islands, prompted by feelings which do them honor, fitted out a vessel for Seven Islands and brought back to their friends the greater part of this arely tried colony. A certain number of families of fishermen which had migrated to Bay of Islands, in the hopes of bettering their position, was also compelled to return; this brings the total number of persons who returned this season to their native Island to 62. However painful may have been the trial of these poor people, it will undoubtedly have one good result as well for themselves as for the remainder of the population; and I am satisfied flshermen will now be able to appreciate the inestimable advantage of those who own lands, and how precarious is the fate of others who rely solely upon fishing pursuits to procure their daily bread.

The Gulf being blocked with ice during the whole of last spring, we were unable to reach Magdalen Islands before the 9th June, when herring fishing was over. Although the snow had disappeared, the temperature had always been cold, owing to the ice. Everything was late, and hardly any signs of vegetation could be noticed. Provisions had not failed during the winter, in spite of the terrible storm which occurred during the fall of 1875 , and during which four schooners, with crews of twenty-two men, were completely lost, and a number of others seriously damaged. The loss of provisions luckily was felt more by the rich than ly the poor, who, thanks to a good fishery, were enabled to lay in early their winter stock of provisions. Still, without the supply of flour which the Local Government selit to the Islands after these disasters, the winter would have been a hard one for several fimilies.

The yield of last year's fishing although inferior in quantity to that of 1875 , is nevertheless much superior in value; and the statistics show that the increase over 1875 is $\$ 97,068$. This is due to the high prices which cod and herring realized. If, on one side, the yield of the fisherics was successfil at the Irlands, the produce of farms, on the other, was not less so. The crop of potatoes was all that could be desired, as well as that of grain and hay, in proportion to the extent of ground cultivated; so that barring always unforeseen circumstances, winter has nothing threatening for the inhabitants of these Islands, whose powition is so isolated during six monthe, but whom the genius of man will soon, it is t" be hoped, place in communication with the rent of the world during the whole year, either ty means of telegraphic commutications or by steam.

## Seal-hunting on the Ice.

For several years, the inhabitants of Magralen Islands, carried on reat-fishing in two ways: by killing them on the ice grounded near shore, or by seeking them among the floating ice of the Gulf; these two modes of fishing constitute what is known as land-hunting and schooner fishing. During the past fiom or tive year, other means have been employed to intercept the passage of theseanimals; they are canght in nets, and the renult of this new method of tishing is sufficiently renumerative, and shows that, with increased experience, it might be made to rival wher modes.

Seal-hunting on the grounderl ice near whore in not alwiws without daner, as is already known. The sight of these animals, whose waughter is no eily and whone pelts are so precions for tishermen; want, and love of gain-ane atten the cause of these poor people forgetting the fragility of the links which fasten the e fields of ire to land; thoy become forgetinl of danger and rush at every chance to the pursuit of gain. Several have thus lost their lives, owing to their impradence. A ciange in the wind or in the currents looens the ice from the shore, and when hunters, being far away outside, notice the rhance, there remains but an open abyse between them and the land, a sign of inevitable death.

The suecess of this fishery depending mostly upon the direction of winds, it follows that it is not always fortunate. it was rather poor this seawon. Scal-hunting began only about the fifth of March, north of Bryon's Island and south of Amherst

Island. Numerous immense herds of these animals were in sight, on the floating ice; but the weather kept so fine and calm at this period of the year that seals hardly neared the shores. Only 2,I59 were killed, oncthird of which large and were worth from $\$ 7$ to $\$ 3$ each. The same fishery yielded last year 14,598 seals.

Schooner hunting was also but middling. First of all, fishermen could fit out but six schooners for the ice fielis, the terrible storm already mentioned having caused the total lovs of part of the Island's fleet and so damaged the rest that they could not be trusted for so dangerous a voyage. In the second place, the schooners which were fittel out for this hunt could not leave before the latter part of April, on account of winds and ice. They then found the ice so closely packed that they could not make their way through it, and after a painful voyage of four or five weeks, were compelled to return with only 642 seals against 1,849 , last year.

LIST OF SCHOONERS ENGAGED SEAL-HUNTING ON THE ICE, DURING THE SEASON OF 1876.


Total, 7 schooners, and 642 seals.
Seal-fishing with nets was also carried on in eight stations around the Islands. This mode of fishing yielded 728 scals, against 203 in 1875 . Although this result is better than that of last year, the profits are not large, owing to the great extent of nets ( 5,995 fathoms) which such a mode of netting requires. For some time past attempts were made to cutch seals with bottom lines; but the large quantity of ice caused an almost romplete failure of these ondeavors, besides occasioning much damage to net fishermen. The total yield of the seal fishery is as follows :-


The total yicld of oil was 17,730 gallons.

## Herring Fishery.

Although horrinctishing is not the first industry which ongages the attention of Magdalen Island peope in the spring, it is nevertheless the first fish to arrive there. Herring strike in immense schools alound the Islands, and especially in the bays, about the last diys of April or the beginnurg of May, to leavo them only when the work of its reprodiction is over.

Although these sith strike in abunlance during the spring, circumstances are not always as favorable for their capture. They are caught at this period of the year with nety aml seincs, and to ensure -nccess, calm weather and a smooth sea are necessary; which conditions are not always common at this season of the year. It is,
however, very seldom that a sufficient spell of fine weather does not then occur to ensure the success of this fishery. A numerous fleet of vessels from the United States and the Maritime Provinces repair every year to the Islands to take a cargo of herring, which, at this period of the season, are in good condition, keep well, and can be exported to warm countries.

The Magdalen Islands tishermen mostly use the spring lerring catch as their winter food; whenever this fishing fails, the year is considered as a bad one, because people are then compelled to replace the usual food by another, costing a great deal, and which they do not always have the means of purchasing. Twentyseven schooners from the United States, tifty-six from the Maritime Provinces and ten from Magdalen Islands took their cargo of herring at Amherst. These schooners were enabled to enter before the ice was too closely packed; a few days later they would have lost their voyage. On the 5th of May, herring arrived amongst the ice, which drove the tish round the schooners in the harbour of Amherst. The crews had only to draw their nets and empty them on deck. They took full cargoes in the space of three days. Foreign vessels caught 72,938 barrels of herring, and the inhabitants 4,805 , which gives a total yield of 77,743 barrels; or an increase of 47,792 barrels orer last yeurs catch. The price of this fish, fresh, was $\$ 2$ a barrel. Herring left the Islands wnly on the 20th May. Thirty-eight thousaud barrels, valued at $\$ 76,000$, were exported to the United States; and 900 barrels, valued at $\$ 1,800$, sent to Sweden, where it is intended to export a larger quantity, should the market be found favorable. The balance of the catch remains in Canada, where merchants will export them at a later period, according to their convenience. is is always the case, when fishermen are much busied during the period of berring-ininisg, in spite of the large number of strangers ongaged in it, no troubles or discrder occurred. The crews seem to rival with one another, in order to take advantage of abundance, and to complete their cargoes in as little time as possible.

For eeveral years past, owners had riven up the practice of sending their schooners to Labrador tor fall herring-fishing. An attempt was made to renew these voyages last season; tand about the end of August, the schooner" "Flash," Captain Delaney, was despatched to Newfoundland. She, however, had to return, like most of other Canadian schoners, without a single barrel of herrings, after a very dangerous voyage. when, during the storm of 16 th October, she remained more than one hour on her beam's ends, her crew experting death from one moment to another.

List of Scmooners engaged in spring herring-fishing at Magdalen Islands, during the season of 1876 .

| "Setagawa," <br> "Greyhound," |  | - | - |  | - |  | $\begin{aligned} & 1,500 \\ & 1,200 \end{aligned}$ | barrels. <br> " |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| "Island Belle," |  |  |  |  | - |  | 900 | " |
| "Omaha," |  | - |  | - |  | - | 1,500 |  |
| "Rose," | - |  | - |  |  |  | 1,000 | " |
| "Anna Frye," |  | - |  |  |  |  | 2,000 | ، |
| "Scud," | - |  | - |  | - |  | 2,000 |  |
| "L. Standish," |  | - |  | - |  |  | 1,800 | / |
| "Carrie W.," |  |  | - |  | - |  | 1,100 | " |
| "Cape Ann," |  | - |  | - |  | - | 450 | ، |
| "Lilly Dale," | - |  | - |  | - |  | 700 | * |
| "H.S. Boynton," - |  | - |  | - |  | - | 1,000 | ، |
| "Percy," | - |  | - |  | - |  | 1,200 | * |
| "E. H. King," |  | - |  | - |  | - | 1,400 | ' |
| " Waiter M. Young," |  |  | - |  | - |  | 1,300 | " |
| "Mary A. Taylor," |  | - |  | - |  | - | 800 | " |
| "Charles A. Ropeo," |  |  |  |  |  |  | 800 | " |
| "Olive Branch," |  | - |  | - |  | - | 850 | * |





## Summer Hackerel Fishery.

As already remarked, when mackerel have recovered from their lows of flesh, after sparning, about the month of July, they begin taking the hook, and Islands fishermen, as well as strangers, are then engaged tishing for them. Fishing began this seascin on the 5th of July, and lasted until the 15th September.

Although the yield was somewhat below that of last year, the value was larger, owing to the high price of $\$ 10$ offered on the markets. A fow years ago Magdalen Islands' people paid very little attention to mackerel-fishing, which was then exclusively carried on by foreign fishermen, whose schooners, amounting to 400 or 500 , kept during a whole season within the waters around the Islands, making extraordinary oatches and realizing enormous profite. Encouraged at the success of their neighbours, the Islanders began fisling near shore, and now they almost all engage in this industry, especially when cod-fishing fåls. It is, however, to be regretted that, with the advautare of their position, and having at their door a harvest which recurs every ycar, and which demands only to be gathered, the inhabitants of these Islands have not sufficient enterprise to compete with strangers, when such a competition could only turn to their own advantage. Up to the present date, not a single schooner from Magdalen Islands has carried on this industry in the same manner as our neighbours do; so that we derive but very small profits from this fishery compared to those of Americans.

Mackerel was very abundant this summer around the Islands, especially on the north side, in the waters of Grindstone and Bryon Lslands; but the fish was less greedy than usual, and seemed to refuse the bait thrown out to draw it near the schooners. Fishermen were of opinion (and it appears very plausible) that this fact was due to the large number of animil leule floating on the water, and which, I presume, oliered a more tempting food to the tisl than the offered bait.

Mackerel sunmer fishing yielded 3,858 barrels, or 857 barrels less than last year. Profits were, nevertheless, much larger, owing to the high prices at which fish sold. About one hundred foreign vessels were engaged fishing this season around Magdalen Islands, but, out of that number, I do not calculate that there were more than fifty engaged mackerel-fishing, and according to the best information received, their catch was very moderate. But, even supposing they brought back only 250 barrels each, this would give a total of 12,500 barrels, or $\$ 125,000$.

## Cod Fishery.

Up to the time of the conquest, vessel owners engaged in fishing at Magdalen Islands, carried on cod fishery only for the purpose of procuring the necessary food for private consumption. People were then satisfied with the enormous profits derived from the walrus and seal fisheries. But when the former had been destroyed, and the latter had become more wary and dificult to catch, partios began to turn their attention to cod-fishing, which became, as it is still at the present date, the principal occupation of the inhabitants, as well as their main source of wealth.

Magdalen 1slands possess, perhaps, the most advantageous cod-fishing grounds in the whole Gulf, either with regard to the numerous banks surrounding them, where cod always find an abundant food during summer, as well as with regard to the
numerous and safe harbours which they offer to fishing boats. The most frequentel banks are those of the west point of Amherst, Deadman, and Bryon Islands, Birds' Rock, and others lying seven or eight miles south-east of Entry Island. Cod is also found in Pleasant Bay.

Tho same reasons which influenced the appearance of cod on other coasts of the Gulf, also caused their arrival to be very much delayed on the shores of Magdalen Islands. The first fish were caught this year only on the 1st July. With the exception of the banks of Grindstone Island, cod-fishing was poor everywhere else, either because the fish were wanting, or bait failed when they struck in. Sereral fis hermen have this season used with success, bultows, or bottom lines. On the 10.1 June, when I visited Amherst and Grindstone Islands, I found that those who unc: bultows bad from twenty-five to thirty quintals of cod, whilst the others had larely four or five. The same thing occurred here as elsewhere; the succes of one parts excited the jealousy of another; and those who were less favoured accune! the successiful ones of being the cause of thoir ill-luck. Several complaints were lai! hefore me, so that I was reluctantly compelled to absolutely forbid bultow tishing within the prescribed limit of three miles, and to threaten with fines those who should violate this regulation; although I cannot possibly underatand what difference there can be in fishing with these lines at a distance of one or two miles from shore, when none is found in their being used all around the islands outside the bays. Such of the tishermen who are not provided with these lines, complain of their use, but give no reasons to justify their pretensions. So fir as my own opinion is concerned, I think, that, far from prohibiting these fishing engines, they should be encouraged in certain places. By this means, fishermen would not be exposed to lose their time in useleas labours. Is it not an extraordinary thing to see American and French fishermen dishing with these lines at a distance of from three to four miles from show, where they sometimes secure double cargoes in a short period, whilst our poople :i times experience great trouble in securing the fish necessary for their own consumption; and this, too, without any profit whatever for the protection of the species?

During my stay at Magdalen Islands I had occasion to fall in with masters of American schooners, who claimed to have the right, in accordance with the Washington Treaty, to fish with bultows or bottom lines wherever they so desired. I made them understand that this treaty could not give them a privilege which was not granted to ourselves, and that since we were forbidden from fishing with bultows within three miles from shore, and in bays, a fortiori, this prohibition should apply to foreigners. They understood the thing at once; and from information since obtained, I am satisfied that the law was not violated. Several nchooners from Magdalen Islands were formerly in the habit of going outside and fishing on the banks as Americans do; but this mode of fishing requiring a considerable outfit, which they seldom had the means of procuring, they were compelled to abandon these localities, and to repair to the coast of Labrador, where fishing is carried on more readily, and near shore. Small boats are used, whilst schooners lie safely in snug little harbors. Nine schooners from Magdalen Islands repaired this summer to the coast of Labrador; but their voyage failed in the same manner as it did last year, and they brought back only 1,240 quintals of cod. The total yield of the summer fishery was 9,310 quintals. The period extending from the 15 th August to the 15 th September was most favorable; fall fishing was therefore comparatively better than the summer fishery. It would have been still more successful if bait bad been abundant. The fall fishery yielded 1,642 quintals more than last year.

Total quantity of cod caught at Magdalen Islands in 1876....10,957 Quintals. " " " 1875....13,035

Decrease 2,078

The fish sold for $\$ 5$ a quintal. About fifty foreign schooners fished for cod around the Islands, and according to the figures supplied by eleven of them, which I
boarded, and from information derived from other sources, I think I am not far from the truth in valuing the average catch of each schooner at 550 quintals, w.ioh would give a total value of about $\$ 27,550$.

Besilles cod, I was told that about 20 or 25 barrels of halibut, and 32 barrels of eels, valued at $\$ 6$ per barrel were caught.

Lobster Fishery.

Lobster-fishing, which began five or six years ago to engage public attention on the shores of Bay des Chaleurs, remained comparatively unknown at Magdalen Islands; the people there would have for a long time lost the profits of this industry had not a Halifax firm (Messr's. Stayner \& Co.) caused merchants and fishermen to understand that they did not know how to take advantage of their wealth. To the utter astonishment of evergone these gentlemen have opened establishments for the canning of lusters which rival the largest and most successful ones on the shores of the United States and the Mariting Provinces. The canning establishnent at Grindstone Island was kept busied during part of the season of 1875, and this year, from 1st June to 4th Norember. That at Grand Entry way opened only from the 10th October to 4 th November. Another establishment will be started next season at Amherst Island. E.

From the 10th August to the 15th September, the establishment at Grindstone Island was closed ; the season of prolibition being fixed botween these dates. This cloyc-time is well adapted to Magdalen Islands, as females carry their eggs at this periol. Up to the month of August none had been seen, and by the end of September the eggs had all disappeared. According to observations made, this would seem to establish the fact, that, lobsters follow the same physiological rules here as they do on the Quebee shores of Bay des Chaleurs; but, I am of opinion that, in order to eonciliate all interests-those of lobsters as well as of packers-the close-time for Magdalen Islands might be advantageously fixed from tho 15th August to the 15th September. According to my judgement these dates would be quite opportune and nobody would have any grounds of complaint. Although Magdalen Islands fishermen draw only indirect and insignilicant profits from lobsiter fishing, this industry causes a good deal of money to circulate among a poor population; and I must say here to the honour of Messiss. Stayner \& Co., that they pay in a royal way and in hard cash. A singular coincidence, which I cannot help noticing here, is that codfishermen are the only ones who are poorly paid, and, moreover, paid in goods. When. people who fish for other firms than those of Jersey, \&c., \&c., are satistied with their wages, and are happy to work for masters who pay well and scatter abundance for' several miles around them, let us throw a glance at the large cod-fishing establishments; you will hear wothing but complainte, and see nothing but poverty and misery. percentage of ten per cent. on every hundred pounds of canned lobsters.

Both the above-mentioned establishments gave employment to forty men and twenty-five boats. Traps to the number of 1,200 wore used. The canning employed tweuty-two men and twenty women; thus forming a total of employés of ninety-two persons. Mon earned $\$ 1$ a day each, and women forty cents-with a fortnightly. percentaie of ten per cent. on every hundred pounds of canned lobsters.

Lobster-fishing was most successful for the short time it was carried on. The catch amounted to 340,000 lobsters, which, being canned, yielded 124,000 pounds, or 105,000 pounds more than last ycar.

The statistics show that Magdalen Islands lobsters are not large, since it almost taker two to make a pound. If my recollection does not fail nie, when the canning establishment at Grindstone Island wis opened in June, lobsters promised better than that.

The produce of this fishery were undoubtedly exported to European markets.

## STIPENDIARY MAGISTRATE.

For a long period after the settlement of Magdalen Islands, its moral and lawabiding population required neither public officers nor Magistrates to administer justice and maintain peace ; the authority of the head of each family, or the voice of the priest were sufficient to ensure quietness or repress abuses. But, this happy state of things could not last for over; and in order to ensure protection against thefts by foreign fishormen, and to put a stop in their usigin to the element of discot which threatened to grow among this credulous and in ileos population, it was found necessary to appoint Magistrates, establish courts of justice and build a jail. An armed cruiser was also despatched to these watcrs, and thanks to the increasing efforts of its officers, order and peace reign everywhere and trouble only occurs at distant periods. Havirg this securod the protection needed outside, the inhabitants of Magdalen Islar: - Iondly claim, and justly too, a Stipendiary Masgistrate residing on the apot. Winh nwo (, three well-disciplined constables, there is bardly ary quarrel which sach ath officer could not master on the mainland. Moreover, if this officer had civil jurisdiction to settle law suits under one hundred dollars, he would be more ueelul than any Judges, whose sittings are very irregular and who seldom have to acljudicate upon cases above fifty dollars. One can hardly form an idea of the difficult position of tho local magistracy, left to their own impntency whilst having sometimes grave cases to settle. They do all they pussilly can, and I must add that they are honest and well qualified; but their duties would be much easier could they at all times secure the services and advice of a lawyer. With a resident Stipendiary Magistrato, the visit of Judges could be dispersed with; and [ am of opin:on that such a system would be far less expensive, whilst the adrantage derived therefrom would be mach greater.

## Wrecks.

Magdalen Islands being situate on the highwas of vessels going up or down the Gulf of St. Lawrence, must naturally be a cause of wreck for many of them, and unfortunately there hardly occurs a season free from some accidents, without taking into account loss of life.

There were this summer four wrecks on the coasts of the Islands; fortunately we have no loss of life to deplore.

In order to render navigution easier in the Gulf of St. Lawrence, and especially around Magdalen Islands, the (i)vornment cansed three lighthouses to be built; but accorling to my opinion, and that of mariners who are well acquainted with these Islands, they csuld not possibly be located in worse plares; so much so that navigators are unanimous in demanding a change. The money expended in making these changes would certainly be well applied.

## Land Tenure.

The measures adopted by the local Government of Prince Edward Island, to xedeem the lands held under long leases, has raised the hopes of our friends at Magdalen Islands, who hold their farns under similar conditions, so much so, thit these deserving people wait with impatience the moment when our local Governmeit will do them the same favour. Although neither the present owner nor his agent can be reproached with any hard dealings towards the settlers--and I may add that several of these people occupy their farms under most favourable terms---it is nevertheless the case that the state of uncertainty in which they are placed, when one day's delay in the payment of their rent can make them lose the result of many years' labours, contributed in a large manner to retard the progress of these Islands, and injured the success of agriculture. The radastre which is now being prepared will show the extent and importance of these Islands; and it is to be hoped that the Government will then be able to redeem these lands, and rid the inhabitants from deeds and stipulations of another age.

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## Return of Fishing Stations, kinds of Vessels, number of Men


kinds of Nets used, kinds of Fish and Fish Oils,"\&c., \&c.---Continued. ISLANDS.

Nets and Seines.


Rettirn of Fishing stations, kinds of Vessels, number of Men,
MAGDALEN

kinds of Nets used, kinds of Fish and Fish Oils, \&cc., \&c.-Continued.
ISLANDS.


## RECAPITULATION.

## Value of the different Fisheries of the Magdalen Islands Division in 1876.

| Kinds of Fish. | Quantities. | Prices. | Value. |
| :---: | :---: | :---: | :---: |
|  |  | \$ cts. | \$ cts. |
| Summer cod fishing.. | 9,310 quintals..... | 500 | 46,550 00 |
| Autuma do . | 1,647 do ...... | 500 | 8,235 00 |
| Herring fishing | 77,743 barrels ...... | 400 | 310,972 00 |
| Mackerel do .. | 4,969 do ...... | 1000 | 49,690 00 |
| Cod, Tongues and Sounds | 23 do ...... | 900 | 20700 |
| Eels......... | 32 do ...... | 1000 | 32000 |
| Seal Skins | 3,529 easb .......... | 125 | 4,411 25 |
| Seal Oil | 17,730 gallons ...... | 050 | 8,865 00 |
| Cod Oil | 4,631 do ...... | 050 | 2,315 50 |
| Lobsters, in cans | 124,000 lbs............. | 015 | 18,600 00 |
| Other Fish. .................. | ........... ....... ..... |  | 50000 |
| Fish used as bait and manure. | 400 harrels.... ..... | 050 | 21000 |
| Total value of the product of the fisheries for 1876 $\qquad$ do do do 1875................ |  |  | $\begin{aligned} & 450,86575 \\ & 414,7+750 \end{aligned}$ |
| Increase |  |  | 36,118 25 |

Return of the Number and Tonnage of Vissels, with Men and Boats, engaged in the Seal Fishery at the Magdalen Islands, during the season of 1876.

| Name of Vessel. | Master. | Tons. | Men. | Boats. | No of Seals taken. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Flirt | Burke | 39 | 12 | 4 | 62 |
| Annie ...... .............. . | Terriaı ......................... | 41 | 12 | 4 | 120 |
| Delaney ..................... | Vignault ................... ...... | 43 | 12 | 4 | 60 |
| Lion ...................... | Richard ........................... | 41 | 12 | 4 | 50 |
| Cora May .................. | Boudreau........................... | 42 | 12 | 4 | 60 |
| Jenny Lind..... .......... | Turbide . .......................... | 39 | 10 | 4 | 140 |
| Flash........................ | Poirier ........................... | 47 | 12 | 4 | 150 |
| Total-7 vessels | .............. | 292 | 82 | 28 | 642 |

## Return of the Number and Tonnage of Vessels, with the Boats, Men and Seines, engaged in the Spring Herring Fishery, at the Magdalen Islands, during the Season of 1876.

| Name of Vessel. | Master. | From Whence. |  |  | Tons. | Men. | Boats. | Seines | Fish taken. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Setagawa | Duptil................. | United | Sta |  | 103 | 7 | 3 | 1 | 1,500 |
| Grey hound | H. Hardy............. |  |  | ........ | 90 | 7 | 2 | 1 | 1,200 |
| Island Belle................. | Simpson.............. | do |  |  | 58 116 | $1{ }^{7}$ | 2 | 1 | 900 1,500 |
| Rose.......... | Stickney............... | do |  |  | 64 | 5 | 2 | 1 | 1,000 |
| Anna Frye | Smith ............. ... | do |  |  | 128 | 8 | 2 |  | 2,000 |
| Scud. | Hallowell............ | do |  |  | 120 | 7 | 4 |  | 2,000 |
| L. Standish............... | Wilder ... ............ | do |  |  | 115 | 9 | 4 | 1 | 1,800 |
| Carrie W. | Feasebury............ | do |  |  | 63 | ${ }^{8}$ | 2 |  | 1,100 |
| Cape Ann | Jellison.............. | do |  |  | 42 | 5 | 2 |  | 450 |
| Lilly Dale...... | Hutchings ............ | do |  |  | 56 | 5 | 2 |  | 700 |
| H. S. Boynton | D. Leach ............. | do |  |  | 69 | 6 |  |  | 1,000 |
| Percy.... | Mitchell .............. | do |  |  | 81 | 8 | 2 |  | 1,200 |
| E. H. King. | Bunker | do |  |  | 106 | 12 | 4 |  | 1,400 |
| Walter M. Young | C. Davis...... ....... | do |  |  | 91 | 10 | 3 | 1 | 1,300 |
| Mary A. Taylor.. | Peters | do |  |  | 51 | 4 | 2 |  | 800 |
| Chas. A. Ropes... | J. W. Bowden ...... | do |  |  | 64 | 6 | 2 |  | 800 |
| Olive Branch. | S Smith ... . ....... | do |  |  | 62 | 5 | 2 |  | 850 |
| Red Beach................. | Meyers ............... | do |  |  | 70 | 7 | 3 |  | 1,000 |
| Balance. | A llen ................. | do |  |  | 59 | 4 |  |  | 700 |
| Eldorado. | Thompson............ | do |  |  | 74 | 9 | 2 |  | 1,000 |
| Samuel Knight. | Logan. | do |  |  | 58 | 6 |  |  | 900 |
| Francis Allen... | Cousins .. | do |  |  | 98 | 7 | , |  | 1,300 |
| Nellie H. | Mallock | do |  |  | 78 | 7 | 2 | 1 | 1,1(i0 |
| Herman Bubson | Lauson.................. | do |  |  | 100 | 7 | 1 | 1 | 900 |
| Caroline C. | Clements. | do |  |  | 89 | 7 | 2 | 1 | 700 |
| Eastern Queen........... | A. H. Higgins....... | do |  |  | 68 | 8 | 2 |  | 1,100 |
| Mary Alice ................ | Westhaver.......... | Halifax. |  |  | 36 | 6 |  |  | 500 |
| Mariner.................... | Mosman .............. | do | ........ | ........ | 56 | 6 | 3 |  | 700 |
| Quickstep ................. | Baker ............... | do |  |  | 40 | 7 | $\stackrel{2}{2}$ |  | 600 |
| Dahlia .................... | Shenkle .............. | do | ........ | ......... | 94 | 9 | 2 |  | 1,300 |
| Harvest Home ........... | Linck ................. | do |  |  | 59. | 5 | 4 | 1 | 600 |
| Busy .............. ........ | D. Sharpe ............ | do |  | ....... | 48 | 6 |  |  | 650 |
| Commodore.............. | Venoit ........ ....... | do |  |  | 46 | ${ }^{6}$ | 2 |  | 500 |
| River Queen.............. | Fraser ............... |  | $\ldots$ | ...... | 51 | 6 | 3 | ... | 700 |
| I. L. Volger .............. | Smith | do |  |  | 52 | 6 |  |  | 700 |
| Beau Bassin............... | Zwicker...... ........ | do | ..... |  | 52 | ${ }_{6}^{6}$ | 2 |  | 700 |
| I. H. Biltz. | A. Evans ............ | do |  |  | 55 | 8 |  |  | 700 |
| Anna A. Teel.............. | Ritcey ............... | do |  |  | 59 | 7 |  |  | 800 |
| Ida E...................... | Ritcey ............... |  |  |  | 66 | 9 | 3 |  | 1,000 |
| Adonis..................... | S. Smith .............. | do |  |  | 48 | 5 |  | 1 | 900 |
| W. M. Volger............. | W. Volger........... | do |  |  | 45 | 6 | 2 |  | 600 |
| H. Hoves .................\| | A. Holmes........... | do |  |  | 60 |  |  |  | 900 |
| A. H. C............ ........ | W. Perry............ | do |  |  | 34 | 3 | 1 |  | 500 |
| Silver Bell................. | W. McKay........... | do |  |  | 33 | 4 | 2 |  | 500 |
| Exchange................. | Slavenwhite ......... | do |  |  | 86 | 5 | 2 | 1 | 800 |
| Sabine..................... | J. Steele ............. | do |  |  | 50 | 5 | 2 |  | 900 |
| Ella ........................ | Westhaver........... | do |  |  | 39 | 6 | 2 | 1 | 500 |
| Moses Black .............. | J. Rice............... | do |  |  | 68 80 | 4 4 4 | 2 |  | 700 900 |
| J. H. Caristie............. | R. Steele. | do |  |  | 80 |  | 2 |  | 900 |
| Devon....................... | Shellnutt............. |  |  |  |  |  |  |  |  |
| Ellen May ........ ....... | D. Westhaver ...... | Lunenbu | urg |  | 60 53 | 8 | 4 |  | 900 750 |
| Lady Speedwell. ........ | Heckman.... .......... | Lunenbu |  |  | $\begin{aligned} & 53 \\ & 38 \end{aligned}$ | 6 5 | 3 2 2 |  | 750 500 |
| Prince Consort | A. Hisla.............. | Port Hoo |  |  | 113 | 5 | 4 |  | 2,000 |
| Golden West.......................... | Zwicker............... | LaHave |  |  | 53 | 7 | 3 |  | 750 |
| Columbia.................. | McPherson ........... | P. E. Isla | and |  | 33 | 4 | 2 | 1 | 400 |
| Confederate ...... ........ | McKay ....... ........ | do |  |  | 48 | 4 | 1 | ........ | 600 |
| Lavina Jane.............. | McLeod...............\| | do |  |  | 37 | 4 |  |  | 500 |

Return of the Number and Tonnage of Vessels, with the Boats, Men and Seines, engaged in the Spring Herring Fishery, at the Magdalen Islands, during the season of 1876. -Continued.


RECAPITULATION．

| Whence． | 哭 | － | 品 | 㝘 | 灾 | Barrels of Fish taken． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| United States．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 27 | 2，172 | 190 | 65 | 10 | 30，200 |
| Nova Scotia．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 40 | 2，095 | 236 | 91 | 8 | 28，908 |
| New Brunswick．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 5 | 312 | 33 | 12 | 1 | 5，300 |
| Prince Edward Island．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 11 | 303 | 40 | 14 | 1 | 4，250 |
| Magdalen Islands．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 10 | 410 | 48 | 20 | 4 | 4，${ }^{2} 80$ |
| Total．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 93 | 5，292 | 547 | 202 | 24 | 72，938 |

Return of the Number and Tonnage of Vessels，with the Boats，Men and Nets， employed in the Spritg Mackerel Fishery，at the Magdalen Islands，during the season of 1876 ．


Exports of Fish and Oil from Magdalen Islands, showing whence same were exported, during the Season of 1876.


## Anticosti Island.

This Island has acquired great celebrity in our history, both on account of the numerous wrecks upon its shores as well as owing to the fantastic stories tuld of the first settler who could muster sufficient courage to go and inhabit a locality which sailors dreaded. This Island now appears to have entered on a new era, and sailors as well as fishermon, who have acquired a better knowledge of its shores, are becoming by degrees accustomed to it, and land thero without experioncing greater dangers than elsewhere. The fishing grounds surrounding this Island have for the past twenty years acquired a reputation, owing to the abundance of all kinds of fish which frequent those waters; there were, however, but few resident settlers until 1872, at which date the company known under the name of Anticosti Istand Company induced several families from Newfoundland and olsewhere to go and settle on it, by promises of affording them every possible advantage. This Company, which has now been dissolved, could not unfortunately carry out the promises contained in their prospectus, and it will be easily understood that these poor families must have suffered greatly during the first winter. However, the progress they have since made and their comparatively independent life must now cause them to forget and pardon the sufferings they underwent from the bad management of this Company, whilst at the same time we can never be thankful enongh to it for having secured us such a population of settlers. This statement may, with reason, astonish you, when the measures which had to be taken and the expenses which had to be incurred to punish those who robbed the Government provision stores on this Island, are still fresh in your mind; but $\mathbf{I}$ must say, to the advantage of these new settlers, that they are composed of an honest and industrious population which never had any share in the robberies repeated for three following years, but that this system of pillage and robbery was inaugurated and continued by a few Acadian settlers, hailing from Shippigan and Bay des Chaleurs, to whom the impunity which followed a first theft gave confidence and audacity. The settlers coming trom Newfoundland were never guilty of robbery of Government stores during the past winters, being at work during the fishing season, and clearing patches of land which now yield a revenue of one hundred per cent. to those who are not afraid to work. But such was not the case with Acadian settlers, whom the impunity attached to a first fault emboldened to such an extent as to dare everything. Of course, such a state of affairs could not last without causing bad results one day or another; there being no localities where it is more necessary to stop these illegal practices than at Anticosti, where unforeseen circumstances and wrecks may cause any day an increase in the population, with no other resources to fall back upon than the provisions stored in the Government depots. There is no place, besides, where robberies of this nature are more inexcusable, because the settiers might in a very short time become independent, even should fisheries fail; could they only be persuaded to work. Everyone of them might gather at least a couple of hundreds of bushels of potatoes, by working only two or three weeks after the fishing is over, the land being most favorable for this kind of crop. They would also find ready markets at Esquimaux Point, on the north shore, which is only a few leagres distant, and where potatoes readily sell from two to two dollars and a half a barrel. During the winter season everyone of them could earn about one hundred dollars by making shingles, deals or barrels; the lumber being handy as well as a market.

It was, therefore, with pleasure that I received instructions, in September last, to proceed to Anticosti and to take before the Stipendiary Magistrate those of the habitual robbers who were known as the leaders, and who were reported to laugh at all authority. My first action, on anchoring at English Bay on the 6th September, was to divide my crew into two gangs, and to send them in opposite directions on each side of the Island where I knew these fellows would be found. Thirty-six hours after we had secured on board the "Lady Head" the following parties, who were well-known leaders:-David Martin, Paul Poulin, Phileas Bezeau, Jean and Duguay. After an investigation, they requested to be summarily tried, pleaded guilty, and four of them were condemned to six months' jail, and the others to two
months. It will he a long time, I feol sure before we are called upon to chronicle the repetition of such tuets. The punishment was serere. It has orcasioned some expensc ; but this is nothing compared to the securits gained for public and private property. Had these robberies remained unpunished, there would have been no longer any safety for property; the sound portion of the population, as well as the bad, would have become robbers, there being nothing like impunity to incite to wrongdoing.

Fishing of all kinds, with the exception, however, of salmon, was good around the Island of Anticosti, and greatly :uperior to that of last year. The price of fish being also very high, it follows that those of the fishermen who felt inclined to work are in easy circumstances. They also harl the advantugo of purchasing provisionsflour eepecially-at a low figure, wwing to competition. Those who sowel grain in the spring weic rewarded by an abundiut crop. I hardly know of a better country than Anticosti for growing potatoes, turuips and culbiges. Some of the seitlers, especially thos hailing from Newfoundland, had potato fields, the equals of which are not seen on our finest farms; and if the crop was not equal everywhere, it was due to sheer neglect, the lan being uniformly ood and most easy to cultivate. What I have just said about the settlers of Euglish Jay, applies to all others on tho Island; the alvantages boing eriual for all.

The consus of 1871 gives the population of Anticosti as 102 , but it has since increased by the aldition of twenty-fire families, which would bring its present population to the figure of 250 . The two most frequented spots of this Island bave for some years past been placel in communicatoon with the north shore and that of Gaspe by means of a schooner. Let us hope, that, when it is included in the telegraphic system which is to join twether the several ports of the Gulf, this Island will soon become an habitable, or rather, one of the most advantageous places on the Gulf shores.

## Cod Fishery.

Previous to 1864 or 1865 , no mention was made in the statistics of the yield and value of fisheries of Anticosti, although people from the north coast who were cognizant of the fine fishing grounds around its shores, used to go there in large numbers, and matu such successful fishing as to attract public attention; it was then that the shores of this Inland were visited and protected with greater care than ever. Cod-fis!ing in emrich on here as easily a: anywhere else, and even more casily than on the soth shore, because it is done nearer to the coast, and the fish are, besides, larger. The bait usel is capelin, herring and clams. Capelin appears only during a few llays; but herring is more or less ab:andant during the whole summer. Clams are used where capelin and herring fail.

The most renowned fishing grounds are those of West Point, South-West Point, Fox Bay, Observation Cape and White Cape. The fact of the matter is that cod fish abounds around the whole Island, and that the grounds are all equally good; but the difficulty is to find safe harbours for barges.

In addition to resident fishermen, there are also several Gaspe firms, such as those of Messrs. C. \& H. LeBoutillier, Colas \& Co., \&c., who hire fishermen either at fixed rates or by half-lines, and who purchase the fish in the same manner as Halifax and Quebec traders do, and supply in exchange the provisions and clothing which fishermen recuire, usually at low prices, owing to competition.

The appearance of cod fish was delayed on the coasts of the Island of Anticosti as well as on other shores of the Gulf, on account of the ice; although they were observed sooner than at other places, with the exception of Bonne Eisperance and Natashquan. Summer fishing was sufficiontly romunerative, and would have been better still, had bait been more aljundant. The catch was neverthless very satisfactory and superior to that of the past two years, uwing to the high price at which fish sold. The yield was 6,086 quintals, against 4,891 in 1875 , and 5,158 in 1874 .

The extreme heat of the month of August caused a large quantity of fish to be of inferior quality; but there was such a demand for cod that it did not realize less than $\$ 4$, and most of the fishermen sold it for $\$ 5$ a quintal.

## Salmon Fishery.

For three years past, the rivers of Anticosti, which are only third class streams, have been exposed to several causes which are more or less injurious to the reproduction of salmon. During the winter of 1874 , torrents of rains broke the ice, destroying salmon and salmon fry in the strcams. During the season of 1875 , the water fell so low, that salmon could not go up, and the spawn which had already been deposited, dried and was lost. Salmon were scarce this year, and as a further causo for ill-success, the water kept so high that half the fishing soason was lost. This is not, however, to be considered as an evil, as a larger number of fish were thus enableci to reach their spawning grounds. Salmon-fishing yielded this season only 72 barrels, :ggainst 81 in 1875. The local fishery guardians report two violations of the fishery laws. I could not take cognizance of these during last fall, but will do so next spring.

The fishery guardians, Messrs. Malouin and Gagné, are very efficient officers, and will be most useful in securing a proper observance of the fishery laws on this distant and isolated coast.

## Herring, Habibut and Markerel Fisheries.

The bays of Anticosti are far-famed in consequeace of the successful catch of herring which takes place therein each spring. One of these, known under the name of Fox Bay, on the north east side of the Island, is :mnually visited about the beginning of May, by a ge number of foreign vessels who are always successful in their voyage. The diffic llties of navigation in the Gulf last spring were so great that only three vessels were enabled to repair to that locality; they took 600 barrels each. Very little herring was caught along shore during the suminer but fall fishing was good; it gielded 2,510 barrels, or 4,410 barrels altogether; which is 3,341 barrels more than in 1875.

I have often had occasion to allude in these reports to the splendid halibut fishing grounds which exist around the shores of Anticosti; this fishery has, however, up to the present date, been carried on only by United States ressels, not one of which was seen in that neighbourhood during the season. Our own people catch halibut only by accident. The statistics return 94 barreis as the total yield of halibut fishery for 1876 . The same amounted to 88 barrels in 1875.

No mackerel were seen near the shores of Anticosti during the past season.

## Seal Hunting.

Seals are sufficiently abundant on the shores of Anticosti Island during the whole season. I cannot give the exact number of those that were killed, but it must be a good round number, owing to the quantity of oil returned in the statistics, which is 318 gallons, compared to 460 in 1875 . Some partics coming from Shippigan and located at English Bay, are very clerer at shooting seals. One of them killed three at one shot. These people make a regular business of this hunt, which therefore gives an increase in the product of that industry.

Whilst speaking of seal-hunting, it may not be out of place to allude to the inconsiderate killing of the fur-bearing animals of Anticosti Island, out of season. The local fishery guardians allude to this matter in their reports and recommend that some measures be taken to put a stop to a growing evil which threatens to destroy one of the most precious resources of this Island. The question of protection to fur-bearing animals being now under the notice of the Quebec Legislature, it is to be boped that the same protective measures which are required elsewhere will also be extended to Anticosti.

## Return of Fishing Stations, kind of Vessels, Number of Men,

ISLAND OF

kinds of Nets used, kind of Fish, and Fish Oils, \&c., \&c.---Continued. ANTICOSTI.

Nets and Seines.


## Refuri of Fishing Stations, kinds of Vessels, number of Men, ISLAND OF

| Name of Station. |  |  |  |  | Cod, qui Sinumer Fishing. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| English Bay |  |  |  |  | 1,7ヶ8 | 150 |  |  | 58 | 446 |
| Strawberry Cove ................ |  |  |  |  | 267 | 51 |  |  | 15 | 85 |
| Little River ....................... |  |  |  |  |  |  |  |  | ..... |  |
| Betcie River................ ..... | 2 |  |  | ...... | ......... |  | ..... | ...... |  |  |
| Otter River.. ..................... | 2 |  |  |  |  |  | .... | ..... | ..... |  |
| Jupiter River...................... | 7 | ..... | ..... |  | 641 |  |  | ...... | $\ldots$ | 140 |
| South-west Point ........ ........ |  |  |  |  | 641 | 80 |  |  | 6 | 140 |
| Cbaloupe Creek ................. | 19 | 1..... |  |  | , |  |  | - |  |  |
| Dauphine River................. |  | , |  |  | \| .......... |  | ..... |  |  |  |
| Bay River ................ | $9^{9}$ |  | j.... | ..... | .......... |  |  |  | ...... | , |
| Belle River ...... |  |  |  |  |  |  |  |  |  |  |
| Seal River ........ .... ......... | 4 |  | ...... | \|.... |  | , | ..... |  |  |  |
| Fox Bay and River............ |  |  | \|.... |  | 1,101 | $23 \pm$ | ..... | ...... | \|..... | 1,934 |
| Deep Bay . ........ | 1 |  | ..... |  |  |  |  | ..... | \|.... | 285 |
| Mozerolle River. | 2 |  | .. ... | ...... | 500 | 75 | ..... | ..... | ..... | 285 |
| East Bay |  |  |  | . |  |  |  |  | , | ..... |
| Salmon River | 13 |  |  |  | 80 |  |  |  |  |  |
| Cape Observation | ..... |  |  |  | 352 | 75 |  | ... | 1 | 15 |
| Capelin Bry .. | ..... |  | ..... |  | 389 | 22 |  |  | - 2 | $5 \overline{3}$ |
| Potatoes Cove... | ..... | ...... |  | ..... | 120 | 10 |  |  | . | 140 |
| McDonald's Cove | .... |  |  | ..... | 335 | 66 | ..... |  | . 12 | 1,000 |
| Little Indian Cove... |  |  |  | . | 200 100 | 100 80 | . ... |  | …… | 210 100 |
| Oro Point ........... | 3 |  |  |  | 100 | 80 |  |  | .. | 100 |
| Total | 72 |  |  | . $\cdot \cdots$ | . 5,863 | $9 \pm 3$ |  | \| $\cdots$ | . 94 | 4,410 |

RECAPITU
Value of the different Fisheries" of

| Kinds of Fish. | Quantities. | Price. | Value. |
| :---: | :---: | :---: | :---: |
|  |  | \$ cts. | $\$$ cts. |
| Summer Cod fishing. | 5,863 quintals at... | 5 (0) | 29,315 00 |
| Autumn do | 943 do ... | 500 | 4,71500 |
| Herring fishing. | 4,410 barrels ........ | 400 | 17,650 00 |
| Halibut do . | 94 do ......... | 600 | 56400 |
| Salmon (pickled)... | 72 do ......... | 1600 | 1,152 00 |
| Trout fisbing........ | 14 do ......... | 800 | -11200 |
| Eel do .............. | 1 do......... | 1000 | 1000 |
| Cod Tongues and Sounds...... | 8 do ......... | 900 | 7200 |

## kinds of Nets used, kinds of Fish and Fish Oils, \&c.-Continued. A NTICOSTI.



## LATION.

the Island of Anticosti in 1876.


Return of Fishing Stations, kinds of Vessels, number of Men, GENERAL RECA

kind, of Nets used, kinds of Fish and Fish Oils, \&c., \&c.---Contin ued. PITULATION.

## Nets and Srines.



## EXTRACT

from the log-book of the fisheries' protection steamer "glendon," for the season of 1876.

May 17.-Left Queboc, 2 p.m. Anchored off Berthier, 3.30 p.m. Left Berthier 4 p.m. Anchored oft L'Islet, 10 p.m.

May 1 s .-Leit L'Islot, $コ^{2}$ p.m. Anchored at Brandy Pots, 11 p.m.
May 19.-Left Branly Pots, 3 a.m. Anchored at Father Point, 1 p.m. Left Father Point, $\because \rho$ p.m. It Point anc Coques, $\because$ p.m., to lay a black buoy in six fathoms of water. Left Point aux C.,ques, 4.30 p.m.
M.oy 2 $\therefore$ - Auchored at Point dus Mouts, 4 a.m. Left Point des Monts, 7 a.m. At Magdalen River, st p.m.

May 2.-Anchored at Chien Blanc, owing to ice, 8.30 a.m.
May 23. -Left Chien Blane, for same reason, 1 a.m. Anchored at Little Gaspé, $9.30 \mathrm{arm}$. Left Little Gaspé. 11 a.m.

May 25.-Anchored in Pictou Harbour, 7.30 a.m. Left Pictou Harbour, 4 p.m. Moored to Black Diamond wharf to coal, 5.30 p.m.

## EXTRACT

FROM THE LOG-bOOK OF s. S. "lady head," FOR THE SEASON of 1876.
May 27.-Took charge of S. S. Lady Head at H. M.'s wharf at Black Diamond mine, $\pm \mathrm{p}$.m.

June 1.-Left Black Diamond wharf, 11.30 a.m. Anchored off Pictou, 11.20 p.m.
June 8. -Left Pictou, 2 p.m.
June 9.-Anchored at Amherst, Magdalen Island, 6 a.m.
June 19. - Left Amherst, Masdalen Island, 10 a.m. Anchored at Grindstone Point. 11.30 a.m. Left Grindstone Point, $11.30 \mathrm{p} . \mathrm{m}$. Anchored at House Harbour, 3.20 p.m. Left House Harbour, 7 p.m. Anchored at Amberst, 8.30 p.m.

June 13.-Left Amherst, 3.40 p.m.
June 14.- Anchored at Port Daniel, 8 a.m. Left Port Daniel, 5 p.m. Anchored at Paspebiac, 7.40 p.m.

June 15.-Left Paspebiac, 11.50 a.m. Anchored at Maria, 4 p.m.
June 16.-Left Maria, 3.30 p.m. Auchored at Carleton, 5 p.m,
Juve 17.-Left Carleton, 30 p.m. Anchored at Campbellton, 8 p.m.
June 20.- Left Camplbellon, 10 a.m. Anchored at Carleton, 2 p.m. Left Carleton, 3 p.m. Anchored at Pilipebiac, 8 p.m.

June 21. -Left Paspebiac, 4.20 a.m. Anchorod at Newport, 8 a.m. Left Newport, $10.30 \mathrm{a} . \mathrm{m}$. Anchored at Grand River, $12.20 \mathrm{p} . \mathrm{m}$. Left Grand River, 1.40 p.m. Anchored at Percé, 4.20 ¹.m. Left Percé, 4.50 p.m. Anchored at Gaspé Basin, 8 p.m.

June 24.-Left Gaspé Basin, 5 p.m. Anchored at Grande Grêve, 7.30 p.m.
Jnne 25.-I eft Grando Gréve, 7.20 a.m. Anchored at Cape Gaspé, 8.30 a.m. Left Cape Gaspé, 1.30 p.m. Anchored at Fox River, 4.30 p.m.

June 26.-Left Fox River, 2 p.m.
June 27.-Anchored at St. John River, 7.30 a.m. Left St. John River, 2 p.m. Anchored at Mingan Harbour, 5 p.m.

June 29.-Left Mingan Hirbour, 2 p.m. Anchored at Esquimaux Point, 4 p.m.
June 30.-Left Esquim:ux Poınt, 7.30 a.m. Anchored at Sto. Geneviòve Island, 0.30 p.m.

July 1.-Left Ste. Geneviòve I land, 10 a.m. Anchored at Natashquan, 4 p.m.
July 2-L-Left Natashquan, 9 a.m. Anchored at Wapetigun, $7.20 \mathrm{p} . \mathrm{m}$.
July 3.-Left Wapetigun, 11.30 a.m.
July 4.-Anchored at Whale Head, Little Meccatina, 1.45 p.m.
Ju!y 5.-Left Whale Head, Little Meccatina, $3.30 \mathrm{a} . \mathrm{m}$. Anchored n Bay des Moutons, 5 a.m.

July 6.-Left Bay des Moutons, $3.30 \mathrm{a} . \mathrm{m}$. Anchored at Whale Hend, Pacachoo, $6.40 \mathrm{a} . \mathrm{m}$. Left Whale Head, Pacachoo, $9.10 \mathrm{a} . \mathrm{m}$. Anchored at Chicatien, 12 p.m. Left Chicatica, 12.30 p.m. Anchored in Bay of Rocks, 1.20 p.m. Left Bay of Rocks, ${ }^{2}$ p.m. Anchored at Bonne Espérance, 5 p.m.

July 7.-Left Bonne Espérance, 0.30 p.m. Anchored at Labrador Harbour, 3 p.m.

July 8.-Left Labrador Harbour, 11 a.m. Anchored at Bonne Espérance, 1.40 p.m.

July 9.-Left Bonne Espérance, 1.30 p.m. Anchored in Bay of Rocks, 4.20 p.m.
July 10.-Left Bay of Roclss, 11 a.m. Anchored at Chicitica, 0.30 p.m. Left Chicatica, 2.30 p.m. Anchored at Whale Head, Pacachoo, 6 p.m.

July 11-Left Whale Head Pacachoo, 10 a.m. Stoppel at Whale Head, Little Meccatina, 3 p.m. Left Whale Head, Little Meccatina, 3.30 p.m.

July 12.-Anchored at Natishquan, 7.30 a.m. Left Natashquan, 11.30 a.m. Anchored at Agwanus, 1 p.m. Left Agwanus, 4.30 p.m.

July 13.-Anchored at Esquimaux Point, 10.30 a.m. Left Esquimaux Point, 12.30 p.m.

July 13.-Anchored at Mingan Harbour, 4 p.m.
July 16 Left Mingan Harbour, 6 p.m. Anchored at St. John River, 8.30 p.m.
July 17-Left St. John River, 3.50 a.m. Anchored in English Bay, 7 a.m.
July 18.-Left English Bay, 10.30 a.m. Anchored at Gaspé Basin, 9.30 p.m.
Jnly 21.—Left Gaspe Basin, 3 p.m. Anchored at Anse au Gris Fond, 7.40 p.m.
July 22.-Left Anse au Gris Fond, 10 a.m. Anchored at Cape Gaspé, 1 p.m. Left Cape Gaspé, 3 p.m. Anchored at Gaspé Basin, 5 p.m.

July 24.-Left Gaspé Basin, 10 a.m. Anchored at Cape Gaspé, 7 p.m. Lefl Cape Gaspé, 7:30 p.m. Anchored at Point Pinouille, 9:30 p.m.

July 25.-Left Point Pinouille, 5 a.m. Anchored at Anse au Gris Fonds, 8:40 a.m. Left Anse au Gris Fonds 10.20 a.m. Brought to at Grand Etang, 1 p.m. Left Grand Ettang, 2 p.m. Brought to at Pointe Sèche, 2.40 p.m. Left Pointe Sêche, 3.10 p.m. Brought to at Grand Chloridorme, 3.50 p.m. Left Grand Chloridorme, 5 p.m. Brought to at Grand Valley, 6 p.m. Left Grand Valley, 6.30 p.m. Anchored at Magdalen, $7.20 \mathrm{p} . \mathrm{m}$.

July 26 . -Left Magdalen, 11 a.m Anchored at Mont Louis, 2 p.m. Left Mont Loui:, 3.20 p.m. Anchored at St. Anne des Monts, 8 p.m.

July $\approx 7$.- Left St. Anne des Monts, $4.30 \mathrm{a} . \mathrm{m}$. Anchored in Trinity Bay, 9.30 a.m. L.fft Trinity Bay, 3.25 p.m. Anchored at Egg Island, 5.25 p.m.

July 28.-Left Egg Island, 6.30 a.m. Anchored at Muisie River, $1.30 \mathrm{p} . \mathrm{m}$. Left Moisic River, $\because .30$ p.m. Anchored at Trout River, 3.15 p.m. Left Trout River, 4 p.m. Anchored at Seven Islands, $6.40 \mathrm{p} . \mathrm{m}$.

July 30 .-.-.Left Seven Islands, $10 \mathrm{a} . \mathrm{m}$. Anchored at St. Marguerite River, 11.30 a.m. Left St. Marguerite River, 7.30 p.m. Anchored at Seven Ißlands, 9 p.m.

July 31.--Left Seven Islands s. $3.30 \mathrm{a} . \mathrm{m}$. Brought to at Moisic River, 6 am. Left Moisie River, 6.20 a.m. Brought to at Sheldrake River, 11 a.m. Left Sheldrake River, 12 p.m. Brought to at Sheldrake Point, 12.30 p.m. Left Sheldrake Point, 1.10 p.m. Brought to at Thander River, 2 p.m. Left Thunder River, 4 p.m. Anchored at St. John River, 6 p.m.

August 1.---Left St. John River, 11 a.m. Anchored at West Point, Anticosti, .45 p.m.

August 2.---Left West Point, Anticosti, 3.50 p.m. Anchored at Cape Rosier, 027 p.m. Left Cape Rosier, 2 p.m. Anchored at Chien Blanc, 3.30 p.m. Left Chien Blane, 7.30 p.m. Moored at Eden's wharf, Gaspé Basin, 9.30 p.m.

Ausust $\ddagger$-Left Eden's wharf, Gaspé Basin, ${ }^{6}$ p.m.
Aupust 5.--Anchored at Amherst, Magdalen Islands, 2.45 p.m.
Augast 6.---Left Amherst, Magdalen Islands, $5.40 \mathrm{p} . \mathrm{m}$. Anchored at House Harbor, Magdalen Islands, 6.50 p.m.

August 7 .--Left House Hirrbor, Magdalen Islands, 4.10 a.m. Anchored at North Cape, $\mathrm{sin}_{\mathrm{i} . \mathrm{m}}$. Left North Cape, 1 p.m.

August 8.-Anchored at Percé, 0.30 p.m.
August 9.-Lelt Percé, 1 p.m. Anchored at Grand River, 3.30 p.m.
August 10.-Left Grand River, 1.45 p.m. Auchored at Port Daniel, 5 p.m.
August 11.-Left Port Daniel, 4.30 p.m. Anchored at Cape Port Daniel, 6 p.m.
August 12.-Left Cape Port Daniel, 1.30 p.m. Anchored at Grand Cove, south shore, $4.30 \mathrm{p} . \mathrm{m}$.

August 13.-Left Grand Cove, south shore, Bay des Chaleurs, 4.20 p.m. Anchorod at Bonaventure River 7 p.m.

August 14.-Left Bonaventure River, 9 a.m. Anchored at Maria, 12 p.m.
August 15.-Left Maria, 2 p.m. Anchored at Charlot River, 5.30 p.m.
August 22.-Left Charlot River, 11.25 p p.m.
August 23.--Anchored at Gaspé Basin, 7 p.m.
August 25.--Left Gaspé Basin, 5 p.m.
August 27.---Anchored at St. Patrick's Hole, 12 a.m.
August 28.---Left St. Patrick's Hole, 5 a.m. Anchored at Levis, (Patent Slip) 7. 30 a.m.

September 2.--Left Levis to coal at the Government wharf, 7 a.m. Left Government wharf, Quebec, 9.40 p.m.

September 3.--Anchored at L'Islet, 1 a.m.
September 4 ----Left L'Islot, $1.20 \mathrm{a} . \mathrm{m}$.
September 5.---Anchored at Trinity Bay, Pointe des Monts, 1.30 p.m. Left Trinity Bay, Pointe des Monts, 2.30 p.m. Anchored at E.gs Island, 4 p.m.

September 6.---Left Exs Isliand, 10 a.m Anchored it Seven Islands, 3.30 p.m. Left Seven Islands, 4.20 p.m. Anchored at Moisie River, 6 p.m. Left Moisio River, 8 p.m.

September $7 .-$ Anchored at West Point, Anticosti, 5 pm .
September 9.---Left West Point, Anticosti, 9.30 a.m. Anchored in Mingan Harbour, 1.30 p.m. Left Mingan Harbour, 2.30 p.m. Anchored at Long Point, Mingan Harbour, 3.10 p.m. Left Long Point, Mingan Harbour, 4 p.m. Anchored at St. Johu River, 5.15 p.m.

September 11.---Left Si. Jolm River, 5.30 a.m. Anchored at Malbay, $3.30 \mathrm{p} . \mathrm{m}$.
September ${ }^{12}$..-. Left Mallay, 0.30 p.m. Suchored at Douglastown, 3 p.m.
September 13.---Left Duglatawn, $9.30 \mathrm{a} . \mathrm{m}$. Anchored at Gaspé Basin, 11 a.m.
September 15.---Left Gatipé Basin, 11.30 a.m. Anchored on Pinouille Shoals,
0.30
S.m. 11 a.m. Left South Point, Anticosti, 1 p.m. Anchored at Last Point, Anticosti, 3.30 p.m.

September 17.--Anchored in Little Mece:tina Harbour, 5 p.m.
September 18.---. Left Little Heccatin: H:utwor, 4.30 a.m. Anchored at Whale Head, Little Meccalina, 6.30 a.m. Left Whale Heal, Little Meccatina, 7.30 a.m. Anchored all Canty, Whale Fean, 8.30 p.m. Luit Canty, Whale Head, 30 p.m. Anchored at Harringtion Inlet, $5.40 \mathrm{p} . \mathrm{m}$.

September 14.-Leit Harrington lulet, 5 a.m. Anchored at Cape Whittle, 8.40 a.m.

September 21.-Left Cape Whittle, 6 a.m. Anchored in Washeecotai River, 12 p.m.

September 22.-Left Wa-heccootai River, 9.30 a.m. Anchored in Kegashca Harbour, $1: 2 \mathrm{pm}$.

Septernber 23.--Left Kegashal Harbou", 6.30 a.m. Anchored at Natashquan, 10.20 itm . Left Natashatin, $11.30 \mathrm{i} . \mathrm{m}$. Anch.red at Natashquan Marbour, 12 p.m. Left Natashquan Marbour, 2.36 , p.in. Anchore in Agwanus River, to p.m. Left Agwanus River. 5 p.m. Anchoreel at Little Nitibispluat, $6.30 \mathrm{p} . \mathrm{m}$.

September 25.-Left Little Nittashqu:n, 1 p.m.
September ©6.-Anchored at Bryon I-tand, 6 a.m. Left Bryon Islamd, 2 a.m. Anchored at Amherst Hailour, Mag lilen Islande, 6.15 p.m.

September 28.-Left Amherst Larbur, Magdalen Islands, 9 p.m.

September 29.-Anchored at Pictou Harbour, 10 a.m. Left Pictou Harbour, 3.30 p.m. Moored at Black Diamond wharf, 4.10 p.m.

September 30.-Left the Black Diamond wharf, 4 p.m. Anchored in Pictou Harbour, 4.40 p.m.

October 2.-Left Pictou Harbour, 3 p.m. Anchored at Cape Tormenti 10 p.m.

October 3.-Left Cape Tormentine, 6 a.m.
October 4.-Anchored at Gaspé Basin, 2.30 a.m. Left Gaspé Basin, 3 p.m. Anchored at Sandy Beach, $5.40 \mathrm{p} . \mathrm{m}$.

October 5.-Left Sandy Beach, 5.40 a.m. Anchored at Baie des Anglais, Anticosti, Island, 3 p.m. Left Baie des Anglais, Anticosti Island, 10 p.m.

October 6.-Anchored at Mingan Point, 3.15 a.m. Left Mingan Point, 9.50 a.m. Anchored at Magpie, 11.30 a.m. Left Magpie, 1.30 p.m. Anchored in Mingan Harbour, 3.40 p.m.

October 9.-Left Mingan Harbour, 8 a.m. Anchored at Esquimaux Point, 10 a.m. Left Esquimaux Point, 1.45 p.m. Anchored in Mingan Harbour, 4 p.m.

October 10.-Left Mingan Harbour, 8 a.m. Anchored at Baie des Anglais, Anticosti, 11.50 a.m.

October 11.-Left Baie des Anglais, 7 a.m. Anchored in Gaspé Basin, 3 p.m.
October 12.--Left Gaspé Basin, 5 p.m. Anchored at Chien Blanc, 7.30 p.m.
October 13.-Left Chien Blanc, 8.50 a.m. Anchored at Cape Cove, 11 a.m. Left Cape Cove, 11.50 a.m. Anchored at Grand River, $1.30 \mathrm{p} . \mathrm{m}$. Left Grand River, 2 p.m. Anchored at Little Pabos, 3.10 p.m.

October 14.-Left Little Pabos, 9 a.m. Anchored at Grand River, 10 a.m. Left Grand River, $11 \mathrm{a} . \mathrm{m}$. Anchored at Cape Port Daniel, 2.20 p . m. Left Cape Port Daniel, $3.10 \mathrm{p} . \mathrm{m}$. Anchored at Bonavienture, $5.30 \mathrm{p} . \mathrm{m}$.

October 15.-Left Bonaventure, 15 p.m. Anchored at Maria, 3 p.m.
October 17.-Teft Maria, 8.30 a.m. Anchored at Carleton, 10 a.m.
October 18.-Left Carleton, 9 a.m. Anchored at Campbellton, $0.30 \mathrm{a} . \mathrm{m}$. Left Campbellton, $3.30 \mathrm{p} . \mathrm{m}$. Anchored at Carleton, $6.30 \mathrm{p} . \mathrm{m}$.

October 19.-Left Carleton, $\pm \mathrm{a} \mathrm{m}$. Moored at Eden's wharf, Gaspé Basin, 5.30 p.m.

October 20.-Left Eden's wharf, Gaspé Basin, 3.30 p.m. Anchored at Cape Rosier, $5.40 \mathrm{p} . \mathrm{m}$. Left Cape Rosier, $7.40 \mathrm{p} . \mathrm{m}$.

October 21.-Anchored at Magdalen River, 2 a.m. Left Magdalen River, 9 a.m. Anchored at Ste. Anne des Monts, 2 p.m. Left Ste. Anne dos Monts, 3 p.m.

Octoler 24.-Anchored at L'Islet, 2 p.m.
October 23.-Left L'Islet, 1 p.m. Anchored off King's wharf, Quebec, $4.30 \mathrm{p} . \mathrm{m}$.

October 24.-Part of the crew discharged.
I have the honor to be, Sir,
Your obedient servant, N. LAVOIE,

Fishery Officer in command of the Fisheries Protection Steamer "Lady Head."

## AIPENDIX No. 4.

Return of Fishing Stations, Number and Value of Fishing Boats and Nets, Number of Men, together with the Yield, Value and-Kinds of Fish, on the South Shore of the River St. Lawrence, from Point Lévis to Cape Chatte, during the Year 1876.

| Names of Places. | Fishing Boats. |  | Kinds of Nets used. |  |  |  |  |  |  | Kinds of Fish. |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Salmon Nets. | on <br> s. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pointe Lévis | $6{ }^{6} 90$ |  |  |  | 6700 |  |  |  |  | 291 |  |  |  |  |  | 282 |  |  |  |
| Beaumont.. | $3{ }^{3} 46$ | 3 | $\ldots$........ |  | 3300 |  |  |  |  | 260 |  | 14500 |  |  | 12 | . 2311 |  |  |  |
| St. Michel | $2{ }_{2} 60$ | 3 | ${ }^{*} 1 \quad 60$ | 20 | 1125 |  |  |  |  | 25 | ..... | 7000 |  | 100 | 1 | . 50 |  |  |  |
| St. Valier. | 240 | 2 | ... |  | 2400. |  |  |  |  | 61 |  | 8000 |  | 2125 | 63 | . 2040 | …. |  |  |
| Berthier. | 220 | 12 | ... |  | $24^{4} 00$ | 10 | 112 |  |  | 430 |  | 4800 |  | 4500 | 26 | 889 |  |  |  |
| St. Thomas | $6{ }^{6} 145$ | 32 | ${ }^{1} 160$ | 20 | 1100 | 10 | 330 | 19 | 187 |  |  | 520 |  | 5659 | 145 | 377 |  |  |  |
| Cap St. Ignace....................................... |  | 11. | ... |  | ........ |  |  | 11. | 214 | .... | ..... | ......... | ....... | 719 | 54 | .. ${ }^{\text {. }} 989$ | $\cdots$ |  |  |
| Isle aux Grues ..................................... | . $\cdot . .$. | 9 | ... | - | .... |  |  | ${ }_{9}^{9}$ | 135 | ...... | ...... | ....... | ..... | 9360 | 5 | ... ...... | 216 |  |  |
| L'Islot ................ | . | 19 | ... | ..... | .... -.... |  |  |  |  | ...... | - |  | - | 5771 | ..... | , | ..... | . |  |
| St. Jean, Port Joli.. ................... .............. | ........ |  | ... ...... | ..... | ... |  |  | 41 | 393 | ..... | ..... |  |  | 10213 |  | -.... | .... |  |  |
| St. Roch ........ ........ ................. | ...... | 29 |  | ..... | . $\cdot \cdots$ |  | 212 | 19 | 216 |  | ..... | 150 | ..... | 7410 |  | ...... 50 | .... | ..... |  |
| Ste. Anne.. | \|...... | 20 | . | ......' | . | 20 | 394 |  |  |  |  | 250 |  | 13944 | 37 | ... 26 |  | ..... |  |
| Rivière Ouelle ......................... ............. | ......... | 35 | ..... .1. |  | . 1 |  | ... | 3 | 65 | . | $\cdots$ | ... | - | 2800 | ..... | ... ...... |  | ..... |  |
| Pointe Rivière Ouelle............................... | .. $\cdot$..... | 25 | ... ...... |  | $\cdot$ |  |  | 31 | 155 | . | $\cdot$ |  | ...... | 32850 | ..... | - |  |  |  |
| Point aux Orignaux..... ........................... | . $\cdot$.... |  | ... ...... | ..... | $\cdot \cdot . .$. |  |  | 11 | 280 |  | ... |  |  | 6050 |  | .. |  |  |  |
| Petite Anse, St. Denis, and Point St. Denis.. | 115 |  | ... .... . | ..... | ...... |  | 150 | 11 | 210 | 100 |  | 4500 | 25 | 7300 | 6 | . 6 |  |  | 20 |
| St. Denis................... | i..... | 11. | ... | ... | ....... |  |  | 11 | 260 |  |  |  |  | 7200 |  |  |  |  |  |
| Ruisseau Clair ....................................... | $1{ }^{1} 20$ | 6. | . | .... | .......... |  |  | 7 | 165 |  | ..... | 10000 | 15 | 9350 | 5 | ... 5 | 40 |  | 25 |
| Islet aux Harengs. ................................. |  | 1. | ... | ... | . |  |  | 1 | 25 |  | ..... | 800 |  | 500 | 1 | ... ..... |  |  |  |
| Kamouraska (including adjacent Islands)..... | $1{ }^{1} 12$ | 18. | ... ...... |  | ... ..... | 1 |  |  | 362 |  |  |  | ..... | 8450 | 2 | 63 ...... |  |  | 12 |
| Islet aux Patins ...................................... | $1{ }^{1} 505$ |  | ... ...... |  | ...... ...... | 1 | 125 |  |  | 20 | ..... | 4000 | 225 |  |  | 2001 |  |  | 600 |
| Pointe Sèche ...... .......................s ..... ...... | $2 \mid 16$ |  | ... |  | \%. 1. | 2 | 125 | 8 | 175 |  |  | 200 | 130 | 1370 | 2 | 60, 2 |  |  | 100 |


*Bar Seines.

## RECAPITULATION.

Value of the different Fisheries from Point Leris to Cape Chatte, in 1876.


## APPENDIX No. 5.

Return of Fishing Stations, Yield, Kinds of Fish, \&ce, on the North side of the Fiver St. Lawrence, from puebec to Bersimis, during the Year 1876.


Return of Fishing Stations, Yield, Kinds of Fish, \&c., on the North side of the River St. Lawrence, from Quebec to Bersimis, during the Year 1876,-Continued.



## RECAPITULATION.

VALUE OF THE DIFTERENT FISHERIES FROM QUEBEC TO BERSIMIS IN 1876.


## APPENDIX No. 6.

er Return of Number and Value of Fishing Boats and Nets, together with the Yield, Value and Kinds of Fish, \&c., in the Districts above Quebec, during the Year 1876.


## RECAPITULATION.

VALUE OF THE DIFFERENT FISHERIES IN THE DISTRICTS ABOVE QUEBEC, IN 1876.


## APPENDIX No. 7 .

General Recapitulation of the yield of the Fisheriss on the North and South Shores of the River and Gulf St. Lawrence, from Quebec to Blanc Sablon, and from Point Lévis to Baie des Chaleurs, and in the Districts above Quebec, during the year 1876.

| Kinds of Fish. | 1875. |  | 1876. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantities. | Value. | Quantities. | Value. |
|  |  | \$ cts. |  | \$ cts. |
| Summer Cod-fishery ................. | 117,935 qutls. | 589,675 00 | 185, 165 qntls . | 925,825 00 |
| Autumn do ................. | 22,779 do | 113,895 00 | 40,931 do | 204,655 00 |
| Herrings, pickled....... .............. | 50,059 brls. | 250,295 00 | 105,454 brls. | 421,810 00 |
| do smoked.. .................... |  |  | 832 boxes. | 20800 |
| do fresh water .................. |  |  | $6 \frac{1}{2}$ brls. | 3250 |
| Mackerel. | 6,493 brls. | 64,930 00 | 4,975 do | 49,750 00 |
| Haddock .. ........ .............. ........ | 126 qutls. | 63000 | 347 qntls. | 1,735 00 |
| Ling ..... ................................. | 33 do | 16500 | 1,149 do | 5,745 00 |
| Halibut......... ....... ........ ........ | 201 brls. | 1,206 00 | 183 brls. | 1,098 00 |
| Salmon, pickled .............. | 1,392 do | 22,272 00 | 2,216 do | 35,456 00 |
| do fresh in ice.......... ........ | 299,873 lbs. | 14,993 65 | 267, 276 d ${ }^{\text {l }}$ lbs. | 13,363 83 |
| do do ................... |  |  | 8,421 pieces. | 8,421 00 |
| do smoked....................... |  |  | 1 box. | 400 |
| do preserved.................... | 105,206 cans. | 26,301 50 | 50,901 cans. | 7,635 15 |
| Lunge, trout.......... ................. | 250 brls. | 6,250 00 |  |  |
| Winnonish... ........ ................... | 9,050 pieces. | 2,262 50 | 3,000 pieces. | 75000 |
| Tuladi.................................. | 150 brls. | 1,200 00 | 163........ |  |
| Trout (Sea).......................... | 259 |  | $163{ }_{2}$ brls. | 1,308 00 |
| do grey... ........................ | 259 brls. | 2,072 00 | .................... | . |
| do speckled........................ | 11,000 lbs. | 1,100 00 |  | . .......... |
| do speckled and grey ............ |  |  | 447, 200 lbs . | 35,566 00 |
| Sturgeon ........ | 279 brls. | 2,23200 | 551.12 brls. | 4,476 00 |
| Bar and Whitefish..................... | 3,735 doz. | 7,470 cı | 10,20才 duz. | 20,418 00 |
| Shad. | 134,992 pieces. | 13,499 20 | 142, 405 pieces. | 14,240 50 |
| Sardines | 1,037 brls. | 5,185 00 | 1,8302 ${ }^{\frac{1}{2} \text { brls. }}$ | 9,152 50 |
| Eels |  |  | 47 do | 47000 |
| do | 266,619 pieces. | 26,661 90 | 291,737 pieces. | 29,173 70 |
| Pike ........... ................ ........... | 200 brls. | 2,000 00 | 400 brls. | 4,00000 |
| Pickerel | 304 do | 3,040 00 | 695 do | 6,950 00 |
| Tom Cod | 20,400 bush. | 10,200 00 | 22,000 bush. | 11,000 00 |
| Small Fish | 2,563 brls. | 64075 | 3,015 brls. | 1,507 50 |
| Other Fish. |  |  | ......... ........ | $500 \cdot 0$ |
| Mixed Fish | 23,407 brls. | 117,035 00 | 19,530 brls. | 97,650 00 |
| Maskinongé....... ..................... | 350 pieces. | 1,700 00 | 617 pieces. | I, 23400 |
| Seals............................ ........ | 24,369 do | 146,214 00 | ................ | 12..........* |
| do skins........ ............... ...... |  |  | 9,915 pieces. | 12,393 75 |
| Porpoises.. <br> do $\qquad$ <br> skins $\qquad$ | 104 pieces. | 1,696 00 | 212 pieces. | 84800 |
| Lobsters, preserved ............ ..... | 86,964 cans. | 21,74100 | 245,335 cans. | 36,800 25 |
| Fish and Clams used as bait and mauure $\qquad$ | 23,881 brls. | 5,970 25 | 74,640 bris. | 32,700 00 |
| Cod Tongues ard Sounds........... | 398 do | 2,786 00 | 177 do | 1,593 00 |
| do Roes.. ............................. | 624 do | 4,992 00 |  |  |
| do Oil.......................... ........ | 113,469 galls. | 56,73450 | 118,271 galls. | 59,135 50 |
| Seal Oil | 98,709 do | 49,35̄4 50 | 55,126 do | 27,563 00 |
| Whale Oil ........ ..................... | 22,781 do | 18,224 80 | 9,618 do | 4,809 00 |
| Porpoise Oil............................ | 2,667 do | 2,133 60 | 9,610 do | 7,684 00 |
| Total.............. .............. | .. ............. | 1,596,758 15 |  | $\begin{array}{lll} 2,097,667 & 18 \\ 1,596,758 & 15 \end{array}$ |
| Increase.......................... | .. | '. |  | 500,909 03 |

## APPENDIX No. 8.

## SYNOPSES OF FISHERY OVERSEERS AND GUARDIANS' REPORTS IN THE PROVINCE OF QUEBEC, FOR THE YEAR 1876.

SOUTH SHORE DIVISION FROM POINT LEVIS TO CAPE CHATTH.
$\left.\begin{array}{l}\text { Clovis Caron, } \\ \text { Hermenegilde Martis, } \\ \text { L. E. Grondin, }\end{array}\right\}$ Oierseers.

The following comparative table exhibits the yrield of the fisheries in this Division.

| -- | 1868. | 1869. | $1870 .$ | $1871 .$ | 1873. | 1873. | 1874. | 1875. | $186$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
| Salmon (pieces)........ | 4,545 32,242 | 5,758 26,987 | 9,574 $16,2+9$ | 4,432 25,035 | 3,374 18,410 | 4,726 18,094 | 3,342 20,583 | 4,171 85,822 | $\begin{array}{r} 5,436 \\ 117,927 \end{array}$ |
| Herrings (brls.) .. ..... | 30,117 | 13,135 | 6,671 | 2,035 2,169 | 7, ${ }^{3,174}$ | 12,545 | 12,903 | $\begin{array}{r} 85,822 \\ 6,311 \end{array}$ | 17,474 |
| Sturgeon do ...... | 350 | 369 | 219 | 242 | , 130 | - 298 | 12, 523 | 263 | 8,362 |
| Sardines (tinnets)..... | 11,703 | 10,262 | 6,688 | 1,443 | 1,658 | 868 | 900 | 930 | 1,642 |
| Cod (quintals).......... | 3,100 160,242 | 4,600 99,500 | 4,900 109,125 | 2, $\begin{array}{r}200 \\ 103 \\ 204\end{array}$ | 300 73,352 | .......... | 3,200 | $\checkmark, 500$ | 4,000 |
| Porpoises................... | 160,242 12 | 99,500 77 | 109,125 208 | 110,204 115 | 73,352 6 | 96,734 | 151,442 | 125,550 | 144,726 |
| Total Value..... $\$$ | 195,770 | 125,992 | 108,830 | 48,251 | 54, 087 | 78,218 | 110,899 | 82,918 | 96,704 |

Overseer Caron reports that orler reigned in his division, which extends from Levis to River Onello. Pesple are obliging and readily comply with all his instructions, and difficulties which were formerly so numerous aro now very scaree.

Fishing was very good for all kinds of fish, especially salmon and shad. Although the number of tishing stations hat somewhat increased during the past two years, the old stands did as well and even better than usual.

The following is a comparative statement of the yield of salmon in Mr. Caron's division for the past there years:

$$
\begin{array}{cccccc}
\text { In } 1874, & 527 \\
1875,335 & \text { salmon, weighing } & \text { ", } 939 \text { lbs; } & \text { average } & \text { veight, } 17 \\
1876,700 & \text { " lbs. } & " & 4,020 & " & " \\
7,000 & " & 12 & 10
\end{array}
$$

Although the avorage weight is somowhat inferior this soason to that of provious years, the large increase in the number of fish gives hopes of good prospects for the future. It may be added that salmon wore caught in stroams where none had been seen for years past, especially in the River du Sud, at St. Pierre, and at St. Thomas.

Shal were very abundant, 50,571 fish boing taken this season.

Bass or bar-fish fishery was satisfactory, and promises still better results for the future, with judicious protection. A special report made by this officer, and embodying the results of his investigations, as well as those of Dr. Lavoie, on the best nodes of protecting and regulating this fishery will be found at page

There were 3,973 dozen of white fish and Pickerel taken.
Eel fishing yielded more than last year. The following is a comparative statement of the catch for the past three years:
In 1874.
No. of eels.
58,641
1875............................... do ................................... 62,133
1876.................................. do
64,436

Smelts, tommy cod, and other kinds of small fish are increasing rapilly. The fiy of shad, white-fish and bar-fish were more numerous this scison than ever.

The rivers and lakes are reported as full of fish, owing to the timely and efficient regulations passed by the Department.

Overseer Martin, whose division extends from River Oüelle to Rimonski, reports the increase of fish in his division as very small ; with the exception of sardines, herring and, shad, which appear to increase steadily and promise good fishing for the future.

Mr. Martin confiscated thirty salmon illegally caught in Rimouski River during last fall. This suit is still pending.

Overseer Grondin's supervision extends from Rimouski to Matane. He reports the yield of fisherios in his division as superior to that of last year. Salmon were abundant, and although the fishing did not last long, the yield was better than that of previous years. This overseer seized during the season one flat boat and a net for having fished illegally in Matane River, this stream being under lease. The following parties were also prosecuted by him and convicted:

| Oliver Harrison, fined | $\$ 5$ for fishing trout illegally in Matane River. |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| François Truchon, | " | " | " |  |
| George Sansterre, | $"$ | $"$ | $"$ | $"$ |
| Laurent Fiola | $"$ | $"$ | $"$ | $"$ |
| David Fiola, | $"$ | $"$ | $"$ | $"$ |

The three first culprits paid the fines and costs; the two latter were sent to Rimouski jail for one month.

During the fall of the same year Mr. Grondin was asain compelled to proceed against the following people, who persisted against his warning to fish for trout in Matane River during the month of December: Isaac Forbes, Alfred Forbes, and Nazaire Gagnon. They were all condemned, upon almission of guilt, to pay $\$ 20$ tine or one month in jail. They choosed the latter.

The following is the seore of salmon angling in Rimouski River for the past eieven years:-

| 186.5 | 8 | salmon. |
| :---: | :---: | :---: |
| 1866. | 32 | do |
| 1867 | 36 | do |
| 1868. | 48 | do |
| 1869. | 57 | do |
| 1870. | 18 | do |
| 1871. | 68 | do |
| 1872. | 47 | do |
| 1873. | 43 | do |
| 1774. | 73 | do |
| 1875. | 27 | do |
| 1876. | 35 | do |

There were also caught with the dy in Metis River: :-
1870

19 salmon.
1871
30 do
1872
52 do
1873................................................................. . . 57 do
1874............................................................... . . . . 146 do
1875............................................................... 36 do
1876....................................................................... 19 do
And in Matane River:-
1874............................................................. 49 salmon.
1875.
62 do


TEMISCOUATA DIVISION.
George Gaininn, Guutian.
The yield of the fisheries in this county is reported as follows:-
Number of lbs. speckled trout. 7,000
do. of doz. whitefish 3,360
Fish have increased in Lake Temisconata, which fact is attributed to an improvement in the mode of setting nets and to better complitnee with the fishery laws.

Lakes Grande Fonrche and St. Hubert show a derrease, owing to excessive fishing.

This division is very large: some of the lakes are dist:int and inaccessible to the guardian, and, consequently, offer sreat inclurements to poachers. The fish caught in this division are mostly ased for local consumption, with the exception of a few barrels which are sent to New Brunswick and Quebec.

## CAPE CHATTE DIVISION.

## Jobeph I. Lécurixead, oeerser.

Statement showing the yield of fisheries in thia division.


## ('th Fishery.

Cod fishing was rery short during the past seasen in thiv division; no fishing of any atcount taking place before the end of laly, and the same being over by the berinning of October. This fishery may, indeed, be sain to have basted only one month. It wats, neverthelors, the best cateh experienced since 1871. The yield was double that of last roar, notwithstanding the scarcity of bait; herring having aboolutely failed. Clams had to be used, and, in order to procme these, fishermen had to repair to the north shore, at Caille Rouge Pointe, Pointe aux Anglais, du. These trips nocessitated a sreat deal of time; and hat it been possible to procure bait on the whth shore, the yied of cod fishery might have been one third larger. Later in the amson, when smali trout were numerons in Ste. Ame des Bonts and Cape Chatto Rivers, they were taken in large quantities will berring peta and used as bait; somo ti hermen catching as much as twelve quintals of cod in a day. Green
 high prices; befoce this, it ald for $\$ 2$ per draft. Dry colfish solt for 85.20 to $\$ 5.60$ per quintal.

It mast be remark: I that the fishing boats mentioned in the statistice of this division are owned by firmers; wo that conl fishing hats only secoulary importance for most of those who carry it on.

Traders here supply the fishermen with a fishinir boat and one or two nets, on condition that they shaill have the preference in purehasing their fish, and paying the highest price. The hoats cost $\$ 50$ each, and the nets $\$ 30$, and several of the latter being lost or destoyed ath seasoil, such a system cannot lat long, unless fish continues rery abundant and prices keep high. Great preparations are being made this fall, in view of next year's operations; trialers are buidding loats and cook-rooms for the fishermen.

## Salmon Fishery.

Salmon net-fishing was a faliure in this division ; the water being higher than ever in the rivers and kecping so until the end of Jom. When it hit sifficiently fallen to allow of nets being set, salmon had nearly all sone up. This is the reason why most of the fishermen did not sot. Although the gentlemen who anmel in Ste. Anne des Monts Piver were less nnmorous and fishel during a bhorter time than last year, they took a murh larger number of tish.

The number of zel m m cauglt with the fly in this river since 1871 is as follows:-

| Year. | No of Salmon. | Average weigit. |
| :---: | :---: | :---: |
| 1571 | 4 |  |
| 1593 | 13 |  |
| 1873 | 87 | 171 |
| 1874 | 140 | 1912 |
| 1875 | 69 | 21 |
| 1876 | , 116 | 191 |

This ovescer ascouled Ste. Anne dos Monts River, obow the hack range of monntains :s a point nuned the Grante Foise fifty four mile fron thas sa, and noticed that salmon wore ill much larger numbers atose the dhick-Chacks thim in previons years, although they were fewor below; which is explained by tho fact that salmon asceaded early lating spring freshets. He alse went up Capo Chatio River, a wond distance behind the Chiek-Chacks, and found no salmon in the lower part of that i! ream.

No violations of the fishery laws occurred this season; the'severo punishments inflicted last year evidently had a good effect.

## Trout Fishery.

Net-fishing for tront was a failure, for the same reasony as salmon fishing. Large numbery were, however caught with hook and line an:l in herring nets in Sto. - Anne and Cape Chatte rivers, to be used as bat in col-fishing. This was a great boon to poor fishermen, who were thus enabled to procure the means of catching cod for their winter use, which wonld have otherwise been impossible.

> Howing Fishery.

This fishery amounted to almost nothing for the past two jeari Some were, however, caught this season cluring the spring.

## Capelin used as manure.

Tois fish appeared much earlier, in greater abunilance, and left later than usual. It was a real god-send for fishermen and farmers, who were thus enabled to cultivate grain, hay, and other crops, which would otherwise bave failed, besides losing several hundred bushels of potatoes which they could not have planted.

## MAridALEN RIVER DIVISION.

Magloire Liurendfau, Guardian-


Salmon fishins was, on an average, alnut the same as last year, although the fish appeared to be more numerous in Moritalen River than in former seawns. The reason is that salmon stitions are all located near tho mouth of that stream, and the water kopt so high and the currents were so strong, that they prevonted fish from being caught in the nets. Fly fishing in Macklalen River yielded eight salmon weighing 152 lbs., the result of two days' angling. Cod tishing was good, but might havo been better, hal not bait fililed. Capelin was abundant for about fiftcen diys only, and squid during two days in July. Mackerel was abundant, but owing to the waint of seines, none were caught.

GASPE, MALBALE AND PABOS DIVISIONS.

## Piflif Vibert, Junr., Oveiserr.

Comparative statement of the yicld of fisheries in this division.

|  | 1873. | 1874. | 1875. | 1876. |
| :---: | :---: | :---: | :---: | :---: |
| Cod fishery-quintals...................................... | 53,04] | 46,623 | 61,631 | 60,993 |
| Herring fishery-barrels.................................. | 2,529 | 1,527 | $55 \%$ | 10,378 |
| Mackerel do do .................................. | 563 | 170 | .................. | 2 |
| Salmon (pickIcd) do .................................. | 361 | 99 | 49 | 96 |
| do (fresh, in ice) lbs.......................... ........ | ............ | 118,304 | 76,717 | 72,554 |
| Whale Oil-gallons ......................................... | ....... | 16,300 | 20, 2,$0 ;$ | 9,368 |
| Cod Oil-gallons ................. | 36,960 | 29,398 | 44,034 | 39,987 |
| Seal Oil-gallons ...... ...................................... | 11,692 | ........... | ......... ..... | ......... |

Mr. Vibert reports as follows :-

## Salmon Fishery.

Owing to the ice remanins so late in the rivers and Bay of Gaspe, fishermen were unable to set their nets until the first days in June, whilst in the South-West and North-Went rivers, salmon fishing began only by the end of that month. Three hundred and nincty-one barels of salmon were cansht fiom Gilnipe to Newport arainst 360 in 1875, showing an increase of 31 barrels; but deducting the catch in the Pabos Division, there is a decrease, from craspe to Perce, of 2.0 barrels for that extent of coast. This may in some measure be acconnted for by the above-mentioned fact, that nets conld be set only very late, and conse punty a large number of fish ascended the rivers before they were in operation. A larger quantity of salmon were caught at Grand River and Pabos than last rear, and reand Pabos fishermen were of opinion that the catch would have been still better, hal not freshets and drift timber injured their nets.

## Cod Fishery.

The statistics show that this fishery yielded only alout half the quantity of last year; the average summer catch being 40 quintah. Cod did notstrike until late in June. Herring were scarce and seining boats had frequently to be sent to Sandy Beach for bait. Cape Cove and Barachois' fishing boats did well suring the fall fishery but, taken as a whole, this fishing proved indifferent, wowin montly to rough weather and a scarcity of bait. Cod seems to have been abundint on the fishing grounds, but strong winds and stormy weather prevented fisheimon form staying outside. Twenty-six vessels cleared at this port with carguos of ood for foreign markets, and ten from the Port of Porcé.

## Mackerel Fishery.

From all accounts there appears to hare been a large quantity of mackerel in Craspe Bay about the end of luly and the beginning of August; but owing to the great heat, they wonld not bite. Very few were canght and the fish soon disappeared. Some fishermen claim that the stemern passing along the Gaspe Bay shores flighten the mackerel.

## Herring Fishery.

A lares quatity of these fish were caught for bait in cod fishing; but a few barrels only were cured for home consumption.

## Whate rishtry.

Thice showners prosecutel thin ti*hery, and c:iptured 19 whales representing 8.368 gillons of oil.

## Salmon Angling.

## St. John's River.

His Exellency the Governor Genexal and party killed 49 salmon in this river ; meishing 830 H s. The local tishery wardian reports the catch of other anglers at 37 finh. The water kept very high early in the season. Aceording to the guardian's reports, a large number of fish went up the river.

## York River.

Angling here is reported to have been wool. The local fi-hery guardian states that numbers of salmon-pawned in the upper part of the river, at a great distance from his camp.

## Dirtmoute Piver.

 salmon woighing $14.4 \mathrm{lt}_{3} \mathrm{a}$ and 6 gribe. Nineten tish averaged 23 tha; the total average bems 18 -他h. Other ansers killed six salmon. The local gruardian reporte a lage numher of tish as havitu gone over the falls. and fly tishing would undonberly havo been beter, had it mot been for the intense heat at the beginning of $\mathbf{A}$ agune.

## Mlilbaie River.

Salmon entor this strean only late in the seamon. A net was set at its mouth for the jurpore of secoming parent salmon for the (raspe Fish-Breeding Establishment. A large number of young salmon were seen in the River by the local grardian.

## Giand River.

The lewie of Grand River killod 85 fish; other anglers killed 70 more-making 1.5. salmon taken with the $4 y$. This strean is evidently improving, owing to several $y$ ears of eflicient guardianship, and the destruction of kingtishers by the guardian.

## Littlef Pados River.

The local guardian states that there were from 80 to $\mathbf{1 0 0}$ salmon at the falls during the month of August. A strict guard was kept at the estuary during June and July, to prevent inhabitants from spearing salmon. Four partie were prosecuted and fined by Dr. Lavoie for fishing with flambeanx in this river.

## Grand Pabos River.

This stream is getting re-stocked. Quite a number of salmon entered it this season. The Overseer noticed a large number of young salmon in the North Branch; he also visited the pool on the West River, about three miles above the old mill-dam, and found 15 tish there. The North Branch should be a good angling strean. It has been well protected for the past two years, as the guardian resides at its mouth, and moves up and down the river during the whole of the season. Two infractions of the fishery laws occurred at Malbaie and Anse-i-Beaufils, and the following parties were prosecuted and fined-to wit: Matthew Boyle, \$1, and Joseph Conture, $\$ 1.50$.

## Malbaie Rijer.

The Overseer adrises the employment of a guardian for the estuary of this stream from the 15th July to the end of October, in order to effiectually stop the use of flambeaux and the catching of salmon by cod fishermen, when seining for bait. This guarlian should be stationed at the mouth of the river day and night. A reliable man could undoubtedly be had at reasonable wages, and he might be allowed to pursue cod fishing when no seining is carried on in the cstuary. It is also very desirable that no nets should be set outside this river after the 15th of July, so that the fish remaining in the tiderray and moving in and out the estuary may find nor obstacles in ascending it.

## PORT DANIEL DIVISION.

John Phelan, Overseer.

Comparative Statement of the yield of the Fisheries in this Division:-

|  | 1868. | 1869. | 1870. | 1871. | 1872. | 1873. | 1874. | 1875. | 1876. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cod fish........ | 8,145 | 6,967 | 6,175 | 8,970 | 7,590 | 6,175 | 4,465 | 5,245 | 7,046 |
| Salmon................. | 57 | 79 | 120 | 108 | 110 | 148 | 110 | 88 | 68 |
| Herring.................. | 515 | 370 | 695 | 1,231 | 830 | 280 | 710 | 1,020 | 1,755 |

Salmon fishing shows a slight falling off from last year's, owing partly, if not wholly, to the protracted presence of ice in the Bay of Port Daniel. The shores of Bay des Chaleurs were completely blocked by ice until the 26th May. Salinon fishing usually begins in this division on the 1st of June. The first net was set this year by Mr. Jamen Miller, on the 8th of June, at a risk of having it carried away by tloating ice. Whilst setting, he caught on that very day forty salmon, whieh shows that these fish were in great abundance before the nets were put ont.

Spring being unusually late, the necessity of ploughing, \&c., prevented due attention to 'ishing, so that walmon nets were not all set until the 18th or 20 th of June. The best fishing time being generally in June, it is casily understood how the falling of in the catch was not due to a rarcity of fish, but to a delay in fishing operations cansed by theice. The same cause influenced spring herring fishing. The fish were abundant, but the weasm was nearly over hefore nets could be set with safety. Abont fifty barrels were taken at Nonvelle and Chesomate. Codfishing began about the 15th June, and wrats successtully prosecuted, particularly at Nourelle and Port Daniel. The catch was above an average. No mackerel were seen this season.

Smut is montly used its bait for codfish in this division, and in the interest of fishermen themselves, it hould only be userl for that purpose, as it frequently happens that this is the only kind of bait to be had in the fall, and the success of codtishing depends entirely on the supply: Colthinhing, in some localities along this coast exlibits a falling oft when compared with the catch of fortyor fifty years ago ; but this may be accounted for hy the greater dissemination of entablishments in operation now than at that time. On tho whole, the catch alpears to be fully equal to that of former yours. Quebee hat hitherto been the chief market fire the sale of the fish of this division; but extensive preprations are beins made for the canning of salmon and lohsters at Port Danicl next season, which will give a more convenient market to our fi-hermen. Tront were plentiful. There was no mackerel tishing carried on in the Bay. Two or threc American ressels came to Port Daniei in search of herring for bait. They bought alout thiry barrels from the residents and caught besides about forty or fifty larrcls mote. No violations of the law came under this Overseer's notice during last season.

## Cascapedia and marli divisions.

## R. W. ङ户Н. Dimock, Ocerseer. <br> Complative Statement of the yield of the Fisheries in thin Division :-



Salmon came in abondance about the 8th Junc, but owing to high fresheis and drift wood, nets could not be set lefore the 10 th. The first stand was set by one Francis Giroux, who caught twenty salmon whilo setting his nets. The fish were abundant during a whe le weok, aul then rradually disappeared. The ateh this season far exceds that of last year, atid would have been still better, had fishermen

it was certainly beneficial to the rivers by allowing the first run of fish to ascend without obstruction; no nets being set in the estuaries before the 19th June. The guardians of the rivers report them as well stocked with breeding fish, expecially the Grand Cascapedia. The angling was uncommonly good in the streatus of this division; the number of fish killed exceeding that of last year in earh river. The following is the seore of angling during the past six yeirs:-


Tront were as numerous as ever; mackerel were scarce; but sprine herring fishing was good, far excecding that of last year, and would have been still better, had not the nets been carried away by clrit't ice. Fall herring fishery was a failure. Cod did not strike no abundantly as usual, although the fall was betier than spring fishery. The catch of lobsters in Carleton was rather a failure, their seareity being chiefly attributed to the continuance of freshets in the rivers. In Maria the catch was good during the spring, but gradually fell off after tho chine seanon. The people attribute this falling off to the storm of the 15 th and 10 th October. The Overseer is, however, of opinion that neither of the above reasoms are correct, and he attributes the decrease to over-fishing in previous years, and advocates a stringent and extended close season. The following fines were imposed for violations of the law in this divisio ?: 一

> T. N. Verge, fined $\$ 2.00-$ violation of the "Sunday clanse." Levi Leblanc, do 1.00 -killing trout during close season.
> Wm. Lebr'un, do $3.00-\quad$ do

# MATAPEDIA AND RESTIGOUCHE DIVISIONS. 

## John Mowat, Overseer.

The yicld of walmon tishong in these divisions was not, as a whole, as successful as was anticipated. Salmon, owing to ice in Bay des Chaleurs and a backward spring, did not appear in the entan'y until the 1th June, and the rivers were then so high that many fishermen found it impossible to set their nets, esperially thwe occupying the fifteen stations above Athol House. The fisl ran up in immense schools for six days, as if the first and second runs had arrived together, and fom subrenturnt falliug off, the Overseer is convinced that such was the case. The water in the river keeping unusually high until the 1st July, and another freshet taking place on the 4th and 5 th, this large run of fish neither stopped in the pools nor in the river as usual, apparently keeping on their way to the upper waters. This fact js aroborated by the local guardian of Kelgwick River, who informed the Oversecr that, from the 30th June until the 10th July, salmon passed the mouth of this river in srhools. The fish were also noticed in hundreds on the lower portion of the lestigoteche. The upper division of the Restigouche did not yie.d its $u$ anal gata ol salmon, bat the
increase in price compensated for the deficiency; salmon selling at six contan pound when three eents was the highert price that could be obtained daring the last two years. The catch on the New Brunswick shore, from Dalhousie to Bathurst, was considered grod, ainl was undoubtedly treble that of six or tight years ago. It must be borne in mind that all the salmon above Nipissiguit River, on the New Brunswick side, and Caicaluedia on the Quebee side, are Restigourthe River finth; a faet acknowledged by fisticmen themselves. The average weight is also increasing-a full twenty pounds are rave, both in net and rod fishing bemg last season's result, which is three pounds over the average of former years. No trouble occurred 'amongst fishermen of this Division, - no encroaching upon other's limits,- no attempt to fish without license, and no refusal to pay the license tee. Weekly close-time was rigorou-ly enforced, tishermen in some stations watching their nets Saturdays and Sundays. Thir, although a hardship, became necessaly, in consequence of Indians, and white meualw, it is presumed, lowering the nets: after fishermen had left, for the purpowe of appropriating whatever fish might be taken beiore daylight. In doing this, they placed a licensee in danger of losing both bis nets and his station. Several exciti $g$ chaves took place in the tideway, fortunately without result, on this rery account. Fishermen were exasperated, and as the law does not punish heavily the cuiprits, they might have taken summary vengeance on them.

Four of the upper stations at the head of tide were allowed to drop their nets at 2 or 3 o'clock a.m., on Monday mornings. when it was high water at or near 6 o'clock a.m., as these station fish only with high tide, and this only occurs there once in evely 24 hours: the second tide is only known as half-tide.

The following tigures give the gross catch of salmon in this Division :Pounds.

| 27 Licensel Stations, New Brunswic Fertisuouche County. ............. | 67,500 |
| :---: | :---: |
| 5 Licunsed Stations, Quebee side | 43,200 |
| Seltlers mil river, 60 barrels, equal | 18,000 |
| Anglers, 500 salmon and grilse. | 10,000 |

138.70

Add, as Restigouche salmon, the yield of 54 unlicensed -tations, lower divivion, Restigouche County--Returns, 1:35,000; corrected figures

150,000
288,700
Ardd finh from Queber side, between Magnasba and Maria,
liought over for exportation by rail...................... $\quad 75,000$
363,700
Shoubl we add to this the weight of packages and ice, we find a gross weight of 264 lons carried le the Intercolonial Railway. Settlers ou the river suffered from the same caluse which affected net tishermen. Three nets were seized for illegal fishing; one by Mr. Fleming, guardian on the Main River, and two below Metapedia by the loced enardians.

Nu decreave is noticeable in the quantity of trout, and as a run of fine tish occurred in Uctoler, the Overscer uned discretionary power in allowing nettlers and Indians to catch them with hook and lines during the close-season. So fiu, no export of that tish has yet aken place, and it is donbtful whether it will be possible to open any considerabie trade in that direction, it being difficult to procure a sufficient quantity of tiwh. Their well known rapacity and destructive qualities on tho salmou ova was the reason for keeping their number down.

The loual ti-hery guardian on the Nouvelle River has forwarded to the Overscer three smelts taken in that stream. Mr. Mowat has no doubt that they are the fry phated in 1875, and says he hopes for grilse fiom it next year.

The guardian on the main Restigouche had no visitors this season. The example made of the parties who were caught last year and sent to gaol had a good effect; the .upper waters, however, should never be left without protection.

The Bay des Chaleurs' fishermen will seldom, if ever, experience a recurrence of the depression heretofore existing in disposing of their fish for want of a market. Freezers, ice-houses, and boiling-honses are being put up at nearly every station on the railway line, and, should proper care be exercisel in protectiug this warce of wealth, those engaged in it will soon reap a rich reward for their labour.

The fluvial division of the Restigouche and tributaries was visited by a much greater number of anglers than on any previous year, but owing to the great body of salmon ascending the river between the 15th and 22nd of June, the most favourable time for angling elapsed before their arrival. From the first to the middle of July the water was above good angling stage, and after this, hot and dry weather following, made the fish so sluggish that they would not rise to the fly.

Mr. Fleming gave permission to many friends to angle on his divisisn on payment of a small fee of $\$ 5$ per rod, and a voluntary contribution of three cents per pound for the benefit of an Indian Fund to be expended in flour for the coming winter.

Guardians Dunville and Campbell report that the upper waters are teeming with salmon and grilse. They both say that the fish are twice as numerous as they ever saw them. The Kedgwick and the Main River above the Kedgwick are reported as being well stocked with salmon.

The Upsalquitch was but little fished, only one person laving permission. This river is also reported as having an extra stock of fish.

The Matapedia, notwithstanding the height of its waters, gave good satisfaction, principally so at Causapscal, the lessee's headquarters.

The Government pool was never racant, and gare good sport. Forty-one angling permits were granted by Mr. Mowat for this pool. One hundred and tifty-nine salmon and ninety-five grilse were killed under these permits, weighing 3,086 lbs. The fees paid for these permits amounted to $\$ 114.20$.

The score of angling is as follows:-
1875.

Salmon. Average Weight. Salmon. Average Weightw

| In Metapedia | River |  | 73 |  | lbs. | 73 | 221 lbs . |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Upsalquitch | do |  | 9 | 15 |  | 22 | $\because 0 \frac{1}{2}{ }^{\prime}$ |
| Restigouche, | Middle | Division. | $2: 1$ | 172 | " | 208 | 192 ${ }^{\frac{1}{2}}$ " |
| do | Upper | do .. | St | 19 | " | is | -0 " |
| do | Lower | do | 96 | 18 | " | -109 | 19 " |

QUEBEC AND MONTMORENCY DIVISIONS.
L. P. Ниот, Ovbrseer.
D. Rosa, Guardian.

The following is a comparative statement of the Fisheries in the Montmorency Division:-

|  | 1870. | 1871. | 1872. | 1873. | 1874. | 1875. | 1876. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. of Salmon | 96 | 91 | 82 | 150 | 114 | 60 | 53 |
| do Shad .... ............ ....... | 1,057 | 1,100 | 1,550 | 1,600 | 2,250 | 1,850 | 2,450 |
| do Eels .......................... | 19,059 | 14,728 | 51,932 | 9,202 | 11,856 | 5,317 | 8,628 |
| do Sturgeon .................... | 1,314 | 1,882 | 1,901 doz. | 83 brls. | $32{ }^{2}$ | 12 | 18 |
| do doz. Bar and Whitefish.. | 1,902 | 2,126 | 2,074 | 447 | 712 | 294 | 338 |
| de brls. Small Fish............ | 271 | 759 | 412 | 66 | 92 | 40 | 51 |

These figures show a fair increase orer last year's catch, although fishing is still: below the average of past years, with the exception, however, of last year. It is to be expected that continued protection will bring these waters back to their old standardThe local Fishery Overseer reports a general increase of fish in the rivers and lakes of his division. The Guardian, Mr. Rosa, confiscated a large quantity of trout illegally caught during close-season and offered for sale on the Quebec markets.

## MURRAY BAY DIVISION.

## J. E. Demedles, Overseer.



The Overseer in charge of this division is inefficient and pays no attention whatever to his duties. He has sent no report nor statistics of the yield of fisheries in his division, and the Department was compelled to use last year's figures in order not tobreak the continued series of comparative statements.

Antoine Filion, Etienne Tremblay and Joseph Simard were appointed during the past season as guardians for the lakes in rear of Murray Bay and Baie St. Paul. Mr. Antoine Filion states that fishing for trout in the lakes and rivers of his district was a failure, owing to indiscriminate and illegal fishing carried on in previous years, and especially in 1874 and 1875, when large hauls were made during the breeding season.
Mr. Etienne Tremblay kept a good watch and seized some trout

Mr. Etienne Tremblay kept a good watch and seized some trout caught during the close-season.

Mr. Simard reports that he gave the greatest attention to the protection of fish in his division, and prevented illegal fishing. He succeeded in confiscating three nets. which their owners abandoned when they saw him coming. It is calculated that about 127 barrels of trout were caught in his division, divided as follows : 25 barrels in Little Lake Nairne, 49 in Big Lake Nairne 25 in Lake St. Hilarion, and 12 in Lake a Jerôme.

## LAKE ST. JOHN DIVISION.

Job Bilodead, Guardian.
Comparative statement of the yield of the Fisheries in this Division :-

|  | 1874. | 1855. | 1876. |
| :---: | :---: | :---: | :---: |
| No. of Winnonis | 7,500 | 9,1050 | 3,900 |
| do doz. of Whitefish | 1,162 | $\pm 40$ | 350 |

The immense height of the water in lake si. John this season was the chief canse of the falling oft in the yield of winnomish and whitefish.

## SAgULENAY DIVISION.

Ferdinanj salllant, Oierseer.
Joserin Boilu, Guardian.
Yield of salmon net fishing for the past six years:-

| In 1870 | 3,275 | salmon. |
| :---: | :---: | :---: |
| 1871 | 3,462 | do |
| $1 \times 72$ | 3,312 | do |
| 1873 | 2,481 | do |
| 1874 | 2.48 | do |
| 1875 | 481 | do |
| 1876 | 2,830 | do |

## River Bersimis.

This ricer is utterly ruined by the indiscriminate use of nigogues, nets, seines, sce., practiced by the Indians of the Post. A saw-mill being now built on this stream, and a steamer employed day and night in towing rafts and barges, it is anticipated that this will cause the disappearance of the last fish. Three trout nets, owned by one Xavier Pinault, were contiscated for being fished without license.

## Laval Bay.

The yield at this station was an average one. The river was nevertheless well stocked with salmon. Two reliable guardians spent the whole season on that stream, and the Overseer feels sure it was not frequented by poachers. Augling for trout and salmon was good.

## Portneuf River.

This river, it is fairly expected, will be re-stocked in a few years, there being a sufficient quantity of salmon and trout in it to ensure a steady reproduction. A trustworthy guardian was there all summer.

## Islets Penceés.

Salmon was abundant in this part of the Saguenay Division, from Bersimis to Escoumains; the difficulty, however, was, that nets could not be kept set during the better part of June, thousands of logs being carried up and down by the tide and winds, among the nets. These logs, which had escaped from Bersimis and Sault au $5-d 12 \frac{1}{2}$

Cochon Rivers, covered the St. Lawrence, especially along shore. In Sault au Cochon Rivor alone, 40,000 loge and a large number of fallen trees, with thei branches on, broke from the boom on the 5th June, being carried from one bay to another, dragging everything on their way. It was therefore necessary to take up the nets, and during that time salmon passed. Sasuenay River was also covered with lumber of all kinds during the whole month of June. Had it not been for this trouble, the fisheries of this division would have been very productive. As they are, fishermen declare themscluos satistied.

Eicomalns River.
-No salmon were noticed in this river at the foot of the dam. The fishway is in gond repair, and, the mill being now stopped, it would be a farorable time to restock that stream with salmon fry.

## Sabilenay River.

There is only one net set in this river, and it is set by the Deparlment to supply the Tiulousac Fish-breeding Establishment with parent tish. One hundred salmon were caught in it last season, and the whole of them taken alive to the breeding establishment, a distance of nine miles.

## Ste. Marguerite River.

The local guardians on this stream report that they ind a falling off in the number of salmon in this stream; but two men who were sent on purpose by the Department, state that they saw a large number of fish. The Overseer, however, serms to share the opinion; he that salmon ascended early in Jume, and the rivers being then very high and llocked up with lumber, the greatest portion of the tish may have found it imposible to enter the Lt. Marguerite and passed higher
up; with opinion is incleal supporter by the tac: Hat the se up; which opinion is indend supported by the fact that the stroams above are well stocked with fi. $\mathrm{l}_{1}$.

> Anae St. Jean Piver.

This river is well stocked with large and small salmon, and is admirably adapled for angling. Salmon ancended to the Irecelins grounds in great numbers About 30,000 fry were placed there during 1875, and 1876 , which will materially aid the restocking of that stream. The Overseer had to proced atrainst several parties for fiohing illegally in this river last seasom. One of these suits is directed against a gang of ten men, the leaders of whom hall a net to bar the chamnel, no as to be enabled afterwails to kill the fish at leisure. These suits are not completed yet.

## Eternity River.

About four hundred salmon ascended this river to the breeding grounds, which is far a larger number than were ever noticed, Some poachers killed seven or eight of them, and are now iodged in Chicoutimi Jail. Two other parties were prosecuted, but the Overseer had to postpone their cases until he cou!d secure reliable evidence.

## Discente des Femmes River.

Ahout fifteen to twenty sulmonjwent up this strean to spawn. The river is woll guarded.

## - <br> Anse a la Croix River.

This river might easily be restocked. A retaining dam three or four feet high might be built at the mouth ; cost not to exceed fifty dollars. Then by pacing from 500 to 1,000 fry in it this year and as many next se wson, the result would soon be apparent. There are numerous pools and fine breeding grounds, and the fish might ascend to ten or twelve miles without obstacles.

## Grand Bay.

This river is not considered a salmon river; it might, however, be easily improved. About eighteen or twenty salmon were noticed in it this season; thirty fish at least could find good breeding grounds therein. There is a defect at the foot of the fishway which might be repaired at a cost of $\$ 8$ or $\$ 10$. The Overseer had about 100 small salmon caught with napkins and sheets below the dam and placed in this river above. Not one died during the transfer. He also placed therein, with equal success, 72 fine trout caught with hook and line.

## RIVER A MARS,

This stream is well stocked with breeding fish and fry, The spawning grounds were crowded with salmon this fall. This river may be reckoned as one of the best salmon streams in the Saguenay division. No violation of the law came under the Overseer`s notice.

## RIVER AUX CARIBOUX.

e This river, which is distant about two miles from Chicoutimi, secures a sufficient number of breeding fish to ensure natural reproduction; but it must be well guarded.

The following is the score of angling in the Saguenay Rivers for the past four years.


## BROSH ${ }_{\text {did }}$ FISHERIES.

Brush or fascines fisheries yielded sufficiently, both in salmon and small fish. The Tadousac fishery is considered a great boon to the inhabitants. It supplies thom with a cheap manure for their poor soil and enables them to grow crops which otherwise they could not-do. The principal catch is eapelin. During the fall they also take smelts, tom-cod, herrings and surdines.

Trout tishing was above an average.
Seal and porpoise fishing about three times as good as last year.
To resume, this Overseer adds: "fishing in my division was much better than " that of last season."

The following prosecutions were brought against persons illegally fishing in this division.

| Numes of Defendants. | Fines imposed. | Costs. | Nature and Place of Offence. |
| :---: | :---: | :---: | :---: |
|  | \$ cts.1 | \$ cts. |  |
| Xavier Pineault ............................. |  |  | Three trout nets confiscated for illegal fishing at Petit Lac. |
| Peter Claveau........................ ....... | 500 | 150 | \|Fishing without license. |
| do . ............................ | 500 | 150 | do do do Ste Marguerite |
| Louis Gauthier...................... ....... | 100 | 345 | \|Fishing illegally in Ste. Marguerite River. |
| Napoléon Gauthier. |  | 345 | Still untried. |
| Joseph Gravelle............ ................. | 100 | 345 | do |
| Augustin Gravelle.......... ................ | ......... | $3 \pm 5$ | do |

## GODBOUT DIVISION.

Geohge L. Duguay, Guardian.

This guarlian visited Mistassini and Becscie Rivers four times, and he reports them well stocked with salmon. The same number of salmon entered Godbout River as last year.

The following is the number of salmon canght with the fly in that stream for the past seven years:-

$$
\begin{aligned}
& \text { In } 1870 \text {....................................................... } 390 \\
& \text { 1871....................................................... } 509 \\
& \text { 1872....... ............................................... } 275 \\
& 1873 \text {......... ............................................ } 130 \\
& 1874 \text {.................. ....... ........................ ... } 273 \\
& 1875 \text {....................................................... } 210 \\
& \text { 1876 ..................... .................................. } 213
\end{aligned}
$$

Herring and mackerel fishing was a failure. About 190 seals were killed at Godbout and Manicouagan.

## PIENTECOS' AND SEVEN ISLANDS DIVISIONS.

F. O. Belanger, Guardiom.

Comparative Statement of the yield of fisheries in this division.

|  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

Seal fishing would have been better than ever this season, as these animals were oxceedingly numerous, had the inhabitants been prepared for the emergency.

Salmon fishing shows an increase of 75 barrels over the eatch of last year. It might have been still better, had not the freshets in rivers prevented an early setting of nets. The fish ascended earlier and in larger numbers than usual, thas promising a good catch for next season.

No complaints were made of illegal fishing, and having carefuliy visited all the stations in his division, the guardian is satistied that the fishery laws were fathfully complied with.

Cod summer-fishing failed, but the fall fishing was far superio: to that of last year. This fishery is not of a great importance to the people of the locality. Spring herring fishing was very good, especially at Caille Rouge; but re idents of the locality 'being poor and having hardly any salt, could take no great adva :t?? of it, several of them are even without any nets. People from the south shore re:t, 1 the benetit of this fishery. Fall fishing amounted to nothing. No mackerel were seen in this division.

The bait most in use in this division is herring and clams, which the fishermen gather off the rocks at low tide in the Bay des Rochers. The latter kind of bait is very much prized for cod-fishing, and very handy, as it can be kept fresh f. m ten to twelve days. Fishermen from the south shore had to come here for clams, the fish usually employed as bait by them having failed on their shores.

## MOISIE DIVISION.

## G. Mathurin, Guardian.

Comparative Statement of the yield of fisheries in this division.

|  | 1869. | 1870. | 1871. | 1872. | 1873. | 1874. | 1875. | 1876. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Codfish ...................Quintals. | 1,830 | 5,131 | 5,151 | 4,030 | 2,250 | 3,783 | 2,414 | 4,064 |
| Salmon, pickled............. Brls. | 823 | 1,104 | 704 | 855 | 146 204,000 | 12 60,200 1, | 29 102,400 | 4,47 105,335 |
| Cod Oil........................Galls. | 1,563 | $\dddot{2,720}$ | 1,985 | 3,580 | 204,000 1,940 | 60,200 1,700 | 102,400 1,500 | 105,335 3,836 |

Salmon fishing was good, though the fishermen lost the best perol of the suson owing to ice and drift wood. Fly tisning showi a slight decrense which is due to the short stay of anglers on the river.

The fallowing is the score of angling in Moisic River for the pust fur years:-


Cod fishing was mostly double the yield of last year at Moisie, St. Margaret River and Pigou.

No foreign fishing vessels were seen on that part of the north shore during the season. Herring fishing amounted to very little.

## MINGAN DIVISION.

Donald B. McGie, Overseer.

Comparative Statement_of the yield of fisheries in this division.

|  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

Nineteen vessels belonging to this division were engaged in seal fishery which was almost a failure, owing the late season when the vessels went out, and to the prevailing easterly winds which curried the seals with the ice to the westward, whilst the vessels had gone to the east. Only 1,328 were taken, being an average of TO per vessel. Net shore-fishing for seal is not extensively carried on and not very profitable, these Indians going around the Islands shooting, frighten the seals from coming into the nets. Only 70 seals were taken by the shore net fishermen, making. Ta total of 1,395 seals for the whole division against 5,002 last year.

Cod finhing with vessels was not as good as last year, but boat fishing was a great deal better. The catch'amounted to 23,160 quintals, against 17,283 taken in 1875. The price paid for col taken by vessels was $\$ 4$, and the boat fish sold for $\$ 5.20$.

Herring fishery was rearly a failure this season, only 1,163 barrels being taken against 6,240 in 1875 . This fishery used to be the most prosperous, and never was kmown to fail for many yares past. The fishermen state that herring struck in as numerous as ever this year, but before they could do anything, a gale of wind sprung up and continued so long that it drore them off, and they did not come back.

Bait was abundant nutil late in September. Launce is the principal bait used here; they were taken in quantiticx at Long Point and Mingan by the whalers from Thunder, Marpio and St. John River. Capelin was also abundant, but fishermon preter launce to bait.

Salmon fishing was poorer than on previous years, although the guardians and fishermen state that they never saw more salmon going up the rivers than during the past season. It appears that the fish kept to the middle of the channel, and so escaped the nets. The high freshets were also a cause of the poor yield, the best part of the fishing scason being over before fishermen could set their nets.

## NATASHQUAN DIVISION.

Gilbert Boulet, Guardian.
Comparative Statement of the yield of fisheries in this division.


The guardian of this division is old and inefficient, and will require to he replaced by a more intelligent and active man ; one who is able to contend with the hardships of travel, bold and strong enough to hold his. own against the determinod poachers who infest it. Illegal fishing was openly carried on at Agwanus and elsewhere, and fish illegally caught were suffered to go free by the local guardian, he not even enquiring for the name of the offenders.

WATSHEESHOO DIVISION.

## P. C. Gobeil, Guardian.

Comparative Statement of the yield of fisheries in this division.

| - | 1872. | 1873. | 1874. | 1775. | 1876. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Codfish........................................Quintals. |  | 380 | 560 | 110 | 865 |
| Salmon...... ........ .................... ...... Barrels. | 29 | 52 | 33 | 25 | 30 |
| Trout................ ......... ................ do |  | 4 | 2 | 2 | 2 |
| Seals .......................................... do |  | 809 | 967 | 519 | 840 |
| Herring ..... ................................. do |  | ...... ....... | 1 | 329 | ........ |

Owing to a late spring, fishermen were compelled to wait until the 8th June to sat their nets, when the first run of salinon had already gone up. In consequence of this fact, salmon fishing was not so productive as it might have been, although it shows a slight increase over the catch of last year. Fishermen of this division engaged in cod fishing have to repair about eighteen miles west of this place. Some of the Betchowan, Watsheeshoo and Piashter Bay residents engaged in this pursuit this season, and made a good catch. Seal hunting and seal fishing were on the whole satisfactory, showing an increase over the catch of last year.

The guardian is confident that the rivers were not poached, and that no illegal fishing took place during the season, but he strongly dweils upon the difficulties experienced in effectually guarding them against the greed of poachers as well as that of licensed fishermen.

## PACACHOO DIVISION.

## J. Legoove, Guardian

Comparative Statement of the yield of fisheries in this division.

| - | 1873. | 1874. | 1875. | 1876. |
| :---: | :---: | :---: | :---: | :---: |
| Codfish..........................................Quintals. | 2,655 | 3,760 | 844 | 1,560 |
| Halibut.... .... ..................... ............. Barrels. | 200 |  |  | 426 |
| Salmon .......................................... do | 180 | 955 | 206 | 485 |
| Trout.................... ..... ...... .... ... do | 8 | 2 | 37 | 35 |
| Number of Seals............................... | 1,144 | 248 | 173 | 310 |
| Cod Oil ................ ............... ....... Gallons. | 1,574 | 2,954 | 590 1,238 | 1,127 |
| Seal Oil | 9,526 | 1,745 | 1,238 | 751 |
| Herring ......................................................... Barrels. | 400 | ................ | 2,301... | 426 |

Fall seal fishing was a failure-icebergs and winds were undoubtedly great obstacles in the way of stationary seal-fishing. but a fact which must also be acknowledged is that the number of seals is rapidly and steadily decreasing. Fishermen will, sooner or later, have to abandon this industry, which at one time was one of the greatest sources of wealth on this part of the coast. Salmon fishing was somewhat above an average, especially in the neighbourhood of the mouths of rivers. The weather was indeed most favourable to this fishery. The prices paid for these fish is, however, so small, that it hardly pays for the trouble, after deducting the expenses of setting. Cod fishing was better than 'ast year. Fish were abundant, and the catch would have been better still had all the boats been supplied with seines. In some iocalities cod wonld not take the hook, and those who had no seines lost their voyages.

Only one contravention to the law came to the guardian's notice; that of a tisherman using fire fathoms of inet more than he was allowed; he was convicted for this offence By so punishing small offences, greater ones are prevented, and the guardian is of opinion that it is owing to this practice he owes the quietness and law-abiding habits of fishermen in his division. Herring fishing was a complete failure, and this will prove a great hardship to many of the inhabitants.

Want of markets and of communication with Quebee, oither to ascertain the prices or to procure the articles needed, are great deprivations to people of that locality and occaaions a state of poverty which they cannot easily control. The nearest merchant now resides at about sixty miles distance. The only purchasers are two traders, who, having no competitors, regulate the prices at which they sell or buy. The residents must submit to these conditions, having no other means to procure the necesiuries af life.

## BONNE ESPERANCE DIVISION.

## W. H. Wifitely, Guardian.

Comparative statement of the yield of fisholies in this division.


Full details of the tisheries of this division aro given at Appendix No. 3 .

## ANTICOSTI DIVISION.



Full details of the yicll of the firheries in this division will be found in Appendix No. 3.

MAgDALEN ISLAND DIVISION.<br>J. J. Fox, Overseer.

Comparative Statement of the yield of fisheries in this division.

|  | 1872. | 1873. | 1874. | 1875. | 1876. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Codfish............................... ... ......Quintals. | 20,032 | 17,048 | 13,840 | 13,035 | 10,957 |
| Herring...................... ................. Barrels. | 2,956 | 4,847 | 12,137 | 49,951 | 77,443 |
| Markerel............................................ | 1,172 | 5,494 | 6,569 | 6,448 | 4,969 |
| Seals ...... ..................................... Number. 1 | 1,713 | 5,590 | 4,555 | 16,447 | 3,529 |
| Cod Dil ............. ......................... Gallons. | 9,306 | 6,050 | 7,395 | 8,527 | 4,630 |
| Seal Oil................ ........................ do | 8,040 | 19,685 | 21,915 | 63,024 | 17,730 |
| Whale Oil...................................... do | 2,162 | ............... | ... ........ | 975 | ............- |
| Lobsters .................... ...... . ............ Lbs. | .... ......... | ................... | ............ | ............. | 124,000 |

The local Fishery Overseer makes the following report:

## Seal Fishing.

Seal hunting on the shore ice began in March. On the 5th of that month, a number of seals were killed off Bryon and on the south side of Amherst Islands. Immense schools of these animals coulal be seen on the drifting ice all around the Islands, but the weather being tine and calm, prevented from coming in shore, and the currents were too dangerous for the hunter's to go out, consequently few seals were killed.

Seal fishing with nets was attended with botter success than last season, although not sufficient to make it a profitable business. Five thousand nine hundred and ninetyfive fathoms of swing nets were set at different stations round the Islands, and $72^{\boldsymbol{a}}$ seals captured, being 525 in excess of last year.

The total production of this fishery is as foldows :-

Total
which is 12,91 less than last year.
Experiments were made to catch seals by means of bultows, s codfish and halibut, and were in some measure sucuessifut.

## Spring Herring Fishing.

Ninety-three vessels were engaged in this fishery, viz. :-
From the United States
" Ports in Dominion27
on.... .................................................... 56
" Magdalen Islands56boats of the residents.

The quantity of fish caught is :----

being an increase of 47,416 brls., over last scason.

Spring Mackerel Fishing.

Netting mackerel in Pleasant Bay began on the 6th June, and closed on the 20th of the same month. Twelve vessels from Nova Scotia were engaged in this fishery, together with the boats and nets of the residents; the result was very unfavourable. From some unknown cause mackerel did not spawn inside the bays as usual. The quantity of fish taken is:--

being 612 brls. less than last season.

## Summer Mackerel Fishing.

The result of this fishery is not as favourable as that of last season. Mackerel were abundant, but would not bite. The quantity of fish taken is 3,858 brls., being 857 brls . less than last year. Mackerel were larger and fatter this season than last.

## Summer Cod Fishing.

This fishery was not good, owing to the scarcity of fish at some stations and the want of bait at others. Boat fishing at Grindstone Island was nearly equal to that of last season, but at other stations the catch was below the average. Nine schooners from the Islands fitted out for the Lubrador and Gulf fisheries, but returned with only $1,240 \mathrm{cwts}$. of cod.

The total yield of this fishery is $9,310 \mathrm{cwts}$, being $2,441 \mathrm{cwts}$. less than last season. The number of British and fortign vessels engaged in the cod fishery in the Fulf and around the Magdalen Islands, was greater this season than many years past. is estimated that over one hundred sulls were fishing with trawls in the Gulf and nity of the Magdalen Islands thie summer, which may possibly have been injurious in-shore boat fishing.

## Fe: Cod Fishing.

- was somewhat better t'an that of last soason. Fish were large and weather kept fine. The eatch would have beon greater had bait rere. The quantity taken is 1,645 ewts., being 480 ewts . over last alibut were caught.


## Eels.

A large quantity of eels were taken, which are used for local cousumption.

## Lobster Fishery.

The Magdalen Island packing Company had two establishments in operation this seavon for the camning of lobsters and other fish; one at Monse Earbour, and the other at Grand Entry Harbour. They have also another at Amherst Harbor ready for next season's work. It House Harbour, this tishery 'oommonced on the lst June, and closed on the l0th August in accordance with the ishery regulation. It reopened on the $14 t h$ september, and closed for the season on the th November. There were 15 boats, 20 men and 800 traps employed fishing lobsters, with 12 men and 20 women in the factory; the number of lobitery taken being 200,000 , and the quantity of fish preserved $100,000 \mathrm{lbs}$. At Grand Entry Harbour, 10 boats, 20 men and 400 traps were employed catching lobsters, with 10 men and 12 women in the factory. This establishmentricommenced working on the 10 th October, and cloved on the 4 th November; the number of lobsters taken being 40,000 , and the quantity preserved $\because 4,000 \mathrm{lbs}$; the greater part of which was exported to European markets via Halifax, N.S.

## Recapitulation.

No. of lobsters taken.


Lbs. of lobsters preserved.
100,000
24,000
124,000

## ST. FRANCIS DIVISION.

W. C. Yıllis, Overseer.
$\left.\begin{array}{l}\text { G. G. Gagnon, } \\ \text { A. H. N. Bruce, }\end{array}\right\}$ Guardians.
Overseer Willis states that so far as he can ascertain, the river and lake fishing in his division greatly improved during the past scason. Only 10 licenses were issued; - the catch of all kinds of fish was, however, good. No salmon fishing licenses were granted, which will necessimily add to the increase. The St. Francis kept very low during the whole of last summer, thus necessitating a greater degree of rigilance. One net was confiscated and the parties frishtened oft while attempting to use it in one of the deep pools of the St. Francis, where salmon were gathered. No sooner had rain set in, than the fish begran to run up in schools. A large number were seen passing the falls at Drummondville. During the latter part of September, large numbers - were observed ascending the mill-dam at Scotstown, which is the last obstruction to Salmon River on thcir way to the breeling grounds in the township of Ditton, at the head of that stream. Eleven nets were destroyed or confiscated during the present season.

This Overseer considers that the number of fish taken may safely be estimated at 70,000 , which found a ready sale at prices ranging from eight to thirteen cents $\mathbf{a}$ pound.

The local fishery guardian for Lake Megantic and surrounding waters report that tishing was good, but, owing to spring freshets it began later than usual. The catch of lunge, speckled-trout and black bass was ail that could be desired; the last mentioned fish, however, not being ${ }^{7}$ quite so plentiful as last year, owing to spearing and netting carried on in 1875. None were killed by these means this eeason.

Speckled trout are abundant in all the lakes and streams around Lake Megantic. They are caught with the artificial fly or with bait. The largest fish are found in Chaudière and Spider Rivers, and the best fishing time is in the spring and during the month of September. They weigh from one quarter of a pound to five pounds. The principal breeding grounds are on the Chaudière River, about a quarter of a mile from Lake Megantic, and in the Upper Spider River, two miles above Spider Lake. These fish begin spawning about the 15 th or 20 th September. Trout Pond is also thickly inhabited with speckled trout. They spawn here later than in the rivers.
"Lunge" is confined to Lake Megantic waters; none being found in any of theadjoining smaller lakes. These fish are easily caught during the months of April and May, at the south end of the lake, with bait and deep hand lines. In June they rise speedily to the spoon, but from the latter end of that month until the 20th September they disappear entirely.

These fish have three spawning grounds, the principal one being at Rocky Point, about half way up the lake, the second off the Gold Mine, and the third at Sunnyside. They commence spawning about the 10th October. Several of them weigh as high as fifteen pounds.

Black bass is scarce in Jake Megantic, but plentifnl in Spider Lake. They are caught trolling with the spoon from the begining of June to the end of August. Afterthat date they are not to be found until the following spring. It is generally supposed that they retire to deep water for the winter. Full developed spawn was found in female fish during the month of August, but owing to their long disappearance it is impossible to ascertain their exact :pawning time. They weigh from one-half pound to five pounds. They take the fly in the iivers during July and August.

Since the engagement of this fishery guardian he seized nine nets illegally set in Lake Megantic, and there is good reasen to believe that an effectual stop bas been put to netting.

## LAKE MEMPHREMAGOG DIVISION.

S. F. Copp, Overseer.

This Division was, last season, placed under charge of the present Overseer whoapplied all his energy to secure an efficient enforcement of the fishery laws. With the assistance of special constables he succeeded admirably well. Three boats and two seines wore confiscated in the neighbourhood of Georgeville, and another boat and net at Magog. The Overseer moreover reports that people in his Division begin to understand the advantages of compliance with the fishery laws, and that attempts to violate the same were less frequent than previously. The catch of herring by licensed seines was very small-about seven barrels, although the fish seem to be as abundant as before.

## RICHELIEU DIVISION.

## Pierre Catraverge, Guardian.

The fisheries of this Division yielded as follows during the past season :-
Number of Shad ............................................. 9,000
" Eels ...................................................... 15,000
" Barrels Sturgeon........................................ 25
" Doz. Barrels Whitefish........................... 6
". Barrels Fish used as manure.................. 10

Eel fishing is carried on by means of night lines, the other kinds of fish being taken with nets and seines. Pickerel (Dore) tishing was about the same as usual ; the fish, however, were smaller.

The following persons were prosecuted for violations of the fislery lars.
Paul Peloquin.-Fish confiscated for being caught during close soason.
Pierre Antaya.-Fined $\$ 1$ and costs-having pickerel (Dore) in his $\mathrm{p}^{m b s e s s i o n . ~}$ during close reason.

## CHAMBLY DIVISION.

## H. W. Austin, Overseer.

This Orerseer reprorts that the spring opened remarkably late, and that it was only on the 1st of May when tishermen could pursue their ordinary arncations. The season was good for all fish, except Bass. Doré were numerous and tine, and are now taken in large numbers in places where a few years aro they were almost unknown. Bass have diminished to an alarming extent, and it will take some years under the new close season hefore the water of this Division are restocked. As already remarked in prerious reporth, this Overseer considers that a close season ending on the $15 t_{1}$ June is not rufficient for bass, as they may be seen spawning in small streams until the end of that month. Another tish which is fast decreasing in number is the fresh water herring. Ten years ago they wore abundant in the waters of this Division, hardly half the usual number are taken now. The sturgeon also require increased protection. Young fish weighing at most one pound are speared without mercy in some of the rivers.

During the month of June, Mr. Austin observed with attention the passage of shad up the St. Lawrence. These fish are identical with those of the Hud:on.

Thir season the number of those going up was enormous, and there was a perfect glut in the markets. Their average weight is about four pounds, and they sold as cheap as fire cents a piece. Their yearly migration is clearly defined and regularly heralded by telegraph. Fire days after they are reported at Batiscan, they appear at Lachine. They are always clean-run fish fresh from the sea, and a large proportion are females laden with spawn. No instance has ever been known of any of these fish being taken descending the stream. From Indians and others it is gathered that shad spawn on the long sandy reaches between Grenville and Ottawa, and these accounts agree sr entirely that there is hardly any reason to doubt of their accuracy.

## IBERYIIIE DIVISION.

## J. B. Chevalier, Overseer.

Comparative Statement of the 'yield of Fisheries in this_Division_for the last three years.

| - | 1874. | 1875. | 1876. |
| :---: | :---: | :---: | :---: |
| Number of Eels........ .................................................... | 16,293 | 31,627 | 38,940 |
| do of brls. of Mixed Fish ............................ ................ | 146 | 378 | 846 |
| Total Value .................................... | \$2,213.30 | \$4,674.30 | \$5,240 |

Fishing was better than last year. It was noticed everywhere, especially at River du Sud that the fry were more numerous than usual, which promises a good increase in the rielt of the fisheries of this Division in the future. This Overseer is in tavour of a elose seasin for bass extending to the end of June. On the 20th April last during the close season for pickerel (dore); the Overseer seized four nets set in the Richelieu River, and belonging to J. M. Belaire, Pierre Lapalme, B. Tremblay and Marcel Bonneau. No fines were imponed wing to the poverty of the parties implicated in -uch illegal fishing.

## MIsinsiveot bay division.

P. E. Loke, Oeerseer.

Comparative Statement of the yield of the Fisherjes in this Division for the three past years:-

| - | 1874. | 1875. | 1876. |
| :---: | :---: | :---: | :---: |
| Value of nets......................... ........ ................................. | \$913 | \$889 | \$778 |
| Number of Shad .................................... ........... .......... | 3,870 | 6,620 | 2,675 |
| do barrels Pickerel ......... ......................................... | 186 | 84 | 45 |
| do do Sturgeon....... .............. ...... ................... | 1 | .. .... |  |
| do Maskinongé.................... ................................. | 300 | ......... |  |
| du barrels of Mixed Fish ........ ........ ......... ........ ......... | 562 | 106 | 60 |
| Total Value... | $\$ 2,620.00$ | \$2,032.00 | \$1,795.50 |

The decrease in the catch wan caused by a less vigorous prosecution of the finheries. The fish caught in this Division are mostly used for home consumption; some being however sent to the New York Markets. The close seasons were well observed. One violation only is reported, and the suilty party was prosecuted and fined.

> ('HATEAUGUAY DIVISION. WILlimMClyde, ANDREW WATt, Guardians.

The fisheries in this Division were about as productive as last year, although the height of water in the rivers and the coldness of the weather retarded the setting of nets.

Mr. Clyde reports that the law was well complied with in his Division. Mr. Watt states that he hat some trouble with tishermen regarding the observance of the woekly close time.

> The value of tisheries for the present season is estimated as follows :-
> Shad
> .$\$ 15300$
> Maskinongé.
> 6700
> Sturgenn........................................................... 8700
> Mixed fish for home consumption.
> 30000

## ARGENTEUIL DIVISION.

## Alexander Beaton, Overseer.

The fishery laws were well observed in this division, only one case of violation being noticed and punished. The people begin to appreciate the advantages of protection. The lakes are very much scattered in this division, and vary fiom one-half mile to seven miles in length. Their guardianship is therefore difficult, but it is to he hoped that with an efficient Overseer, such as the present one, the law will be properly entorced.

## TERREBONNE DIVISION.

## L. J. Loranger, Overseet.

This Overseer reports that the law was never so well complied with as this year in his division. The prosecutions brought against offenders, which resulted in the imposition of fines and confinement in gaol, had a very good effect, and will, it is expected, prove a great benefit to a proper compliance with the law in future, the people Leginning to understand that the protection afforded to these inland waters by the fishery laws is for their ultimate benefit and advantage. About 800 lbs. of trout were taken this year in this division.

## OTTAWA COUNTY DIVISION.

This division was guarded during the present season by special constables detached from the Dominion Police Force and loca! fishely guardians located at the most central places. The duties were well performed, and the protection was as efficient as could be expected from the large area of watcrs to guard. Parties fishing with nets for purposes of trade and commerce in the Ottawa River, or with hook and line in the lakes, are compelled to provide themselves with licenses to do so. These are issued to them free of charge, most of the parties being poor people, whom the hard times and decline in lumbering operations have thrown out of employment. This system works well, and these people being provided with the necessary legal authority to fish, are of great assistance to the Department, as they look with a jealous eye upon parties who tish without license, and thus become as it were interested guardians. No less than 150 licenses were thus issued during the present season.

Onc huncled and seven licenses were granted to residents for the privilege of fishing in lakes of this division, and forty-three licenses were also granted for spring and summer fishing in the Ottawa River.

Three nets were confiscated at Campbell's Bay, for being set without license; one at Salmon River tor barrmg the channel, and six at Brigham's Creek for not being raised on Sunday.

## SPECLAL REPORT ON BASS OR BAR-FISH FISHERY.

By F. C. Caron, Esq., Fishery Overseer.

L'Islet, 19th October, 1876.
The Hon. Minister of Marine and Fisheries, Ottawa.
Sir,-In accoredance with your instructions of 2nd June last directing me to pursme the investigations begun last spring by Dr. Lavoie, relative to the habit- of Striped Base (Bar-fish); I have the honour to report the result of my investigatio ns.
$5-d 13$

## ENQUIRY.

I proceeded to St. Thomas on the 19th May last, in company with Dr. Lavoie, who was then enquiring into the same matter. We examined together bar-fish at several fisheries, and especially at Dr. Beanbien's, who has the best station in that neighbourhood. We opened about fifteen fish, one half of which with eggs in them. It was also established by Drs. Lavoie, Beaubien and Bacon that these eggs were not in an advanced state of maturity:. Dr. Lavoic inclined indeed to the opinion that they would not be shed before the month of August. Several smaller fish of from 15 to 16 inches in length, and looking two years old, were also opened and found to be without spawn. This would seem to indicate that bar-fish do not breed before attaining the third year of their growth.

Immediately on receiving the instructions of ath June to continue this investigation, I called upon Dr. Beaubien. He atated laving caught a fish on the woth of the same month with eggs in a far more advanced state than those we had examined on the 19 th of May. I requested him to observe the progress of the spawn from week to week, which he promised to do. Unfortunately, no other bar-fish were callght_during the remainder of the seasoln, except a few small ones, without eggs.

FRY OF BAR.
The only possible way to then complete my investigations was to watch the fry. They were first noticed swimming around the tishery stations alnout the 15th of July, andiwere then of a very small size, but grew so rapidly that, on the 15th of August, the amallest fish reached one inch in length and some even meatured three and four inches. I can offer no satisfactory explanation of this extraorelinary difference. Mr. Frs. Ruelland, of'St. Michel, who has a great knowledge of the halits of fish, seems to be under the impression that there are several kinds of bar-fish, some of which, although hatched at the same time, become as large when only one month old as the others when they have attained a three months' growth. Dr. Beanbien is of a contrary opinion; he believes that the breeding season of bar lasts from two to three months; say, from April to the end of Junc.

I shall not attempt to say which of thene versions is most plausible.

## BREEDING SEANON.

My own experience, however, leads me to believe that har has certainly done spawning by the end of June at latest. This is proven by the appearance of young fish about that time, and is moreover borne out by the success in angling, which was tolerably good this season, especially at the shoal called Loup Marin. About four or five hundred bar were caught with hook and lines since the 15th ot August last. of an average woight of eight pounds. I spoke to several anglers who said that these fish had 110 eggs at this period of the season.

## SPAWNING (iROLINIIS.

With regard to the breeding grounds frequented by har, I am led to presume that the appearance of the try sufficiently explans their locatiom. One sure thing is that these fish do not deposit their spawn on the battures of St. Thomas, from which they retire before having spawned; the fishing season lasting only one week. These shoals are composed of soft, clear mud, which is more or less listurhed at each tide, and I think this constant motion would occasion the death of the egrs. Above these mud shoals are battures of hay which the sea covers only during ligh tides, and I also presume that the egge, if laid on the latier, would be lost ly tho action of the sun. The general impression is that bar keeps ontsido and frequents the Islands to deposit its ova.

PLACES WHERE BAR FISHING IS CARRIED ON.
The fiy of bar are noticed only from Beaumont to Cap St. lignace, at least on the south shore of the river. I must, however, mention that this year they were met with as far down as L'Islet. This exception lasted only a week and was never noticed before.

## EXTENT OF BAR FISHING.

Fishermen from St. Thomas and neighbouring parishes state that they never noticed such a large number of young bar as this spring. The same remark also applies to the fry of white fish and shad (what these people call sardine). These facts lead me to believe that the complaints made against the tisheries of St. Thomas are unfounded. First of all, there are only four fisheries on the south-west of the river which caught Bar this Spring, viz.:

| Dr. Beaubion's I |  | No. | Average Weight. |
| :---: | :---: | :---: | :---: |
|  | Hishery. | .1,500 | 4,500 |
| Johnny Talbot's | " | 700 | 1,500 |
| Godefroi Lelourneau's | 's ${ }^{6}$ | . 1,200 | 4,200 |
| Côtė's | " | 500 | 1,500 |
|  |  | 3,900 | 11,700 |

It will thus be seen that only 3,900 bar were caught; this quantity does not exceed the reproductive power of a single fish. It must also be borne in mind that the product of this tishery is not equally large every year; success being dependent upon the breaking of the ice and the direction of the wind. These facts, added to the increase of the fry, ovidently support my opinion.

## FISHING PROPERLY CARRIED ON.

After examining all the fisheries in that locality, those of St. Thomas as well as those of Cap St. Ignace, I ascertained with pleasure that, for the past two years, they had been set in a legal and proper manuer. The net-work is large and the boxes are opened at the outside end, so as to allow small tish to escape. I was even compelled to close one of these boxes at St. Thomas, in order to procure young bar for the Department. When I visited Cap St. Ignace fisheries in September last, I desired to secure a further supply of young bar, but would have been unable to do so had I not found one of the boxes with water still in it. I was thus enabled to procure a fens specimens which I forward with this report. They were captured on the 12 th September last.

## CAUBES OF FAILURE OF ANGLING FOR BAR.

I ascertained the cause of the comparative failure of angling around the Islands, which led to the complaint against the fisheries of St. Thomas. The only apparent reason was that the luatural food for bar was so abundant this year amongst the Islands that the fish seldom felt liungry enough to look at bait. I myself opened during the month of August, two bar fish of about two years old, and found them full of young fish. One had nine and the othor ten fish of from two to three inches long in their stomachs. I am also under the impression that the high temperature of the water around the Islands may have compelled them to resort to the thals at Lonp Marin, where it is more salted, and consequently cooler. The food being also scarcer at the latter place, the fish were more hungry (anglers inform me that they had nothing or almost nothing in their stomachs when caught), and as a consequence were more inclined to bite freely.

5-d $13 \frac{1}{2}$

According to my instructions, I also visited the Islands opposite my division with a view to inquire into the seine fishing; beginning at Goose Island up to the Island of Orleans where I visited three parishes, viz.: St. François, Ste. Famille and St. Jean. At Goose and Crane Islands I ouly found a few sturgeon seines, the meshes of which measure five inches in extension. The first bar seine is found at Grosse Isle, it belonge to Capt. Deroy, and is fished only for family use. I found no other bar seines excapt at the Island of Orleans, viz:-

St. Frangois :-George Lemelin, Frs. Lemelin, Olivier Picard, Damase Allaire, Urbain Masse.<br>Ste. Famille:-Jos. Hamelin, Louis Gagnon, Frs. Hammond, Firs. Marquis, Eustache Morency, Xavier Morin, Onézime Poulin, Xavier Martin, Régis Marquis.

St. Pierre:-There are here two or three seines which I could not visit. St. Jean :-Jean St. Hilaire.

SIZE OF SEINES FOR BAR FISHING.
These seines are from twenty-five to thirty fathoms long; the meshes $2 \frac{2}{2}$ to $2 \frac{3}{4}$ inches, whilst the law says they shall be no less than three inches, extension measure. The people, however, appear to act in good faith, and this is easily explained. These seines are made on moulds of legal size, but the twine being new and dry, the meshes although of the required extension when new, are liable to shrink when in the water. I selected two of the smallest fish caught in these seines, which 1 forward to your Department. I did not at the time prosecute these people, having received no instructions to that effect ; but I distinetly told them they would not be permitted to use seines of a similar size next year; and that, very probably, a new regulation would be enacted on the subject. On the south shore, one of these seines belongs to one Renaud, and the other is owned by Alexis Leclere. 1 satw them, and found the meshes to be of the legal measure, and even largor.

## CAUSES OF DESTRUCTION OF BAR.

I am of opinion that fishing for bar with seines of small mesh is the principal cause of destruction of an enormous quantity of young fish, not over a year old. It would, I consider, be a wise thing to compel these people to take special licenses binding them to use seincs of not less than four inches, extension measure, in the meshes.

## CONCLUSION.

Such, Sir , is the result of my investigat ions and of my labour for nearly the whole of last season. To Mr. Bauset, of your Department, I am indebted for valuable assistance and practical directions with regard to the best mode of conducting this investigation. His thorough knowledge of the business, of the wants of fishermen, as well as the amount of fair protection required for tho breeding tish, enabled me to
form a clewrer iden of the subject, and to bring my investigations to a practical conclusion. I need uot say that both Mr. Bauset and II agree in the recommendations herewith male for a fair and efficient protection of bar. A special close time for this fish I do not at all consider necessary, so long as care is taken to allow the fry to escape by having proper openings in each fishery, covered with one-inch network or wire. The real injury is done by seine fishermen who, besides constantly raking the spawning grounds, also catch large numbers of young fish one year old, which are afterwards sold on the Quebec markets under the name of bar de douzaine. As already stated, by compelling thene parties to take licenses, and regulating the size of their seines to four incher mesh, extension measure, most of the present trouble will be avoided, whilst it will at the same time give satisfaction to the public.

Although I do not elaim having done anything complete, still, I have the conviction that my feeble endeavours will enable the Department to form a clearer opinion of the matter en litige, and enable you to decide with cmnaisance de cause upon the conflicting opinions and assertions advanced.

I have the honour to be,
\&c., \&c.,
F. C. CARON,

Fishery Overseer.

## APPENDIX No. 9.

Schedule of Salmon Angling in the leased Rivers of the Provinces of Quebec and New Brunswick during the Season of 1876.

| Name of River. |  |  |  |  |  | Remarks. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Lbs. | Lbs. | Lbs. | Lbs. |  |
| Du Gouffre... | 2 | 68 | 34 | 24 | 12 |  |
| Murray............................... | 1 | 6 | 6 | 6 | 6 |  |
| St. Margaret, N.E. branch..... | 49 | 702 | 14. | 28 | 5 | One grilse*and two winnoniche. |
|  | 29 57 | 325 | 13 | 28 | 5 | Five grilse, from 5 to 7 lbs each |
| Little Saguenay...................... | 14 | 176\% | 123 | 18 | 5 | Five grilse, from 5 to 7 lbs. each. One grilse of 32 lbs. Water kept |
| Anse St. Jean ............... ...... | 25 | 325 | 13 | 18 | 6 | very high. |
| Sault au Cochon.................. |  |  |  |  |  | Not angled. |
| Laval ............. | 6 | 80 | 13 | 12 | 5 | Not augled. |
| Godbout <br> Romaine $\qquad$ | 213 | 2,834 | 132 |  |  | Six grilse, 26 lbs. ; 40 trout, 78 lbs. |
| Romanne ................. ..... ....... |  | .......... | ........ | .... |  | Not angled; given up by lessee. |
| Moisie ...................................... | 68 | 1,186 | 172 | 35 | 7 | Water kept very bigh. |
| Saint John.. |  | 1,186 |  |  |  | Not angled. |
| Natashquan |  |  |  |  |  | do Niver unlet. |
| Watsheeshoo ....................... | 35 | 400 | 12 | 24 | 6 | do River unlet. |
| Washeecootai.............. ........ | 17 | 210 | $12 \frac{1}{2}$ | 19 | 9 |  |
| Rimouski ........................... | 35 | 490 | 14 | 31 | 8 |  |
| Metis...... .................. ......... | 19 | 406 | 212 | 37 | 15 |  |
| Matane .......... | 121 | 1,808 | $15^{-}$ | 272 | 6 | A large increase of figh in this river. |
| Little S.W. Bic.................... | 19 | 813 | 4 | $5^{2}$ | 3 | A large increase of fish in this river. |
| Ste, Anne des Monts. ........... | 116 | 2,256 | 1921 | 39 | 9 |  |
| Magdalen. | 8 | 152 | $19^{-1}$ | 32 | 10 | Only two days' fishing. |
| York ..... | 123 | 2,725 | 22 | 33 | 10 | Only two days hishing. |
| St. John. | 87 | 1,4392 ${ }^{\text {! }}$ | 163 | 32 | 10 | Angled by His Excellency the |
| Dartmouth......................... | 58 | 1,002 | 171 | 27 | 8 | Governor General. |
| Grand ...... ......................... | 151 | 2,469 ${ }_{2}$ | 16 | 27 | 81 | Two grilse. |
| Grand Pabos............ .......... |  |  |  | 27 | 72 | Lessee reports river as well stocked. |
| Little Pabos.. ....................... |  |  |  |  |  | Not angled. siver being re-stocked. |
| Bonaventure....................... | 45 | 622 | 14 | 21 | 9 |  |
| Little Cascapedia ..... ..... ..... | 14 | 210 | 15 | 20 | 10 | 800 to $1,000 \mathrm{lbs}$. of trout |
| Grand do ................ | 369 | 8,998 | 24 | 41 | $16 \frac{1}{2}$ | 59 salmon over 30 lbs . |
| Matapedia ... | 73 | 1,6382 | $22 \cdot$ | 32 | 11 |  |
| Upsalquitch ........................ | 22 | 229 | 201 | 24 | 6 |  |
| Restigouche, Lower Division.. | 109 | 2,106 | $19^{-}$ |  |  | 75 grilse. 33 angling permits issued, |
| do Middle do ... | 208 | 4,068 | 192 |  |  | revenue $\$ 114.50$. |
| do Upper do ... |  |  |  |  |  | Subscriptions of rods for benefit of Indians, $\$ 238$. |
|  | 78 | 1,650 | 20 |  |  | 38 grilse. |
| and others....................... | 50 | 980 | 20 |  |  |  |
| Jacguet. ............................. | 23 | 61 ${ }^{1}$ | 83 | $10 \frac{4}{4}$ |  | 5 do Ten days' fishing. |
| S.W. Miramichi................... | 235 | 1,017 | $4{ }_{4}$ | 21 | 21 |  |
| Nipissiguit, do Rough Whaters..... do | 340 145 | 4,760 | 14 | 23 |  | 106 grilse. 20 rods on the water. |
| do Rough do ...... | 145 | 2,030 | 14 | 20 | 8 | 50 do 16 do do |
| Total ............ ...... | 2,944 | 48,072 4 | $16 \frac{1}{2}$ | 41 | $2 \frac{1}{2}$ |  |

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## REPORT OF THE INSPECTOR OF FISHERIES FOR NOVA SCOTLA, FOR THE YEAR 1876.

To the Hon. A. J. Smith, Minister of Marine and Fisheries, Ottawa.

Halffax, N. S.

Sir.-I have the honour to transmit herewith Returns shewing the yield and value of the Fisheries of Nova Scotia for the year 1876, which you will observe shows an increase over last year of nearly half a million of dollars, the largest increase being in the county of Shelburnc and may be attributed to the use of tish traps licensed by your Departmeni. Letween the saviug of labour and the increased quantity of fish taken, this mode of fishing is proving very remunerative, and is likely to come into general use, as the prejudice that existed against them in the outset is dying out.

I do not think that fish has been more plentiful than usual, but in consequence of the dullness of the coal and lumber trades, and the suspension of a namber of lobstec packers, a larger number of people than usual have been engaged in the fisheries. Had it not been for this and the use of traps in Shelburne, our returns, I have no doubt, would have shown a considerable falling off.

Herrings show the large increase of 43,924 barrels, thus exploding the idea that the lobster traps were an injury to the fishery. Codfish have increased over last year by 26,000 quintals, and Haddock show an increase of $9,961,261$ pounds, or over three hundred and fifty per cent.

A few other items also show an unimportant increase, while there is a decrease in mackerel of 18,100 barrels, in alewives 5,600 barrels, and $1,333,300$ cans of lobster. This latter is not in consequence of the scarcity of fish, but there are not so many engaged as formerly in the business and the lohsters are generally smaller sized; thi- business having been overdone for several year past, and like other branches of trade in these hard times the tinancially weak have had to succumb.

I have, as far as my limited time would allow me, condensed and eompiled the firlowing facts and information from the Overseers' reports, many of whom have harl considerable experic ue as otticers of your department as well an a practical knowledge of the fi heries, and their suggestions are worthy the attention of your department.

## ANNAPOLIS COUNTY.

Overseer W. T. Carty reports nothing, his returns show something of an increase over last year.

## ANTI(IONISH COUNTY.

Alexander Mc.Donald, Esi., overseer for Antigonish, says,-"I am pleased to be able to report that our fishermen have had during the past year an average catch. Salmon hare been more numerons and larger in size than for many yurs past; the storm however of the 6th July was so destructive to the nets that the loss wats very heavy; had it not been for this, many more salmon would have been taken.
"There were more salmon passed up our rivers the past autumn than for many years $p$ wt, and in the violations of the law appear to be growing less and less each year, owing to the vigilance of the wardens, $\bar{I}$ anticipate the day is not far distant when the noble tish will be as plentiful as it was in the dgys of our forefathers."

## CUMBERLAND COUNTY.

Overseer J. J. Hingley.—" The Department authorized me to employ two special guardians on the River Phillip this fall, and I engaged Wiliam Miller and Gerrge King, and they did good work; they were often attacked and stoned by gangs of poachers in the darkness and from behind bushes, and in every case they went ashore where the stones were coming from, but never could catch the guilty parties, so that it wat impossible to bring an action against them. However, when the cowards saw the men were not to be frightened they gave it up.
" I am happy to report that the salmon succossfilly ascended the new fishway constructed by W. H. Roger's' direction on the dam at Oxford, A. B. Wilmot 'isq., hiving swept a number off one fall above the dam for the purpose of getting spawn.
" Sime parties unknown deposited a quartity of lime in the sluice which conducts the water into the flume containing the salmon, with the intention of killing them, but fortunately it was discovered by the men in charge in time to save the fish, but they were all blinded and most of them have since died.
"In Pugwash River the oyster are becoming very scarce fiom over-fishing; I should recommend that steps should be taken to regulate this valuable fishery, tior if something is not done it will be destroyed in the Rivers Pbillip and Pugwash."

Overseer James King reports that there is a falling off in the catch of shad in his districi this year, but the quality is much better. Herrings were more plentiful than last year. Salmon are largely in excess of last year. All along the western shore, the rivers are being improved by passes for tish and the removal of mill rubbinh. Alewives do not seem to increase much as yet, but the indications are filvonrable for the futare.

Hugh Davidson Esq., Oversoer at Bay Verte, says: "Spring herring are the only fish canght to any extent, they nover fail to striko in about the 1st of May, and continue until about the 1st of June; large quantities might be canght, but the inhabitents catch uo more than they require for home consumption. Two lobster factories were erecterl on the Nova Scotia side of the Bay; they have both done a fine busincss."

## COLCHESTER COINTY.

Overscer Wm. Blair reporte:-"The salmon are on the increase in the Bay; the fishermen have taken more than for many years past, but on account of the low stite of the rivers they did not make theiranpearance until late in October; they then came in great abundance into the rivers; very few attempts were made to molest them; a few parties with spears, under cover and at night, violated the law, but it is almost imposisible to convict, as parties feel inclined to shield one another.
"I have four case now under consideration, but tear I will not succeed for want of sufficient proof; the streams in my district being small, they are much harder to protect."

Overseer J. W. Davison says:-"The catch of fish this season has been small, as indect it has boen for several years past. Brush weirs which are used on thin shore kill a groat many young fish. It is my opinion, after carefilly considering the matter, that this operates very strongly against both the shad and salmon fishery in this $\mathrm{l}_{\text {ilv, }}$ and that steps should be taken to remody the ovil, or a very important branch of industry is likely to become to a large extent a failure. The law has been very generally respected, as far as I know, no violations having come under my notice.
"With regard to mill owners taking care of sawdust and mill rubbish, a great de:l has been done."

Overseer Jamen Bonneyman says:--" Both on Waugh aud French Rivers, salmon have been very plent ful this seanm, more so than nsial, but there is much dissatisfi:ction with the present lav, as the fish do not come into those rivers until the lat ter part of September:"

## CADE BRETUN GOUNTY.

Over:eer Francis Quinan reports as follows:-"I have visited :lll the stations in 1his district and made careful enquiry as to the catch; in some cases it is difficult to fe at a corrert statement of the quantities taken, at the porple have an :dea that in s business in the end me:ms taxation, still it is gratifying to know that our t.sheries largely exceed that of last year.
"The increase is. however, largely due to the dulness of the coal trade, nany of the miners having engaged in fishing thromph the whole soason, finding it their only means of living; yon will observe a large increaso in salmon and horring.
" Many complaints are madeagainst the practice of throwing tish offial and girry on the fishing grounds almer the banks outside the thre-mile limit; some me:ns Noonld be adopted to prevent the practice."

Overseer York Barrington says:-- -" You will seo by my report that there is an increase in all the fivlurie. of my district this year. That of cod would have been still greater only fien be sarcity of bait, neither squid nor capelin struck the shore this searon and summer. Herring do not wome till the end of July, making it late for cod fishing.
"I have been particular to cireulate all circulas relative to the lobster fishery, aithough in my district it is umecessary, as there is no canning establishment and they are not caught; howerer, I think the prospects for such an ostablishment are favourable, judging from the quantities of lobsters which are thrown on the shore in a heavy storn. I have had two new ladders constructed this year by two different parties. The wardens of my district are attentive to their duties."

GITYSBOROUGII COUNTY.
Overseer James A. Tory says:-" The fish that migrate to the rivers and lakes seem to be on the increane, and this year the tirst that ancended the rivers were of a superior quality, and entered at at much earlier part of the season.
"The shore fisheries, as a whole, are considerably short of last year, but may be considered a fair average one, although in some portions of the district some branches of the tishery have heen nearly a fiilure, while others have been exceedingly good. The falling off may be principally noticed in mackerel and herring east and north of Cape Canso, which will leave many fishermen in want of their winter supplies. West of that point the fisliermen have nothing to complain of, as the fishery was good, and prices ranged high, especially for dry fish.
"The lobster fishery shows a falling off when compared with latt ye:r. This is owing to the close season, and the removal of one of the extablishments during the fishing season, which prevented its working for a while. These fish appear to be as numerous as formerly, but diminishing in size, which I think calls for a further restriction in the regulations respecting the size to be taken, and I alwo think wardens ought to be apminted to oversee those entablishments.
"I have but one violation to report, which was for throwing lowiter shells on the fishing grounds. The party was fined, which I now enclose.

## DIGBY COUNTY.

Overseer J. II. Morehonse says:--"I am happy to report the fishery on the aggregate has been fairly remunerative.
"The mackerel tishery at St. Mary's Bay, thongh not so productive as in former yeais, has nevertheless amply repaid those engaged in it.
"The shad and herring fisheries at this place have also been advantageous to those engaged, and equal in yield to last year, while the high prices paid for cod and other deep sea fish have not only been satisfactory, but have sensibly stimulated enterprise in this department of trade.
"Two vessels are now building at Bear River to be engaged in the business the coming season, and two more on Digby Neck. Because ot the failure of some of the best fishing grounds along the coast of the Bay of Fundy, our fishermen for the most part now resort to the fishing grounds outside Cape Sable, this failure has been going on slowly for some years, the fishermen think the trawl tishing the cause, but I think the real cause lies in another direction, and may before long be traced to the destraction of the river fisheries, which, as a consequence, have ceased to attract the cod and other fish to our shores; with this conviction I have done my bent to repair the injuries of the past; but I fear, owing to the slow process of law and the lack of sympathy where I have a right to expect it, irreparable injury will be done to the coast and herring fishery of Digby Basin. This latter would soon be restored to its former productiveness, but for the quantities of saw dust drifting into it from Bear River. It is but iair to state I have had less trouble the past jear than in any since my appointment. More herring were taken last season than for a number of yeara previous, while salmon trout and alewives were seen endeavouring to regain their old spawning grounds, but as there are no fish ladders on this river they cannot ascend.
"The importance of our river tisheries cannot be over-estimated, and unless they are protected they must cease to exist. A few hundred dollars judiciously expended may save all."

## HANTS COUNTY.

Overseer T. O'Brien says, -"I am sorry to report a decrease in the catch of all kinds of tish during the past season in this district. The returns, however, do not give the tutal number of fish taken, as fishermen from other places resort to our waters and carry what tish they catch to other places.
"I wish to call attention to the weirs made use of on wir shores, the brush being woven so close as to retain the small as well as the large shad. In one case I succeeded in inducing the owner to place a piece of net in the centre of his weir, which had the desired effect of allowing the sinall shad to evcape. I consider this a matter of importance, and thonk something should be done to remedy this evil, as many young fish are thits annually destroyed. I would recommend that the plans I adopted in one whould be made compulsory in all cases, as it is viry desirable that the fish should be fosiered so as to prove remmerative as in the past."
hatifan county.
Overseor William Andervon surs," You will observe a large increase in the outfits as well as the catch of tish, all except inackerel, which have been rery scarce both spring and fall. Thore are several reasons for the large eatch and outtits.
"First-The failme of the lumbering establishments, that is the chating down of four out of the six large saw mills has thrown many bands out of employinent, and being formerly fishermen, had to resme their old business.
"Second-The elosing of six, being half the lobster factories, has also thrown men into the fishing business.
"Thirdly-The high price and ready sale of fish gave a stimulus to fishermen, quickened their energies and encouraged their efforts, hence the curing of so much fish the latter part of August and September, this being the close time for lobsters.
"I have had a great many complaints about trawl-fishing codfish. They say (the fishermen who onght to know), trawls eatch all the large or wother fish, and that line finhing is useless in their neighborhood, many say it will ruin codfishing on our shore if continued.
"Haddock has been very abundant in some places castward. I have from some boats 100 to 130 quintals, they ought to be returned by the quintal or cwt.
"In our returne there ought to be a column for the time cach vessel, hatat and men who were actually engaged in tishing, as some versols go out banking a month or two in the epring, and then go trading or coasting tho remainder of the seavor ; some men will go lohstering all summer until the close seavon, then fish for a month or six weeks; all those are charged the whole season or supposed to be loy the returns. I have had considerable trouble with Porter's Lake, ('hezzetcook and E'he.
'It would be well to have alewives montioned in the regulations withisalmon, they are not mentioned now; theg ought to be protected; it is they and the spring herring that bring the codtisli on our shores so early.
"I had some trouble at Mosher's River; the former warden was too infirm and timid to do the work; Fraser was not appointed until July, so the spring fishing was over before his appointment; I visited the place three times, but it was to no purpose, the mill was mopped and no person in charge, the fishway out of order; I was much annoyed, but I trust we have got over the trouble; it is a good fishway and I trust next summer to make it prove itself so. The poaching up Musquodoboit has been stopped, we have a good statt of wardens; the fishways in good order and lote of salmon gone up.'

## INVERNESS COUNTY.

Overseer M. A. Russ reprots:- "A falling oft in the quantity of codfish taken $t$ year, in conserguence of the searcity of bait.
"Mackerel were plenty, showing an increase of 1080 over last vear's catch ; herring 912 barels over last year, and also an increase of haddocis $156,5 t^{4}$ [h.
"The river fishery, as regards trout and salmon, was much better than last yeir, salmon showing an increase in the catch over last year of about 10,000 lhs., so that the falling off is in coast fish and oil.
"The alewires have been a total failure this year again, but there were plenty in the river, and they ascended to their spawning beds, but the water was no high that they could not be taken and large numbers of young tish were seen descending the river in September. There is a tine alewife fishery at Chetticamp which will won be destroyed unless a good man is soon appointed to look after it, as the outlet from a chain of lakes (one of them six miles long) is badly fisher by a man who claims to own the ontlet. There is also a small river near there, called Little River, a fine salmon stream which sadly neets looking after, as there is no officer within twenty miles of these places and one man could look after both.
"There were three parties fined for violating the law, but they are so pour that I have not been yet able to collect the fines."

## KINGS Col'NTY.

Overseer A. Bishop reports:-"The quantity of alewives that returmed to the Gasperaux River this season was somewhat less than last year, yet the quality wabetter.
"The new fishway constructerl by the direction of W. H. Rogers, Diti., over Calder's dam at the White Rock mills, seems to work much better than the od one, and this year a considerable number of alewives ancended it, and the rirer being rutirely clear of obstructions above the dam they :scended to their spawning beds, and during the autumn large numbers of young fish descended the river.
"It is very neressary that another warden be appointed to watch the river in the vicinity of calder's mills, as there are now but two wardens for the whole river, and at this point the river should be watched night and day while the tish are in the river."

Overseer J. E. Starr reports:-"The fisheries of that county have produced more value this year than erer lefore. The quantity of whad taker is small, but the quality is good. Line fishing has also leen nomewhat less than last vear, but herrings have been abundant and fat, and were in good demand at fair prices. The
fishermen generally scem inclined to respect and obey the law whenever its provisions are understool; sometimes a contention will arise between parties as to the best fight to tish in certain localities, but I an happy to say that I have always been able to settle such disputes without resorting to severe meann, consequently have no fines to remit."

## LUNENBERG COUNTY.

Overveer H.S. Jost reports:-" The amount of value is in advance of 1875, caused by an increased number of banking vessels, as also by a much better result than last year, from the shore. hook and line fishery, from whale boats, \&ec."
"The Labrador returns were pour this year, fortunately but few of our vessels went there.
"Our Iobster returns are not large this year. There is but one factory at work in this section of the conntry, and it has not been working more than half the season. Generally speaking the lobsters have improved in size, but there is ample room for a much greater improvement before they will be equal to what they were a few years ago. There are now but two factories in the county, and the little sharp practice that sometimes crops out, is proof that the lobsters are not as plenty as the proprietors would desire them to be. I fined three persons for breach of regulations of close time for lolsters; they all plead ignorance of the change of time from that first notified. I do not think there will be any difficulty in haring the close time strictly observed in future.
"The prevailing opinion expressed here among the fishermen is that the close time for lobsters should be earlier in the season. at which (they say) the lobsters are shelding their old shells, and are not fit for food. They only mention proofs to show that spowning is not confined to any particular season of the year. Since my last report iwo gang-mills havo been destroyed, one by fire and the other by water. The first-mentioned was on the Mushamusk river, and was burned down on a Sunday forenoon. It is not to be rebuilt; the dam is now open, and will likely be removed altogether. Thus hay the oigiginal right of way of the fish been recovered at this place.
"The other catse mentioned was Mr. Davison's lower mill on Lahave river, which was removed and destroyed by the freshet. A new mill has been ereeted at the same place, and a new ladder has been placed in the dam, making two in that dan.
" Before the breach in the dam was repaired, the fish no doubt availed themselves of the opening as a mens of reaching the second dam.
" Petite Riviere, near C.mnfuerall Mills, which was elenred out last year, is still clear of rubbish, and remains without obstruction. The tish-pass in the dam near Petite Riviere Bridge has been repaired and improved, and offers more facility for fish pasaing than previmisly."

Overseer George Redlen reports that the rivers of his section of the county are in gool working order. Middle River branch has been cleared out this season and promises to be a fine stream for alewives and sammon. There are still some small streams which reguire attention. The fishery law hats been pretty well respected, except close time. More salmon have aseentied the rivers this year in this section than for the past two yeare.
"If the Indians could be stopped from poaching on the rivers at night, there would still be a greater increase ; some partios have abandoned salmon fishing altogether, as they cannot set their bag nets under tho present law.
"There has been some increase in the salmon and mackerel fishery, and a slight increase in herring and alewives, also a decrease in codtish, hake and pollock. There has been an increase in the lobstor fishing this season.
"The amount of fresh fish consumed is about one hundred barrels. There is a considerabie number of nackerel and herring sold to American vessels for bait; these I cannot get any account of. I have had to visit every fishery in the section, inlands included, to collect statistics which have given me a great deal of labour. The time expended to get a correct statement of tish has been seven days extra."

## PICTOU OOUNTY.

Overseer Darid Marshall reports:-"At an early part of the season just closed I communicated with the several Wardens in the division respecting the condition of the fisbing grounds under their charge, and in most cases receivod satisfactory replies.
"Grant's dam at the upper end of Mr. Delany's limits is the principal obstacle to the free passage of fish on this branch of the river. With very considerable ditficulty 1 have succeeded in getting a fishway erected on a plan provided ly Mr. W. H. Roger's, through which the fish have passed for this season, but the first fieshet in winter when ice descends will completely demolish the structures, and the work will have to be done over again by most unwilling hands next summer.
"The warden reported to me, when requested, in the early part of the season, but upon personal inspection some time after, I found that the fishway: were in such a condition as to render them quite useless for the passage of fish.
"There are two dams in Hopewell; Mr. Myers Criay owns the lower one, and Messrs. Mc. Donald the upper one.
"Contrary to the report of the warden, I found that any sawdust made at Gray's Mille invariably dropped into the stream, and a portion of the same article was carried into the river from McDonald's Mills. The Grays insist that the amount of sawing done in their mill will not warrant the expease of removing the sawriust, and that if the law is to be rigidly enforced they will stop altogethor. They willingly engaged to make a good fishway.
"The Messin. McDonald engaged to repair the fishway, and to stop even the occasional dropping of sawdust. I regret to report this section in such an unsatisactory condition.
"The fishway at Mr. Conolly's dam, at Middle River, has answered the purpose this scaron.
" Warden Evans, at West River, has great difficulty in guarding his limits with the amount of vigilance exercised. I trust that next season will find it more difficult to escape detection on the part of offenders than heretofore.
"Cariboo and Toney Rivers are comparatively unimportant, still I hope that with increased care they wall become more proluctive in future. Daring the season some matters were handed me to report upon in relation to Pictou Island. I woutd recommend a resident warde t there, with whom correspondence could be conducted, and who could assist when a visit to th:t island became necessay, which, I think: must take place on the part of the over seers early next sea on.
"My experience in procmring boats, when necessilly, to the ownors of which I am under personal obligation, inclines me to ask whether or not, in consideration of the contiguity of so many rivers, the Department might not furnish a boat of very light draft, suitable for running up the rivers of Pictor for the more elticient cirrrying ont of the work of the wardens and overseers."

Overscer John Mc] onald, of East Pictou, male no rejort.

## QUEEN'S COCNTY.

Overseer S. T. N. Sellon reports:-"Salmon supposed in good abundance camu in very carly, wome being caught the latter past of January with rod and fly, when the rivers were covered with ice, and a heary stremm "f water; as a seguence these fish wont up the river numolested, and in my opinion are the real reproducing fish, and thongh our fishing can commence the first of March with net., foating ice prevents that till April, which wives a feec chance for salmon to go up Janary, February and March to the heal waters. The same school of salmon were in goul arpply and the catch more thau last year in the Medway River; but from the fact that the tish ways are really grood for the tran sit of hish, it follow, they have a better chance to $g$ ) up, and I am sure they do so, which is quite patent to ereryone working on the river, when they see, on or aboat the 15th $M$ v, the river teemiug with salmon about seven inches long, going to sea, and abundance of water to do so. The shore
fishing for salmon was not grod; quite a numbar of salmon were in our rivers in Octobur waiting for fall rains to raise the rivers. Alewives came in as last year, the firstrgehool came in ver'y early, others in June and July, which is very late. Large quantities of young alewives came lown the river at three different times and sizes. Theffir st school of try, abont a finger's length, were seen at Pombrook the early part of Sejtember in great abundance going down the river.
"In October a second school of less size wele seen in the still waters; mill ponds were well supplied with thent, and in November a third school of very small alewives came down. This is my proof that three schools went up to the spawning grounds. These fish should be protected when descending the river, as the rivers are very low and obsumctions are made for catching cels, which destroy them. I was directed by W. II. Fomers, Esir., to look after the young fish, though late I attended to it and destroyed eleven eel trals, in one of which a box thres feet square and full of young alewives, not two inches loug.
"Herrings were unusmaty scarco, not giving a sopply for bait; the line fishery suffered, and only a small supply for market.
"Colfinh were in good supply and remuncrative to fishermen, when they had bait, but bat fishing was delayed for about six weeks; but as soon as the fish traps were set, a number of boats and vessels got a small supply, which brought into our market not less than four hundred thousiand dollars' worth. The fish traps were not a succes to the owners, but a general benetit to the fishermen.
"The catch of mackerel was very small, though large quantities were seen going up shore, but keeping too titr off to be taken. Our inland tishery is a success, and can, wwith grod protection, be still more increased. Eight years agn there were only a fewfish ill our rivers to restock them, and very few to eat, the weirs being obstructed by mill dams and without ladders."

## RICHMOND COUNTY.

Overseer Edward Ba!lam says,-" The col and haddlock fishery has been above the usual arerage and as good prices have been obtained, this branch of the business has been very remunorative. The herring fishing has also been good. Alewives about the sanie as last yeir. The catch of mackerel was very small, the fall fishing being a complete fallure.
"The lobster fishing, though not coming up to last year, was very successful ; the catch would have been vary rood were it not for the close time; the weather after the 20 th Neptember is generaliy rough and many of the fishermen do not care to resume the business. It is necessary to appoint a warden for the lobster factory in Arichat in connection with Wood's Brook, as it is impossible for me to give them the attention they require."

## SIIELBURNE COUNTY.

Oversect Stminel Moore roports,- " Haddock and mackerel bave been more than an average catch. Herring have also been plenty, but owing to the low price very few hare been taken.
"Tho catch of homeres is not so large as last year, as it was difticult to employ men to ratel them as they were more protitably employed in other inanches of the tishery.
"Salmon and alcwives were searce in all the streams in the county.
"I have visited several of the parties owning fish traps and alter making carefuI enquiries from different parties, I only found one person opposed to them. I think the time is not far distant when all that can will use traps and do away with nets; if they do not catreh more fish they save time and labour.
"There are (wenty fish-ways in the county, all in good order at present, but will have to be closely watched in the flshing season, as interested partios are apt to close them np."

## VICTORIA COUN'SY.

Overseer D. M. Rae, Junr., reports,-_" I am happy to state that the increase of salmon in the rivers in my district is large. When the waters rose, sulmon were seen in great mumbers going up to the spawning grounds. The people now see and realize the benefit of observing the regulations.
"The Wardens in the several districts discharged their duties well.
"The only difficulty is at Middle River, where three wardens reside close beside one another, and it is a difficult matter for them to perform their luties satisfactorily. Therefore I would recommend that a change be made in the clistrict and have another warden appointed at the lower settlement of Middle River, between warden McLellan's and Donald McQnilry's district. The const fisheries foot up to noarly what they did last year, although there is a large falling oft in mackerel, and some other items, but the increase in prices has made it remmerative to the fishermen."

Overseer J. W. Burke says,-"There is an increase in mackerel and herring, but in consequence of the scuraty of bait there is a falling off in the take of codfish.
"The catch of salmon is a shade better than last year, while the lobster fishery was a total inilure, but I think the fault was with the parties employed, as lobster's seemed to be plentiful; on the whole I find an increase of about one-twenticth of the yield of last year. With reference to salmon rivers in my district I may state that there is a great improvement and the law is very generally obsorved."

## YARMOUTH COINSY.

Overseer Enos Gardner says,--" The fishing industry shows considerable increase over last year and is chiefly owing to the success of our shore fishermen, most of the vessels have been engaged in the shore fishing and have obtainerl very high prices for them. A few vessels that fitted out for the Banks matle a poor season's work.
"The river fishery for alewives and salmon was a very small catch. In the early part of the season the freshet in Tusket River was very high and large quantities of alewives got up by keeping the deep water, this is one of the reasons of a small catch.
"The river cluring the summer was very low and it was late before the young fish conld get down, the weather howerer kept mild after the freshet came and very large quantities of young fish came down the river, fishermen on the river ealy more than for many years.
"In May and June I visited all the mill dans in the connty. On the Salmon River at Symond's and Crosby's Mill I found the dam closed; the parties were brought up and fined. At the upper mill, owned by Hiram and Thomas Crosby, formd they had paid no attention to my notice respecting sawdust; these partics were also brought up and fined. At all the other mills the gates were open and good passage for fish.
"At Carleton, the mill-dam was carried away by a freshet last winter, and the temporary dam they bad put in was taken out and a good passage was given for the fish during the tish season. At all the other mills on Kempt and Tunket Rivers the passige war kept open and firee for the tish to get up.
"On the 36 th August, W. H. Rugers. Esf., Fishery Officer, was here, and a fish ladder, under his direction, was built at the Carleton mill-dam and at the gang mill, Kempt; and I hope the owners will keep them in good repair, and the evils complained of at these places may be remedied by the ladders sitistictory to all parties when I visit them agrain.
"At the Lower Falls, near Tusket village, Mr. Edward Fwymwd had placed obstructions, and also altered the course of the river; I had given him a written notice a short time before. Mr. Rogers came to remove the obitructions to which he paid no attention, and would not give Mr. Rogers any sitisfaction.
"He (Mr. Rogers) then employed men ind took out the obstractions and filled up places where he had altered the course of the river and made complaint against
him ; he was fined twenty dollurs and costs and eleven dollars expense in removing obstructions. By the advice of his counsel he paid the fine and all coste, and I think we shall have no further opposition from him.
"The lobiter factory at Little River was in operation this year, and was properly looked after; the law was strictly observed and the close season was attended to."

## gENERAL REMARKS.

It being late in the season before I had the honour of receiving the appointment of Inspector of Fisherice for Nova Scotia, and feeling the importance and nocessity of malking myself acquainted with any duties, and knowing that it would require great attention in order properly to discharge the duties of the office. I immediately repaired to Halifax, on the receipt of my commission, and called at the Marine and Fisheries Department and upon the Dominion Members of the county of Halifax to receive any information from them which they could give me. They were not in a position to give me any instructions, and I trok upon myself to telegraph to Mr. Rogers to meet me in Halifax as soon as possible, and after talking the matter wer with him and hoping for some definite instructions from your Department, I arranged with Mr. Rogers to take the western part of the Province and I would take the east till further orders, and I found on my arrival home a letter from your Department giving me similar clirections, and I hope they have been carried out satisfictorily for the past season.

There are some fines which I believe have not been collectel; I am leeeping them in view, and as soon tis I receive them will hand over to the Department.

I wish to bring to your notice, Regulations for the county of Antigonislı. I think Mr. Mclsaac, the M. P. for that county will acquiosee in them.

It is of great importance to this Province to have the Riser Fisheries protected, as overseer J. II. Morebonse haw justly stated: "The reason of the deep sea fish leaving our shores is the want of small tish that were so numerous on our coast in former years. But I think there are other callese for the fish not a acending our rivers; the setting of the country and che clearing of the timber fiom the bealks of the rivers has naturally caused the streams to get warm in summer, and in many places to dry up, and has kept the fish from taking their usual wourse. It is often very late before they have water enough to iscend the rivers.

I have found in my travelling the reveral counties of Inverness, Victoria, Cape Breton, Richmond, Ciaysboro, Antigonish, Picton, Hali:ax. Colchentier and Cumberland that the fishernten and thone interested in the fisheries are beginning to take an interest in the protertion of the salmon and other river fish, st they find where the rivers are protecten! the tish are beginning to increase in them.

The prohilition of saw dust and mill-rubbish in the narigable rivers is beginning to be bettor mudestuol; several who did not conform to the requirements of the Act havo lreen fined, as my statement of fines with the returns will show, with at receipt for tho anomit paid to the Marine and Fisheries Department in Ilalifax.

I an pleased tor report favomably abont the fish-ladders that have been built under the sulerintudence of Mr. Rogers; some 1 have seen, and others I have made enquiry about, and I find when they are properly built and attention paid to keoping them in repair, they are cquito satisfactury and encouraging; but I must certainly disapprove of these tish gates (so called) in the dams, as they are of very little use, aud it would require a warden at or near them to watch at the time the fish were ascending the river to spawn, and J am free to say that even then the fish could bot face the rush of water through the gate.

Our shore fishing is a matler which has puzzled many, even those who have beon following the business all their tives; they cannot fully minderstand the changes the herriug and mackerel make in calling on our shores This year both have been nearly a total failure on the eastern shore.

The lobster fishing is of great importance, and different opinions exist in regard to the close time, and as I reported before, the only difficulty in the waty is in making different regulations for different counties that would not interfore wheach other's right. Probably by making Cape Sambro the dividing point, a regulation might be made for the west, and a later one for the east; and the northern ports, whero they put up lobstors, it would be immaterial whether it was earher or later, providing it would not interfere with their spawning or soft shell time. It is impossible to come to any correct conclusion in those matters, as I see by referring to the reports that some of the officers' opinions change from year to year.

I shall endeavour to,make the improvement of the river fisheries my particular study, and with the limited experience of the past season, if anything should arise that would be an improvement, will most willingly communicate it.

I have the honour to be, Sir, Your most obedient servint,

WM. HY. WYLDE,
Inspector of Fisheries for Nova Scotia.

## APPENDIX No. iI.


#### Abstract

REPORT OF W. H. ROGERS, ESQ., FISHERY OFFICER FOR NOVA sCOTIA, ON THE YIELD AND VALUE OF FISHERIES, DURING THE SEASON OF 1876.


To the Hon. A. J. Smith, Minister of Marine and Fisheries, Ottawa.

Amherst, 31st December, 1866.
Sir,-I herewith enclose you a report of my own doings, or part of them, during the past summer, which I hope will be satisfactory. I do not know that you wished me to report any further than I had already done, but thought that the cnelosed would do no harm, and if it is not worth printing in your annual report, it may afford some suggestions that may le of service.

In presenting my report for the year 1876, I have much pleasure in stating that great progress has been made during the year in the enforcement of the law, and in the construction of good servicealjle fishways. I find a growing desire among all parties that the fishery laws should be enforced, and that Nova Scotia's most raluable natural resource should continue to reward the toil of our hardy fishermen, in the future as in the past. As the people begin to understand that your department has no other object in expending so much money in protecting and cultivating tish than the good of all parties interested in the fisheries, greater interest is felt and a more cheerful obedience to the law is rendered; lut while I make this statement I am obliged to say that there are many who act very difierently, and seem to be determined that the last fish shall be destroyed; these latter it is our duty to educate by making them feel the weight of the penalties which follow the violation of the law.

## CUMBERLAND COUNTY.

In this county during the past jear a large number of poachers have been fined and some twonty-five nets taken which bas put a wholesome check upon poaching.

Two new fishways were constructed, one at Oxford, which worked well, and one on the Shinimicas, and several others have been repaired. I personally superintended these improvements, as well as engaged in the seizures, and fined several offenders.

Oysters could be cultivated at Pugwash and Wallace, if the proper parties would take hold of the business. At present the beds are being destroyed by a reckless mode of fishing. If your department is disposed to lease a sufficient area for the business and give proper protection, I think I could induce qualified parties to take hold of the business in the proper way and make a successful enterprise of it.

## OOLCHESTER COUNTY.

A good fish ladder has been built on the only mill-dam on Waugh's River and the fish go up.

Whise on a visit to this place in September, I found that a party from Anstigonish County had a large fleat of salmon nets set at tho mouth of the harbour; I abtained
men and a boat and proceeded down the river; and took all the nets the boat would carry; which were worth four hundred dollars; I:had them dried and stored and left in charge of Mr. Urquhart, the warden, as I had to return to attend some cases at Amberst. During my absence the store was broken open, and all the nets taken; I at once went in pureuit, and after searching day and night for twenty-four hours, did not succeed in finding them, as the parties had gone to sea in a boat with the nets a few hours before we got to their stopping place.

## PICTOU COUNTY.

The fishways in this county are still in a bad state, and will have to be looked after when the water is low next summer, and will have to be thoroughly built under the immediate direction of some person who understands the business.

## halifax county.

The fishway on Moses River will require repairing or reconstructing next summer, and there is a mill-dam on the Ecum Secum River in Guysboro' county, a few miles below the Halifax county line which will require a fishway. The dams on the Sackville River will also have to be provided with fishways. The ladder on Messrs. Todd and Polley's dam at Margarets Bay was carried away by a freshet ast fall, and will have to be rebuilt in the spring.

## LUNENBURG COUNTY.

A new fishway was constructed on Mr. Davison's lower dam, which is now pro vided with two good fishways, and the two dams next above with one each, and if the poachers are not kept away next season, there should be no difficulty for the fish to get up the river. There are two or three ladders needed in this county on smaller streams which must be attended to next summer.

Fishing for alewives should be allowed four days in the week to within fifty feet of the fishway, say on Monday, Tuesday, Wednesday and Thursday, as these fish cannot be taken in deep water. By making this concession we will have but little difficulty in enforcing obedience during the remainder of the week, this is very important and should be attended to before the first of May next.

## QUEEN's COUNTY.

I had the fishway on the lower dam on the Mersey River thoroughly repaired, and I have no doubt but the fish will ascend it easier than before. I would like to visit the head waters of this and the Medway River next summer, to examine some obstructions said to exist there.

## SHELBURNE COUNTY.

I had two new fishways built on the two mill dams on the Jordan River, which I have no doubt will give satisfaction, a good way is also built on the Shelburne River, but there are some matters at its head waters which require looking after.

I had a good flshway built on the lower dam on the Clyde River ; also one on Mr. Coffin's old dam next above. There was much noed of these improvements in this County, as the ways put in by the local officers never worked well. The same regulations are required here as in Lunenburg County, with reference to taking alewives, and four days should be given for taking them up to the mill-dams, but not within flity feet of a fishway. I personally superintended the construction of these fishways, and will be responsible for their working.

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## YARMOUTH COUNTY.

I built two new fishways in this Count 5 , one at Carleton and the other at Kempt, and I will guarantee they will both work well. There are some other mill-dams in this County which will require tobe looked after next summer.

I found that a man by the name of Renard, by the most outrageous and illegal means, monopolizing the principal part of the fishery on the Tusket River. I took a gang of mer and levelled his destructive arrangements, made him pay the costs and fine 1 him besides. This will have a salutary effect in the future.

## DIGBY COUNTY.

The Salmon River in this County is in a bad state, and the fishways will require looking after next summer. There are also some natural obstructions on the Montague and Weymouth Rivers, which ought to be removed or fishways built over them. The Bear River is also obstructed with mill-dams, and no fish ascend it, as it was a few years ago exempted from the operation of the law with reference to fishways.

The brush weirs used on the Digby and Annapolis Basin have completely destruyed the herring fishery there, which was a few years ago so productive, and they should either be prohibited altogether or the weirs so arranged that the young fish could escape.

Mr. Carty, the overseer, informs me that he sent you regulations for his county.
The fish ladders in this county do not give satisfaction, and they will require ronovating next summer.

## KING's COUNTY.

The new fishway on the dam at White Rock Mills works well, as they always do when properly built and located.

I have not been in the eastern counties for years, but Mr. Wylde informs me that the fishways in that section of the Province are not giving satisfaction. The Inspector and I have arranged (if agreeable to you) for me to devote my time next summer principally to the construction and эpairing of fishways, while he attends to other matters. I think this will be the wisest course, as it requires considerable experience to properly deal with fishways, and in overcoming obstructions in rivers.

The smelt fishery in this Province, as you will see by the returns, is assuming considorable importance, and will require to be sharply looked after, as well as in New Brunswick. The smelts caught in this Province are more than twice the size of those caught in New Brunswick, which, no doubt, is caused by the excessive fishing carried on in the latter Province for several years past.

Alewives, for some unaccountable reason, did not visit any of the rivers in Nova Scotia in their usual abundance, as you will see by the roturns. Tusket River, in Yarmouth comnty, did not produce half the quantity it did in 1875 . You will remember that the Margaree River, which four years ago produced over five thousand barrels, has for the past two years yielded nothing, and as there are no mill dams to prevent their passage to and from their spawning grounds, I was puzzled to know the difficulty; but Mr. Wylde tells me that within the last two or three years there has been a woollen factory built there, and I have no doubt but the dye from this establishment hus destroyed the fishery, and will have to be enquired into next summer.

A great deal can be done in the way of improving the alewife fithery by the exponditure of a little money in opening or improving the outlets of lakos and small streams along the cossts of this Province, as was done at Ketch Harbour in West Falifax four years ago, and which has already very much improved the fishory there. The Nine Mile River at Margaret's Bay, can be opened for the free passage of fish for about two handred dollars.

The alewife fishery is one of the most important in the country, not because it produces a large quantity of fish, but because the young alewives coming out, of the rivers attract mackerel and other coast fish into the harbours and estuaries. There is abundant proof of this, which can be produced, if necessary, in many localities in this Province, and sufficiently strong to settle the matter beyond all controversy.

I would, therefore, suggest the propricty of asking the House of Commons to grant a sum, say of about one thousand dollars per annum, for four or five years, to open up small rivers and the outlets of lakes for the purpose of facilitating the ascent and descent of alewives and other fish around the coasts of Nova Scotia.

There are many people in Canada and New Brunswick who believe that because Nova Scotia produces more than two-thirds of all the fish taken in the Dominion, they are largely caugbt in fisheries outside of the three-mile limit, i.e., in Labrador, Newfoundland, on the Banks, \&c.; but this is a mistake. The most of our fish are taken in boats around our own shores, as a glance at our returns will show. This being the case, it is of the utmost importance that every little streym around our shores capable of admitting smelts, alewives, trout or any kind of fish that seek fresh water in which to deposit their spawn, should be properly opened and protected during the spawning season at least, and a little money spent in this direction will in a few years repay the outlay a thousand fold, as it has already done at Ketch Harbour in Halifax county. I refer to this matter at length becanse I know of many places along our coasts that really need to be opened at once, and because I know by experience and observation that alewives have a greater influence in attracting coast fish into our harbours and bays than any other fish we produce, and besides they produce bait for line fishermen at a season when no other can be obtained.

> I have the honour to be, Sir, Your obedient servant,

W. H. ROGERS, Fishery Officer.

## APPEN

Return showing the Number, Tonnage and Value of Vessels and Boats and Quantities of Fish, and the Total Number of Men employed,


RECAPITULATION.—

| Articles. | Quantities. |  | Rate. | Total. |
| :---: | :---: | :---: | :---: | :---: |
| - |  |  | \$ cts. | \$ cts. |
| Salmon .-...................................... | 11 barrels | at | 1800 | 19800 |
| do fresh, in ice ..................... | 5,200 lbs. | " | 015 | 78000 |
| Mackerel................... ................. | 129 barrels |  | 1000 | 1,290 00 |
| Herrings .................................. | 14,555 do | " | 400 | 58,220 00 |
| do smoked, in boxes............... Cod ............... ................. | 26,780 boxes | " | 025 | 6,695 00 |
| Cod ............... ............... ........ | 4,218 cwts. 3 barrels | " | 500 | 21,090 00 |
| Po tongues and sounds ................. | 1,466 cwts. | " | 700 350 | 2100 513100 |
| Hake.......... ............... ........ ........ | 1,440 do | " | 350 350 | 5,131 5,040 5,00 |
| Haddock ............................. ........ | 233,505 lbs. |  | 006 | $\begin{array}{r}5,040 \\ \mathbf{3}, 010 \\ \hline\end{array}$ |

## D I X No. 12.

## engaged in the Fisheries ; Quantity and Value of Fishing Material ; Kinds \&c., in the Province of Nova Scotia, for the Year 1876.



ANNAPOLIS.


Return showing the Number, Tonnage and Value of Vessels:

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


ANTIGONISH.


Return showing the Number, Tonnage and Value of Vessels and


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


COMBERLAND.


Return showing the Number, Tonnage, and Value of Vessels and Boats, and Quantities of Fish, and the Total Number of Men employed,


RECAPITULATION.-

engaged in the Fisheries, Quantity and Value of Fishing Material, Kinds \&c., in the Province of Nova Scotia, for the Year 1876.


COLOHESTER.

| Articles. | Quantities. |  | Rate. | Totals. |
| :---: | :---: | :---: | :---: | :---: |
| Shad $\qquad$ <br> Tront $\qquad$ $\qquad$ <br> Smelt $\qquad$ $\qquad$ $\qquad$ <br> Fish ased as manure $\qquad$ | $\begin{gathered} \text { 1,980 barrels } \\ 7,400 \mathrm{lbs} . \\ 40,500 \mathrm{lbs} . \\ 35 \text { bsrrels } \end{gathered}$ | at.......................... | \$ cts. | $\$$ cts. |
|  |  |  | 800 | $15,84000$ |
|  |  |  | 006 | +44400 |
|  |  |  | 006 | 2,430 00 |
|  |  |  | 050 | 1760 |
|  |  |  |  | 25,569 50 |

## Return showing the Number, Tonnage and Value of Vessels and Boats and Quantities of Fish, and the Total Number of Men employed,


engaged in the Fisheries; Quantity and Value of Fishing Material ; Kinds \&c., in the Province of Nova Scotia, for the Year 1876.


Return showing the Number, Tonnage and Value


RECAPITULATION.-

of Vessels engaged in the Fisheries.-Continued.


CAPE BRETON.

| Articles. | Quantities. |  |  | Rate. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | at ... | \$ cts. | \$ cts |
| Halibut...................................................................... | 85,31 | lbs. |  | 006800000 | $\begin{array}{r}5,118 \\ 2400 \\ \\ \hline 18\end{array}$ |
|  | 3,36,300 | barrelslbs. | " |  | 2400 |
| Trout........ .............................. |  |  |  | 006 |  |
| Smelt ...................... ................ | 23,800 | barrels | " |  | 1,428 00 |
| Eels...................................... . |  | barrels | " |  | $\begin{array}{r}1,971 \\ 24000 \\ \\ \\ \hline\end{array}$ |
| Oysters ......................................... | 80 3,236 | cans | " | 3$\begin{aligned} & 300 \\ & 0 \\ & 0\end{aligned} 15$065 | 24000 485 |
| Fish Oil.............................................. | 15,885 | gallons |  |  | $\begin{array}{r} 10,325 \\ 457 \\ 50 \end{array}$ |
| do Guano ................................. |  | tons | ؛ ........ | 1500 |  |
|  | , |  |  |  | 263,002 05 |

Return showing the Number, Tonnage and Value of Vessels and Boats and Quantities of Fish, and the Total Number of Men employed,


RECAPITULA

engaged in the Fisheries; Quantity and Value of Fishing Material; Kinds \&c., in the Province of Nova Scotia, for the Year 1876.


TION.-DIGBY.

| Articles. | Quantities. | Rate. | Totals. |
| :---: | :---: | :---: | :---: |
| , |  | $\$$ cts. | \$ cts. |
| Halibut | 25,250 lbs. at ....... | 006 | 1.51500 |
| Shad | 1,010 barrels " | 800 | 8,080 00 |
| Trout............. | 3,600 lbs. " | 006 | 21600 |
| Smelt . | 106,050 do " | 006 | 6,363 00 |
| Eels... | 48 barrels ". | 900 | 43200 |
| Fish Oil .... ............ | 24,985 gallons " .... | 065 | 16,240 25 |
| Fish used as manure .... | 600 barrels " ... | 050 | 30000 |
|  |  |  | 354,229 25 |

Return showing the Number, Tonnage and Value of Vessels and


RECAPITULATION.-


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


G TTYSBOROUGB.


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 Province of Nova Scotia, for the Year 1876.


Return showing the Number, Tomage 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' Province of Nova Scotia, for the Year 1871.




[^6]Return showing the Number, Tomage and Value of Vessels


RECAPITULATION.—

| Articles. | Quantities. | Rate. | Totals. |
| :---: | :---: | :---: | :---: |
|  |  | \$ cts. | \$ cts. |
| Salmon ........................................ | 492 ${ }^{\frac{1}{2}}$ barrels at........................ | 1800 | 89100 |
| Herrings .................................. ..... | 59 " " | 400 | 23600 |
| Cod.................. .......................... | 99 cwt. " ...................... | 500 | 49500 |
| Shad........................................... | 528 barrels " ....................... | 800 | 4,224 00 |

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


HANTS.

| Articles. | Quantities. | Rate. | Totals. |
| :---: | :---: | :---: | :---: |
| Smelt .........................................Fish Oil.......... ............................ | 50,000 lbs. " ..................... | $\begin{array}{rrr}\$ 8 & \mathrm{cts} \\ 0 & 06\end{array}$ | $\$ \text { cts. }$ $3,00000$ |
|  |  |  | 8,886 95 |

Return showing the Number, Tonnage and Value of Vessels and Boats and Quantities of Fish, and the Total Number of Men employed,


## engaged in the Fisheries; Quantity and Value of Fishing Material ; Kinds \&c., in the Prorince of Nora Scotia, for the Year 1876.



INVERNESS.


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



RECAPITULATION.-

| Articles. | Quantities. | Rate. | Totals. |
| :---: | :---: | :---: | :---: |
|  |  | $\$$ cts. | \$ cts. |
| Salmon ............................... ..... | 7 barrels, at ........................ | 1800 | 12600 |
| "Fresh, in ice | 17,000 lbs. "6 ........................ | 015 | 2,550 00 |
| Mackerel ................................... | 50 barrels " ....................... | 1000 | 50000 |
|  | 7,481 " " | 400 | 29,924 00 |
| ${ }^{\prime}$ S Smoked ....................... | 11,680 boxes "، ....................... | 0 0 25 | 2,920 00 |
| Alewives | 440 barrels " | 350 | 1,540 500 |
| Cod ............... ............................... | 1,190 cwt. " | 500 | 5,950 00 |
| Pollack ... ....... ... ..... ......... ....... | 100 6 " ........................ | 350 | 35000 |

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



KINGS.

| Articles. | Quantities. | Rate. | Total. |
| :---: | :---: | :---: | :---: |
|  |  | \$ cts. | \$ cts. |
| Shad................ | 922 barrels. | 800 | 7,376 00 |
| Trout ............... | 800 lbs.. ................. | 006 | 4800 |
| Smelt | 3,100 " | 006 | 18600 |
| Eels | 6 barrels. | 900 | 5400 |
| Fish Oil. | 2,395 gallons ..... | 065 | 1,556 75 |
| Fish used as Manure | 1,431 barrels .............. | 050 | 71550 |
|  |  |  | \$53,796 25 |

Refurn 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 Province of Nova Scotia, for the Year 1876.



Return showing the Number, Tonuage and Value of Vessels and ${ }^{\mathbb{E}}$ Boats engagedin the Fisheries; Quantity and Value of Fishing Material ; Kinds and Quantities of Fish, and the Total Number of Men employed, \&c., in the Province of Nova Scotia, for the Year 1876.



Return showing the Number, Tonnage and Value of Vessels and


RECAPITULATION.-


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


PICTOU.

| Articles. | Quantities. | Rate. | Totals. |
| :---: | :---: | :---: | :---: |
| Smelt. <br> Eels <br> Fish Oil |  | \$ cts. | \$ cts. |
|  |  | 006 | 32460 |
|  |  | 900 | 27000 |
|  |  | 065 | 1,196 00 |
|  |  |  | 19.11556 |

Return showing the Number, Tonnage and Value of Vessels and Boats and Quantities of Fish, and the Total Number of Men employed,


RECAPITULA

engaged in the Fisheries; Quantity and Value of Fishing Material ; Kinds \&c., in the Province of Nova Scotia, for the Year 1876.


TION.—QUEENS:

| Articles. | Quantities. | Rate. | Totals. |
| :---: | :---: | :---: | :---: |
|  |  | \$ cts. | $\$$ ets. |
| Haddock ................................... | 217,300 lbs. at ................. ..... | 006 | 13,038 00 |
| Halibut....................................... | 19,160 do ""......... ............. | 006 | 1,149 60 |
| Eels ......... ........ ........ ................. | 62 barrels : $6 . . . . . . . . . . . . . . . . . . . . . . ~$ | 900 | 55800 |
| Lobsters ......... ...................... ..... | 45,000 cans "4 ........ ............... | 015 | 6,750 00 |
| Fish Uil ..................... ................. | 15,681 gallons " ....................... | 065 | 10,192 65 |
|  |  |  | 211,332 75 |

Return showing the Number, Tonnage and Value of Vessels and Boats and Quantities of Fish, and the Total Number of Men employed,


RECAPITULATION.-

| Articles. | Quantities. | Rate. | Totals. |
| :---: | :---: | :---: | :---: |
|  |  | \$ cts. | \$ cts. |
| Salmon | 114 barrels at ........................ | 1800 | 2,052 00 |
| " Fresh, in ice | 8,800 lbs "،....................... | 015 | 1,320 00 |
| " ................................... | 10,000 cans "، ........................ | 015 | 1,500 00 |
| Mackerel ................................. | 7,132 barrels " ..... | 1000 | 71,320 00 |
| Herrings ............................ ........ | 16,796 do "، ....................... | 400 | 67,184 00 |
| Alewives. ................................. | 692 do "،...................... | 350 | 2,422 00 |
| Cod ..................................... | 139,962 cwt. " ....... ................ | 500 | 199,810 00 |
| Cod Tongues and Sounds ............. | 109 barrels "، ....................... | 700 | 76300 |
| Pollack .................................. | 120 cwt ¢ ${ }_{1} 190 \mathrm{cwt}$................... | 350 | 42000 |
| Hake ...................... ............... | 1,190 cwt. " | 350 | 4,165 00 |

engaged in the Fisheries; Quantity and Value of Fishing Material ; Kinds N.c., in the Prorince of Nova Scotia, for the Year 1876.


RICHMONB.

| Articles. | Quantities. | Rate. | Totals. |
| :---: | :---: | :---: | :---: |
|  |  | \$ cts. | \$ cts |
| Tiaddock | 3,168,300 lhs. at ................. .... | 006 | 190,098 00 |
| Halibut.. | 21,000 do "،.................... | 006 | 1,26000 |
| Shad.......... | 5 barrels "s .................... | 800 | 4000 |
| Troat . | 2,690 lbs. " | 006 | 16140 |
| Smelt | 6,700 do "t .................... | 006 | 40200 |
| Eels ........ | 231 barrels "، ...................... | 900 | 2,079 00 |
| Lobsters .... | 231,720 cans "" ..................... | 015 | 34,75800 20,410 |
| Fish Uil................... | 31,400 gallons " ...................... | 065 | 20,410 00 |
|  |  |  | 600,164 40 |

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


RECAPITULATION


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


SHELBURNE.


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


RECAPITULATION.--


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


VICTORIA.

| Articles. | Quantities. | Rate. | Totals. |
| :---: | :---: | :---: | :---: |
| Hake... | 155 cwt . at ...... ............... | \$ $\begin{array}{cc}\text { cts. } \\ & 3 \\ & 50\end{array}$ | $\begin{gathered} \$ \mathrm{cts} . \\ 542 \mathrm{5} \end{gathered}$ |
| Haddock ... | 131,260 lbs. " ........................ | 006 | 7,875 60 |
| Halibut . | 2,700 lbs. " | 006 | 16200 |
| Lobsters...... ........ | 5,600 crns "، ................ ...... | 015 | 84000 |
| Fish Oil ...................... | 11,210 gallong " ....................... | 065 | 7,286 50 |
|  |  |  | 169,210 60 |

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 Province of Nova Scotia, for the Year 1876.


Return showing the Number, Tonnage and Value of Vessels and Boats rngaged in the Fisheries, \&e.-Novai Scotia.-Continued.


Return showing the Number, Tomnage and Value of Vessels and boats engaged in the Fisheries, Se.-Nora Scotia.-Continued.

## RECAPITULATION.-YARMOUTH.



Recapitulation showing the Total 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 Province of Nova Scotia, for the Year 1876.


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


## RECAPITULATION

Value of the different Fisheries of Nova Scotia, during the Year 1876.
Articles.

## APPENDIX No. 13.

## REPORT OF W. H. VENNIN(r. INSPECTOR OF FISHERIES FOR THE PROVINCE OF NEW BRUNSWICK, FOR THE YEAR 1876.

St. Jomn, N. B., 31st Dec., 1876.

Hon. A. J. Smith, Minister of Murine and Fisheries.

Sir, -I have the honor to submit the following report and remarks upon the firheries of the Province during the year just closed.

## Salmon Fishery.

The opening of the Intercolonial Railroad has greatly increased the facilities for transportation and export of frenh fish packed in ice, or frozen by the patented processes which are leeing gencrally adopted in all the principal salmon districts in the Province. This will, in a great measure, change the whole aspect of the fish trade, by leading to the partial abandonment of the canning entablishments and to the totad abandonment of the previous custom of salting in barrels. This change will, I have mo doubt, render the trade more profitable, by greatly reducing the labour heretofore necusary to preserve and get the fish ready for market. By means of rail carrise, salmon from New Brunswick, frozen or packed in ice, can now be placed in Ancrican and Canadian markets in a pertorty fresh state, within a fers hours after being caught and will, of course, bring higher pricos and better profits. This will incite fishermen to greater exertions, and at the same time offer them greater inducements to pursue illegal fishing in future. This has been proved by the experience of last seamon, during which several parties from St. John and the shores of the Bay of Fundy transported their boats and nets to Petit Rocher and Charlo, in the Bay of Chalcurs, and commenced drifting off the mouth of Restigouche River. Reports of this and of the action taken, were submitted to you in June last. To prevent this and to more effectually protect the fisherice in districts where the tacilitics for poaching are very great, some changes are necessary in the personnel and jurisdiction of several officers, as well as in the regulations for the several countios. These changes have been urged in letters to your deparument. Nothing will tend more to this protection or strongthen the hands of the officers in enforcing it, than the immediate adoption of the license system that now prevails in Quebce and Ontario. All past oxperionce conclasively proves the benefits of this system, not only to the fisheries but to the fishermen themselves, and in several counties they have expressed thoir desire to take out licenses, pay a reatsonable fee, and be protected in the peaceable and legal occupation of their stands. In various letters, I have strongly urged the adoption of this system, and every year the necossity for cloing so bocomes more apparent. The present unsatisfactory mode of issessing the tax on salmon stands, the strong ebjections of the fishermen against it, the impossibility of gotting correct returns of their catch, and the difficulty and expense of collecting the tax, all call loudly for the adoption of the more simple and satisfactory mode of placing the stands under license at a fair and equitable license fee. If this is done the present dissatisfaction will be removed; the license feos will, in most cases, be cheerfully paid; the fishomen themselves will have a direct interest in the enforcement of the protective clauses of the Act, and the tishery officers will be enabled more effectively to superintend and control their several districts.

## Bass Fishery.

The concession granted aw an experiment last spring to the people of Napan and Black River, to take bass during the close season, bas been much abused. Under the pretence of catching a few tish for domestic use, as set forth in their petition, over nine tons of bass were taken from the opening of navigation to the 25th May, and the largest portion of these were sold to shippers and disposed of in the towns of Chatham, Douglastown, Newcastle and Nelson. The plea that they were needed for domestic use was a mere pretence, and under cover of this permission given to the Napan people, the close time for bass was evaded everywhere, without the possibility of the orerseers being able to prevent it; for all in whose possession bass were found were ready to swear they were caught in Napan. The whole of the above large quantity of bass consisted of fish just about to deposit their spawn and milt and small bass under the legal weight. They were mostly taken by means of seines or sweep nets, which destroy everything they surround, and the small tish are killed by being hauled and tumbled over the beach. Those who profited by the concession gave false returns of their catch, and the expenses of collecting the tax nearly absorbed the whole amount, as the overseer was obliged to make three visits through the district, so unwilling were the people to pay. The close season for breeding fish should be everywhere enforced, and there can be no doubt, from the result of this experiment, that if the concession is continued the effect upon the bass fishery will be most disastrous.

Under pretence of fishing for bass after the 15th August, many salmon are taken in the lower part of the river, and the close time for the latter fivb is thus evaded. As the bass fishery is not commenced after the spawning time until 1st October, except under pretence and for the real purpose of catching salmon after the close time, the setting of bass nets should be prohibited until 1st October, after the salmon have gone up.

## Gasperaux Fishery.

The destructive practice of seining gasperaux in the Miramichi River has been frequently urged in letters to your Department, and in my last annual report, for the following reasons: This mode of fishing commences from the opening of navigation and is allowed to continue until the 15th June. Under cover of this, salmon, grilse, spawning bass, young bass and large trout are taken indiscriminately along with a few barrels of gasperaux, which latter fish could just as well be taken in set nets, as is done in all other parts of the Province. Indeed, in no other river in the Province, that I am aware of, is this destructive mode of fishing pursued, and I am fully convinced were it not for the salmon, grilse and bass taken it would; not be resorted to in Miramichi ; but as long as it is permitted, unscrupulous men will use it as a means of evading the law as regards other fish. I most urgently recommend that by Order in Council this mode of tishing for gasperaux be prohibited.

## Herring Fishery.

Great dissatisfaction exists among the herring fisbermen of Charlotte county in consequence of the alleged excessive tax upon herring weirs. This fisbery. is extremely fluctuating and uncertain, and no calculation can be made on its annual yield. If the tax were reduced, and all weirs obliged to take out license, it would iremove all cause of dissatisfaction and conduce to the better regulation of this mportant fishery. Several petitions are in your Department, setting furth the hardship of this tax, and praying for its reduction.

## Smelt Fishery.

Hitherto snielts have been very numerous because the fishery has not been followed to any great extent, but the facilities now offered for transportation are so great that a large business in this fish is growing up all along the Northern Shore of New Brunswick, including the counties of Kent, Northumberland and Gloucester. They are sent to the United States, where they find a ready sale at profitable prices. In addition to the large quantities of a marketable size that are taken by the use of seines, great numbers of very small ones not suitable for market are destroyed. It is quite evident that this destructive mode of fishing must, in a few years, exhaust the supply, and I submit for your consideration whether some means of controlling it within reasonable bounds should not be adopted. Perhaps the easiest and most effectual mode of keeping the fishings within reasonable limits, will be to license them, under suitable conditions, at a nominal license fee. Several applications have already been made for licenses and others will follow. I am convinced that the use of seines in this fishery should be probibited, because they necessarily take large quantities of fish too small for market, which are consequently wasted. In view of the rapidly increasing business in this fish, and the extent to which it is now pursued, every means should be taken to foster and protect it, as it gives remunerative employment to large numbers of poor persons during the winter months. The present close time from 15th April to 15th May does not cover the spatrining seas.jn of the summer smelt nor sufficiently protect the breeding fish. Large numbers are taken after 15 th May (before they are done spawning) and used as manure. The close time, to be effectual, should be extended to the first July, not only to prevent destruction of the spawning fish, but also to prevent their being used as manure. If they are caught all winter to the extent that now prevails, and then destroyed wholesale during the spawning time, a very few years will effect their exhaustion. I would respectfully urge that this change be at once made by Order in Council, so that it may be operative during the coming season.

In Maine, Massachusetts, and New York, where, formerly this fish was almost as numerous as it is now in our waters, smelts have become very scarce fiom the same causes that are at work in this Province. These States are now dependent upon our fisheries for their supply, Boston and Now York furnishing the principal markets for our shipments. These States have found it necessary to make stringent laws for the preservation of the specios in their waters, and we should no ignore the lesson they teach us. The following extracts from their law will show how they now protect them.
"1st. Whoover offers for sale or has in his possession any smelts between the 15th day of March and the first day of June in each year, shall forfeit tor each and every smelt so sold or had in his possession the sum of one dollar.
" 2nd. Whoever takes or catches any smelt or smelts with a net, of any kind, or in any other manner than by natirally or artilically baited hook and hand lines, shall forfcit for each and every smelt so caught or taken, the sum of one dollar, and the burden of proof shall be upon the defendant to show that they were legally canght."

I have made a special report upon the Stmelt Fishery, as now pursued in this Province, to which I beg to direct your attention.

## Lolster Fïshery.

The importance of definitely fixing the close time for lobsters in the several localities in which this fishery is pursued, cannot be too strongly urged. During the last season, in consequence of concessions to those engaged in the canning business, there was practically no close time, and lobsters were caught during the whole spawning season. In former reports I have called attention to the rapidity with which this shell-fish is being exterminated in every locality where thu fishery is carried on, and urged the necessity which exists for a strict enforcement of a close
season during the time of sparving. I regret to say that nothing practical has yet been done, and the destruction continues to go on at a yearly accelerating rate. In every district where canning establishments exist, small sized lobsters and breeding females have been taken in vast numbers. If this is allowed to continue, a total failure of this now extensive and protitable fishery cannot be far distant. Notwith: standing the assertions to the contrary of those in the canning business, nothing short of a strictly enfirced close season during the tione of spawning, and a compulsory observance of the law prohibiting the killing of under-sized and soft-shelled fish, will preserve the lobster from speedy extermination. So great is the diminution in the size of lobsters now taken in most of the canning districts, that five pounds of crude fish are required to make one pound of preserved meat, taking on an averase three lobsters to fill a pound can. When it is considered thit many hundreds of thousands of these cans are filled annually, it will readily be understood how great is the destruction each season, and how necessary it is that some effective measure should be enforced.

## Oyster Fishery.

The remarks made in all my former reports on the state of the oyster beds upon our coasts and in cur estuaries and rivers, are, I regret to say, still more applicable nor, and every passing year witnesses their rapid depletion. The present close season is found to be inadequate to their preservation, in consequence of incessant raking during the whole open season. Nothing will now save them from total extinction except a compulsory rest of several years.

## St. John Harbour Fisheries.

In a former report, and in several official letters to your Depariment, I have called attention tc the fisheries of the harbour of St. John, and the illegal manner in which they art pursued. The protective clauses of the Fisheries Act gre entirely ignored, and even the by-laws passed by the Common Council for their regulation and protection, are, of late, openly violated. The following are some of the evils which prevail in the harbour, all of which are prohibited by the Fisheries Act, which it is contended is not applicable to these fisheries:---

Drifting for salmon both inside and outside of the harbour. Total neglect of weekly close time, from Saturday night till Sunday morning. Total neylect of close season for salmon and bass. Great destrcction of young gasperaux by weirs.

These evils have now becume so great, and their injurious effects on the fisheries of the harbour and river are so visible, that some means should be adopted to put a stop to them, or the total destruction of these valuable fisheries is merely a question of time, and a few more years will see the end of them. No fewer than seven counties are dependent upon the St . John river for their fish, and all these are at the mercy of the Common Council and the fishermen of the harbour, for of late the former never enforce the By-laws, and the latter pay no attention to them. [n a letter addressed to your Department, on the 10th March last, I described the extent to which drifting for salmon is pusued. Should the Fisheries Act be applicable, as I believe it is wherever fishing is jursued in the Dominion, I would respectfully urge that it be immediately enforced, both inside and outside the harbour of St. John. This subject is of great importance, as the serious falling off in the fisheries of the harbour and river during the lasi few years, in consequence of the illegal and destructive manner in which tishing las been pursued, calls loudly for some immediate protective action.

## Trawl or Bultow Fishing.

Every year complains against this mode of fishing are becoming more generar and old fishermen assert tat since their use has become so common by Americans in
our waters, all the line fish, such as cod, haddock, hake, pollock and halibut, are beconving scarce. All the Overseers in Charlotte county, without exception, bear testimony to this, and strongly urge that in the Bay of Funcly, at least, this mode of fishing should be prohibited for the following reasons:-First,- these trawls give all our best fish to American fishermen, because of the great extent to which they use them. Segond, - they kill a very large number of small and useless fish, that are wasted. Third,-- they keep the dish off shore by the large quantity of bait used, and prevert them coming into bays where our small boat fishermen can get them. In collneotion with this mode of fishing is the baneful praetice of throwing gurry or offals on the fishing grounds. The use of trawls encourages this practice as the vessels will not voluntarily leave the fishing grounds to dispose of it otherwise, and the distance from hore renders it impossible for our Overseers to detect and punish the wrong-doers, without a suitable vessel and sufficient belp to enforce the law by vigorous measures. The subject is of great importance to the fisheries of the Bay, and I urge its careful consideration with a view to abating the evils pointed out.

## Saw-dust and Mill Rubbish.

In all the counties where lumbering is pursued and saw mills are in operation, corrplaints continue to be made of the quantities of saw-dust that are allowed to go intp the rivers. Every year this evil is increasing rather than diminishing. Mills are being multiplied in rapid succession all over the Province. No proper provision is made for disposing of their refuse, and the great bulk of it is cither thrown into the streams or deposited on the banks in such a way that every freshet washes it into them. The evil effects of this on the fisheries I have repeatedly pointed out. In almost every report made to your Department I have called attention to this growing evil and urgecl its abatement. I regret to say that hicherto the influence of lumbermen and mill owners has been allowed to set the hw aside, and the evil coatinues without check or hindrance. In my last annual report the following remarks were made on this subject, and I beg leave to reproduce them hero, and to solicit for them your early consideration.

Since the Fisheries Act of 1868 has been in force, vigorous efforts have been mode to carry out its provisions, respecting the pollution of streams by saw-dust and mid rubbish. These efforts have been met by determinel opposition of influential mill-owners, and it has, in many cases been found impossible. owing to circumstances unconnected with the law, to compel compliance with its requirements. The matter is one of vital importance to the fisheries, and the navigation of all our large rivers, and I respectfully ask for the following remarks your favourable consideration.

There can be no doubt that the operations of saw-mills at a time when there was no law compelling the erection of fish-ways or prohibiting mill refuse from being thrown into the streams, have caused many of our rivers that once abounded with migratory fish, to become entirely deserted by them. In fac this is the case with by far the greatest number of our smaller rivers and streams at the present time, and the same causes are operating to depopulate our larger and nore important rivers. These milling operations are now threatening to undo all that has been done to re-stock the River"St. Croix. After fish-ways have been built in all the dams, and salmon and alewives have begun to ascend to their old spawnng places, sawdust and mill refuse bid tair to render useless all that has been accomilished. In the County of Careleton, on the Upper Saint John, there are some thiry-three saw and shingle mills, and the whole of their refuse is allowed to pass into the river. Already this has had a visable effect upon the salmon fishing in its whole extent, for the further the fish ascend after passing Fredericton the norse do they ind the water, and the sawdust is tast covering up the beds upon which the salmon were accustomod to spawn. There can be no doubt if this continues but a few fears longer, the salmon tisheries of the whole river, harbour and bay will be destoyed. When it is considered that mill-owners have only a life interest in their operations, it seems unreasomable to allow them to destroy, for their own immedine profit, the heritage of
future generations-one of the richest gifts of a beneficent Providence. In view of these facts, I would respectfully urge that all fishery officers be sustained in their efforts to compel mill-owners to comply with the law respecting sawdust and mill refuse, and that steps be taken to secure the co-operation of the Pisbery Commissioner of Maine, so that the law may le enforced on both sides of the River St. Croix.

## Fish Culture

The falling off in the three most valuable species of fish in the St. John River, viz.: salmon, shad and alewives, has become so marked of late years that good grounds exist for fearing their total extinction at no very distant day. Advancing civilization is laving its untal effect, the extension of lumbering operations, the multiplication of mills, the settling of the country, the clearing up of the wilderness and excessive fishing, all combined are so altering the old condition of things that it is not to be wondered at if the fish supply is showing unmistakable signs of failure. The only remedy I can suggest is the extension of artificial hatching. A hatching house for salmon at some suitable place on the St. John and the artificial process of hatching shad and gasperaux, might yet restore the fisherics on this river to their old state of prosperity. The facilities for this are great, and the outlay need not be large, whilo the benefits will he incalculable. At a comparatively small expense several millions of young salmon and shad might annually be placed in the river. These, in addition to the natural increase of the parent fish that reach their spawning places, would keep up the supply and replace the drain now made on the diminishing stock. The success now attending the establishments already in operation, is very encouraging, and the benefits that will result are too plain to be overlooked. I beg to commend this matter to your favourable consideration as regards the St. John River. A special report on the operations of the Miramichi fish breeding establishment for the past year accompanies this.

The following remarks on the fisheries of the several counties compose the substance of reports from the District Overseers, from which, and from the returns accompanying them, it will be seen that the fisheries of the Province show a large falling off from the yield of last year. This is accounted for in the remarks of the Overseers of the several districts, but my own opinion is that nothing like full returns of the silmon catch have been obtained from a single district in the Province, and until the license system is adopted, I see no means of compelling the fishermen to give correct, or indeed any returns.

## RESTIGOUCHE COUNTY.

When the ice left in the spring of 1876 appearances were rather unfavourable for the fishermen, the river being very high with a great depth of snow in the woods to keep it up, which caused the fish to be very late in entering the river, consequently fishing did not commence until later than usual, and was of short duration. Overseer Ferguson, of the Upper District, in his report says:-"I am happy to inform you that although the season was short the eatch, was very heavy and remuncrative to the fishermen, bringing good prices and punctual payments. On the whole, the fishing was above the average. On account of the high freshet a very large number of tish got well up the river before nets were set, and afforded good scores to the anglers. It is now admitted by all fishermen that the enforcement of the Fisheries Act has been followed by a great improvement of the yield of the coast and river salmon fisheries."

Overseer McMillan of the lower district of this county writes as follows:-" While the season's catch of salmon has exceeded the best fishing in a number of years, mack-

- erel and codfish have proved almost a failure,very few of either having been taken in my district. I can assign no cause for this, except the erratic and uncertain movements of these fish. The catch of spring herring was less than usual, owing to large quantities of ice in the bay which continued during the whole spring fishing." The lobster
fishery has not yielded as large a return as formerly, although the business was extended nearly two months later than usual. The importance of enforcing the close season for this shell fish, during the time of spawning, cannot be too strongly urged.


## GLOUCESTER GOUNTY,

The returns from this county show a large falling off, compared with the catch of last year, in all descriptions of fish, except bass and smelt. The catch of codfish was not nearly so grood this year as last, which is attributed by fishermen to the late spring and scarcity of bait. The decrease in other deep sea tisheries may arise from the same causes, but the falling off in the salmon fishery is due to a different cause. Overseer Hickson says :-"Four years ago I renarked that during the salmon spawning seatson the freshels were very high and the fish spawned on the banks and shoals that were then covered with water, but when the freshet fell ducing the winter, the deposited eggs were left completely bare and consequently perished from frost. Hence last season there were but few grilse, and this scason scarcely any four-yearold salmon, and I fear the same result will attend the spawning this fall. Though the river was well stocked with parent fish, the freshet rose too soon and was very heavy, so much so that a number of full grown salmon were found dead along the shores of the Nepissiruit, some of them spent and some only half spent. Here is a difficulty that cannot be remedied except by the hatching house which, 1 believe, is the only sure means of keeping up our stock of salmon.
"The Tetagauche was well stocked with salmon this season. Up to the first week in September, about one hundred fish were let through the pass on their way up river, and from that date the pass his been continually open. There have been very few attempts at poaching this season on any of the rivers.
"Experience has proved that the tax on salmon, as it now stands, cannot be collected in this county, for the simple reason that there are no means of finding out the catch of each stand of nets, and the fishermen positively rofuse to give it. Under these circumstances, I would recommend that the mode of assessing the tax be changed to license fee of 3 cents per fathom on all salmon nets in this county, payable when the license is issued, and all nets set without a license to be forfeited. Under this system the fishermen will be secured from all intrusion while they comply with the law, and the Department will be better able to control the fishings when disputes arise as to the ownership of the stands. The smelt fishery is growing to be a branch of industry that will soon compete with the salmon trade in our county. Smelts are now shipped in great quantities to American markets where they find a ready sale at romunerative prices. This trade has grown up since the opening of the Intercolonial Railroad, and gives employment to a large number of poor people of all ages. There are many complaints against the use of seines and bag-nets in this fishery, and in my opinion they should be prohibited, as large numbern of fish, too small for market, are taken and wasted. I would also call attention to the close season for this fish; as it now stands it is nearly useless. It should be extended to the 1st of July, as during the months of May and June smelts are taken only for manure, and vast quantitios are thus destroyed at the very time they are entering the streams and brooks to spawn. The destruction of this valuable fish at the spawning season, for the mere purpose of manuing land, is a sinful waste of good and nutritions food, and an outrage against common sense. Now that it is becoming a valuable export, and a source of profitable employment in all localities where it abounda, this tish should bo carefully protected, or the supply will soon be exhausted. I am strongly of opinion that all nets for the capture of this fish should be licensed at a nominal fee, in order more effectually to control the fishery." Oversoer Landry, of Pokemonche District, reports that the catch of alewives is decreasing every year, and thinks the cause is overfishing at the gully or entrance of the river. He reports the catch of spring herring as very good, and also that of codfish and eels.

Overseer Savoy, of Tracadie District, reports an average catch of cod and herring, but a falling off in that of mackerel. The catch of salmon has been a fair
average and that of alewives somewhat better than during the previous yoar. Trout and eels have been abundant and during the past season a large number of hass have been caught about Miscon, Shippegan and Tracadie, principally with hook and line, and there is every likelihood of this fishery growing into considerable importance, now that the rainoad givos facilities for its transportation to market. Overseer Savoy recommends that the close time for smelt be extended to the 1st of July as a protection to this fish, which is now becoming an article of commerce in his district.

## NORTHUMBERLAND COUNTY.

The returns of the overseers in this county show a poor season's fishing in salmon, but bass, shad and alewives have yielded good returne.

Overseer $W_{y s e}$ of Escuminac and Portage Island district, reports:-"The catch of salmon during the past year has beon small, in some localities almost a failure. On Portage and Fox Islands there has been an average catch, but these two places are the lest stations on the whole river. The prevalence of westerly winds during the summer is in a great measure the cause of the falling off inside the bay. The great extent of nets set off and about Portage Island has no doubt been a main cause of sciucity in the riser, and the curtailment of these has become absolutely necessary. Frely ycar this cause of complaint is becoming more apparent, and nothing but the introduction of the license syatem will remove it. It is absolutely impossible under the present regulations to compel fishermen to give correct returns of their catch, and there is no mode of compelling them to pay the tax. If the present tax on the catch were changed to a license fee on the net, and made payable when the license is given, these difficulties would be removed. Seining for gasperaux in the spring and for bass in the fall should be stopped. The value of spawning bass and young bass destroyed in one year is greater than that of all the alewives taken in five years, and the latter fish can be just as well takem in set nets. The close time for bass, which expires on the 1st August, should be continued uutil the 1st October, to prevent the taking of salmon moving to the spawning grounds after the 15th August. The smelt fishery has now grown into proportions so large that some regulations to keep it within reasonable bounds shonlia at once be adopted, and the wasteful practice of using this valuable fish as minnure in the spring should be prevented by extending the close time to the 1st of July. All smelts caught afterthe 1st May are spawning fish, and are used for no other purpose than for manure. Their value as a food tish and as an article of comnierce far exceeds their value as a fertilizer, and this wholesale destruction of the spawning fish will, if continued, soon exhaust our waters."

Overseer Russell, of Lower Newcastle, also reports a small catch in his district, which he also attributes to the excessive netting pursued at and around Portage Island. He strongly urges that this excess of nets be reduced and none allowed in that locality except under license. He also recommends that the close time for bass be extended to the 1st Octobor, to present the taking of salmon after the 15 th August, and the close time for smelt to the 1st of July, to prevent the spalwaing and spent fish being used as manure.

Overseer Perley, of Cbatham and Glenelg district, reports that the salmon fishing has not been good. It commenced with a very fine run at the opening of the season, but from some cause unknown to him the run continued buta very short time. He is of opinion that the prevailing winds were unfavourable in the early season, as, after September, very large runs ascended to the spawning grounds. In his district alewives were plentiful and a good catch was made; shad also were more plentiful than for many years; bass also gave a good catch; smelts were very plentiful and large quantities have been caught. He also strongly urges thar some immediate mearures be adopted to foster and protect this fishery, which in his district is becoming a valuable one. He complains that saw-dust and mill rubbish trom the Chatham mills do great damage to the nets in his district, and urges that the Harbour Master be compelled to abate the nuisance.

Orerseer Hogan, of Newcastle and Northesk, reports a small catch of salmon in his district, but that of bass was very large and remunerative. He complains that the fishermen will not give him any returns of their catch, either of salmon of bass, and strongly urges the adoption of the license system, and a fee upon the net, instead of on the catch, to be paid when the license is given, all nets set without license to be subject to forfeiture. He also bears testimony to the great destruction of spawning bass from the use of the seine in taking gasperaux in the spring, and strongly recommends that this mode of fishing be prohibited entirely. The destruction of spawning smelts in his district, during the months of May and June, when this fish is usea only as manure, he reports as very great and urges its precontion by extending the close season to the 1st of July. Overseer Hogan represents that it is quite impossible for him to enforce the close season for bass in his district, so long as the Napan people are allowed to take them during the close season. Large numbers are caught in his district in the night, carried across the river, and then brought back and sold as Napan fish. At the time these fish are caught, either in Napan or Northesk, they are ripe for spawning, and he urges that the close time be strictly enforced everywhere on the river.

Overseer Cushman, of Upper Nelson and Derby, reports but a light catch of salmon and alewives in his district, but says that shad were more plentiful than usual. He thinks that the practice of seining these fish has the effect of keeping down their increase, by not allowing them to reach their spawning grounds in sufficient numbers. As these fish can be caught in set nets he recommends that the use of seines be prohibited entirely. In the months of May and June smelts ascend the South-West River and its tributaries in vast schools to deposit their spawn, and at this time large quantities are taken and used as manure. He recommends that the close time be extended to the 1st. of July, in order to prevent their destruction. He also complains that no correct returns of catch can be got from fishermen, and therefore he tinds it impossible to collect the tax in its present shape of a rate on the weight caught. He thinks this difficulty could be removed by allowing no net to be set without a license, and that a liconse fee on the net be made payable when issued.

Overseer Underhill, of Blackville District, reports but a small cateh of salmon and alewives, which are the only fish caught in that part of the river. The fall run of salmon wav rery large, and a good supply of breeding fish reached their spawning beds after the nets were removed. This district is perbaps the worst in the river for poaching, and the utmost vigilance on his part cannot apprebend the offenders, who have an organized system of siguals, by which the movements of the officers are signalled from one end of the district to the other. He reports that he was twice fired at with pistols while on dity in the night, by partios who were watching him from the shores. I would recommend that this officer be allowed to employ assistance during the close season, as the district is infested by an organized band of most determined poachers, and the other officers are too far from him to render assistance when most needed.

In the adjoining district of Blissfield where the lumber is earlier got down the river, Overseer Freeze reports the catch of salmon to be better than that of last year. The run of grilse was unusually large, and the inducements to use nets of a less mesh than the law allows were great; many seizures of illegal nets were made, consisting of a portion of old and worn net, with a few fathoms of new small meshed net attached; as these nets are set only in the night the constant vigilance of the overseer is necessary to discover them, and as his movements are carefully watched and signalled the difficulty of apprehending the poachers is very great. Overseer Freeze is obliged to disguiso himself, loave his home at night in a waggon, drive to the upper end of his district, and then float quietly down in a canoe. By this means he can often seize the nets, but the owners of them escape without detection. If this officer were also allowod to employ assistance when naeded he could more offectually guard his district.

Overseer Cameron, of the upper district of the South-West, reports about an average run of salmon, but a most unusual run of grilse during the months of June
and July; but the late run of spawning fish in the $u_{p p e r}$ reaches of the river was smaller than usual. This he attributes to the extension of the time of netting from the 15th to the 31st August, and he expresses his opinion that if this extension is continued for a few years more the upper waters of the river will sufier for want of a sufficient number of parent fish to keep up the stock. Angling was very successful, and all who visited the river had fine sport, but there was a large preponderence of grolse in consequence of excessive netting in all the lower districts of the river. Overseer Cameron is of opinion that netting is allowed too far up the Miramichi River, and suggests that no nets should be set above Blackville. In no other river in the world, that I am aware of, are salmon allowed to be netted on their spawning ground-, after ruming the gauntlet of innumerable nets from the mouth of the river upwards. The comparatively few fish that escape the toils besetting their ascent from the time of entering the mouth of the river, and reach their accustomed spawning grounds, should be allowed to perform their procreative functions undisturbed. In tormer reports I have repeatedly expressed this conviction, and every year's experience only strengthens it.

KENT COUNTY.
In this county, the catch of saimon last season was about equal to that of the previous year. Owing to the low price of canned salmon the great bulk of the catch was sent fresh in ice by rail to American markets. Overseer Sutherland says :"There have not been so many lobsters caught this year owing to high winds and rough weather. The gasperaux and spring herring fisheries have been almost failures this season, which the fishermen say was caused by the late season and the ice running in the rivers and on the coast so late in the spring. Cod, mackerel, and herring huve been scarce all along the coast this year, and the catch of those tish has been small. But few buss were taken last winter. The fishermen have been closely looked after and they have not been allowed to use any illegal nets. I paid special attention to this during the winter, often staying on the ice orer night, which is the time this fishing is done. The tax on bass has not been puid, though fishermen have promised to do so. Considerable quantities of trout and eels were caught and sent to Anerican markets. The cod, herring and mackerel were mostly used for home consumption. The quantity of oysters taken was very small, and the beds are becoming worse every year. The smelt fishery has been more largely pursued than ever before, and great quantities have been sent to American markets. The bag-nets take large numbers of very small fish, which are untit for market, and I think some restrictions should be placed on them to prevent this, and fishing for winter smelts should not continue after the last of January or the middle of February at latest. The close time for summer smelts should be extended to the 1st of July to coser the whole spawning season of this fish, large quantitios of which are wasted for manure. The tax on salmon has not been paid; no means are provided for compelling correct returns of catch, and fishermen will not give them so long as the tax is on the catch. If a license fee of 3 cents per fathom were placed on all salmon nets, and none allowed to be set without license, this difficulty would be removed, and I think the rate would be more cheerfully paid. In May liast I visited all the mills in my district and reported to the Minister as respects fisi-w:lys and mill refuse, but hare had no further instructions since I was ordered to stop all proceedings in enforcing the law, consequently the mill owners pay no attention to it nor to my efforts to secure its observance.

Overseer Cormier reports that in his district, from Shediac to Richibucto, the catch of all kinds of fish this year has been less than that of the previous season, excopt eels and lobsters. Bass have been plentiful in Cocagne and Buctouche Rivers and Bays, but not a great many were caught, as fishermen wcre not prepared with proper nets, this fish having been scarce the year before. Oysters continue to decrease. In addition to continual raking during the open season in summer and winter, the practice of opening them on the ice, and leaving the shells there, is belping to pre-
vent their increase, for all the young oysters attached to the shells are destroyed and wasted. Some more effectual protection to our oyster beds is needed. This present close season is not sufficient to foster their increase. The mills still-continue to allow their saw-dust and rubbish to go into the rivers, and no attention is paid to the law against this abuse.

## WESTMORELAND COUNTY.

Overseer Deacon reports that he cannot see much improvement in the catch of fish in his district. There was a falling off in herring caused by ice holding on the shores so late last spring, and the floating ice carrying off a large number of nets. Salmon in the Shediac river are increasing and require strict watching to prevent poaching. The lobster establishments have been doing a good business this season, but they require close attention to prevent the use of those prohibited by law. The oyster beds may now be said to have ceased to yield any returns that will pay for the labor of raking, and nothing but artificial culture will restore them, and nothing but an absolute rest of several years will save them from annibilation. Overseer Davidsou, of Bay Verte, reports that on the north side of the bay spring herrings were plentiful and supplied the inhabitants living in a district of twenty miles, but the fishery there is pursued only for home consumption. Alewives do not increase, and he thinks there is not much hope that they will do so, until fish-ways are placed in the dams, and mill rubbish kept out of the rivers. But my conviction is that there is really no hope of restoring these rivers. Tho mills have been long allowed to do all they could to destroy them as fish rivers, and the milling interest is now more important than any fishery that could be restored either in Port Elgin or Tidnish Rivers. He reports the oyster beds in the bay as nearly exhausted, and recommends that they should not be disturbed for several years in order to give them a fair chance to recuperate. The lobster establishments on the south side of the bay have done a much better business than they did last year. Overseer D. T. Cormier reports that he is sorry to say the catch of aliad is much less than it was the previons season, but he can give no reason for the falling otf, since the prosecution of the fishery was as vigorous as usual. No other fishery is pursued in his district, except that for herring to a limited extent. But two boat.s engaged in it last season, although their catch was very good. The shad nets still continue to take a large number of salmon, and this prevents any increase of that fish in Petitcodiac.

## ALABERT OOUNTY.

Overseer Akerley, of this County, also reports a falling off in the catch of shad from thit of the previous year, which he attributes as much to a less vigorous prosecution of the fishery as to a scarcity of fish. He also reports a falling off in the catch of salmon, which he attributes to the increase of milling operations and the consequent effects of mill rubbish. In Germantown Lake both salmon and alewives are increasing, and he recommends that some restrictions be placed on trout fishing, to prevent the killing of so many smolts. He reports the fishways on Pollet, Coverdale, Salmon and Point Wolf Rivers in good order, and they have been kept open during the proper season. In this County the fisheries are pursued mostly by farmers, who devote but a portion of their time $t_{1}$ the business, and most of the entire catch is used for home consumption.

## VICTORIA COUNTY.

Overseer McCluskey, of this County, reports that salmon were not so plentiful in the Tobique last season as they were the soason beforc, which he attributes to the number of nets set in the lower Counties, and the sawdust and mill rubbish from the mills in Carleton County. Later in the season, after the nets were taken up in the lower parte of the river, a good stock of fish ascended to the spawning grounds in
the Tobique and the Serpentine. The great difficulty of protecting this fine river lies in its wild and unsottled character, and the number of Indians that are continually passing up and down it, where the facilitics for poaching are great. Though no instances of spearing came to his knowledge, Overseer McCluskey fears that both Indians and settlers seize every opportunity that offers for evading the officers, whose districts are of great extent and difficult to guard. If Overseer McCluskey were allowed to employ one or two guardians to camp on the unsettled portions of the river for nome weeks after the close season commences, I liave no doubt that much illegal work would be detected and punished.

## CARLETON COUNTY.

Overseer Harrison reports a great falling off in the catch of salmon and shad in his district, the cause of which is the saw-dust and mill rubbish that has accumulated in the river and tributary streams. Not even a pretence of respecting the law is kept up in this Count5, and the whole refuse of the thirty-six mills within the limits of the County is openly and defiantly allowed to go into the rivers. He says: "There "have been very few nets set this season in Carleton County; the sawdust and rubbish " fill up the nets almost as soon as they are set. Some people who formerly fished " never set their nets this season, and some who did set them never caught a salmon. "Many went down to York County, as they said they could do nothing in Carleton." I did not feel justified in putting the Government to any more expense in going to all the mills, as there are now thirty-six saw-mills in the County of Carleton, and I visited them all last year. Those I have seen this year I found in the same condition as last year, the owners paying no attention to the law. As my instructions were to do nothing without further orders, all I could do was to urge the owners not to violate the law, but they would pay no attention. I do not think there will be any benefit from putting in the fish-ways in the mill-dams at the mouths of the streams, unless there can be a stop put to mill rubbish and saw-dust from the mills up the streams, for it is impossible to keep them opon on account of the rubbish coming down. I do not think any salmon will attempt to ascend the streams, as most of them are filled up with rubbish from the mills. In former reports and in many official letters I have called attention to the state of things in this County, and I can now only add that unless the evil is at once stopped by a vigorous prosecution of the law against saw-dust and mill rubbish, the fisheries of the whole River St. John will, $i^{n}$ a very short time, be irretrievably ruined.

## YORK COUNTY.

The same remarks are also applicable to this County. Every year the fishing is becoming worse and less attention is being paid to its pursuit. The returns scarcely repay the labour of fishing, and this once valuable resource of the inhalitants is no longer to le relied on. Overseer Brown reports as follows: "In compliance with your request by circular, I may say that there are a few things, the removal of which would largely benefit the fisheries of the St. John River. After many years' experience in salmon fishing, I can very safely say that ten years ago ten salmon were taken where one is taken at the present day. The reason of this falling off I can only assign to one cause-the constant throwing into the rivers and streams of sawdust and all kinds of mill rubbish. If such an illegal practice were as openly and persisteritly pursued in any other department of business, in the face of the law, and of the officers, some means would be found to put a stop to it and punish the offenders. But our mill owners take no notice of the many appeals to them, but are ever ready with trivial excuses, calculated only to convenience themselves at the present time. I know of no cause more calculated to injure the fisheries of the whole river than this, and if it is not soon removed it will, in a few years, lead to the destruction of one of the great natural resouices of the whole seven counties through
which the St. John flows. I would not recommend that our mill owners and lumbermen be put to a large expenditure, but as the law compels men in other branches of business to clear from the river everything calculated to obstruct navigation and destroy the fisheries, I think they should be compelled to remove sawdust and mill rubbish to some spare corner of their premises and burn it. I would, therefire, urge that the law relating to sawdust and mill rubbish be strictly enforced throur hout the whole length of the St. John River, and that every man, whether rich or poor, be dealt with alike."

## QUEENS AND SUNBURY COUNTY.

The naly fish canght in these Counties are alewives, shat, bass and trout. The former two kiuds are taken in set nets, and the later two with hook and line. Salmon fishing is scarcely pursued at all in these counties, as of late years the number canght does not repay the outlay for boats and nets. Overseer Hoben reports a falling off in the catch of gatspereaux, which he attributes principally to excessive fishing in St. John Harbour, and io the great destruction of goung fish by the harbour weirs as they are going down to the sea. Shad have given an average catch, and about the usual quantity of has and trout hare been caught, all of which are used for home consumption. The mills on the Oromocto River still contiune to throw botle eawdust and other refuse into the river, pleading the impunity with which the mills above on the main river are allowed to set the law aside.

## KINGS COUNTY.

Overseer DeVeber of the Westfield and Nerepis District, reports the worst season's fishing he has ever known in the County. Silmon were so scarce that many who formerly pursued fishing with vigor, became discouraged and paid but little attention to it. The shong freshet at the time shad were running prevenied this fishery from being successfully prosecuted; gaspereaux were also scarce last season as they wore the previous one. This fishery has been failing for some years, and will continne to do so until the harbor fisheries are regulated more in accordance with the Fisherien Act. The gaspereaux fishery has always been a valnable resource to the inhabitants of this County, on both sides of the St. John. Almost all families have a small net, and have always been accustomed to catch more or less for domestic use, and the tailure of late years is a cause of great regret.

Overseer Gosline reports that in consequence of the very low riate of the water, fishing on the liennebecasis River has not been so good as usual, although the eatch has supplied homo consumption in the parishes of Rothesay, Kingston and Hiampton. He reports the gratifying intelligence that the salmon try I was obliged to put into the head waters of this river last spring in order to save them from death while on their way to I Lopewell River in Albort County, have done remarkably well. During the summer large numbers were seen, which would collect around a handful of oatmeal thrown into the water, and eat it with avidity. They were seen at various places along the siream, suveral miles from the place where they were liberated. The greatort clanger these fish will have next veason will be the rod and fly of the anglers; it is almost imposisible to detect these, but it is feared that many smolts are thas destroyed; nothing but a more enlightened state of public opinion can remedy this evil.

## ST. JOHN COUNTY.

The fisheries in this County the past season have not been remunerative owing to the generally small catch. The salmon fishery produced but a small yield, and this, with the low price prevailing at the consuming points, rendered the returns small.

Overseer O'Brien says:-" I am still of opinion that the falling off" in salmon is mainly caused by extensive drifting in the bay and harbour, which seems to have the effect of driving the fish to the Nova Scotia shore, where I am informed large quantities have been caught in brush weirs. The catch of alewives was but little more than one third of an average, which was caused by what may be termed wholesale destruction of young fish by the harbour weils, which has been going on for a number of years. The weirs are not provided with any means by which the young fish can escape alive, and they remain in and die when the tide leaves them. The loss in the catch of this fish was somewhat counteracted by a good demand at a large price, about all being sold at $\$ 4.50$ per barrel. Shad were plentiful, but this branch of fishing never yields much, as the season for catching them in this harbour and bay is short. What was quite unusual occurred the past season during the months of August, September and October; large schools of bass averaging abrut four pounds each made their appearance in the harbour and were taken in considerable quantities and sold at remunerative prices. Several years ago bass were numerous, but of late, owirg to causes detrimental to their increase, such as saw-dust and mill rubbish from the mills being thrown into the river above where they resort to spawn, they hare been very scarce. If these illegal doings could be prevented, I have no doubt that bass would soon become as plentiful as ever, and add largely to the yield of our fishcries. An increase in the number of fishing vesse!s owned in this district has taken place during the year, and I think, with the splendid facilities we bave, possessing all the necessily outfits and with a large home market for herring, cod and other fish, that our people are wise in going more largely into this branch of the business, as it gives employment during the whole year."

Overseer Skillen, of St. Martin's district, reports the catch of all kinds of fish as very small compared with the number of men employed and materials used. "One reason for this wass that the season commenced late, and the fisb left the shore earlier than usual. My returns, however, do not include the whole catch, as a number of vessels never cume into port, and I could not ascertain their quantities. Last fall I opened Mosher"s mill stream as a fish river, and have good hopes of having it stocked with salmon. During my examination of the river this summer, I found a few mfles from its mouth large schools of salmon fry, which justify my hopes of its future productivences. The great difficulty I have to contend with in this district is the sawdust and mill rubbish. I have succeeded in stopping all but sawdust, and this, from the construction and situation of the mills, I cannot stop without shutting them up. Salmon were not so plentiful as last season, and very few were caught in my district."

## CHARLOTTE COUNTY.

The great difficulty the St. Croix District has now to contend with is saw-dust and rubbish from the mills at Baring and Milltown. The fishways have worked well and salmon are indisputably increasing. Last summer they were seen going up the river in large numbers, and if they are now allowed to increase, no doubt can exist that they will soon restock all the waters of this noble river. Overseer Curran reports that alewives in the Dennis stream still continue to show a yearly increase, and the people of the surrounding country got, last summer, all they needed for domestic use. Two days in each week were allowed them to fish. The fishways on the stream were kept in good order, and there was no violation of the law on our side of the river. On the main river a fishway is needed at Salmon Falls to allow the alewives to ascend, as they cannot get over them when the water is high, as it always is when they come into the river. Messrs. Todd and Eaton have arranged their mills so that no rubbish can get into the river, except what sawdust falls directly from the saws. If the other mill owners could be iuduced or compelled to follow their example great benefits to the fisheries would result. On the American side, I regret to say, all the mill rubbish finds its way into the river, and of course while this is allowed by American officers it is useless to prosecute our mill owners for neglect of the regulations. 5—d 18

I risited the fishways at Vanceboro' and Forest City, and found them in good order. In Cheputneticook Lake whitetish are becoming numerous, and a large quantity was caught this fall. I visited the lobster factory at St. Andrews, which employs about 20 boats and 75 men, and puts up ten hundred cases, each case containing four dozen cans. This industry gives employment to many others besides those mentioned, about as many fish for lobsters and bring them to the factory. A close season is necessary to protect this fishery. Last year there was practically none, for it did not commence until the lobster had spawned. The close time should commence 10th July and continue till 10 th September to be of any 1 ise in this district.

Overseer Cunningham, of the Inner Bay, reports as follows: The winter herring fishery, I am sorry to say, shows a decrease from the yield of last year. This, I believe, is owing to the large quantities of nets, in fact miles of them, being sot by United States fishermen all the way fiom Grand Manan to Lepreau, and far ont in the bay by the Wolves, sunk fiom 20 to 25 fathoms, which kept the fish from coming into this bay. In this view I am borne out by all the fishermen with whom I conversed on the subject. Our fishermen who own vessels bave now to go a distance of six to eight miles off shore before they can catch any. The poorer class of fishermen who have nothing but small boats made but a poor catch. However during the winter months there were caught and sold in a frozen state to United States vessels 1,900 barrels, at from $\$ 4$ to $\$ 5$ per barrel. The price being somewhat better than last year helped to make up the deficiency in their catch. Alout 500 barrels were ured for home consumption. There was a better catch of smoked herrings amounting to 4,000 boxes, and there might have been a larger business in this line but pricen were so low that those in the business preferred making oil and pumice, which paid better. There were only 175 barrels of mackerel caught this year, although a large school of there tish came into the bay, but they would not bite at a bait, nor did they come inshore close enough for the weir's to do much. Those caught were taken mostly in nets, with a few good hauls in the brush weirs, but I feel confident thit if seines had been employed there would have been a large catch. In haddock and bake there is a decrease from the catch of last year, oceasioned no doubt by the use of trawls or set lines outside. My own experience is, having formerly nsed a trawl or bultow, that it is a destructive mode of fishing, and kills a great many small and tiselese fish as well as keeps the fish from coming near shore, and I am convinced that their use should be prohibited altogether in this County. A very serious injury to the fisheries is the habit of throwing over the gurry or offials on the fishing grounds, by our own fishermen as well as by Americans.
A.s they are tishing fir off shore, a week at a time, this destructive patactice can be followel with impunity and without fear of detection. The Overseers are many miles away on shore, and ciun do little, for the fishermen will not inform on each other. I can see no way to prevent this most destructive abuse, but to have a small vessel employed to go around among the fishing craft and see that the gurry is taken ashore and disposed of. The lobster shows a small increase this year, the average weight being a shatule better than $2 \frac{1}{2}$ lhs. The canning ostablishment at Sr. Andrews put up 48,000 cans, and there were also nold for shipment to the States about 50 tons fresh, hence will be reen the benefit of the protective measure for the last three years. I would recommend that the close time eommence the 1st August, and continue until the list October. I have no violation of the regulations to report an I kept a strict surveillance of the several creels or pounds during the season, which gave me more trouble than all the other various duties of my office. The trout fishery in thas district is confined mostly to the Chamcook Lakes, which are at present land locked, but if, the stream were cleared out and the dams opened to the ascent of fish, there is not a doubt that salmon, shad and alewives could breed in them and their tributary streams, but there have been dams near the mouth of the stream for the last fifty years, and the old stock has long since died ont. The same remarks apply to the Digdeguash River, which has been long closed to the ascent of fish, and would now require restocking.

Overseor Best, of Beaver Harbor and Letete District, reports about an average
catch. While line fish have fallon of to some extent, the yield of herring has exceeded that of the picrious year. Thi deficiency in line fishing he attributes to the use of trawls, which destroy so many small and useless fish. The catch was made chiefly in deep water this year, as far out as five to seven miles off the coast, and no line fish hare been taken within two miles except haddock. These have been plentiful, but col scarce, while hake have been taken only in deep water. Lub-ters have been abundant, but as there is no canning extablishment in operation in this district, the fishery has not been prosecuted extensively. The winter fishing was principally done in deep water, as rough weather prevailed mont of the time; the fishermen found it very difficult to take care of their nets, a great many of which were lost. A large number of American vessels now frequent our coants to engage in this fishery, and pay but little attention to our laws, which prohibit Sunday fishing and throwing over gurry. This I am powerless to prevent over a stretch of 20 miles of coast on which from 50 to 100 vessels are engaged. A suitable vesuel is necessary for this work, and she should cruise around among the fishing grounds and see that the laws are respected by thise who are participating in the bencfits of our fisheries.

Overseers Lord and Brown, of West Isles, report an average catch. Cod and hake about the same as last year, pollock and haddock rather better, herring scarce in the first of the season owing to heavy westerly gales, but plentiful during the fall. Both complain of American vessols throwing gurry on the tishing grounds which they are powerless to prevent so far from land, without the aid of a suitable craft to cruise around among the fishing vessels.

Overseer'McLaughlin's report of the Grand Manan District is a follows: "Compared with last year there has been a slight increase in the catch of fish of all kinds in the waters of Grand Manan, with the exception of matckerel, a fish our people scarcely calculate on. The principal causes of this cheering increase are the more vigorous prosecution of the fisheries, the prevailing fine weather during the whole year, and the abundance of herrings, both large and smal, in my district. Line fish and herrings of excellent quality are now being taken in :bundasce along the whole southern coast of the Island, and our people are busily engaged iu catching and selling them fresh for the United States markets. One item of increase is as pleasing an it was mexpected, that is lobsters. Without any extra effort and really fewer fishermen engaged, the catch exceeds that of last year by 38,400 cans. This increase can be attributed only to the protection given to spawning lobsters by the close time, and I am sure that still greater benefits will accrue to this fishery if that close time is made from 15th July to 15th September in each year.

Our fishermen complain loudly of the great extent to which trawl or bultow fishing is now pursued off shore by American fishermen, and the quantity of gurry they throw upon the fishing grounds. I have no doubt that both these practices are greatly injuring the line fishing in shore, and it would ke politic to prohibit the use of trawls in the Bay of Fundy, if only to prevent our best fishing falling into the hands of foreigners. Were these prohibited, the gurry evil would in a great measure be suppressed; but at present the only feasible mode of doing this, and of preventing Sunday fishing, is to employ a suitable vessel to exercise a strict survcillance over the fishing grounds. Our officers are without the means of doing this so far from land. My Wardens have done as well as could be expected for the tirst year. I have frequently visited and assisted Warden Gilmour at North Head, and the fishermen have now a healthy dread of his vigilance; but to be more useful he should be furnished with a suitable boat, as I have already requested, and his salary should be raised to at least $\$ 50$, for the work he has to do is onerous and important. Warden Carroll at Whitehead Island has done his duty well. He has found it difficult to enforce the regulations to prevent net fishermen from encroaching on the rights of weir fishermen; but if he errs it is on the side of leniency, a virtue, Iam afraid, fishermen do not appreciate. He has been able to collect but half the weir tax, and stateas that several have absolutely refused to pay. and that all are dilatory. I shall visit the place as soon as the weather permits and demand the tax myself. I have experienced much trouble in collecting the tax this year, and would urge that every weir owner 5-d $18 \frac{1}{2}$
be compelled to take out a license and pay the fee before the 1st May in each year, or forfeit all claim to the weir privilege after thirty days' notice posted in the district. This would have the effect of immediately removing this cause of much useless work on the part of officers. A number of weir privileges under license the past two years have not been built upon, and a number of old weirs have been left without repairs and not fished this season, making the number actually in fishing condition, twentyeight. The prices of smoked and pickled herrings are very low this season, but the quality has never been better; the price of line fish and frozen herring is good, and arge quantitics are now being taken."

I have the honor to be, Sir,
Your obedient servant,
W. H. VENNING,

Inspector of Fisheries, N.B.

## APIENDIX Nor4.

## SPECIAL REPORT ON THE SMELT FISHERY IN THE PROVINCE OF NEW BRUNSWICK.

St. John, N.B. 1st January, 187i.

W. F. Whitcher, Esq., Commissioner of Fisheries, Ottawa.

SIr,--I am this mail sending to the Minister a long report on the Smelt Fishery? as now being pursued in the northern countios of his Province. To accompany it, I send by mail a box containing sin: specimens, alluded to in report, for the better understanding of the whole subject. Will you please open these fish and show the Minister that they are soon to spawn. Enforce upon him also the sin of destroying the smallest ones and the tom-cods, which are most valuable as food producers fir deep se:a fishes, and als" the necessity of extending the close time for "black back" smelts to 1st July insteall of 15th June, as recommended in letter of 18th ultimo.

Please obserre that immeliate action is of vital importance, so that no vested interest will grow up and be subjected to loss by the restrictions neressary to save the fishery.

If you conclude to license bus- n :ts, lose no time in sending me 500 copies of draft sent you with report, if approved of, for use of overseers.

You will obserre if licenses are issued we can make the necessary regulations and restrictions in the conditions emboried, and no executive action is nccessary.

I have the honour to le, Sir,<br>Your obedient servant,<br>> W. H. VENNING, Inspector of F'isheries, N. B.

St. John, N.B., 6th Jauuary, 1877.

Hon. A. J. Smitif,
Minister of Marine and Fisheries, Ottawa.
Sir,-In calling your attention to an article from the " Miramichi Advance," edited by Mr. D. G. Smith, I wish to observe that he has not displayed much knowledge of the question and to beg your notice of the following remarks:-

1st. As to my "zeal getting the better of my judgment," you will best judge of this from the reports of Overseer Mowat and myself now in your hands. 2nd. Mr. simith errs in not appearing to know that there are two distinct varieties of the smelt, the "silver backs" such as I sent you samples of, and the "black backs" which do not come till the breaking up of the ice in spring. He has confounded these, and supposes they all spawn at the same time, which is not the case, for the "silver-backs" are now spawning as you can see from samples sent; while the "black backs" will
not come in to spawn till May and June. 3rd. His reasoning is all fallacious, because based on the ignorant asumption pointed out in 2 nd. The facts are as.I stated in my report, and already prices are going down. At all events, I recommended what the Bathust people want, and they ought to know their own business as well as Mr. Smith. 4th. He was not there, did not investigate the matter, and can know only from the interested Miramichi dealers who are operating bag-nets in Bathurst, while Messrs. Mowat, Hickson and myself enquired fully into the matter, consulted the principal dealers there, the leadin rperple of the place, and the fishermen themselves. 5th. You may rely on the fact that his reasoning does not apply to the smelts I sent you as specimens. 6th. Because this business is new, and because there is 'great danger of ruining it, I again commend our reports to your careful attention.

# I bave the honour to be, Sir , <br> Your obedient servant, <br> W. H. VENNING, <br> Inspector of Fisheries, N. B. 

St. John, N.B., 1st January, 1877.

## Hon. A. T. Smitm,

Manister of Marine and Fisherics,
Ottawa.
Str,-I have the honor to submit the following report of proceedings incident upon my inquiry into the smelt fishery, and to call your attention to the necessity of immodiatcly providing some regulations to limit and control it.

The complaints against Warden Brimner that reached me from the inhabitants of Napan, and the wish expressed by several leading men among them that I would visit the place and make some rules for the smelt fishery that would be fair and equitable to all, induced me to lose no time in examining into the matter, in order that I might more intelligently convey to you the facts of the case.

Accordingly, I arranged to leave here on the afternoon of Christmas Day, previous 10 which a telegram from the Hon. Robert Young, President of the Executive Council, iuformed me that great destruction of small smelts was going on in Bathurst Harbor, and that my immediate presence there was advisable. I at once wired Overseers Hickson and Mowat (in whose district this fishery had been commenced) that I would be in Bathurst by the next train, and I arrived there about 8 o'clock that evening.

In company with Overseer IHickson I spent all the following day on the ice, going round aniong the fisbermen, examining great numbers of fish and observing the manner in which the fishery was being pursued. I found about 100 people, men, women and children, on the ice catching smelts with hook and line. These people were then catching comparatively fow, as the tides were not favorable, but those they caught were nearly all fine large fish, such as the samples sent you, (marked No. 1.) For these they readily obtained Jcts. and 6 cts . per lb . from the buyers and shippers, who get for thom in the United States markets from 13cts. to 18cts. per lb. according to the state of the markets. In ordinary gool fishing these line fishers will make from $\$ 1.50$ to $\$ 3.00$ per day, according to their luck in taking a nmaller or larger quantity. There were also five bag-nets employed, attended by two men each. These nets are simply an immense bag, netted of stroug twine, with meshes of an inch extension from knot to knot. The bags are from 12 ft . to 15 ft . in width at the month, and from 15 ft . to 20 ft . long in the bunt. They are imported from Boston, and cost from $\$ 30$ to $\$ 40$ each, according to size. They are set in long
narrow holes, cut through the ice along the channels of the rivers emptying into the harbor, the lower edge of the mouth of the bag being sunk to the bottom of the water and the uprer edge a little below the surface. As the fish play up and down the channels, they enter the extended mouth of the net, and getting in the bunt, are retained there until the bag is drawn up, when the contents are emptied on the ice by untying a string passing around the end of the bunt. These nets take large quantities of small fish, such as those sent to you, (marked No. 2.) These smaller fish do not bring so good a price as the larger ones, and the smallest of them are thrown away and wasted.

As you will perceive, these fish are fill:d with well developed spawn and milt, and are about to deposit them, having come in from sea for that purpose. Though they are now very fat and in good condition as food, some restrictions should be placed upon their capture, or else, trom the great quantities of mature fish taken, in addition to the large numbers of small ones that are destroyed, reasonable fears are entertained that a sufficient number of parent fish will not be left to keep up the stock. Besides smelts of all sizes, thene bag-nets take large numbers of tom-cods or "frost fish" as they are called, stmples of which I send you (marked No. 3) These are not of much value as commorcial fish, but bring 2 cts. per lb . on the ice, and 5 to 6 cts. in the United States. As you will perceive, these fish are also full of well developed spawn which is fully ripe for depositing.

I informed the owners of the bag-nets that their use without a license being first obtained was illegal, but that, pending my report to the Department and learning your decision, I would not seize them. I thought it more prudent to do this, because at present there are no regulations for this fishery, which has suddenly grown into very large proportions, and because not a very large number of fish are being caught, nor will there be any very large hauls until the next full tides, previous to which I hope to have some definite instructions from you.

I was intormed that, previous to the freezing of the harbor, immense quantities of smelts and tom-cods of all sizes were taken by a Mr. Millor with a seine, and that very great destruction of small fish of unmarketable size ensucd. I conversed with a number of the principal dealers, and with some of the leading men of the place, and I found that great dissatisfaction was felt at the waste of small fish, consequent on the use of seines and bag-nets, and there was a general feeling among the people of the place that these modes of tishing should be prohibited. After carefully examining the fish and the modes of capturing them, I cannot but strongly recommend that the wishes of the people be granted, and that this fishery in Gloucester County be confined to hook and line, and that seines and bag-nets be prohibited for the following reasons: -These smelts known as "silver backs," are a variety distinct from the smaller fish known as "black backs" which enter our rivers and streams on the breaking up of the ice in spring for the purpose of spawning. They attain a much larger size, are much fatter, and are a better food fish. They come in from the sea to mature and deposit their sjawn about September, continue to play up and down with the tides, in the esturies and rivers of the County until the months of January and February, when they deposit their spawn and milt, and roturn to the sea just like the salinon, to which fimily of fish they belong. Accompanying the schools are vast quantities of very small tish, wholly unfit for marlset, which bear the same relation to mature smelt, as the grilse does to mature salmon. By hook and line but very few of these small tish are caught, the great bulk of the catch, by that mode, being the largest and finest fish (see sample No. 1) bringing the highest price not only to the fishers but also to the dealers. By the use of hook and line there is no danger of exhausting the supply, because sufficient parent fish will always be left to reproduce their kind and keep up the stock, and the small fish will return the following year in a mature state. The use of hook and line also gives profitable employment to the poorest class of the people, and enables them to obtain all the necessaries and some of the comforts of life. But the seine and the bag-net, besides destroying vast number's of small fish like No. 2, take too many of the breeding fish, (No. 1) and thus have a tendency to exhaust the supply; besides which they will take such quantities as will
glut the market and bring prices down to so low a figure that there will be no profit for the dealer, and therefore no remunerative employment for the poor. Besides this, the available space for fishing in Bathurst is comparativeby limited, and if bag-nets are allowed, they will deprive hundreds of poor people from any chance of making remunerative wages by the use of books and lines.

For these reasons I am strongly of opinion that it will be wise to confine this fishery in Gloucester County to the hook and line, and to prohibit the use of seines and bag-nets by the simple means of not granting license for them, and enforcing sub-section 7 of section 13 of the Fisheries Act. I think the fishery should not be allowed after middle of February, even with hook and line.

## NORTHCMBERLAND AND KENT COUNTY.

Overseer Mowat joined me at Bathurst and accompanied me on my return $t^{0}$ Miramichi, when we proceeded with Oversecrs Wyse and Hogan, D. G. Smith, an ${ }^{\text {d }}$ T. W. Crocker, Esqs., to Napan, to investigate the fishery there and to enquire intothe complaints made of the cross partiality of Warden Brimner.

The smelts now being caught at Napan, Black River, Bay du Vin aud Bartibog, in Northumberland County, and at Richibucto, Buctouche, Cocagne, and other rivers in Kent County, are the "silver back" variety; but they are not nearly so large as those raught in Glouccster County; those marked No. 4 are a fair sample of the largest, and No. 2 of the smallest, fish taken in these localities; but the great bulk of the catch is fairly represensed by those marked To. 5. These latter bring 3 to 4 cts. on the ice, and 12 to 15 cts. per lb. in the United States. The tishing in these places is done wholly by bag-nets, scarce any one using hook and line, as the fishermen there consider this too slow a mode of raking them. In these places the dealery themselres are engaged in the catching, furnishing the nets and supplies, and taking the proceeds from the persons who work the nets. In Napan bag-nets were set along the sides of the channel, from the mouth of the river to the bridge, a distance of about three miles, without regulations of any kind; many nets being in the middle of the channel, and many of them but a few yards apart, and there was much bickering and quarrelling in consequence.

In this place there are no very poor people like there are in Gloucester County, but nearly all those engaged in the fisheries are in comfortable circumstances and most of them are able to purchase their own nets, which cost, as above stated, from $\$ 30$ to $\$ 40$ each. The mode of fishing is precisely similar to that before described, but most of the nets are of larger dimensions.

The complaint against Warden Brinıner was, that he showed gross partiality to his four sons, in whose fishery it is said he is interested, although he denies this. The channel of the river flows under one particular span of the bridge crossing the river, and on each side of this span bis sons had placed their nets in such a way that they intercepted the fish passing up and down through the span. When requested by the neighbors to remove his sons' nets to a reasonable distance from the bridge, he refused to do so, which gave rise to muoh ill-feeling and quarrolling. The neighbors were naturally desirous of gettiug as near the bridge as possible, and consequently close to his sons' nets. Instead of making his sons remove to a reasonable distance, as he had ample power to do under sub-section 5 of section 18, of the Fisheries Act, he ordered the neighbors to remove farther from his sons' nets. This they refused to do, and hence the disturbance.

At the request of the fishermen and property owners, we all went to the house of Mr. Benj. Sweezy, an old and respectable settler, where a large number of persons interested in the fishery, including most of the property owners in Napan, mot to discuss the Regulations which they desired to have enforced. The meeting was organized by D. G. Smith, Esq., editor of the Miramichi Advaince, being moved to the chair. After considerable discussion, in which Warden Brimner and his sons
behaved in a very rude and reprehensible manner, interrupting and abusing several speakers, the following Resolutions were carried by a large majority :-

1. No net to be set within 100 yards of Napan Bridge.
2. Nets to be set 100 yards apart.
3. No net to occupy more than one-third of the channel, from the side whence set.
4. No wing nets nor brush fences to be used.

After these had been agreed to, I addressed the meeting and stated "that they had been regulating nets uhich the Fisheries Act prohibited except under license ; that all these nets were illegal, and that the striet letter of my duty would compel me to seize and confiscate them all, and impose a fine on the owners; but that, under all the circumstances, I would not remove the nets until I could report the facts to the Minister, and receive his instructions. In the meantime, however, to prevent any further disturbance, the Regulations they had agreed upon should be carried out, for which I had authority under the Fisheries Act." I then instructed Warden Brimner to see that they were impartially enforced. They all agreed to this, even Brimner and his sons giving their consent to act accordingly, and they at once proceeded to remove their nets from the bridge, and to cut other holes laid off for them by Overscer Wyse under my direcion.

I returned to Newcastle, intending to go by the night train to St. John and report the whole matter to you as soon as possible. Shortly after my arrival at Newcastle, Mr. Crocker, who remained in Napan some hours after I left, returned and informed me that immediately after my departure, the Brimner loys went back to their old holes at the bridge, paying no attention to the Regulations they had themselres assisted to make, nor to any instructions given to their father in presence of the whole meeting. I saw at once that some decisive action was here necessary, as this lawless spirit had been long enough endured in this county, so I concluded to return to Napan in the morning, and take such steps as the facts of the case would call for. Accordingly at an early hour next morning I took Overseers Wyse and Hogan with me (Overseer Mowat having returned home the previous night) and proceeded agrain to Napan, where I found that the statement of Mr. Crocker was true; and that the old holes close to the span of the bridge had been occupied that morning, as the nets were there and the proceeds of their morning's work lay on the ice beside the holes. I at once seized the two offending nets, cut them loose from the poles, put them on a sled, had them taken to Chatham and placed in the custody of Orerseer Wyse, until you decided as to their further disposal. This I did under sub-section 11 of section 13, Fisheries Act. I also suspended Warden Brimner from his functions as a Fishery Officer, and ordered him to do nothing further in that capacity until your decision was made known to him. I took this extreme step because the man's conduct in this whole matter has been a diagrace to the service, and has proved him unfit for the office. I hope you will approve of my action and dispense with any further service from a man whose gross partiality in favor of his own sons, and I more than suspect in his own interest, has caused such a feeling against him as must destroy his future usefulness. His conduct is the nore reprehensible because he is in affluent circumstances, as judged by the Napan standard.

## Remariks.

The mode in which the smelt fishery is now carried on in Kent, Gloucester and Northumberland is a most wasteful one and calls loudly for some stringent regulations, as you will see by the foregoing report. In addition to a most shameful destruction of vast quantities of small smelts, and a considerable number of young bass, such as are sent you in Samplo No. 6., a still larger number of tom-cods (see sample No. 3) are destroyed, for the fish are not marketed by the Miramichi dealers, being considered beneath their notice. Of the large quantity taken, some are fed to
their hogs by the farmers, thus wasting good fish to make lad pork, but the larger portion are wasted, being put to no use whatever. They lie about the ice in large heaps, the fishermen being too lazy or careless to put them back into the water on drawing their nets. An you will perceive, these fish, which belong to the cod family, are full of spawn, now on the rery point of being deposited. You will also perceive how very prolitic they are and how large a mass of spawn they mature. The fry of this fish and of the smelt is the food in search of which the mackerel, the herring, the cod, the hake, the pollock and the haddock frequent the coasts and bays of these northern comnties. Destroy this food and the deep-sea tishes above named will leave these coasts in search of the food they can no longer find in their present haunts. As food-producors for deep-sea fishes these small and commercially unimportant fish are of incalculable value, and their wholesale destruction is an act of most short-sighted folly. In this connection I would beg to call your attention to the variety of smelt known as "black backs," which enter our rivers in the months of April, May and June. In the southern part of the Province they come in the former month, but later as they go furtber north. They enter the Miramichi and other northern rivers from 1st May to 1st June, according as the season is early or late, and deposit their spawn all through the latter month. At this time they are commercially valueless, because they cannot be marketed to advantage in warm weather, and because at that time the demand for them has ceased. But vast quantities are taken and used on the land as manure. As food-producers for deep-sea fishes these smelts are of far greater value than as manure, for they are a poor fertilizer and leave the land all the worse for their use. The close season for this fish ought to be extended to the 1st July in order to prevent their useless destruction, (see also my letter dated 18th ult. Facts since learned induce me to still further extend the time recommended in that letter. The 1st July ought to be adopted.)

In the pursuit of present gain fishermen are, above any other class of men, the most blind to their future interests; their present destructive and wasteful ways are doing serious injury to the fisheries generally. 'Ihey kill all kinds of fish without any regard to their quality or condition, and then they grumble at their bad lack, and lament the falling-off in their catch. The salmon, bass, shad, gasperanx, herring, cod, lobster and oyster tisheries are every year showing more and moro plainly the results of the greed and stupidity of fishermen. Now, a new source of wealth is opening up in the smelt fishery; and already they are pursuing a course that will in a few years render it profitless, and finally extinguish it. To obviate this, and to gaard the future interests of tishermen from the consequences of their ignorant cupidity and folly, I leg to ufier for your consideration the following

## Recommendations.

After carefully considecing the ratter, and consulting with the Oversecrs and more intelligent and far-seeing of the fisbermen themselves, I am of opinion that in the counties of Kent and Northumberland the smelt fishery can be pursued to advantage only by the use of the bag-uet. The bulk of the smelts in these counties are too small to be canght at a profit with hook and line. But if these bag-nets are allowed, they should be placed under strict regulations that will render tliem less destructive than they now are.

The mesh at present used is not large enough to allow small and unmarketable fish to pass througb. The meshes should be at least $1 \frac{1}{2}$ inches from knot to knot, and no bay-net should be allowod except under special license for which a reasonable lee should be charged. say $\$ 5.00$ each season, to be paid on delivery of the license, and under such conditions as will prevent the useless destruction of tom-cods and foung bass; the killing of these fish ought to forfeit the license and render the not liable to seizure. The fishery with bag-nets should not commence until the ice has formed, and should cease the middle of February. Under these conditions I think bag-nets might be permitted without any serious danger of exhausting the fishery.

Hook and line fishing to be free at all times, for this mode can do no serious injury, and can be pursued to advantage only when the fish is in good condition.

If you consider these recommenilations worthy of adoption, I would respectfully urge immediate action before any greater number of persons become engaged in this new branch of business. If the matter is delayed, a kind of vested intirest will have grown up, and then persons interested will plead that they will sustain loss from the operation of the regulations or the conditions of the license.

In the case of Gloucester county, if you conclude to meet the reasonable wishes of the leading people and of those most interested in the business, I would request that you inform me at once by wire, so that I can instruct Overseer Hickson to prevent the further use of bag-nets in his county.

In the case of Northumberland and Kent, if you decide to allow bag-nets under license, I beg to enclose a draft of one that will, I think, meet the exigencies of the case. If approved, pleuse hare about 500 printed for the use of the several Overseers. Submitting the whole matter to consideration,

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

Inspector of Fisheries, $N . B$.

## APPENDIX

Return showing the Number, Tonnage and Value of Vessels and Boats and Quantities of Fish, and the Total Number of Men employed,


No. 15.
engaged in the Fisheries; Quantity and Value of Fishing Material ; Kinds \&c., in the Province of New Brunswick, for the Year 1876.


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


Boats engaged in the Fisheries, \&c.-New Brunswick.-Continued.


Return showing the Number, Tonnage and Value of Vessels and


Boats engaged in the Fisheries.---New Brunswick.-Continued.


Return showing the Number, Tonnage and Value of Vessels and


Boats engaged in the Fisheries, \&c.-New Brunswick.-Continued.


Recapitulation of the Number, Tonnage and Value of Vessels and Boats engaged in the Fisheries; Quantity andi Value of Fishing Material ; Kinds and Quantities of Fish, and the Total Number of Men employed, \&c., in the Province of New Brunswick, for the I'ear 1876.


Recapitulation of the Number, Tomage and Value of Vessels and Boats engaged inithe Fisheries; Quantity and
Value of Fishing Material; Kinds and Quantities of Fish, and the Total Number of Men employed, \&c., in the
Province of New bromswick, for the Year $1 \times 76$.


## RECAPITULATION

## Of the yield of the Fisheries of New Brunswick during the Year 1876.



## APPENDIX Nu. 16.

## REPORTS ON THE FISHERIES OF THE PROVINCE OF PRINCE EDWARD ISLAND FOR THE YEAR 1876.

## Pringe County-John Clark, Ocerseer.

Tryon River, Lot 28.
In this river there are plenty of very fine trout, and in the month of June the gasperaux come in, but to no great extent; those are the only kinds of fish taken in this river.

## Dunk River, Lot ${ }^{2} 5$

Is the next. This river abounds with trout, but it is not possible to get an accurate account of what is taken, as the anglers come from all parts of the county to this river to fish. 'I'his river is also literally full of salmon; in the month of November they pass up to Wall's mill, which is on the main river about five miles above the head of the tide, but they have to stop at this place, as there are no fish-ways to let them pass through. I do not think that fish-ways are required, the river is so long, and there is plenty of good spawning ground below this mill.

The great trouble on this river is to protect the salmon from the spears of the poachers, who are a party of outlawed men that come to this river at milnight with boats, torchlights and spears, and set the warclens at defiance by being armed and disguised. I believe some of these marauders come from Summerside, and more of them from Middletown, which places are near this river; but the plunderers have themselves so blackened and disguised that the Wardens cannot identify them on oath. The law will have to be more stringent, or the fish cannot be protected from these fellows.

Bedeque IIarbour, into which this river empties, salmon are taken outside Indian Point Bar, at the entrance of the harbour (this harbour is now called Summerside.) I believe there cannot be found better salmon fishing ground in any of these waters than between Indian Point and Seacow Head, if properly prosecuted.

Egmont Bay is the next. 'To the west of this bay, or rather outside of the bay, is good herring fishing ground. In the month of May the inhabitants take a great many barrels of them, which are principally made use of for bait; there are also some mackerel taken here. Mr. Trudell, a merchant doing business here, is about the only one that louys to any extent what the inhabitants catch; he ships the fish to Boston.

## Eımore River, Lot 10,

A little further westward, is a good river for trout fishing, there are abundance of trout continually in this river, and a gentleman who is engaged in shipbuilding, Mr. Bollam, tells me that the salmon come in very plentifully.

## Brae River, Lot 9.

Tais is the next river to the westward we come to. There is but little fishing done here. There are no fishing stages. The inbabitants catch herring in the spring which are pretty much consumed at home.

## Big Pierre Jacques,

Towards West Point. There are some salmon in this river which come up the river as far as Ramsay's Mills, in the months of October and November, and some have been taken at the mills.

Next comes the West Point. There are no fishing stages here, and very little fishing done, except what the inhabitants catch for home use. There is one establishment for patting up or canning lolsters, kept by John Matheson, Esq.

Now we leave the West Point, Lot 8, and come along the Lot 7 shore northward. On this part of the Straits of Northumberland fish of almost every kind are taken; herring are taken here both spring and autumn, and mackerel, cod, ling and halibut during the season. Abrut eleven miles from the West point, at Camplollton, there are a number of men and bats engaged in the fishing business; those men are nearly all employed by Mr. Matheson, who carries on an extensive fishing business a littlefurther down the shore.

$$
\text { Me'mnigash, Lot } 3 .
$$

At this place the fishing is prosecutel roby extensively by Mr. Mathevon, Capt. Foley, and others; great quantitics of mackerel, cod, ling and herring are taken for these men and shippeal for the Bostom market.

There are also buss taken iusile of what is called the Memnigash Run (I have seen some very fine lass taken the ee), which is a very important tishing place, the
only thing it wants being a good harbour, which cond be mude by buildinic a break only thing it wants being a good harbour, which could be moule by building a breakwater and some drodging, as there is a deep pond inside, but shoal outwile.

## Black Pond.

Mr. Costin and Mr. Mallet carry on fishing here to a considerable extent; h9rring are taken here both spring and fall, also cod and mackerel in the season.

Skinner's Pond, further north: This is a rery inportant fishing place during the summer; Mr. Francis Larkin, Mr. Coy, and Mr. James Morrisay have about 100 boats and 200 men employed catching and curing fish.
Necal Pend.

This is the most important fishing place on this shore ; there are aliout ten fishing stages, the business of which in carried on liy the Hon. J. C. Pope and Richard Hunt, William Larlien, Horton Agno Gaudet, anil others. These parties have 200 boats and 500 men engaged during the summer.

There are about 1,000 fathoms of nets at this shore, between Skinner's Pond and North Cape.

Now we come to the North Cape. There are two fishing staces here, lept by P. Hogran and James Davidson.

Suacow Pond is the rext coming to the southward, between the Cape and Tignish Run. There are wome firhing stages here, one of which is owned by William Morrisay, and the others by the French inhalitants. Those parties sell their fish to Hall and Myric at Tignish Rur, who lave about ten boats and 30 men employed at
this place.

## Tignish Run.

There are two very important fishing stages here, one of which is carried on by Hon. J. C. Pope and R. Hunt; the other by Hall and Myric \& Co. At both stages there are about 50 boats and 300 men employed in taking and curing fish; there are about 2,000 fathoms of nets set here in the spring, also at rap or bag net.

From this place to Cascumpec harbour there are small fishing stages all along the shore, which on the whole employ about 40 men and 20 boats.

At Tignish Run there is a breakwater built by the Dominion Government, which is a splendid work, reflecting great credit on the builder (M.r. D. McDonald); this breakwater is a great boon to the fishermen; the harbour is now a splondid one for boats and small schooners.

## Cascumpec Harbour.

There are two fishing stages here, one kept by James F. White, Esq., and the other by the Hon. George W. Howlan. A considerable quantity of fish are taken for theso men, both of cod and mackerel.

Between that Harbour and Kildare Cape, salmon have been taken by Captain Hewitt, from Nova Scotia, near Halifax; he set out about fifty fathoms of net, and took about twenty barrels of excellent salmon, which he sold at $\$ 1$ each; they weighed from 12 to 18 胡.

Above Cascumpec Point is Cascumpec or Hoiland Bay, into which four large rivers empty, viz: Lots 6, 10 and 11, wnich rivers abound with trout and salmon; they come up these rivers very plentifully in spawning time. On some parts of this bay and these rivers oyster beds are extensive, the oysters are taken and carried by rail to Summerside, and are shipped to Quebec and Montreal. In this bay herring are taken in large quantities in the spring.

This bay extends to the Black Bank or the commencement of the Narrows or Lennox Passage. This is a stroak of water between the land and the Sand Hills, extending from Cascumpec Bay to Richmond Bay. On this streak of water are the Squirrel Creek Oyster beds, which have been granted to the Hon. W. H. Pope by the Local Government, with the privilege of fishing outside of his grant for the propagation of oysters.

## Trout River, Lot 13.

This river is noted for trout, eels and oysters, there being extensive oyster beds on this river where the oysters are fised.

## Richmond Bay.

This is the most important bay on the north side of the Island. Grand River empties into it. There are a number of ships built on this river every season for the Messre. John and James Yeo, all of which come down into this bay and taken out Malpec Harbor. Port Hill, the residence of Hon. John and James Yeo, fronts on this bay, which is also a good herring fishing ground where abundance of herring are taken in the month of May, and oysters can be taken on almost any part of it. This bay extends to Princeton shore or Malpec, where there are two fishing stages with 14 boats and 50 men employed by Henry McNutt and A. McGougan; these stages are on the north side of the Island and near the Division line between Prince and Qucen's County.

In concluding this Report, I would beg to say, in reference to fish-ways, there is no such thing in the District, nor was thero any exacted by the local Act, and I have had no instructions to have any built.

It is the opinion of all the fishermen and merchants in the fishing business, that the catch this season has been a hundred per cent below the average of former years.

The opinions respecting the smallness of the catch of fish this season are various, some say deficiency is owing to the fish not being so plenty as in other seasons. Others say that the extreme heat in the month of August was the cause. There is one thing certain that the fishing business has never been so vigorously prosecuted as it has been this season.

## Queens County-Isaac Thompson, Overseer.

According to your instructions I have collected, and now forward, the statistics of the fisheries of Queen's County, Prince Edward Island.

The fishing season just ended has proved less productive than usual, the catch amounting only to about half that obtained in each of the two preceding years. In the early part of the season both codfish and mackerel were abundant and of good quality, but the occurrence of a heavy storm in the beginning of August drove the fish from the coast; no mackerel, and very few codfish, were taken afterwards.

In some localities where there are no regular fishing stations, I experienced much difficulty in ascertaining with precision the relative quantities of the different kinds of fish taken. I found this to be the case more especially at Tracadie, Cowhead, and along the shore from Crapaud to the county line at Wood Islands.

The produce of the fisheries in the vicinity of Charlottetown is, for the most part taken there and disposed of fresh or slightly salted; and as no exact accounts of quantities are kept, the entries in the returns are probably a little less than the actual quantities taken. I ought, however, to notice that the returns from the South Shore are the result of one month's fishing by the farmers, there being no regular fishing statiou.

## Lobsters.

No lobsters are canned in Queens County, but a considerable quantity is taken at Rustico and disposed of in the Charlottetown market in the fresh state. I was unable to obtain an exact account of the amount or value of this business; I estimate it, however, at eight dollars per week for twelve weeks.

## Oysters.

At the beginning of the close season last summer a good deal of illegal fishing occurred, but I prosecuted five of the parties under the Island Statute. Two of the defendants were convicted and fined, a third defendant absconded, and in two cases my witness failed to prove the illegal fishing against the defendants.

Wardon McRae also took proceedings against three parties at West River, but the Justice of the Peace to whom he applisd considered the proof insufficient to sustain the complaint, which was therefore allowed to drop. These proceedings, though only partially successfui, had the dosired offect of putting a stop to illegal oyster fishing during the remainder of the season.

The preservation of oysters in the bays and rivers connected with this County is a question surrounded with difficulies. At periods not very remote, deep and extensive berli, of oysters existed in most of the bays and estuarios: these for the most part have perished from canses which have never been clearly explained. A few live oysters are occasionally found on the surface or edges of these effete beds; but the beds consisting of mud and partially decomposed oyster shells, the latter often twelve or thirteen inches in length, are dredged in the winter by horse power machines, and the material thus obtained is carried by the farmers long distances inland, to be used as manure. It is scarcely possible to overestimate the value of these deposits for this
purpose; valuable as oyster fisheries undoubtedly are, these effete beds, often ten or more feet in depth, are far more so. Inferior and exhausted lands have been raised to a high state of fertility by the use of shell manure in conjunction with that from the barnyard sources. It is therefore essential in farming regulations to protect live oyster beds, that no impediment should be placed in the way of farmers in obtaining free access to the great natural stores of this valuable fertilizer.

In view of the foregoing facts I would make the following suggestions.
One of the prosecutions instituted by me having failed in consequence of 'a defendant pleading that he was engaged taking oyster shells; I recommend that no person shall take oysters or oyster shells in any river or bay in Prince Edward Island during the close season.

Also that any person having in his possession or on his premises newly opened oyster shells, or having a boat containing instruments for oyster fishing, moored on an oyster bed, shall be considored as engaged in taking oysters.

To encourage the production of oysters I would recommend that certain beds of living oysters be reserved, the boundaries of which might be defined and advertised, but that in other effete beds the work of dredging for manure should not be interrupted.

That Government grant to all persons having shore fronts on the bays and rivers the exclusive right to form oyster beds (on their own frontage) except in cases where beds of oysters already exists. Such privileges to be defined, and in the case of parties living on the shores of creeks or rivers, to be limited to one side of their channel.

The free grant of this privilege would, it seems probable, induce many persons to commence oyster cultivation, for which the bays and rivers are admirably adapted, the stillness and warmth of the water favors the fixing of the spat, and if farmers and others resident by the water side were better informed as to the facility with which new beds can be formed, and old ones renovated, also of the handsome profits which may be realized from oyster culture, they would require little persuasion to induce them to engage in the business.

> Eels.

Eel fishing is practised with spears in the fall and winter. I have been unable to obtain any reliable account of the quantity taken.

## Salmon.

Very few salmon were taken during the past season. The nets which are set outside the harbors were driven ashore by the August storm already referred to, and no fish were taken afterwards.

I placed some young salmon in my mill-pond last summer, but my experience in hatching salmon ova during the previous winter did not prove successful. The house in which the trays containing the ova were placed was too cold, and I was obliged to turn on too much water in order to keep them from freezing.

I did not procure any ova this fall in hopes that the Department will decide on erecting a suitable building for the purpose.

The young salmon were very plentiful in Winter River this season, but owing to the dryness of the summer and fall, and the consequent lowness of the water the spawning fish did not ascend in such numbers as in the previous year. They spawned however, nearer the foot of the river in large numbers; in the West River they were more numerous than usual, the tuture prospects of the salmon fishery may therefore be considered favourable.

Trout.
Complaints have been made of the failure of the trout fishing in this Island, but it is not owing to any remissness, or hesitation on the part of the fishery officers of this county, to prosecute offenders. There has been no doubt a great failure of the trout fishery during the last thirty years, caused principally by the damming up of the streams for mill purposes. The history of Winter River, on which I reside, is the history of almost every stream on the Island, except that there has been no saw-mill nor tannery on it; it has therefore been kept free from sawdust and tanbark.

Thirty-six jears ago the first mill was built on this river two miles above tide water; a dam was thrown across the stream and no fish-way left. The following summer and fall the fish asconded and tried to reach their old haunts, were stopped by the mill-dam, and there caught in traps, or destrojed in other ways. In the millpond, however, they increased till another mill was built three milos higher up the stream, when similar destruction occurred. They are again increasing in the pond, being protected by an Island Statute which forbids trout fishing during their spawning season.

The partial failure of the fly fishing last summer was due to the great heat, the thermometer reaching to 80 degrees-had a marked effect on the small river running through a pond covering 70 acres with an average depth of two feet. That trout exist in this river above tide is evident from the fact that individuals are taking from two to three dollars value per day with hook and line.

For the further protection of trout and salmon, I would recommend that no person shall take trout with jiggers, or in any other way than with hook and linethat no person shall use spears for taking eels or for any other purpose in any river, or the mouth of any river, frequented by salmon-that no tame ducks, they being great destroyers of salmon spawn, be allowed in any river set apart for the breeding of salmon-that saw-dust and other mill offal destructive to fish be kept out of the streams.

Respecting fish-ways, it must be remembered that the Island Statutes did not require their construction, and to enforce the Dominion law concerning them would stop every mill in the Island, except during about two months in the spring and as many weeks in the fall. The benefit to be derived from them would be very doubtful. The streams being small, the fish would be easily taken by poachers, unless an extra Warden was appointed for each stream.

I consider it will be necessary to appoint a Warden for Johnson's River, as that part of Queen's County is separated from my supervision by the Hillsborough River, and I believe that Mr. Barnard McKenna, of Johnson's River, is a fit person to receive the appointment.

## King's County-Martin McInnis, Overseer.

Enclosed you will find the Statistical Returns of the season of the year 1876. I now await the instruction you may give as to what further is required of me. I did all in my power to collect the statistics in my division. I travelled all around the County. The statistics cannot be much better taken under ordinary circumstances; it may not be well placed in the blank forms, still it will give you an idea of the amount of each County. I visited the County three times in order to fix the saw-mills. I have given them an easy plan to take away the saw-dust from the mills; it was something hard to do at first; now they see the good of it. I got so far without a lawsuit. I had the work well done, and kept our people on hand and together.

I have the honor to bring nnder your notice certain obstractions to salmon and trout, caused by trap nets set in bays and tidal waters, also trawls and set nets placed in the Gulf of St. Lawrence and in the Straits of Northumberland wnich also tend to destroy the mother codfish in general. As regards the time set aside for lobsters to spawn, I do not consider there is any season for lobster breeding in particular in the
waters of this Province of Prince Edward Island, it depends on the heat and clearness of the surrounding waters. I am told by good judges that the lobsters spawn some seasons in the spring, other seasons in mid summer, other times in the months of September and October. It is difficult to determine the time oí lobster spawning in this Island. I would, however, respectfully suggest, in all cases, to leave the spawning season to the judgment of the local Overseer of cach County, as it is not easy to ascertain the right season for shell fish in this Island; also to recommend stopping the gaffing of lobsters in shoal water in the early part of summer; it is the female lobsters which come in all cases to shoal water, probably to spawn or otherwise. I would like to bring under your consideration a causeway bridge placed on the mouth of the North Lake east point, situate on the north side of King's County, emptying into the Gulf of St. Lawrence; its being the means of leaving that beautiful lake relieved of its nature, on account of the obstruction placed in the way of the gasperaux coming int, the lake; a frame work would answer the purpose. The above bridge composed of brush and rubbish to near the surface of the water the gasperaux is of an alarming nature. There is great falling off from the previous seasons in all kinds of fish, particularly the mackerel fishing has been a failure on the coast of this Island. The catch of codfish and hake shows a decrease in this season, as well as herring and gasperaux, owing to the ice hanging on the coast, that with high winds caused a scarcity of all kinds of fish. As regards the oyster beds of this Province, they were destroyed by mill rubbish and saw-dust this season. I allowed no oysters to be taken in order that they may multiply. I also recommend that the Mudgell and the Moselle Rivers be emptied of the large amount of rubbish they contain. I consider it desirable to erect three fish-ways in King's County, Prince Edward Island. I did not think it advisable to construct fishways last season, on account of the Fishery laws never having until lately been enforced in this Province. The mill owners were not in a position to open the mill dams at that time of the season. I have notified the mill owners that the law with respect to fishways will be enforced the coming summer.

The several close seasons have been well observed in K:ng's County.

## APPENDIX

Rēturn showing the Number, Tonnage and Value of Vessels and Boats and Quantities of Fish, and the Total Number of Men employed,


Twenty per cent. of the yield of fish in Prince's County is used for local consumption.

No. 17.
engaged in the Fisheries; Quantity and Value of Fishing Material; Kinds \&c., in the Province of Prince Edward Island, for the Year 1876.


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



Note.-Fish used for local consumption is included.
wengaged in the Fisheries, \&c.-Prince Edward Island.-Continued


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


Recapitulation of the Number, Tonnage and Value of Vessels and Boats and Quantities of Fish, and the Total Number of Men employed,

ingaged in the Fisheries, \&c.-Prince Edward Island.-Concluded.

engaged in the Fisheries; Quantity and Value of Fishing Material ; Kinds \&c., in the Province of Prince Edward Island, for the year 1876.


## RECAPITULATION

Of the Yield of the Fisheries of Prince Edward Island, during the Year 1876*

| Kinds of Fish. | Quantities. | Prices. | Value. |
| :---: | :---: | :---: | :---: |
|  |  | - \$ cts. | \$ cts |
| Codfish ............. | 27,273 cwt............................... | 425 | 115,910 25 |
| Herrings............ | 14,866 brls............................... | 250 | 37,165 00 |
| Mackerel........... ........ | 25,383 " ................................ | 800 | 203,064 00 |
| Haddock........... ........ | 336 lbs ................ ................... | 006 | 20316 |
| Hake ....................... | 14,862 cwt............................... | 350 | 52,017 00 |
| Salmon, pickled .......... | 63 brls..................................... | 1800 | 1,13400 |
| do fresh, in ice ..... | 2,000 lbs ................. ................. | 015 | 30000 |
| do preserved........ | 1,000 cans................................. | ${ }_{0} 112$ | 12000 |
| Trout................ | 660 7,600 lbs ................. .......................... l | 350 0 | 2,310 00 |
| Bass ......... | 6,000 6 ....................................... | 006 006 | 45600 36000 |
| Oysters... ................. | 7,905 brls....................................... | 300 | 23.71500 |
| Lobsters ................ ...... | 362,675 cans.... ....................................... | $\square$ | 23.715 <br> 43,521 <br> 12 |
| Cod Tongues and Sounds. Fish Oil | 594 brls ............ . ... .............. | 700 | $\begin{array}{r}43,52112 \\ 4,158 \\ \hline 100\end{array}$ |
| Fish Oin.... ............... | 16,487 galls | 065 | 10,716 55 |
| Total Value.. | .. ................. | ................. | 494,967 08 |

## Aimbind Nar.

Quantity and Value of Fish Exported from Prince Edward Island in the year 1876

| Year. | Articles. | Quantity. | Value. |
| :---: | :---: | :---: | :---: |
|  | - |  | \$ cts. |
| 1876. | Codfish, dry salted, cwt........ ........ .................................. | 8,449 | 25,400 00 |
| do | 'Muckerel, pickled, brls............ ......................................... | 9,3472 | 80,289 00 |
| do | Herrring do ${ }^{\text {d }}$ d................................................. | 2,494 | 7,505 00 |
| do | do smoked, lbs............................. .......................... | 3,000 | 7500 |
| do | Sea Hish, pickled, brls... ............................ ..................... | 1,000 | 6,010 000 |
| do | Uysters, fresh, brls. $\qquad$ | 51 480 | 9500 60 |
| do | do preserved, lbs.. <br> Lobsters do | 480 334.446 | 6000 40,56800 |
| do | \|Salmon, canned, lbs ....................................................................... | 3,476 3,792 | 40,568800 47500 |
| do | Other kinds, pickled, brls ................................................................... | - 572 | 7,5+700 |
| do | Fish Oıl, galls................................................................ | 2,590 | 1,700 00 |
|  | \| Total Talue................................. |  | 169,714 00 |

## Of the foresoing, there were shipped to

## GREAT BRITAIN.

| $\begin{gathered} 1876 . \\ \text { do } \\ \text { do } \end{gathered}$ | Codfish, cwt <br> Lobsters, lbs <br> Salmon. | $\begin{array}{r} 2,856 \\ 238,410 \\ 3,744 \end{array}$ | $\begin{array}{r} 7,14000 \\ 27,61400 \\ 46800 \end{array}$ |
| :---: | :---: | :---: | :---: |
|  | Total .............. . ................. ........ |  | 35,222 00 |

## BRITISH WEST INDIES.

| 1876. | Codfish, cwt.............................. ........ ........................... | 1,311 | 5,159 00 |
| :---: | :---: | :---: | :---: |
| do | Mack ${ }^{\text {rel, }}$ brls ......... ............. . ...... ......... ..................... | 1422 | 96400 |
| do | Herring, brls.. | 1,175 | 3,130 00 |
| do | do smoked, lbs | 3.060 | 7500 |
| do | Oysters, lbs................................ .................................... | 480 | 6000 |
| do | Lobsters, lbs .................................................................. | 48 | 1200 |
| do | Salmon................ ........ ...man.......... ...... ......................... | 48 | 700 |
|  | Total ........................................... |  | 9,407 00 |

## Quantity and Value of Fish Exported from Prince Edward Island, \&c.-Continued.

UNITED STATES.

| Year. | Articles. | Quantity. | Value. |
| :---: | :---: | :---: | :---: |
|  |  |  | S cts. |
|  | Codish, cwt .............. ....... ....................................... | 1,172 | 2,975 00 |
| do. | Mackerel, bris . ......... ....................................................................... | 9,19.7 | 79,265 00 |
| do | Mersing, brls ...................................... ................. ....... | 1,319 1,000 | $\begin{aligned} & 4,37500 \\ & 6,000000 \end{aligned}$ |
| do |  | ${ }_{1}$ | 200 |
| do | Lobsters, lbs ........................ ....... .............................. | 93,444 | 12.63200 |
| do | Otber kinds, brls .. . .. ............. .... ........... .... ............. | 141 | 5,54700 |
| do | Fish Oil, galls......................................... .................. | 2,590 | 1,700 00 |
|  | To |  | 112,486 00 |

## NEWFOUNDLAND.



FRANCE.

| $\begin{gathered} 1876 . \\ \text { do } \end{gathered}$ | Lobsters, Ibs Other fish, bels. | $\begin{array}{r} 2,544 \\ \mathbf{4 3 1} \end{array}$ | $\begin{array}{r} 32000 \\ 2,00000 \end{array}$ |
| :---: | :---: | :---: | :---: |
|  | Total ........................................ |  | 2,320 00 |

SPAIN.

| 1876. do | Codfish, cwt $\qquad$ Mackerel, brls $\qquad$ $\qquad$ | $\begin{array}{r} 1,788 \\ 10 \end{array}$ | 5,07200 6000 |
| :---: | :---: | :---: | :---: |
|  | Total ................ ......................... |  | 5,13200 |

## SAINT PIERRE.

| 1876. | Oysters, brls.......................... ..................................... | 2 | 400 |
| :---: | :---: | :---: | :---: |

## RECAPITULATION.



# APPENDIX 

> Refurn showing the Number and Value of Vessels, Boats, Nets, \&e., for the


## No. 19.

together with the Yield and Value of Fish in the Province of Ontario, Year 1876.


Return of the Number and Value of Vessels, Boats, Nets, \&c., for the

together with the Yield and Value of Fish in the Province of Ontario, Year 1876.


Return of the Number and Value of Vessels, Boats, Nets, \&c.,
for the

together with the Yield and Value of Fish in the Province of Ontario, Year 1876.


## Return of the Number and Value of Vessels, Boats, Nets, \&c.,

 for the
together with the Yield and Value of Fish, in the Province of Ontario, yr ar. 1876.


Return of the Number and Value of Vessels, Boats, Nets, \&c., for the

together with the Yield and Value of Fish in the Province of Ontario, year 1876.


## Return of the Number and Value of Vessels, Boats, Nets, \&cc. for the


together with the Yield and Value of Fish in the Province of Ontario, Year 1876.


Return of the Number and Value of Vessels, Boats, Nets, \&c., Ontario, for

together with the Yield and Value of Fish in the Province of the Year 1876.


Return of the Number and Value of Vessels, Boats, Nets, \&c. for the

together with the Yield and Value of Fish, in the Province of Ontario, year 1876 .


Return of the Number and Value of Vessels, Boats, Nets, \&c., for the

together with the Yield and Value of Fish in the Province of Ontario, year 1875.


Recapitulation of the Number and Value of Vessels, Boats, Nets, \&e., together with the Yield and Value of Fish in the Province of Ontario, for the Year, 1876.


Recapitulation of the Number and Value of Vessels, Boats, Nets, $\overline{\text { Ec}}$., together with the Yield and Value of Fish in the Province of Ontario, for the Year 1876.


## RECAPITULATION.

Value of the different Fisheries in the Province of Ontario, during the year 1876 .


$$
\text { APPIGDIX No } 20 .
$$

## SYNOT $亡 E S$ OF FISHERY OVERSEERS REPORTS IN THE PROVINCE OF ON'TARIO, FOR THE SEASON OF 1876.

## LAKE SUPERIOR DIVISION.

\author{
$\left.\begin{array}{l}\text { Joseph Wilson, } \\ \text { James Dirkson, }\end{array}\right\}$ Oturserts.

}

Comparative Statemest of the yield and vaiue of fisheries in this division:-


Overseer Dickson reports that the fisheries of his district yielded during last season a larger quantity of fish than in 1875, although no greater amount of capital was invested in this industry than in previous years. The weather was very favourable during the whole fishing season, and fishermen seemed quite satisfiel.

All the fisheries in operation in this portion of this division, under charge of Overseer Wilson, were visited by this officer during the past season, and he reports the fish as numerous as usual.

Complaints continue to be made of Americans trespassing on our fishing grounds in the neighbourhood of Parisienne Island, Lake Snperior; and Cockbuin Island, Lake Kuron. Mr. Wilson was informed that Americans had been fishing during the close season at Grant's Jsland. He says these infringements can be remedied only by more frequently visiting those localities.

A great deal of trouble is experienced by the local officers in getting returns of the fish caught and their value. Mr. Wilson suggests that in future a clause be inserted in the fisbing licenses to the effect that when the licensee shall refuse or neglect to make proper returns of his catch the license will not be renewed.

The following is as near as can be ascertained the quantity and value of fish ased for home consumption in this division:-

> Whitefish, Pickled, do Fresh, Salmon Trouᄂ, Pickled, do Presh,

The present chose matorn has given general satisfaction in this division.
The extension of the chme suison for speckled trout to the tirst May will be very beneficial to the protection and preservation of that tish in this district.

Angling in Nepigon River was carried on under special permits and the sport was equal to that of former yoars. Eiphteen permits were granted to angle in this river, twelve of which to findigers. The fees paid by these lureigners amounted to the sum oi $\$ 45.00$.

A great abuse exist in this division; fishermen will, sometime, leave their nets as many as six days in the water without riviting them, and the consequence is that the fish die in them and are thrown in the water to the injury of the fishing grounds.

## MANITOULIN ISLAND, GEORGLAN BAY AND LAKE IIURON DIVISIONS.

| . | J |
| :---: | :---: |
| Alex. Prolide (rimerdian. | G. S. Mitler, |
| Wm. Mctiown, | James M |
| amgel Frazer, Oiriser. | A.C. McKinvon, |

Datid McMaster, Oeveref.
Statement of the total jicid and value of fisheries in these divisions for the year 1876.
$\qquad$
do. lb.
7,4321
do. Nos.......................................................................................
Trout, brls
5,847
Herrings, brls
3,78:21
Bass, bils 69
Pike, brls 92
Pickerel, brls
2

> Total valuc....................................... \$232,667.50

Wersecr Abrey states that the catch of whitefish in his District (Manitoulin Island) during the last season was much above that of 1875 , but that there was quite a heavy deercise in the yield of salmon trout. Both the increane and decrease are attributed to the change in the closo swason for these kinds of lisin. He says that there is a discrepancy in the total value of the fisheries of his district, but that this is the result of the low prices offered for fish, in consequence of the overstocked market. The close reasons were well complied with.

Guardian McGown reports that the fishery laws and regulations were well complied with in his district, although it was alleged by fishermen that the change in the close season for whitetish and salmon trout was greatly to their dotriment. This officer aho advises the Department that the lumbering company of Parry Sound bave built a furnace to burn all the sawdust and rubbish from their mill at that place, thas putting an end to the illegal and injurious practice of letting this stuff fall into the stream.

Mr. Frazer, Overseer, states that salmon trout and whitefish are not caught in great quantity in his district, but that the fishermen nevertheless, alloge that the last change in the close season for these tish prove detrimental to their interests and that they would much prefer the old close scason. Many of them even say that if the actual close season is not ohanged they will not take out a license in future.

Herring tishing was not very good. This fish approached the shores much earlier this year than usual, coming in with cold, stormy weather in October, but when came the usual fishing season (Novomber), the weather being remarkably
warm and calm, they were induced to leave for clecp water, so that the quantity caught was not large, if comparod with the number of fishermen employed.

Pike, pickerel, bass and coarse fish generally, are not extensively fished for, but some are occasionally caught in nets. Lately, nevertheless, fishing for the coarser kinds of fish with hoop-nets was introcluced in this division and bids fair to become a profitable branch of the fishing industry if carefully conclucted and strictly watched.

Two pernicious abuses are practiced in Mr. Frazer's division, which consist in letting saw-dust and mill refuse drop into the streams and in throving into the water the detritus and decayed tish. Mr. Frazer states that this illegal practice is not to be charged to the fishermen of his division but to those of Collingwood and particularly to the fishermen on Mr. A. Port's tug-boat. Mr. Port was prosecuted for this offence, convicted and fined $\$ 10.00$ and costs.

Overseer George S. Miller attributes the decrease in the yield of the fisheries to the stormy weather which prevailed during the whole fishing season throughout his district, doing great damage to fishermen by preventing them from vigourously carrying on their industry and, in many instances, destroying all their nets.

In Mr. Patton's district the same causes produced even worse effects than in Mr. Miller'e. Almost one half of the nets owned in this district were destroyed on the shore by the storms or still remain in the Lake. This will prove a great injury to the fishing interests and will be felt for at least the next two years if these nets can not be recovered in the spring, which nevertheless is not probable as the ice will move them away during the winter. Nine fishing boats, valued at $\$ 150$ each, and the tug "Kate Pilgrim " valued at $\$ 2,000$, were als" lost. The close seasons were, as far as ascertained, well observed.

Overseer James Muir, reports that the lasi fishing season opened one montin earlier than in 1875 in his division, and that, save for herrings, the yield of the fisheries was as good as in previous years. At Southampton the fishing was very good, and as many as eighteen boats were engaged in this industry during the latter part of the season. Thirteen of these boats were owned by parties residing at that place. Herring seine fishing was a complete failure at Whitetish and Burkes Islands, whilst at Beaman lsland, and at most all the other points generally resurted to by herring the frequent and violent storms which prevailed during the latter part of September adestroyed large quantities of nets, thereby preventing fishermen from carrying on their operations during the best part of the fishing season. The close scason was well observed.

Overseer A. C. McKinnon reports that the fear entertained last winter that the fisheries of his division, especially the white fish and salmon trout fisheries would be ruincd owing to the cutting of a canal from Port Frank to Lakes Burwell, George and Smith, was happily not realized. It was at first thought that the immense quantity of black mud and other refuse carricd from these lakes through the canal would cover all the seining grounds and so prevent the fish from comiog or staying on these grounds where they could find food no longer. But this muck was all washed ashore during the summer, and in the fall the fishing was as good as usual. The fishery laws are reported to have been well compliod with in Mr. McKinnon's division.

Overseer KcMaster attributes the decrease in the catch of pickerel in his division to the change of close season. He also reports that the tishery laws were well observed.

In the few instances of illegal fishing reported for these divisions, the parties caught so doing were punished by the contiscation of their nets, and the imposition of fines amouncing in all to $\$ 6$, which were paid, together with costs of suits.

## LAKE ST. CLAIR AND THAMES RIVER DIVISIONS.

$\left.\begin{array}{l}\text { F. McRae, } \\ \text { Peter McCann, }\end{array}\right\}$ Overseers.
The value of the yield of fisheries in this division for the past four years was as follows:-

In 1872........................................ .......................... $\$ 8,255$
In 1873................................................................................... 8,877
In 1871.................................................................. 11,820
In $1875 \ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~ 13,704$
In 1876................................................................ 12,395
Fishing was not very good in Overseer McRae's district owing to unfavourable weather, and the height of the river. In Septembey last, for purposes of economy and better efficiency Mr. McRae was relieved of that part of his district comprising part of the Thames River, and the same was put under charge of Mr. McCann. Overseer McCano attributes the increase in his division to tho efticient fish-ways on the River Thames. He convicted, on view, four persons for fishing without license. The fines imposed amounted in all to $\$ 8.50$.

## DETROIT RIVER DIVISION.



There is a marked decrease in the catcl, of tish in this division as compared with that of previons years. This decrease amounts to nearly $\$ 10,000$ as compared with 1876, and is attributed by the Overseor, in a great nueasure, to the beavy western winds, which drove and kept the fish back in Lake Erie where they were obstructed and destroyed by the pound and gill-mets. Mr. Boismier suggests that in future pound nets be only aliowed, subject to the inspection and approval of the tixhery officers, and also that their meshes be fixed at four inches for the crib and five
inches for the leader.

## POINT PELEE DIVISION.

## James Cumins, Guardian.

do $\mathrm{N} \rho$

1,800

Buss, brls.

Coarre fish, herk

## LAKE ERIE TIVISION.

| John McMichael, |  |
| :---: | :---: |
| Alex. McBride, C. L. Bingham, | Overseers. |

Statement of the yield and value of the fisheries in this Division for 1 186 6

$$
\begin{aligned}
& \text { Whitefish, brls............ .............................................. } 300 \frac{1}{2} \\
& \text { do lbs............................................................. 7,045 } \\
& \text { do No............................................................ 1,000 } \\
& \text { Herring, brls.............................................................. 1,149 } \\
& \text { Pike and Bass, brls..................................................... } 79 \\
& \text { Pickerel, brls................................................................ fi8is } \\
& \text { Coarse fish, brls.......................................................... 1,0182 } \\
& \text { Total value..................................... \$17,071.25 }
\end{aligned}
$$

Overseer McMichael says the fishing season commenced under very favourable auspices last spring, the fish being plenty on the shore, but the fall weather was very stormy and did great damage to the fishermen, destroying their nets and injuring their fisberies. The pound nets more especially suffered from the boistering weather. The fishery laws were well observed.

Overseer Bingham reports :-The catch of fish last season was smaller than in 1875 owing to a less vigourous prosecution of the fisheries and to the fact that many of the nets and seines used were old and almost worthless. The close season was well complied with.

Overseer Bingham took particular pains during the two weeks preceding the close season for salmon, trout and whitefish to acquaint himself with the breeding habits of these fish, and found the spawn quite developed, leaving no doubt but that the fish were congregated on the grounds for the purpose of depositing their ova.

The fishery laws are well complied with, except the statutes respecting sawdust and mill rubbish, which needs being enforced.

The quantity of fisl used for home consumption is estimated at 231 barrels, ralued at $\$ 1,062$.

## GRAND RIVER DIVISION.

## $\underset{\text { Henty }}{\text { Hentifithe, }}\}$

Mr. Lawe, whose juriscliction extends from the mouth of Grand River to Caledonia, states that the yield of the fisheries was very satisfactory in his division. Trolling for maskinonge is the only branch of this industry which did not give good results, owing to the muddy state of the water caused by the building of a dam at Mount Healy: He also report that the close seasons were well obsorved, only one violator being found and punished by the imposition of a fine. Spearing is decreasing.

Mr. Griffiths, who has charge of the same river and its tributaries from Brantford, upwards, reports favourably, as regards the compliance with the fishery law in every respect, all through his division. A party was fined $\$ 8$ and costs fcr letting sawdust and mill rubbish fall from their mill in the creek, in the Township of Bedford, and another $\$ 1$ and costs for violation of the close season for pickerel.
$5-d 22 \frac{1}{2}$

## NIAGARA RIVER AND LAKE ON'ARIO DIVISIONS.

J. W. Kerr, Ocersper.

Comparative Statement of the yield and value of the fishories in this division.


Overseer herr ruports that the yield of whitetish and salmon trout was small ats compared to that of previous years. He attribules this to the following causes:-

1st. Neither as many men nor as much material were employed in gill net fishing during this scason as in former years. Besiler great quantity of these mots were last early in the season, being carried away by ice, and this loss discouraged the fishermen who were able to replace them only when the season was nearly orer.

2nd. Seining for whitefish, in many cares, proved a complete falure owing to unfavomable weather on Burlington Beach. The fish eanght, however, were of a superior quality. And the Overseer alds, that taking into consideration the prices, the value of the fisherios shows an increase of some $\$ 121$ over last year.

Spearing for bass and pike in Burlington Bay, during January, February and March, 1876, was a complete failure owing to muddy water and the continua breaking of the ice there. But part of November and December was very remunerative.

Salmon were accidentally canght in herring and whitotish gill nets, and even in seines, on Lake Ontario, thus proving that the pains and expense to which the Department has been subjected in conuection with artiticial tish breeding have not been thrownaway. On Burlington Beach, last fall, four small salmon were caught in herring gill nots. At Grimsby a large salmon was caught in a whitefish gill net. At Frenchman's Bay two salnon were also caught and liberated, whilst at the Rougroone was found deal in a net. Large schools of salmon fry were observed at the mouth of the Rouge during the breeding season, and a few parent fish spawned on the rapids up that river. Duffin's Creek was well guarded during the breeding season by the local gu:lrdian and his sun. The first salmon made their appearance on the 16th October last, and about the 6 th November the last fish had left. The mouth of the creek lias stopped up so often by lake storms that the guardian had to open it eight different times during the breeding season. The entire number of beds was 38. The number of parent fish could not be ascertained owing to the muddy state of the water caused by the freshet. The grardian, however, counted sixty salmon in the creek, and be is quite certain that there were more fish in it than in previons years. The fish all returned to the lake unmolested. The guardian of Credit River reports seeing salmon during the breeding season in this river.

The fish in general are increasing in this Division, and more active, vigourous fishermen, with an abundance of good substantial material, is all that is wanted to reuder the fisheries very productive.

The violations of the fishery laws are decreasing, owing to the vigilance and efficiency of the local Fishery Orerscer. He confiscated about 1,500 yardo of pike gill nets found set in prohibited portions of Burlington Bay by unlicessed fishermen, whom he also fined for the same offence.

Fines amounting altogether to the sum of 854 , exclusive of costs, were imposed by this Overseor for violations of the fishery laws and rerulations. A fishing boat, a quantity of nets, two spears, one grapnel hook and some herring and salmon trout nets were also seized and confiscated for similar offences.

## PRINCE EDWARD COUNTY DIVISION.

| Jonn G. Hiors, Wm. Piews, |  |
| :---: | :---: |
| W. A. Palen, | Overseers. |
| Peter Huff, Jr., David Concier, |  |

Compirative Statement of the yield and value of the fisheries in the division.

|  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |

The catch in this division was very good, but fishermen had to hang their nets during the greatest part of the seavon owing to the low prices and small demand for fish. The fish canght are generally exported to the United Stiates, wave what is required for local consumption.

The close seasons were well complied with. No violation of the law reported.

## BAY OF QUINTE DIVISION.

$\left.\begin{array}{l}\text { Chas. Wilkins, } \\ \text { Hugh Ralston, }\end{array}\right\}$ Oveiscirs.
Comparative Statement of the yield and value of the fisheries in Mr. Wilkins' District.

|  | 1872. | 1873. | 1874. | 1875. | 1876. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Whitefish, brls | 90 | 77 | 232 | 834 | 564 |
| Trout, bris..... ............... .. ..... ..... | 3,075 | 20 2,711 | 1,251 | 1,935 | 2,598 |
| Herring, brls..... ........................... | 3,075 | 2,711 | 1,251 |  |  |
| Pickerel, brls .................................. Coarse fish..................... | 450 | 1,250 | 595 | 165 | 1,199 |
| Total ......................... | 3,615 | 4,178 | 2,078 | 2,934 | 5,161 |
| Value .......................... | \$13,200 | \$22,588 | \$12,090 | \$19,005 | \$26,626 |

This Overceer reports: "The quantity of fish canght is in excess of last year, showing a commercial increase of the various ti-hery stations of this division.

The number of stations has been increased, and there is yet remaining plenty of unoccupied territory for many more.

The cold and inclement weather, accompanied with severe high wiods during the fishing season, was much against the fishermon. Had the weather been warm and favourable the quantity of fish caught would have leen far greater.

The salmon fry put in the Rirer Moira, by Mr. S. Wilmot, the Otficer in charge of the Government fish-breeding establishment at Newcastle, is increasing in number and size.

The fish-ways in this district are all kept in good and efficient report."
Cotparative Statemant of the number, kinds and value of fish, caught in Mr. Ralston's district:-

|  | 1875. | 1876. |
| :---: | :---: | :---: |
| Whitefish, binrels. | 46 | 18 |
| do No. |  | 6,500 |
| Trout, harrols. | 6 | 54 |
| Herring, barrels. | 4 | 48 |
| Stiscos, barrels.. | 10 | 12 |
| Maskinonge, barrels. | 8 | 20 |
| Bass, barrels.. | 52 | 14 |
| Pike, barrels.. | 92 | 51 |
| Pickerel, barrels. | 114 | 89 |
| Coarse tish, barrels. | 344 | 146 |
| No. of barrels. | 676 | 4972 |
| Value. | 3,659 | \$3,124 |

Fish were more plentiful in this district than in provious years, but the dull sale and small demand, especially for couse fish, prevented fishermen from carrying on their indnstry as vigourously as usual. The tishery laws were well complied with, with the excoplion of a few of the poorer class, who were caught fishing with nets for their own use. The Overseer did not prosecute them for the above reason.

## KINGSTON DIVISION-WOLNE .IND AMHERST ISLANDS.

P. Kiel, Overseer.

Comparative Statement of the yield and value of the fisheries in this division.

| - | 1872. | 1873. | 1874. | 1875. | 1876. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Whitefish, brls.............................. | 310 | 151 | 202 | 694 | 256 |
| do lbs ............. . ........... | ................. | 1,500 | ....... .... | ..... | ........... |
| do per $100 \mathrm{lbs} . . . . . . . . . . . . . . . . . . . ~$ |  | 3,950 | . ........ | ........... | .... ........ |
| Trout, brls........ .......................... | 554 | 418 | 272 | 325 | 217 |
| Herring, brls................................ | 12 | 12 |  | 12 | . |
| Pike and bass, brls......................... | 77 | 182 | 591 | 317 | 46 |
| Pickerel, brls ............................... | 27 | 56 | 110 | 172 | 46 |
| Coarse fish, brls............. .............. | 166 | 217 | 639 | 647 | 564 |
| Total ... | 1,146 | 1,036 | 1,914 | 2,167 | 1,129 |
| Value ........................ | \$8,310 | \$8,945 | \$11,100 | \$15,942 | \$7,446 |

The number of men employed fishing this 'season was 47 against 83 last year. The fishing implements used and the quantity of fish taken were diminished in consequence, only 1,129 barrels of tish being caught against 2,167 last year. This is due to several causes, one of which being the continued stormy weather which prevailed during most of the fishing season, and prevented fishermen from setting their nets. Another cause is the low rate paid for fish, owing to the abundance of that article on the American markets, which were supplied by vast quantities of fish taken at the Ducks Islands,fat Point Traverse, and on the American fishing grounds by American fishermen. These causes prevented our fishermen from carrying on their industry as extensively as in former years, but fish were, nevertheless, as numerous as usual. Not a complaint was made of their scarcity. All kinds of fish are reported to increase abundantly under the protection of the present fishery laws and regulations. It is a proven fact that although larger quantities of fish are taken jearly from Lake Ontario than in previous years, still the supply is larger than the demand.

The fishery laws were well complied with ; two cases only of illes:al fishing being reported. The parties were punished in one of these cases by the confiscation of their nets, and in the other by a fine of $\$ 4$.

## PRESCOTT DIVISION.

## John Mooney, Overseer.

No net or seine fishing is allowed in this division. Nine free licenses for spearing eels, in Johnstown Bay, were granted last pring on account of the hard times. The fishing under these licenses yielded 1,725 lbs. of fish.

During the spring close seasons two of the Dominion pulice constables were sent to assist the local Overseer, in efficiently guarding the waters of his division, and with their help this officer succeeded in strictly enforcing the fishery laws and regulation throughout the division. A fishing boat and a valuahle seine were seized and confiscated by these officers for violation of the fishery laws.

## MUSKOKA DIVISION.

Wm. E. Foot, Overseer.

Fifty-one gill net licenses were issued to settlers last season, eight of which paid a foe of two dollars each, the licensee fishing for commercial purpores. The others were granted free, the holders thereof tishing for their own domestic ase only. Thirty angling permits were also issuod, three of which to foreigners.

Reports of spearing were made by several travellers to the Overseer who exerted himself to detect the offenders but did not succeed in so doing. He, nevertheless, found and confiscated a certain quantity of nets set without license.

## LAKE SIMCOE DIVISION.

A. McKenzie, Overseer.

Comparative Statement of the yield and value of fisheries in this division :-

| - | 1872. | 1873. | 1874 | 1875. | 1876. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Whitefish, brls............................. | 60 |  | 116 | 124 | 5 |
| do Tront, bris......................................... | …… - 46 | 4,940 | ................. | 347 | 19,250 |
| do fresh, No............................... | ................. | …… 2930 | ......... ........ | 347 | 17,875 |
| Herring, brls........ .............. ........ | 7 |  | 30 | 20 | 30 |
| Maskinonge, brls.......................... |  | 1 | ................. | ....... | 2 |
| Bass and Pike, brls |  | 75 | .... | ........ | 60 |
| Pickerel, brls ........ |  | 2 |  |  | 1 |
| Value .................... .... | \$1,010 | \$1,677 | \$4,390 | \$4,830 | \$5,830 |

Nineteen persons were prosecuted for spearing without license in this Division, and on convictions condemnel to fincs amounting altogether to $\$ 68$ and costs. One of these parties refused to pay and was sent to jail for ten days.

## LAKE SCUGOG DIVISION:

$\left.\begin{array}{l}\text { A. J. Harrington, } \\ \text { John McAllister, }\end{array}\right\} \quad$ Overseers.
Five hundred and ten angling permits were issued in this division, all of them to Canadian subjects. The local overseers report Dthe fish as increasing, but do not give any statistical returns of the fisheries, as the only fishing done is by hook and line, and the anglers made no returns of their catch.

Fines amounting in all to the sum of twenty-one dollars were imposed for spearing illegally in Lake Scugog. One boat, five jac̣ks and six spears were also seized and confiscated.

## RICE LAKE DIVISION.

Cimarles Gilchris'f, Ouerseer.
This division is under the charge of Mr. Gilchrist who, by his activity and exertions, has succeeded in putting a stop to the illegal practice of spearing and of fishing during close seasons in these waters.

Three hundred and ninety-two permits were grantel during the scason to fish in this lake. Fifty-four of these permits were granted to Americans, yielding fees amounting to $\$ 180$. The other permits werc granted free to British subjects, including Indians.

## PETERBOROUGH AND VICTORIA DIVISIONS.



The yield of the fisheries in this division show an increase of about ninety-four per cent., attributed by Overseer Cochrane to the strict observance of the close season and also to the greater number of persons who, being out of employment last soason, resorted to tishing as a means of earning their living.

Mr. Cochrane says the mill rubbish thrown into the streams and the want of fishways are tho greatest abuses in his division, and he wiil endeavour to put a stop to them.

During the season just past, three hundred and thirty-seven angling permits were granted in this division, two only of which being asked by foreigners at a fee of $\$ 5$ each.

Mr. Cochrane prosecuted one party for ille rally killing fish by means of exploding material; the offender was tind $\$ 5$, and costs amounting to $\$ 4.20$.

BROCKVILLE, GANANOQUE, AND CHARLESTON LAKE DIVISION.
$\left.\begin{array}{l}\text { Hugh Thonpson, } \\ \text { David Hamilton, }\end{array}\right\}$ Overseers. $\left.\begin{array}{l}\text { John Wallace, } \\ \text { Henry Hunt, } \\ \text { Jos. L. Tifompson, }\end{array}\right\}$ Guardians.

Fishing with nets in this division is prohibited, and the advisability of this measure is shown by the inct ease of the fish in these waters, as reported by the officers in charge of the several districts above mentioned.

The fishery laws were well observed.

# MISṠISSIPPI RIVER AND LAKE DIVISION. 

Jayies McFadden, Overseer.
The yield of the fisheries in this division was better than in any previous years, owing to a larger number of persons carrying on fishing.

Four nets were seized and confiscated for illegal fishing, and the owners prosecuted, convicted and finod. The fines so imposed amounted in all to the sum of $\$ 10$, exclusive of costs

## MADAWASKA RIVER AND LAKE DES CHATS DIVISION.

$\left.\begin{array}{l}\text { John Lion, } \\ \text { Andrew Telfer. }\end{array}\right\}$ Overseers.
The yield of the fisheries during the past season was as follows:--


Mr. Lyon states that there is a decrease in the quantity of tish in this divison owing to sawdust thrown from the mills in Madawaska River and Chats Lake. The close seasons were well complied with.

Mr. Telfer, who was appointed this year says that there are large tracts of water in his division abounding with edible fish; that hitherto immense quantity of bass and other fish were every year slaughtered, but that he hopes to be able in future to check these illegal practices.

One party was fined $\$ 1$, and costs amounting to $\$ 4.49$, for fishing trout during close season for that kind of fish.

## APPENDIX No. 2 I .

## REPORT OF THE INSPECTOR OF FISHERIES FOR BRITISII COLUMBLA, FOR THE YEAR OF 1876.

To the Hon. A. J. Smith,
Minister of Marine and Fisheries, Ottawa.

Camp, Indian Reserve Commission, Chemainis, B. C., 10th January, 1877.

Sir,-I had the honour to receive in May last, notitication of my appointment as Inspector of Fisheries fior this Province, and I now beg to communicate the result of such ouservations as I have since been enabled to make.

It fortunately bappeis that my present connection with the settlement of the Indian Reserves in this Province enables me, without incurring special expense to your Department, to examine more narrowly into the condition of the fisheries over a wide space than would else be porsible save under very beavy outlay. Hence, I have not been under the necessity of drawing against the credit allowed to me for travelling expenses to any material extent, the whole outlay under this head not exceeding about thirty dollars, of which the particulars will in due course be forwarded from Victoria

After receiving from you the notices prohibiting the use of explosive compounds for the destruction of fish, I found it expedient to visit Burrard Irulet, to enquire narrowly into the existence of that practice there.

I found that, as had been reported to me, it had been prevalent; but I believe that since the promulgation of the notices, and now that the law is known, the practice has been abandoned.

So far, only one case where the construction of a fishway seems necessary, has been brought under my notice. This is at the Shawnigan Lake where a dam prevents the fish (trout) from having access to their spawning beds. The matter will be duly reported on after my arrival in Victoria, and the evil will be remedied with little trouble, in conformity with the printed instructions sent to me.

## Salmon Fishery.

The chief fisheries of the salmon, at present, are on Fraser River, near the mouth, and thence upward as far as New Westminster. The business is prosecuted with much energy by three firms; but others purpose entering on the businers, and there is of course room for many more. The fish are caught by means of duft-nets, and are cured either by canning in a fresh state, or by salting in barrels. North of the Fraser, near the mouth of the Skeena River, discharging into Port Essington, another fishery has been established during the past summer. This last concern, known, I think, as the North-West Fishing Company, was originated in San Francisco; and the capital necessary for its operations is owned, 1 beliuve, chiefly in that city, and partly in Victoria. The Skcenâ River affords, donlitless, some of the most prolific fishing stations in the Province; but owing. as I am informed, to we oversight in the selection of their station, the company in quostion has not met with the success that was hoped. Upon this question I cannot, however, speak authoritatively: fort hough I wrote some months ago to the Manager at Skeenâ, asking to be favoured with the necessary notes, I have not yet received a reply.

Subjoined is an abstract of the notes kindly supplied to me by the three firms conclucting the tisheries on the Lower Fraser:-

Messrs. Findlay, Durham \& Brodie, Victoria.

| 4,122 cases, ca. 4 doz., 1 lb. cans | \$24,800 00 |
| :---: | :---: |
| 400 do. do. 2 lb . cans | 2,300 00 |
| 38 half-barrels salted salmon. | 19000 |
| 37 barrels do. do... | 26000 |
|  | \$27,550 00 |

Messrs. Holbrook \& Cunningham, New Westminster.
2,600 cases canned salmon, 4 doz., ea. 1 lb. ................ $\$ 15,6000$ )
250 half-barrels salted salmon.
$1,250 \quad 00$
$\$ 16,850 \quad 00$
Messrs. Ewen \& Wise, New Westminster.


The whole of the above was exported, with the exception of the following, sold within the Province:-

By Messrs. Ewen \& Wise- 11,000 lbs. canned salmon; 50 barrels salted salmon; 186 half-barrels salted salmon.

By Messrs. Holbrook \& Cunningham-50 half-barrels salted salmon.
By Messres Findlay, Durham \& Brodie-66 cases canned nalmon.
In connection with the foregoing statement, I subjoin the Custom House return of exportation from all sources, with which I have recently beea favoured by the collectors.

Exports from Victoria, fiom 1st January, to 31st December, 1876 :-
Salmon, canned, 49:1, 524 lbs. ................................... \$72,164 00
do. salted, 1,140 brls. ................................ 6,609 0n)
Other fish, 165 ".......... .................. 90000
Fish oil............................................................... 25,024 00
Total exportation as per Customs return.... $\$ 104,69700$
Tho result, as compared with other years, is small, and at the first view disconraging. The low price realized last year, however, owing to the enormous supply throwu int, the markot from the "Canneries" on the Columbia Rivor, together with the far: that the Frusur River fish had not yet been fully established, had partially discou ared enterprise in this quarter. A more favourable demand has since arisen, and a reat imputus to future enterprise originated. On this point I quote the followng oxtract from the note which recently accompanied the return of Messrs. Findlay, Durham and Brodie, of Victoria:-
"Of' the above, only 66 cases were used for home consumption; the rest were exported. Of course more could have been sold in this market, but as we had only a limited supply we had to supply our foreign customers first. The reason of the small catch this year is, first, we were not prepared (being uncertain of the markets)
at the first of the season to take full advantage of it, and, secondly, the poor run of fish."

I may, bowever, add that in view of the more favourable prospect that now exists, and the largely increased demand, evident preparations for the prosecution of the business on a greatly enlarged scale are in progress. I may evidence the fact that, when passing through New Westminster early in November last, I noticed a building recently erected by Messrs. Ewen \& Wise, specially planned for the prosecution, on a large, scale of the canning and salting business. This building, of large dimensions, and, in so far as I could judge, admirably devised for the purpose in view, has been erected at a cost, as I was assured, of five thousand dollars $n$ more, and its erection alone gives earnest of the confidence which exists with regard to the future of these tisheries. It would be unfair, however, to limit the mention of enterprise solely to these gentlemen. The preparations making by other parties in the field all point markedly in the same direction, while new competitors also purpose to enter on the business; and here I will respectfully refer to a communication which I had the honour to address to you some years ago, and which I find published in the report of the Fisheries Branch of your Department for the year 1874, page 168. In that communication I ventured to suggest the expediency of introducing, by artiticial means, a supply of the livge Columbia River salmon (S. Quinnutt, of Richardson and Baird, the $S$. quannett of the Chinooks) into the eastern tributaries of the Fraser In conference with the lealing fishery-owners upon the Lower Fraser recently the project was again suggested irrespectively of my own previously expressed opinion, and by all who are interested in the business is strongly advocated. It is believed that by such system of fostering the supply the productive powers of the river will be enormously increased, and that thus, indirectly, advantages to the Province and to the Dominion, immeasurably in excess of the preliminary or continuous outlay, would accrue. I have promised these gentlemen that I would again bring the matter officially under your notice, and I respectinlly do so.

It wonld be presumptuous, however, in me, knowing nothing practically of the mode of operation, to advance an opinion as to the plan of proceeding which, supposing the suggestion to be favourably entertained, should be adopted. All I could profess to do is this, to suggest the spot where, from ny knowledge of the country, I think a breeding establishment could be most economically and efficiently established. The locality generally which I would propose is cither on the upper or lower Arrow Lake of the Columbia, from either of which a short and sufficiently facile route of transport exists to the head waters of the south branch of the Thompson tributary of Fraser River. All the natural requirements for the successful establishment of a breeding house on a scale commensurate with the requirements, I believe to be present, nor do I foresee any difficulty that might possibly intervene. Nevertheless, before any decision on a point so important, the opinion of an expert practically qualified to judge would be necessary, nor would I venture to recommend any active steps until after full preliminary examination by such competent person should have been made. In this Province, however, as far as I am aware, no properly qualitied person is to be found ; therefore, if the project be entertained, it would be necessary, to avoid all risk of failure, that a competent person from some of the breeding establishments in Ontario should be detailed to malse the necessary enquiry and examination.

At the same time I am compelled to point out that both from the higher current rate of wages, and the enhanced rates of transport in this Provincr, the estimate of cost of carrying on an establishment such as is proposed, could not be based on the cost of a similar establishment within the limits of older Provinces, but must be much in excess. Whether it would be practicable or permissible that some arrangement could be made with the United States Commissioner of Fisheries, that such an establishment near the locality named could be found and carried on, on joint account for the common benefit, I cannot surmise, but I respectfully suggest the question for consideration.

The salmon fisheries on this coast are prospectively of so much importance, that I cannot leave the subject without daswing attention to certain peculiarities in the
habits of the fish which directly affect the question. I am compelled, in order to avoid unneccssary repetition bere, to refer you to the account given by me some years ago, re-published in one of the reports of gour Department, wherem I treat generally of the subject, and larticularly of the fact that the salmon of the different varieties resorting to these streams, do not, like the Atlantic salmon, return to the sea after spawning. That this fact, e.tablished to the conviction of all observers here, has been accepted elsewhere with some incredulity, I am aware. I am not, however, to reenter here upon a dischssion of the subject; the assertions advanced have been, I consider, fully bornc out by the testimony of Mr. Livingstone Stone, of the United States Fishery Deparment, with regard to the salmon ascending the McLeod branch of the Sacramento-the condition of which river may be assumed an an example for the other rivers on the Pacific cuast.
(Report Cinited States Commissioner of Fisheries, 1872-3, pages 191 tt seqr.)
But I will here add that, during the progress of the Commission in which I am now engaged, fresh and peculiar opportunities of observation have constantly arisen; and the result has been only to confirm previous convictions. To this patent fact the attention of my brother Commissioners, Messieurs McKinlay and Sproat, as well as of the officers accompanying us, has also leen directed; and the testimony of the natives at every boint is to the effect that, while the large sex-trout frequenting many of the streams conforms in its habits to the well-known instinct of the Atlantic salmon, not one of the many varieties of the Pacific salmon is ever known to return to the sea. At the mouth of the Se-litel-writ-tulh, a stream discharging at the head of the North Arm of Burrard Inlet, and elsewhere at the various streams in that vicinity, on the Squawmish River, discharging into Howe Sound, and the other streams the:c and in Jewis' Inlet, the same evidences of death were observed In the Courtenay River discharging into Comox Harbour on Vancouver Island, portions of the stream were literally pared, if I may so express it, with dead and dying fish. But in no case, there or erewhere, was the slightest indication to mescend appurent; foeble and exhansted, the fish, the spawning tunctions having been performed, still struggled peristently to ascend. Were I to sing that, within the limits of our progress during the last three months, thomsands of tons of these dead and dying fish could he collected, I might indeed be suspected of exaggeration, but I should be within the truth; and if I now mentron the circumstance, it is no less to convey a notion of the numbers of these fish, than to illustrate palpably a well-estalolished fiect.

The fish here specially alluded to are the fall salmon or qualo (s. canis) a revy inferior fisl, but valuable to the natives for drying, when in their prime. The gencral remarls, howeve, apply equally the other varieties.

Much unceatinty pratils as to the identification of the several varicties of salmon causht with the bait upon the rea-board with these fish after they have entered the numerous rivers to which they resort for spawning. The diversity of dialect and of language along the coast, and again the partial diversity in the interior, deprive one of that clue which might elso be afforded by the native nomenclature.

Some of the varictios resorting to different streams resemble each other closely in goneral appeanace, but slight specific differences are at times apparent. A close comparative study would hence be necessury to establish definitively the different clasces. I wat desirous, in pursuance of an implied promise to Professor Baird, of Washington, two yeirs :gen, to make at least a partial collection of specimens for his inspection, but various calles have so far prevented my doiug so, and I do not see, under pesent circumstances, an immediale prospect of fulfilling my intention.

The conditions, too, under which I now write under canvas, and coasequently with few conveniences, prevent my going largely, even on empiric grounds, into the subject. I confine myself, therefore, to tho mention of several of the prominent varieties, being those which at present are commercially the more important.

The earliest shoal entering Fraser River, as well as other rivers along the coast, is confersedly the finest, both in size and quality.

The weight of the Fraser River kase sometimes exceeds 50 lbs . I note a specimen mentioned in the papers as having been caught with the bait near Victoria, weighing 65 lbs . On the Columbia I have seldom seen one weighing 50 lbs.

This fish-the saw-quai of the lower coast tribes, the kase of the remote interior -does not obriously differ externally from the large spring salmon of the Coiumbia River, (s. quinnatt eqannctt chinook.) But there are certain apparent differences in in their habits, which lead me to infer that they are probably distinct varieties. One fact observable with the Fraser River kase is, that they do not, so far as I have observed or been able to ascertain, enter any of the lakes, such as Stuart's Lake, Fraser Lake, de., along the conrse of the Fraser and its tributaries. Upon reaching the outlet of these lakes, they diverge up the adjacent streams to spawn-the smaller variety, or ici-lo (such-kai of the Lower Fraser,) alone continuing their course through the dead-water of the lakes, to the tributaries beyond. The equannett of the Columbia (s. quinnatt,) exbibits no such apparent reluctance; passing unhesitatingly through the lakes of the Upper Columbia on its course towards the head-waters, where its spawning grounds are situated. Again, the run of the large Columbia salmon from the sea is apparently more continnous and regular than that of the nearly corresponding fish of the Fraser; and commences, also, at a somewhat earlier date. This last fact, however, may reasonably be assigned to local causes only.

The suck-kai of the Lower Fraser, though a smaller and not so lich a fish as the kase, may be regarded, at present, as the staple product of the Fraser River fishery. The weight of this tish is about eight lbs., or more, and it is canned in large quantities for exportation. In my opinion, however, and I think in the general opinion, it is nowise comparable with the large varieties before named, though some contend that, when canned, it is not inferior.

Several other varieties, including the quä-lo, or hook-nosed salmon, before referred: to, the hunnuns or hones, \&c., likewise visit the Fraser; and all, under possibly some specific modifications in certain localities, resort to the numerous streams along the north-west coast and Alaska-saring only that the largest variety, typified by the saw-quai, is confined, I think, to the large rivers only.

In a previous communication $I$ drew attention to a misrepresentation which, through misapprehension on the part of the informant, had been suffered to appear in that portion of the Fishery Report of last year which relates to this Province. I allude to the alleged destruction of the salmon-spawn liy the natives in the interior ; and to the systematic destruction, likewise alleged, of vast numbers of salmon-fry on their way to the sea. Both these statements I believe to be without correct foundation. In the same communication, too, I expressed my persuasion that the native modes of tishing, simple but efficacions, throughout the Province, are in all respects unobjectionable and economical; and that any interference with their proceedings would be unadvisable, save when, through bad example, they infringe a general protective law-as in the case of the occasional use of explosive compounds before referred to.

With regard to the provisions of the Fishery Act, at large, there are many portions which, under the showing I have made, are necessarily inapplicable to this Province. Their application, indeed, would in some cases neutralize all fishing operations: for instance, of the salmon, at present the most lncrative. I have therefore assumed that such portions, only, of the Act, as are obviously of general application, with such other portions as, on more minute enquiry, may be found to be of particular application, shall be locally adopted. Without, therefore, interfering captiously, and injuriously as I conceive, with existing practice, I shall continue, as hitherto, to exercise a watchful surveillance for the common benefit; reporting fiom time to time, the result of my observations, and under your sanction, extending such further protective portions of the law, as may be found necessary or expedient.

Before leaving the subject, I may mention that, in the narrow waters betwecn Vancouver Island and the mainland of British Columbia, salmon are canght in the primest condition, at all seasons of the ycar--leaving it to be inferred, as in view of the facts alrcady stated must necessarily be inferred, that the fish, after reaching the
salt water, remain there constantly until they attain maturity. The bait employed is usually a herring, but the spoon bait appears to be equally effective; the system of trolling from a canoe being of course adopted.

> Gicnirel notes on other Fishcries.

The Sturgeon (a. transmontanus of Richardson, frequenting both the Columbia River and the Fraser, attains to an enormous size. Individuals weighing 500 or 600 . pound are not unermmon; and this weight is often exceeded. It is a good and valuable fish; but so fir, does not seem to have attracted attention as available for a foreirn market.

The Halibut is common along the whole coast; but more especially on the outer shores of the Arehigelago, where they seem to attain a greater size than in the narrow waters. The neighbourhood of Queen Charlotte Island appears to be specially affected by these fi-h; and specimens weighing 200 lbs . or more are not unfrequently caught there. The halibut is apparently highly prized in San Francisco, where, according to the market reports, it usually commands fifty cents per lb. Mr. George Blenkinsop informs me that he has seen fish caught off the north end of Queen Charlote Island, weighing fiom 500 1o 600 lbs .

Under such circumstances, and witha large demand, (the supply being obtainable, I believe, only from the north-west coast,) it would seem that this fishery conducted systematically and with energy, would prove $\sigma$ ery remunerative.

The Corl caught in the narrow waters is an inferior finh; but I belicre that on the outer shores there are banks on which a superior variety is found-nearly resembling, and perhap, identical with, the true cod of the Atlantic waters. A bank lying off the north-west angle of Queen Charlotte Islands is specially noted for the production of some of the finest of these fish; and these, when dried, appear to be quite equal in quality to the dried lish of the Atlantic.

The Rock-Corl, an excellent fish, is caught on all parts of the sea-board; but is, probably, of too small a size to be profitable for curing. The red roch-fish, however, while an excellent table-fish, is now attracting attention as being peculiarly suited for curing for market, in the same way as the dried cod before alluded to. The largest of these fixh may lessibly attain to fifteen or tire nty pounds. Inside of Cape Scott, forming the north-west extremity of Vancouver Island, there is an extensive bank which is said to produce these fish in great abundance, and of the largest size. On the shore adjacent to this bank, several parties, and among the rest a Chinese copartnery, have recently, 1 im informed, established themselves, with the view of systematically prosecuting the fishery.

The Herriny of this coast have, so far, obtained a very inforior reputation, chiefly, I think, because they are caught in the greatest numbers at a period early in the spring, when they resort to the shallow waters to spawn. Caught in the deep waters, when in their primo, at other periods of the year, I liave found these fish to be of excellent puality; and at these times, I believe, they could be successfully cured, especially the rech-herring, to compete in the market with other fish whose reputation is already established. At present they aro caught chietly to supply bait for catching the dog-fish, \&e., and to a rery limited extont for the supply of the Victoria market. As a rule, the herring of this coatst is smaller than its Atlantic congener; but in parts it is found in size equal, I think, or nearly equal, if in quality at all inferior.

The Smeit of this coast is a valuable fish, highly esteemed for the table, and produced in incredible numbers. Chinese fishermen, I am informod, have entered largely into the curing, by drying, of these fish, in the vicinity of Burrard Inlet; finding a market partly among their eountrymen in Victoria, partly among the same class in San Fiancisco. They use, I believe, the scoop net to capture the fish. Considerable injury to this fishery, as I have perhaps lefore remarked, had resulted in a portion of Burrard Inlet, from the inconsiderate and now illegal use of giant powder for the destruction of fish generally--a practice which, as I have also mentioned, has since been discontinued.

The Oold́-han, called also in Alaska, the Candle-fish,( Thale-chthys or Osmerus Richardson,) although it may occur low down in the list of marine and anadromous fishes which I undortake at present only partially to furnish, is not thercforc to be regarded as in my estimation the least important. I again venture to refer to certain notes which I have already made public; and I now repeat my increased conviction that the value of this fish for divers economical purposes has not yet been fully understood. Formerly resorting in enormous shoals to the estuary of the Columbia River, it disappeared suddenly about the year 1837, and continued to absent itself for many years, until recently, whon it suddenly reappeared in shoals as numerous as of yore. In Fraser River these fish are found, and resort thither regularly in heary shoals; but little advantage is taken of their advent, beyond what aro caught and consumed as a luxurious adjunct to the table whilo fresh, and a few casks hastily salted for sale and consumption at home, chiefly in fulfilment of privato orders. At the Squawmish River, discharging at the head of Howe Sound, I found, on enquiry, that these fish enter the river, as clsewhere, carly in the spring, and ascend as high as the head of the Island of Stâ- $\hat{a}-\mathrm{mis}$, forming the delta; thence, after spawning, returning to the sea. Several other rivers along the coast are known to be frequented by these fish; and there are doubtless others of which we are not, so far, cognizant. The Nass River, however, discharging into Observatory Inlet, close to the Alaskan boundary, stands pre-eminent as an Oolâ-han fishery, as well for the enormous supply it yields, as for the superior quality of its fish.

At this point, the shoals make their appearance with much regularity annually, from the 26 th to the 28 th of March, the period of arrival seldom varying, I am assured, more than two days. At their first coming the shoals are densely packed, to the depth of three feet or more near the surface, and occupy, in extent, an area of several square miles in the estuary of the river; for it is to be noted that it is only on reaching this point in the course of their instinctive annual migration that they approach the surface; nor is aught known of their movernents aftor leaving the river, or of their permanent resort during the remainder of the year. The stay of the main shoal in the river is very short. They do not ascend beyond the limit of tidewater; and having completed the natural functions, again retreat to the sea. Meanwhile, enormous quantities have been captured, by the numerous native fishermen, who have assembled to await their arrival. Some cmploy the rake, others the scoopnet, to capture their prey; but whatever the device adopted, certain success cannot but ensue. Afterwards, the first and principal shoal is succeeded, at intervals, by other minor shoals; and during some weeks the fishery is actively prosecuted; the more actively that, even under its primitive conditions, it has always been exceptionally profitable, not only account of its productiveness, but on account of the intrinsic value of the product.

The natives cure the fish partly by drying; and they also procure fiom the surplus of the catch, large quantities of oil, which they barter to other tribes who have not access to the fishery, and by whom, equally with themselves, it is highly esteemed.

As prepared by the Indians, this oil is of a whitish colour, and of a semi-fluid consistence at an ordinary temperature. When properly extracted, and after having been duly refined, it assumes the appearance of cod-liver oil, all the curative propertios of which it ts asserted to possess, and being much more palatable, is therefore preferred in medicinal practice, whero known. In addition to its value in this respect, I have been informed by Mr. Allen Francis, formerly U.S. Consul in Victoria, that a small shipment of this oil, which he sent to New York for experiment two years ago, attracted much attention, as yielding the finest quality of fancy soap. Mr. Francis considers that there would be a large demand for this purpose, and at a lucrative price, could a regular supply of the article be assured. The other applications of the fish need only be glanced at: cured, as the red-herring, they are, in my opinion, superior to that fish; and preserved in olive oil, they would, it is generally thought, far excel the ordinary imported sardine.

5-d 23

Altogether, I confidently express the opinion that in the prosecution of this fishery, with skill and judgment, there is a wide and lucrative opening for enterprise.

## Dog-fish.

The catching of these fish gives employment to a large number of persons along. the sea-board of this Province; and the occupation will be a durable one, since the supply appears to be practically inexhaustible. Both to the native fisherman, and the European, a valuable industry is thus opened, and a large and wide circulation of cash is created. The Customs return of export before quoted, assuming the valuation to be at about forty cents per gallon, the usual trade-price in Victoria, shows about 60,000 gallons as actually exported during the past year. Considering, however, the large quantities consumed for lubricating and lighting purposes, at the extensive saw-mills at Burrard Inlet and elsewhere; at the coal-mines at Nanaimo, Departure Bay, \&c.; and by the numerous steamers and sailing vessels frequenting these waters; it may be safely inferred that the quantity appearing as the direct export represents but a proportion of the actual product of the fishery. It is, of course, impossible to ascertain the true proportion; but from all I have been able to learn, I should be disposed to set it down as certainly not exceeding one-third; and hence may be derived a notion of the positive cash-value of this fishery, as now existing, and also of its prospective importance under improred or altered circomstances.

For most of the particulars regarding this fisheryr, I am indebted to Mr. Henry Trim, a Canadian by birth, who has long been engaged in this business, and the whale fishery on this coast. The liver of the dog-fish, as you are doubtless aware, is the only portion of the fish from which oil is extracted; and it is estimated that one hundred of these yield from six to eight gallons. The rest of the carcase is not utilized in any way, vave where near agricultural settlements, the remains are employed as manure.

The outlay necessary to commence operations, say by two men, in this fishery, is computed as under:-

| Boat, with oars and nail | \$60 00 |
| :---: | :---: |
| Try-pot. | 1800 |
| 1,000 yards manilla rope, $1 \frac{1}{4} \mathrm{in}$. |  |
| 600 J. P. cod-hooks, No. 3 , per cwt., $\$ 1.50$. |  |
| 6 doz. cod-lines, ( 1 doz. per hundred hook |  |

Oil casks cost here six cent per gallon. A net for catching herring for bait costs from $\$ 150$ to $\$ 200$; but one net, bought in common, suffices to supply all those fishing in the same neighbourbood. The amual yield of oil to each fisherman, Mr. Prim estimates at from 40 to 150 barrels, according to skill or industry. The average sale price in Victoria is about forty cents per gallon.

## Whale Fishery.

The hump-backed whale is very numerous in the narrow waters of British ColumLia; on the outer shores the larger kinds are found. Until recently, the fishing of the former variety was carried on by several parties organized for the purpose; but, apparently because less profitable than the dog fishery, or possibly because conducted without a due knowledge of the business to secure favourable results, it has been abandoned.

The mode of procedure, as described by Mr. Trim, appeaus to be nearly as under :

Sailing near the object of their scarch, (for the animal appears to be too wary to be approachable with the oar), a harpoon is fired into it as seon as it rises within range. To this harpoon a line is attached, in the usual way; afterwards the animal is killed by means of bomb-lances, fired into it from a heavy musquotoon. Two of these bomb-lances are generally required for the uestruction of cach whale, and about thirty minutes are usually occupied in the process.

Mr. Trim expresses the opinion that it would not bo easy, if indoed practicable, to kill these whales (the hump-backed) in any other way; and he also says that, with due care, there is little risk of failule. The largest whale captured by the party with
which he was formerly connected yiclded 3,875 gallons of oil; the smallest 500 gallons.

## The Seal Fishery.

For the substance of the following notes I am indebted to Mr. George Blenkinsop, of Victoria, at present attached to the Indian Reserve Commission.

The natives of Barclay Sound procure on an average each year about 2,000 fur seals; the Klay-o-quahts, further north, about 600 . Two firms, Messrs. Boscovitz. and Messrs. Spring, both of Victoria, supply the means of prosecuting the chase, and purchase the proceeds.

From twenty to thirty picked men with their canoes, in the proportion of one to each two men, are taken on board each of the schooners employed. These schooners then proceed to a bank or shoal, distant some thirty miles from the const, to which the seals resort during the months of April, May and June. At cvery favourable opportunity the canoes are launched, and each pair of hunters proceed to work. The seals are cautiously approached, while sleeping on the surface of the water, and the spear alone is employed; the use of the gun being studiously avoidel. After the animals are skinned, the carcases are carefully suniz with weights attached, at a projer distance from the bank; all these precautions being necessary in order to alvoid scaring the animals from their resort---their sense of smell and hearing being very delicate.

At other points along the coast the chase of the furseal is also prosecuted by the natives; but less systematically, and therefore with inferior success. The hair-seal is killed in the narrow waters, either with the gun or by means of nets; but chiefly for its oil, its skin being, of course, of comparatively little value.

The porpoise fishery along the coast does not appear so far to have attracted much attention. At Ucul-ââs, on Kupu Island, Gulf of Georgia, late in December last, however, I saw a young Indian who had just killed several with a gun, but they appear to be of a small variety. He told nie that, in calm weather, he could in this way kill as many as ten in a day. That three of them usually yielded ten gallons of oil, for which he could get in Victoria $\$ 4.50$, as against $\$ \pm$ for an equal quantity of dog-fish oil, because the former smelt less strongly.

I believe I have now nearly exhausted the subject of our Provincial fisheries so far as they are at present developed; and saving only that, under the very unfavourable circumstanees in which I have been constrained to write, I have necessarily avoided some details on certain points which I might else have giren. Bofore concluding, however, I will venture to point out some of the reasons which, as it seem; to me, have interfered to prevent a broader development of the fishing resources of this Province. And in the first place I would say that they have probably not been sufficiently known to professional fishermen abroad; or if known not adequately appreciated.

In the next place this fact is not to be lost sight of, namely, that whatever advantages may have been supposed to attend the provisions of the Washington Treaty, as regards the fishing interests of the Dominion at large, this Prorince has been exceptionally denied participation in them. Thus our fish and our fish-oils, if exported to San Francisco, the nearest market of importance, enter it burdened with a duty which tells directly against the fisherman toiling on this side of the line, while as directly fostering the efforts of his competitor labouring in the waters of Washington Territory.

It is not for me, however, to venture to make any suggestion in regard to the unequal application of treaty obligations in different portions of the Dominion; and if I allude to the subject it is solely to indicate one, at least, in addition to the several causes which have impeded the development of the marine resources of British Columbia.

I have the honour to be, Sir,<br>Your most obedient servant,<br>ALEX. C. ANDERSON, Inspector of Fisheries, B.C.

# report on the flsheries of manitoba, for the Year, 1870. 

## Litile Britain, <br> Winnipeg, 31st December, 1876.

Sir,--I have the honour to submit my report on the fisheries of the Province of Manitoba, and in conformity with instructions lately received from your Department, I have ondearoured to return to your office, in tabular form, as complete a statement of tho fisherics within this Province, and in parts of Lake Winnipeg adjacent thoreto as circumstances would admit.

I have reliable data from the east side of Lako Manitoba, having sent my son there on the 5th November, to collect information from the residents there. Ho found a population of twenty families at Oak Point, nine only of whom had been ensugel in the fall fishing. He reccired his information from the parties that had been prgage lin the fishing during the unusually brief period the fish continued near the thore, which information is given in the table. The St. Laurent Mission is about ten miles south of Oak Point and has a population of about forty families. Twenty of there families had been occupied in the fall fishing ; my messenger had not the pleasure of finding many of them at home. Notwithatanding he received all the requisite infirmation from the courteous and hospitable priest in charge of the miseion, aided ly the rery lind and intelligent teacher at tho placo. The information obtained rempecting the take of the other kinds of tish is fur less satisfactory, as each indiridual consulted made his statement on supposition, which I had to accept as data to be guided $\therefore y$, which suppositions I believe to be rather under than abore the true numbers. We ean form some idea of the great numbers of pike (Esox Lucius) taken in the white waters of the Province during the last winter and spring, when we bear in mind the great dearth that provailed in the land and drove settlers and Indians to all the angling places within twenty or thirty miles of their residence, and when we are informed that some of these anglers have in a single day taken two hundred and in *omo cases :30 fish. I had a letter from my correspondent at Big Point on the west side of Lake Manitoba, dated about the time the iish wore beginning to come to the shore. From it I havo had some basis in forming an estimato of the numbers taken on that side of tho lake. It is very difficult to arrise atacorrectestimate of the different kinds of fish taken in our rivers, as the poorer class of settlers and the Indians along the rivers are continually on the water attending to catfish lines and gold-oye nets, whose every object is accomp lished when the fish is eaten; and as a rule care nothing about keeping any record of the numbers taken by them. Yet to the above rule there are some cxceptions, and from these exceptions we have been able to form our estimate, which, I think, is near the truth. Some Rod River men havo been fishing last fall on the east side of Lake Wiunipeg, to tho north of where the river of the above name falls into the lake. The number and length of the nets used by them, and the number of fish taken by them with the take at some other points on the lake have riven me some data to base my report on. The whitefish did not come to the spawning grounds until the 15th October, and on the 23rd of that month a heavy gale set in, the wind blowing from the north-west, which drove the whitefish from the spawninir beds, and prit an end to the fishing at both lakes, which accounts for the small numbers taken when compared with former and more farourable seasons. A number of 'ettlers are planted along the south end of Lake Winnipeg, who capture great
numbers of catfish, pike, perch, suckers and somesturgeon at all times, or rather in all seasons of the year, but they made no effort to take whitefish during the spawning season. No fall fishing had been made on the west side last autumn. Since the commencement of the Icelandic settlement, Red River men, who had been in the habit of fishing along that side from the river mouth to the sandy bar, have ceased to go there, and those located seem to have made little or no effort to avail themselves of what has been at all times considered of great advantage to those who have no crops and have to pass the winter on the shores of our stormy lakes, viz.: fall fishing. This inactivity may have been owing to the disease that was beginning to appear among them in October, and has so sorely afflicted them since. I intended about the end of November to visit the Icelandic settlement, but news of the unknown pestilence reached here in due time to prevent me going there. However, I learn that, although fishermen by profession, they do not understand how to fish to advantage in Lake Winnipeg. I have been informed that during the period of open water they have been in the habit of asing seines of three inch mesh, and we may safely admit that a people so destitute of the means of living, as they are reported to have been, and still are, will not be very careful to throw back the undersized fish that they may take to the shore in their scines.

I have the honour to be, Sir, Your obedient servant,

To the Hon. A. J. Smitir, Minister of Marine and Fisheries, Ottawa.

## APPENDIX

## Retorn of the Number and Value of Vessels，Boats，Nets，\＆c．， Manitoba，for

| Station． | Vesbrls and Boats employed |  |  |  |  |  |  | Nets，thilr Number， |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Veasels． |  |  |  | Boats． |  |  | Gill Netb． |  |  | Seines． |  |  |
|  | $\stackrel{8}{2}$ |  | $\stackrel{\text { ¢ }}{\substack{\text { ¢ } \\ \text { ¢ } \\ \hline}}$ | $\dot{\underset{y y}{3}}$ | ${ }_{4}^{5}$ |  | 窇 | $\stackrel{8}{4}$ | 咢 | $\stackrel{\text { ¢ }}{\text { ¢ }}$ | $\stackrel{8}{4}$ | 晏 | 家 |
| Lake Maniloba． | －．．．．．． | \＄ |  |  |  | \＄ |  |  |  | \＄ |  |  | \＄ |
| Osk Point．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  | ．．．． | ．．．．． | ．．．．． | 9044 | 72 | 9.52 |  | 584 | \＄ |  |  |  |
| Rockey Islard．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  | ．．．．．．． | ．．．．． | ．．．．．．． |  | 160 32 | $\stackrel{20}{4}$ | ${ }_{32}^{120}$ | 1440 | 600 |  |  |  |
| Big Point．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  | ．．．．． | ．．．．．． | ．．．．．． | 81010 | 64 | 4 <br> 8 | 40 | 384 480 | 160 |  | ． | ．．．．．． |
| WeBt Bide of Lake．．．．．．．．．．．．．．．．．．．． | ．．．．． | ． | ．．．．． | ．．．．．． |  |  |  | 60 | 720 | 300 |  |  |  |
| Lake Winnipeg ．．．．．．．．．．．．．．．．．．．．．． |  |  |  | ．．．． | 10 100 200 | 80800800 |  | 600 | 7200 | 3000 |  |  |  |
|  |  |  | ．．．．． | ．．．．． | 200 |  | 200 | －600 | 872 | 600 |  |  |  |
| Total． |  |  |  |  | 351 | 2008 | 451 | 1504 | 11680 | 5120 |  |  |  |

Recapitulation of the yield of the Fisheries in the


No. 23.
together with the Yield and Value of Fish in the Province of the Year 1876.


Province of Manitoba, during the Year of 1876.

| Kinds of Fish. | Quantity. | Prices. | Valie. |
| :---: | :---: | :---: | :---: |
| Pike $\qquad$ Catfish $\qquad$ Total Value of the Figheries in ' 76. |  | \$ cte | \$ cts. |
|  | 37,900 pieces.........................................55000do | 020 | 1,895 11,000 1,00 |
|  |  |  | 11,000 00 |
|  | . | .......... | 30,590 75 |

## APPENDICES

FISH BREEDING.


## APPENDIX No. 24.

## REPORT OF SAMUEL WILMOT, Esq., ON THE SEVERAL FISH BREEDING ESTABLISHMENTS AND FISH CULTURE IN CANADA, DURING THE SEASON OF 1876.

## Newcastle, Ontario, 31st December, 1876.

Sir,---I have the honor to report to you herewith, briefly, the proceedings which have taken place with regard to fish-culture at the several establishmeuts within the Dominion during the past year.

As there were no newly constructed fish breeding manufactories crected in the Provinces during the last season, I shall of necessity have to confine my remarks to the general progress made at those formerly built and in actual working order; and briefly describe the improvements made at oome of them, and also relate the result ot what has transpired at each of tho institutions since the date of my last annual report in December, 1875.

Before going into these particulars it may not be out of place for me to reiterate the statements I have hitherto made in reference to the science of fish-culture, namely: its steady progression towards the solution of an important problem of the present day, in producing from a proper husbandry of water, as of land, more extensive supplies of food for the uses of the rapidly increasing population of the world.

Viewing it in the light of a popular industry, it may be given in evidence, not only in Canada and the United States of America, but also throughout the old world, that its movement is onward; that almost all the civilized nations of the world are recognizing it; and in the most of them the science of artificial fish-culture is being largely carried on through the instrumentality and with the aid of their governments; and in other countries, where from peculiar circumstances it has not yet been fostered by the State, individual enterprise is very extensively developing this science.

In a brief statement of what is transpiring throughout the world, I may here mention some of the countries in which fish-culture, by the artificial metheds of propagation, is being, more or less, extensively prosecuted as a national work. In France, Germany, Prussia. Russia, Austria, Italy, Switzerland, China, Australia, New Zealand, the United States of America and Canala; whilst in England, Ireland and Scotland, where riparian rights, with regard to rivers and other waters largely prevail, it is not made a governmental work, but it is nevertheless extensively carried on, and strongly upheld by private enterprise.

In the neighbouring Republic. and in this Dominion, piscicultural industry is taking the lead of all other countries in which it has been introduced. In the former (independent of the two large establi:hments maintained by the Federal Government and situated respectively on the Mcheod River in California, and at Buck-port in the State of Maine), there are twenty-two Statey of the Union, all of which ly action of their legislatures, are actively engared in promoting this means of repepulating the various waters within their boundaries with the better kinds of fish; and in performing this very desirable object many of these States have already erected extonsive buildings, and laid out spacious grounds, in which the propagation of fish by artificial methods, is being practically and scientifically prosecuted as affording sure and direct means by which many of the hitherto depleted waters may be again made to yield in part the nocessary supplies of fish food which is in general an ansiously sought atter by the people.

In our own Dominion, it may be truly said that we are oven outcloing our American neighbours in the advancement of these operations. This may be illustrated by the several handsome and permanent edifices already erected in different sections of the Provinces of Ontario, Quebec, New Brunswick and Nova Scotia, now seven in number, all of which have been built with the view to combinc convenience, comfort, and capacity for rearing annually many millions of young fiy. Theory has now been overcome, and practical convictions have supplantcd the scepticisms and prejudicies which existed in the minds of many in relation to the thorough application of fish-husbandry of the more important species of fish. The idea, however, should not be entertained that, by the planting of a few thousands of fiy in any one locality, immediate results are to be obtained from the single operation. Nature herself has given us true data upon which to base our calculations.

Nearly all kinds of fish are very prolific, shedding annually many thousands (and in some cases millions) of eggs, which if permitted to produce living fish, the waters would be overstocked to such an extent as to engender diseases of all kinds, and myriads would die ; therefore it is wisely ordained that fish, as a rule, shall live upon fish, by which means a proper equilibrium in this natural product is kept up. Vast quantities of the eggs whilst in the act of being deposited, are also destroyed and eaten by other and smaller predacious fishes. The samedestruction is constantly carried on, not only from the time of the laying of the ova, but it is rolentlessly pursued during its incubation, and after they are hatched out into little fish. Nearly all kinds of fish are animal feeders, and fecd upon each other continually; and strange as the anomaly may appear, the larger eat the smaller, and in turn the smallor live largely on the greater, in this wise: that the smaller tribes of fish are constantly hovering around and preying upon the eggs of the larger fish, whilst they aro in the act of laying them, and in turn the larger and more voracious fishes are colltinually living upon the smaller tribes.

By the artificial treatment referred to, the eggs are wholly secured from loss, as they are kept within such safe and prescribed limits as to forbid the possibility of any of the ora being destroyed by fish of any kind. This thorough prevention from loss is even oxtended to the time when the young firy are in the semi-hatched state, and whilst absorbing the umbilical sac, this being the period at which they are the most tempting morsels for their enemios. Artificial protection is therefore afforded them until they become sprightly little fish, and are prepared to a cortain extent to brave the many besetting dangers which they are yet liable to meet amongst their larger kindred.

It must be borne in mind that, although the artificial means will have successfully had its sway in saving and rearing the ova and the fry up to that stage when they are turned out to seek their own living, innumerablo difficulties havo yet to be encountered, and immense losses sustained, before they reach the adult stage, and aro fit to be taken as food for man.

Therefore, as before mentioned, the idoa should not prevail that, the planting of a few thousands of young fish in any water or stream is sufficient to restock it, and afford a means of producing constant supplies thereafter; tho work should be continuous and perseveringly carried on until the streams shall have boen brought into something like thoir original or normal state.

In my report of 1875 , I made mention of the condition of some of the fishbreeding ostablishments within my jurisdiction, from actual inspection, whilst the knowledge of the operations in relation to the others was procured from the officers in charge. My time during the season of 1875 was almost wholly occupied in the supervision and construction of the new works orected at Sandivich, in Ontario, and Bedford, in Nova Scotia. I could not, in consequence, give to the others a personal visit.

During the past season or summer of 1876 , I was enabled to make a hurried visit to the several places where fish-hatcheries have been built throughout the Dominion, and I now beg to lay hefore your Department, the result of a personal inspection of each of them. In doing this, I will include in my remarks under toe
heading of each of these piscicultural establishments, not only the state in which I found them, and such improvements as were necessary to be made; but I will also give an account of the numbers of young fish hatched out and distributed during the spring of 1876, and the quantity of ova laid down last autumn; together with an account of their present condition and appearance. At the outset, and before alluding to the Maritime Provinces, I will commence at my western limit of operations, namely, the Detroit River, where during the previous year was built the

## Sandwich Whitefish Hatchery, Ontario.

This institution is, (quoting the language of the Superintendent of Fisheries for the State of Michigan in his annual report), "The finest whitefish latchery on the continent, beautiful and substantial in construction, and massive enough for an annual hatch of fifty millions." The water at this establishment is conveycd into the hatching troughs by the application of steam power, aud during my previous visits in the winter season, when it was in full operation, it was clearly ascertained that the engine was too small, and not strong enough for the work of propelling the pumps for a reliable and constant supply of water. It was therefore concluded to be a necessity to obtain one of greater power. This, after consultation with your Department, was ordered to be done, and arrangements wore made with the Watrous Engine Works Company of Brantford, by which an exchange was agreed upon for a larger and more powerful engine and the smaller one to be returned. It was stipulated that the new and additional machinery should be in readiness to be put up, and set 1.0 work on my return from the Loser Provinces. I proceeded to Sandwich in October last, when the engine, pumps, and other machinery were put up and started; they have been running constantly night and day ever since and give the utmost satisfaction.

It was already reported to you that some ten millions of whitefish eggs were laid down in this building in the fall of 1875 . Of this number some seven millions of young fry and rivified eggs (adranced almost to the point of hatching out) were planted in the Detroit River. This state of affairs, for a commencement, may be considered satisfactory, particularly when it is taken into consideration that innumerable difficultics presented themselves at almost every stage of the proceedings, from the gathering of the eggs till the period of hatching. This was brought about by the magnitude of the work and the noveltv of the enterprize, to which must be added the incapacity of the engine to give a constant supply of water: Were it not for these drawbacks, the officer in charge is of opinion that a very much larger per centage would have been obtained. The insight and practical knowledge gained in this first venture will, no doubt prevent the probability of a recurrence of similar difficulties in future. About the first of April the works were closed for the season and remained so until whitefish operations again commenced in October following. An application was, however, made to your Department by some of the Detroit River fishermen to utilize the works last spring in laying down the egrs of the pickerel. These fish are not known to inhabit the waters of the Detroit River, but are found in great quantities in Lake Huron, where extensive fisberics are formed and a large traffic carried on in the sale of pickerel, both fresh and salted. They are taken most numerously just at the time when they resort to the shallow waters and rivers to deposit their spawn. At this period, some of the Sandwich fishermen go to Lake Huron and net large numbers of these gravid fish, and to extend this unseasonable fishing to the Detroit River, no doubt, caused the application to be made to your Department, to have the Sandwich hatchery utilized for the artificial propagation of pickerel. I reported to you at the time adverse to this request, for the following reasons: First, because it would have been very expensive to have kept the engine and other works running on this doubtful venture, and considerable repairs would also have to be made upon the engine which was then intended to be exchanged for a larger one. It was also, in my mind, questionable whether the ova of the pickerel would stand the handling and carriage required to carry out the enterprise

Secondly, it appeared to me to be unwise to breed in this establishment, and for the very same water two linds of fish that were the very reverse of each other in character and diametrically opposite in their habits. The whitefish are harmless, the formation of their head and jaws, in which no teeth are found, indicate that they are not piscivorous; they live almost wholly on small crustacea and insect food; on the other hand, the pickerel are very voracious; their mouth and jaws, which are very large, are thickly set with rows of sharp teeth, plainly pourtraying their ravenous nature. It would therefore be a very questionable undertaking to utilize the Sandwich works, which were put upexpressly for replenishing the Detroit River with whitefish, in the rearing of their principal destroyers.

Mr. Nevin, the officer in charge at Sandwich, commenced his operations in grathering whitefish ova in the latter end of the minth of October ; experience has proved tho best time for securing mature ecres to lo during the first week or ten days of November; some difficulty arose in procuring a supply at this latter date on account of achange having been made in the close-scason. In former years, whitefish werc protected by regulations from 12th November to 1 st December; this year, the close-season commonced on 1st November, and terminated on 10 th of the same month. This change gave umbrage to the fishermen, and many of them were inclined to throw obstacles in the way of getting the requisite supply of ova for the hatchery. To this fact may be attributed the reason why many millions of whitefish eggs were not laid down in the troughs of the Newcatle establishment during the past season. Some more definite or compulsory system should be adopted by which the fishermen would be obliged to render greater assistance for obtaining necossary supplies of eggs for the works at Sandwich.

At the period in which they were being gathered, and for some time after, the weather proved unusually warm, and militated very severely against tho eggs, clestroying great numbers of them after being deposited on the trays. About $12,000,000$ were gathered and of these about $4,000,000$ succumbed shortly afterwards to the high temperature of the water and from the effects of confervoid growth; with unceasing labor the remaining $8,000,000$ were preserved over the warm period, and since then they have kept admirbly well. They are reported now, as heing clean and unusually healthy; the cyes and embryo fish are quite discernible with the naked eye, and a large number (at this date, 30 th Jan.) on the eve of emerging from the shell.

Judging from the difficulties and losses which were sustained last scason, on account of tho warmth of the weather, and consequent high temperature of the water, it would be advisable to put up a small addition to the rear of the present building, to be used as an ice house. In it a stock of ice could be stored, and during the few weeks or porhaps days that might intervene between the laying down of the engs and the setting in of winter, the ice could be so applied to the water tanks as to reduce the temperature, so that all forms of bissus or fungoid growth wonld be arrested. From this cause great mortality took place amongst the ova in Novembor last, not only at the Sandwich hatehery, but also at the American whitefish breeding establishments. The best antidote is ice, which by daily application at the critical time would cool the water, and prevent the further growth of this insidious pest amongst whitefish egge. Without some cheap preventive like ice to arrest this fatal malady, the whole deposit of eggs for the season might bo hopelessly injured in $a$ fow days.

During last season, I invented and patented in Canada and the United States, a new labour-saving hatching apparatus, combining in itself the work of washing, picking and hatching whitefish eggs. Its qualities have beon thoroughly tested at the Saudwich and Newcastle establishment, and thus far it has performed its work very satisfactorily. During next year it is in contomplation to apply this new apparatus wholly in connection with whitefish eggs. The machinc consists of a cylindrical-formed vessol, funnel shaped at one end, made of tin or other metal, of any desired size, depending on the volume of water to be admitted; one that would hold a gallon of water would accommodate the hatehing out of fiom one to two hundred thou-
sand eggs. A flow of water by means of a half-inch rubber tube is admitted into the vessel, and regulated in its supply and force by means of a small tap; the water striking the bottom or funnel-shaped portion of the vessel glances off equally all round, and sets. the eggs in motion, raising to the surface all light and imperfect eggs, and carrying them, as well as all other impurities, away with the overflow. The ordinary method of washing, feathering and hand picking is overcome, simply by putting into this vessel the desired quantity of eggs after impregnation, and turning on a proper flow of water; the machine is put in motion, and the whole work during the period of incubation is more thoroughly performed than by any other possible means hitherto adopted, and with a saving (in an establishment where ten millions of eggs are laid down) of at least four or five hands daily. Upon the whole, this new apparatus will be found to be simple in operation, cheap in construction and extremely laboursaving. With regard to its practical application, the officer in charge at Sandwich reports that it performs the work with perfect satisfaction.

In a summary of, and results at the Sandwich whitefish breeding works, it may be said that the buildings are in first-class condition, the engine pumps and other machinery perform their work satisfactorily, the water tanks, breeding trougbs, hatching trays and other appliances in connection with the hatchery are all in good keeping. There were turned out of the establishment in the spring of 1876 some seven millions of eggs and fry; and at the present time there are within its walls about eight millions of whitefish ova in the most healthy condition, showing unmistakeable signs of life and vigour.

## Tadousac Fisii-Breedingi Establishnent Quebec.

In July last I visited the Saguenay district in oider to inspect the Tadousac hatchery and make additional improvements there, and also put in practical operation the reception-house erected the previous year on Anse St. Jean River, distant some thirty miles up from the mouth of the Saguenay,

I found the appearance of the exterior of the building and its surroundings, together with the reception ponds very pleasing, showing at a glance, even to the casual observer, the practical ideas entertained by the very efficient gentleman in charge, Joseph Radford, Esq. Here the work of procuring a supply of parent fish had been accomplished, as there were some 250 salmon in the salt water cove, or reception-pond adjoining the hatchery. These fish had been taken by nets, some distance below the mouth of the Saguenay in the St. Lawrence and conveyed to the ponds in lattice-work boats. I was informed that some of the fish had died from the effects of wounds, more particularly abrasions of the skin, in the netting of them. To prevent a similar loss in the future, instructions were given to use nets with smallor meshes; by this means the fish would be prevented from forcing their heads and bodies far enough through the nets to injure themselves.

At the time of my stay at Tadousac, these salmon were in fine condition, very healthy and playful, and were constantly leaping up in the pond; many of them were vely large and were computed to weigh from thirty to forty pounds. They made a most interesting show for the many tourists and others who visited the Saguenay; the proximity of the pond, only a few hundred feet from the steamboat landing, and the commanding appearance of the hatchery, immediately alongside, made it the invariable censtom of all travellers to call at the establishment. The location of the Tadousac Piscicultural Works, for the above, and other causos, has proved a most favourable one, for it has been the means of giving widespread notoriety and general knowledge concerning this new industry, and it has also shown to the public the practicability of applying the science as a means of increasing illimitably the stock of salmon in the waters of the far-famed Saguenay.

Formerly only the lower storey of the building had been fitted up with trougle, tanks, and other requisites for the laying down of eggs. With the larger number of parent salmon that were already in the ponds over previous years, together with those that might be relied upon at Anse St. Jean River and at Little Islands, it was
necessary that greater accommodation should be had for the increased number of ova reasonably expected to be gathered during the next spawning season. Arrangements were therefore made to fit up the second or upper storey of the building, which was done by laying out the plans, and ordering the requisite troughs, tanks, breeding trays and other apparatus. With this additional room, the capacity of the building for hatching purposes would be doubled from what it was formerly. This timely preparation proved very fortunate, for both flats of the establishment were quite filled with eggs in October following. The preliminary work at Tadonsae being arranged, I then proceeded up the Saguenay to Anse St. Jean River. This stream is about thirty miles from Tadousac, and enters the Saguenay on its right bank; a pretty large volume of water flows in it and it is yet frequented by considerable numbers of salmon. About one mile up from its confluence with the Saguenay a large dam has been built for driving a saw-mill, its height is such as to forbid the possibility of salmon ascending the river; a fish-pass has been made alongside tho dam, which, when supplied with a sufficient body of water, enables the fish to getover the dam and pass upwards to their spawning grounds. This spot was selected the year before as an eligible ono for the erection of a reception-house, in which to entrap salmon, and to be made subsidiary to the Tadousac house. The building put up here for the above purpose, is it very good one, but from a want of linowledge by the party in charge, the internal arrangements were such as to prevent success in securing the fish. After the necessary alterations and changes were made under my own suporvision, it was found that during the following night no. less than fifty salmon had safely housed themselves within the building; some of these were very large, two or three in particular weighing over thirty pounds; others entered during successive nights, until quite a stock was secured. The ova firom these fish were afterwards taken and laid down in the Tadousac hatchery. Before leaving the Saguenay district, I risitedithis reception-house a second time, and found everything in connection with it working satisfactorily. I then proceeded down the river to the Little Islands reception-ponds. Here the local tishery officer had caused to be built a temporary pond on a small strean which emptied into the Saguenay just where a fishing station was established for netting salmon, so that the tish taken at this stand might be immediatoly pat into the pond and there kept safely under proper guardianship until they bocame ripe for manipuIation, when the eggs would be carried down river to the Tadousac hatchery. There were a few salmon in this pond, not a sufficient number however to warrant the expense of constantly watching them; instructions were therefore given to have these fish conreyed down the river in a scow to the Tadousac pond.
$O \&$ the two lundred thousand eggs that were deposited in the Tadousac institution during the season of 1875 , there were hatched out under the sypervision of $\mathbf{M r}$. Radford, in the spring of 1876, upwards of one hundrod thousand salnon fry. Thesu were planted in many of the larger rivers emptying into the Saguenay, such as the St. Margaret, the St. Jean and Pctit Saguenay, whilst others were deposited in some of the smaller tributaries.

Expectation was fully realized in getting an ample supply of ova last fall at this place. Previous to the commencement of the spawning season, I despatchod Mr. Parker, my assistant here, to the Saguenay. in order to assist and instruct the employes there, in gathering and manipulating the ova for the Tadousac works. A million of eggs were taken from the fish in the Tadousac pond, and from those in the reception building at Anse St.Jean River. The work was satisfactorily carried out, as will appear from the rosults in connection with the establishment horeafter. Many thousands of sea-trout eggs wero also laid down; these, through the instrumentality of Mr. Radford, were obtained from a very beantiful variety of trout that frequent the Borgeronnes River, flowing into the St. Lawrence about nine miles below the Saguenay:

A further experiment was made at Tadousac last fall in the impregnation and fertilization of cggs taken from salmon in salt water. During 1875, an experiment on a small scale was made with the ova of salmon which wore kept in salt water un to
the very time of spawning. These eggs went through precisely the same process as those that wore taken from fish kept in fresh water, from the time of spawning till they were hatched out; there was no difference whaterer observable during the period of incubation, nov after they beeame young fry. This experiment, was repeated with a large number of salmon that were kept in salt water last fall, and up to the present time the results are precisely similar to last year. It may therefore be now safely concluded that the ova of the salmon will arrive at maturity, and be equally susceptible of impregnation, when taken from fish leept in salt water, as in fresh, and that no difference exists with the eggs during incubation or with the fry afterwards.

Upon a request made to your Department by Mr'. Senator Price (whose fenerosity and personal assistance have materially adranced the work of fish-culture at the Saguenay), I furwarded to the Tadousac works, in October last, several thousands of the eggs of the California salmon; they arrived there without any loss, and have since hatched out and become lively little fish. At the opening up of the pring, it is proposed to plant these Pacific cousins of the Atlantic salmon in some convenient stream in the noighbourhood of the Saguenay, where their carecr may be watched with the view of ascertaining, if possible, what change, and if any, may take place in their appearance and nature. I have no doubt in my mind of their becoming readily acclimatized to the Atlantic waters, and that in a short time they will not be easily distinguished from the true salmon of the Saguenay. The Escoumains Riveriemptyiug into the St. Lawrence about twenty miles below the Saguenay, is spoken of as being well adapted for this cxperiment. It was once famous for salmon; mill-dams, sawdust, torch and spear, bowover, havo long since made the work of destruction so completo that its family of salmon have become quite annihilated. The saw-mills on this river are now said to have gone to decay, and are wholly abandoned, and therefore should the stream be now put under thorough proiection, it would be admirably adapted for the purpose contemplated.

In closing my remarks in relation to the Tadousac tish-breeding cstablishment, I may state that the building is in every way in first-class order. In acldition to itcomplete internal arrangements on two floors, it has also a convenient office for the local fishery guardian of that district. There is besides a well-finished apartment which can bc used as a court room for hearing trials for infractions of the fishery laws, or it may be converted into a museum, in which to collect interesting specimens of the various fishes and other animals to be found in that region of the country.

The salt-water pond or cove is connected with the main Saguenay, and the freshwater lake and small ponds on the hill side, are well adapted for safely keeping supplies of parent fish.

The internal fish-breeding arrangements combine simplicity and utility for the hatching of many millions of fish eggs annually. One hundred and fifty thousand salmon fry were turnod out from this establishment in the spring of 1876 ; and there are at present in the hatching troughs upwards of a million living salmon eggs, and over one hundred thousand of sea-trout ova, also about four thousand young California sulmon; all of these from the latest reports reccived are in the most healthy and prosperous condition.

## Miramiohi Fish-Breeding: Establishment, New Brunswich.

I visited this establishment when repairs were being made on a portion of the works. The dam for the supply and reception ponds had been seriously injured from the effects of extraordinary freshets that prevailed there during the spring. Mr . Inspector Venning had previously let the contract for these improvements, and the workmen were then engaged with the work. I had a conversation with Mr. Sheasgreen, the officer in charge of the buildings, and learned from him the particulars in connection with the hatching out of the crop of try cluring the previous season.

The unaccountable disaster which took place in the season of 1875 , by which almost the whole of the ova were lost, did not again occur in 1876 . The quantity of eges laid down in the latter year was very much smaller than in the former season;
however, the same water and precisely the same breeding troughs and trays were used, yet Mr. Sheasgreen reported to your Department, in May last, that the percentage of fry produced in 1876 amounted to ninety-five per cent. He also informed me that the fry had been distributed according to instructions, and that the losses in pecforming the work were very trifing. In this statement he is fully borne out by the report of Mr. Venning, in which he says, "The fry were distributed without loss or accident, scarcely any having died in the removal."

After making an inspection of the Reception House and Rearing Room and its contents of tanks, troughs, trays and other appliances, I gave instructions to the officer to thoroughly cleanse and ventilate the breeding-room, which, from want of free circulation of air, had become very damp and masty, and as soon after as practicable he was to whitewash the ceiling and walls, by which cleanliness of the room and appearance for comfort and neatness would be much improved. Orders were also given to have the troughs and trays properly coated twice with paraffine varnish, al supply of which was forwarded to Mr. Sheasgreen for that purpose. The system which 1 clesired to be used in the manipulation and impregnation of the ova was fally explained; it was reported to me afterwards that a ready compliance had been given to the carrying out of these instructions. From correspondence forwarded to your Department it appears that difficulties arose on the Miramichi River, by which the requisite supply of parent fish had not been secured wherewith to fully stock the breeding trays with salmon eggs; this occurrence, and a similar one the prerious year, has proved to be very unfortunate in not giving the Miramichi establishment that share of success in the rearing of young salmon, which its couvenient location and capacity for tish-breeding entitle it to. From the number of salmon that were pat in the reception pond, upwards of 600,000 eggs were taken. They were evidently properly fertilized, as the accounts received from the Miramichi described them as being in very good order. One statement was to the effect that only 1,500 dead eggs had boen removed since the ova were laid down, and that the eggs prosented a bright aud heallhy appesrance, the embryo boing plainly discernible in all.

## Bedford Basin Fish-Breeding; Estiblishmeyt, Nofa Scotia.

Upon my arrival here, repairs were being made by Mr. A. B. Wilmot, the officer in charge, under instructions (as I was informed) from your Department; the work consisted of repairing the main dam on the Sackville River, from which the supply of water was drawn to fill the hatehing troughs in the breeding-room. Further alterations were also being made in connection with the racoway and the gates which regulated the supply of water. This work was being done with a view to strongth and permanency. In examining the apparatus used within the building for breeding purposes, alterations wore considered necessary to be made in the hatching troughs; these were originally made with the view of economizing room by dividing them into small compartments, in each of which several hatehing trays wore to be placod one upon the other. This plan, whilst it is well adapted for laying down other kinds of fish egge, did not answer as well for salmon ova, as they required the water to be more highly aerated and to flow more rapidly over them, whioh could not be properly accomplisted when the troughs wero made in subdivisions. The officer was threfore instructed to have this dofect in the troughs remodied. A few other clanges of more or less importance were also suggested to be made.

Considerable trouble and expenso have necessarily been incurred at this establishment in the procuring of parent fish. The River Philip, some sixty miles distant, and the Musquedoboit and othor streams were resorted to for obtaining supplies of eggs. Mi. Wilmot informed me that a sufficiont number of salmon still entored the Sackville River to stock the hatchery with eggs, and that these fish could be secured on their passage up the stroam if proper moans were devisod by which they conld be oither netted or entrapped. To effect this object, it was suggested that a fish pass should be erected just where the rapid current of the river enters the tideway. This point would be only a few yards distant from the breeding-house, and where the fish-
pass or trap would be in constant view and immediate surveillance of the officer in charge of the inmates of the house. If by such means a sufficient number, or even a partial supply of salmon could be obtained, they could be kept in the deep raceway above the road (the right of which was secured for this purpose at the time of purchase) or else in a pond which might be easily constructed almost alongside of the building into which both the tidal waters of the basin, as well as the water from the river, could be made to flow. Should your Department consider this project of sufficient importance to be carried out, the expense in connection with it would be very trifling, as the whole of the matcrial, so far as stone-work is concerned, is now lying on the premises, and the greater portion of the labour ought to be performed by the officer in charge and his assistants during the summer when matters of no very pressing nature are required in connection with the indoor work of the establishment.

There were hatched out in the spring of 1876 in this establishment upwards of 400,000 young salmon, the percentage thus reared from the eggs laid down was quite as large as had been anticipated. These were planted in a number of the rivers of Nova Scotia which had been previously selected for that purposo by your Department. The transportation of the fry to the several streams was performed by means of waggons and railway cars; some few losses were sustained, but, apon the whole, the distribution resulted very satisfactorily.

Many drawbacks were experienced in gathering the eggs for the Bedford hatchery last fall, the particulars of which will be found embodied in the report of Mı. A. B. Wilmot, appended hereto. Besides getting a considerable number of egga at the River Philip as formerly, trials were also made to gather them in other parts of the country. The rivers emptying in Pictou Harbourswere selected, and a number of egge were gathered from the Annapolis and West Pivers. The total collection of ova from the several points amounted to ( $1,050,000$ ) one million and fifty thousand. These, after severe trials in gathering, were conveyed to the Bedford Works and placed on the hatching tray*. Mr. Wilmot makes mention of certain experiments made by himself and others in the impregnation of a portion of these eggs; the statement is interesting, but the results have not yet transpired. From the last accounts received from the Bedford establishments, a large percentage of the whole number of eggs laid down are reported as doing very well.

The building at Bedford being quite new in its construction, requires no outlay upon itself, but some slight expenditure may be necessary in connection with the internal appliances and breeding apparatus. This cannot be avoided, as fish-culture on an entensive scale is of very recent date, so far as its practical application is concerned, and, until it shall have become more thoroughly systematical, many new ideas will be necessary in the minutix of working it out. At the time of visiting Bedford, everything in connection with the fish-breeding works gave satisfaction. Since its commencement in the fall of 1875 , there were turned out of the establishment in the following spring 400,000 young salmon, and there are now on its hatching trays nearly a million of vivified salmon eggs, which, unless from unforseen causes, will yield an immense number of young fry next spring, for distribution in the rivers of the Nova Scotia section.

## Gaspe Fish-Breeding Establisiment, Quebec.

After leaving Bedford, I proceeded to Gaspé, talking steamer from Point du Chêne, via Baie des Chaleurs to Gaspé Basin. A short distance from the harbour, on the Dartmouth outlet, is the Gaspé salmon-breeding establishment, located on a small brook, or living stream of pare spring water; its capacity for fish-brecding purposes is about the same as at Bedford, although the building is neither as extensive in general accommodation, nor as expensive in its construction. Having telegruphed Mr. Philip Vibert, the officer in charge of the works, of my intended arrival at Gaspé, he met me, and accompanying him, I proceeded to inspect the buildings and appliances. I found the breoding-room in the same damp, musty state as at Miramichi, and from
the same causes, namely, want of circulation of air and proper ventilation. The floors were also in a very wet state, caused by the lealsage of the troughs and tanks. Orders were at once given to shut off the water and have the troughs cleansed, and the trays properly dried, in order to receive a thorough coating of parafine varnish, preparatory to the coming season's operations. I explained the necessity of purity and cleanliness in connection with artificial fish-culture, as being strong essentials to ensure success. The arrangement of the works inside, and the eapacity of the building, together with the extreme purity of the water, were such as to promise successful artificial propagation of salmon fry. After giving instructions to the officer with regard to internal management, and also suggesting the adoption of certain improvements, I proceeded to examine the reception pond, just alongside of the building.

This comprises, in itself, both a receptacle for keeping parent salmon in, and a feeder for supplying the breeding-room with pure water for hatching purposes; whilst it is ample in its requirements for the latter purpose, it is quite too small to accommodate such numbers of salmon ats would be necessary to give the requisite supply of eggs for, the establishment; with some additional expense, however, it might be readily enlarged and deepened, so that, if not wholly answering the purposes, it would be a very great saving and convenience compared with the system now adopted in having a pond or ponds at long distances from the works, up the Dartmouth River. With the enlargement of this pood to such a size as would accommodate nearly all, if not the whole of the parent salmon required, and from its closeness to the hatchery (being only a few yards distant) the officer in charge of the building, or in his absence his assistant, could so protect it against harm of any kind as to prevent any additional expense, and also save the large item now incurred in paying special officers to guard the fish at remote places, and at long distances from the present site of the works. If this project of enlarging the pond were carred out, and if arrangements were made by which the parent fish could be procured from the Anse aux Cousins fishermen, whose stands of nets are set close by, great advantages would flow from it, both in regard to the success of the Gaspe, worke, and also in the saving of expense in the general carrying out of the undertaking.

In this pond, were several salmon, which had been placed there by Mr. Vibert some time previously, they appeared to be very lively and in good condition. I then proceeded up the Dartmouth River abrut five miles, to a spot where the year previous had becn built the Reception Pond, No. 2. The arrangements in the construction of this pond were very ingenious, and the supply of water running through it was abundant. It was formed by driving strong wooden stakes into the bottom of the stream and across it, these were strongly nailed at the top to a stringer, which made the weir or fence strong and secure; a gate with hinges and lock was placed in the centre, through which, when opened, a boat could pass. In this receptacle some 25 or 30 salmon were found; those fish were nearly all more or less marked and scratched from the effects of the gill nets in which they had been caught. The system of procuring salmon by means of these large meshed gill nets for the uses of the breeding establishment should be discontinued, the abrasions of the skin thus formed invariably produce soros and sickness, from which they seldom recover. A man was kept constantly engaged guarding these fish; if the pond at the breeding works was made sufficiently large to accommodate all of the fish, this man's services could be dispensed with.

From the salmon that were confined in the reception pond at the hatchery, and in pond No. 2, up the river, together with those that wero taken up the Dartmouth River late in the autumn, there were collected about ( $1,000,000$ ) one million of eggs. Mr. Vibert, though labouring under many difficulties in netting parent fish in the open river above the falls and elsowbere, was, nevertheless, very fortunate in securing the quantity of ova above mentioned. These egga, from tho latest accounts, were in a clean, healthy state, and doing well.

Restigouche Fish-Breeding Establishaent, Quebec.
Tais salmon nursery is sitnated abont nine miles above the point on the River

Restigoucho where tho Intercolonial Railway crosses it. It was the first institution erected in the Maritime Provinces for the artificial propagation of salmon, and was built in order to assist in replenishing the waters of the Restigouche River and its numerous tributaries with increasod supplies of salmon. This river, forming the boundary between the Provinces of Quebec and New Brunswick, was selected as being well adapted for applying artificial salmon-culture, and benefitting the fishing intercsts of the inhabttants of both of these Provinces, more especially those engased in the salmon fishery on the Baie des Chaleurs. The improvements brought about by wise regulations to protect this river for the natural spawning of salmon, combined with thorough guardianship, together with the introduction of the artificial methods of propagation, have given great satisfaction to the anglers frequenting it. These causes bave also produced a marked increase in the commercial traffic in fish for the inhabitants of that section of the country engaged in the estuary and coast fisheries. Both in protecting the natural capacity of these waters and in carrying on artificial operations Overseer Mowat's exertions are most praiseworthy.

As the Restigouche building was the first one erected in the Lower Provinces for fish-breeding, it was put up in a more primitive style than those established since. It was made of flatced cedar timbers, and placed alongside the high bank of a small stream, which supplies it with water; the action of frost being very severe it has somewbat displaced that part of the building adjoining the bank. The repairs in connection with this, together with some other requisite internal improvements, were ordered to be made; suggestions were also given with a view to enlarge the reception pond, for the greater accommodation and safer kceping of the required numbers of spawning fish.

When Mr. Mowat, the officer in charge of the establishment, shall have perfected his arrangements for the capture and safe keeping of such numbers of parent fish as the Restigouche River, which its present stock of salmon will warrant, then furtherimprovements will require to be made to this institution, so that it may add indefinitely to the supplies of salmon that are capable of being sustained in the extensive feeding grounds of the ocean, and which on their migratory return will consequently be taken more numerously in the Bay des Chaleurs.

The apparatus for hatching fish eggs, such as troughs. trays, \&c., in use here, are of the same description as are employed at the other buildings. Instructions were given Mr. Mowat to have these thoroughly cleaned and varnished, so as to be in readiness for the approaching season's operalions.

From the Restigouche hatchery there were 400,000 young fry turned out into the waters of the Jacquet, Nouvelle, Matipediac and Restigouche Rivars. Other smaller streams also received a supply. All of these young salmon were tiansported to the various places mentioned without any losses being sustained worthy of note.

It was reported by Mr. Mowat that serious and continued diffisulties arose in the catching and safe kecping of parent salmon during last summer, and notwithstanding the exertions that were put forth by him, he was unable to secure the number requisite to stock the establishment with a full supply of ova. The quantity ultimately obtained amounted to some 800,000 ; these at the date of the last accounts received were in a liealthy state, with the embryos well advanced.

## Newcastle Fish-Breeding Establishment, Ontario.

At this place, improvements of a very substantial and satisfactory nature have been made. Since last year the upper or second floor of the building has been fitted up with all the necessary apparatus, making it now the most complete and systematically arranged fish-breeding establishment on the continent. Two separate breeding rooms aro now formed, each capable of containing, with a singlo layer of trays, upwards of a million of eggs. These layers can be doubled or trebled at pleasure, making in the whole building sufficient room for six or seven million of fish eggs of
the size of the salmon, or salmon-trout. This same space will hold more than doublethe quantity of whitefish egge on account of their very much smaller size.

The method adopted of carrying the water underground to the building from the main feeder or raceway above, has proved to be most satisfactory, for during the winter no stoppage or obstruction has taken place from frost or other detriment. The supply dam, raceway and ponds, are now ample for carrying on very extensive operations.

The number of fry of all kinds, hatched out here in the spring of 1876, amounted to nearly one million. The young salmon, numbering some 700,000 , wero deposited in the following rivers and streams, namely: The Trent, Rouge, Credit and Saugeen Rivers; the Grafton, Baldwin's, Barber and Duffin's; some were also planted in the lakes back of Peterboro'. The whitefish hatched out wero allowed to pass into the creek, and from thence down into the waters of Lake Ontario. A number of the salmon-trout were also put in the lakes back of Pcterboro', under the auspices of the Fish and Game Protection Society of that neighbourhood; the balance wero allowed to pass into Lake Ontario. Throughout the whole of the distribution of this great number of young fish, the work (which is of a difficult and trying nature) was accomplished in a very satisfactory manner, and without any losses worthy of mention.

The California eggs presented to your Department by Prof. Baird of Washington, in the autumn of 1875, were very satisfactory in their yield; and judging from this experiment and the former one, these Pacific salmon are more bardy both in their embyronic forms and also during their growth, than those of Lake Ontario or the Atlantic. They are held not to be of the same species as the Salmo Salar, and are said to be better adapted to waters possessing a high temperature. If so, their introduction into many sections of this country will prove beneficial, on account of the greater warmth of water now flowing in the rivers and streams of Ontario than in former years. This great change in the temperature has been caused by the face of the country becoming almost wholly cleared of the forosts, thereby exposing the rivers and streams to the severe rays of the sun and pervading influences of the atmosphere.

Some of the young California fry were placed in the Saugecn River, others wero put in the back lakes, and the remainder were planted in this and the surrounding streams, whilst many were kept in the tanks of the establishment here. These latter have grown to a very fair size although in close confinement, and are now over nine and ten inches in length, having a bright silvery appearance and plumply-formed bodies.

Another presentation of abont 8,000 of the California eggs was made by Professor Baird to this establishment last autumn. These arrivod here after crossing the continent with, comparatively spoaking, no loss. The half of these were sent to the Taulousac works in Quebec, for distribution in the Escoumain river; the balance have since latclied out and are doing well.

One and a half' millions of eggs were taken from the salmon that came up the Newcastle stream during the past season. This largo supply of ova are at present in the best possible condition, and are quite outdoing, in their general success and healthiness, the operations of any previous year. This satisfactory result is no doubt to be attributed very largely to the improvements made in connection with the incroased water supply, and also by the method adopted last fall in the impregnation of the eggs, which differed from the system hitherto practised here and in all other fislsbreeding establishments in Canada and the United Staies. The course pursued was so soon as the milt was mixed with the eggs, to immediately spread them on the trays and then lay them in the brceding troughs, where they were left undisturbed for several weeks without cleansing. This plan was adopted with nearly tho wholo of the eggs gathered here, and where strictly carried out as above, tho percentage of loss up to the present time (when the fry are plainly risible in all) bas not exceeded two per cent.

A great saving of time and labour is gained by this process, only one handling of
the eggs is thus required and no delay is occasioned in waiting half an hour or $\mathrm{SG}_{r}$ till the ova become separated, as is the case by the method ordinarily practised. It is also more nearly allied to the natural one ; furthermore, it is found that the impregnation of the egy in every case is almost intantaneons, therefore the idea which generally prevails for the absolute necessity of the ova remaining with the milt for a certain given time to vitalize it is incorrect.

There are at present, in addition to the numbers of salmon eggs above mentioned, some 75,000 of the brook-trout and sea-trout ova. These latter were procured from the Tadousac hatchery and wero taken from trout from the Bergeronuo River a few miles below the Saguenay. All these eggs are just now at the point of hatching, and many of the little fish have in fact emerged from their shells.

Thero are also several hundred thousand of the whitefish eggi far advancel in their incubation; besides these, there are several thousands of the Saguenay salmon spawn; these, including all of the above, are in a most prosperous condition.

The statement so frequently made with regard to the number of salmon entering this stream will hare become somewhat monotonous, yet were attention not drawn to the fact of the increased numbers that frequent it annually, the absence of the record might be construed as implying a diminution of their numbers. It will be needless then to do more than simply state the fact that the number of salmon and their average sizes were in excess of any former years. The evidence of the many hundreds of visitors from a distance, and of residents here, will, bear ample testimony of this fact.

It is well to make mention here (for it is the first record of the lind on this Atlantic side of the continent) that a California salmon was taken last autumn in this creek, in company with his Ontario cousins. This fish, following out the instinct of its species, must have migrated from Lake Ontario (some would say the Atlantic or Pacific Ocean) up this stream, for it was taken out of the trap in the reception house along with other salmon that had entered it. The appearance at once indicated the Salno quinnat or California salmon; the length was fifteen inches, the body deep and narrow, with a deeply vermiculated greenish shade on the back inclining to brown towards the belly. The first lot of California eggs received at this place was in the fall of 1874; this salmon must therefore have been two years old, from the egg, as it was taken in the month of October last. It was totally unlike the ordinary grilse or smolt of the stream: it was a male fish and had matured milt. The fact of this young Californian being taken here goes to show that it is not requisite that salmon should go to salt water to obtain their growth ; and is also evidonce in favour of the opinion advanced by me that the salmo salar (in like manner as the salmo quinnat) can be acclinated to and also be made natives of our fresh water lakes.

## Salmon in Tribetaries of Lake Ontario.

A large number of salmon entered the Grafton Creek last fall. Mr. Hinman informs me that as many as 200 came into it at one run. I an led to believe that most of these fish were destroyed. A number of lawless persons in the immediate neighbourhood of the stream, together with others in tho interior of the country, associate themselves together in carrying out these depredations ; and it would appear that notwithstanding the efforts of the local guardian to prevent these infractions of the fishery lars, they are repeated annually. Several persons of the poorest and lowest classes in the neighbourhood were summarily tricd and convicted before the local justices, but the principal desperadoes have thus far escaped detection.

It was in contemplation to have erected some cheap and temporary place at this stream last autumn, by which the fish could have been proserved from destruction and their eggs secured. The consent of the owner of the property was obtainod for carrying out this work, but upon the eve of commencing operations, he refused compliance, and the undertaking had to be abandoned.

A number of salmon entered the Bowmanville stream; some of them came into the reception house built there, and the eggs were takea from them and conveged
to the Newcastle extablishment. Mr. Coleman, the local guardian of this creek, reports as follows: "The salmon came up ten days earlier than last year, and in greater numbers, with larger proportion of young fish. About double the quantity of ova was obtained this season over that of last year, being sufficient for 50,000 for propagation in other waters, besides the immense quantities of ova deposited in the fish beds in the creek for a mile in length of continuous grarel bottom."
"Hundreds of persons, of the best families, many of whom fill the highest official lositions here, visited the creek and fish honse, all of whom expressed their surprise and admiration at the success of the enterprise introduced and carried on by our Government, for re-stocking the immense and almost innumerable lakes, rivers, creeks and streams with such delicious food, as no other country on the globe has equal facilities for producing."

At Duffin's Creek, a number of' salmon were known to have entered, and to have Jaid their spawn last fall. They were also found in considerable numbers in the Rouge, Humber and Credit rivers. Mr. Kerr, the Fishery Officer at Hamilton, within whose jurisdiction these streams are situated, reports favourably with regard to them. Brief extracts are here made from his official report. Speaking of salmon in Lake Ontario, he says: "Many instancos are known where large and small salmon were accidentally caught in herring and whitefish seines in Lake Ontario. They were also taken in nets at Burlington Beach, Grimsby, and at Frenchman's Bay. Larce shoals of young salmon were observed at the mouth of the River Rouge during the spawning season in the month of October last. They entered Duffin's Creek in large numbers; as many as wisty were counted on one occasion, and their increase in the stream over former years was very visible; their spawning beds were very numerous and great numbers of sva were laid by them in the gravelly portions of the creek. Salmon were also caught in the Humber River during last spring; some were also taken in the Rouge Rivor. In the Crodit river, salmon were observed on several occasions, in the months of October and November last." He further reports: "That it is very pleasing to find that the Departmental efforts made in breeding salmon, and protecting them afterwarls, and also guarding the streams which they frequent during the spawning season, have not been labour in vain; and that the annual increase of salmon in Lake Ontario reminds him of former times."

Special licenses were granted by your Department to fish trap-nets at certain stations in Lake Ontario during last summer. There were four permits granted for salmon fishing in the lake, besides the one immediately connected with this Eistablishment. The stations were advertisel to be let by public tender, and were so taken. The season was very far advanced before operations commenced, therefore, actual flshing with the nets did not exceed three weeks. There were taken at the three stations immediately in the vicinity of Cobourg, about 100 salmou, according to the returns given in. The fourth station, near Port IIope, was not fished. It the station covering the Lake shore at the outlet of this creek, and fished under authority of your Department, there were 240 salmon taken. The nets were first set on the 10 th July, when 21 salmon were caught, and on the 11 ih July, 22; the greatest number taken in any one day was on the 29th July, when 28 salmon were captured. A few days after this tho actual salmon fishing coased, as the fish appeared to have left the shores for the deep waters of the lake. These fish ranged in weight from 8 to 18 lbs., and were in prime condition and highly prized in the markets where they were sold. The success in the number of salmon taken during the short period in which the nots were set waty considered very wativfactory, and quito equal to that of former years, when these fish were considered plentiful in Lake Ontario.

Numbers of young salmon fry reared at the Newcastle establishment have been for some years past planted in the Saugeen River at Mount Forest. It was therefore considered advisable $t_{1}$ ascertain if posisible whether anything of a practical nature had resulted from thescexperinents. From the extreme pressure of business derolring upon me last autumn, I . could not give persunal attention to this matter. Mr. Kerr, your Fishery Offecer at Hamilton, whose efficiency in theso matters is well known, was ordered by your Department to make a personal inspection of the Sau-
geen, with the view to ascertain whether any evidences were to be obtained of salmon having been seen or taken in that river, or at the estuary fisheries on the shore of Lako Huron at Southampton. Mr. Kerr traversed the river and made personal enquirics from inhabitants living on its banks, and has made a lengthy report of his inspection to your Department. From it I draw the conclusion, that from statements given to Mr. Kerr, it was known by some of the inhabitants that young salmon had been seen and taken in portions of the Saugeen. I regret that no more positive evidence could have been obtained on the score of finding adult salmon in the river; but with regard to smolts (the name applied to young salmon when on their first migration down the river to the sea) no doubt arose but what some of these had been seen and caught there. This could hardly be otherwise, from the quantities of salmon fry that have been planted there for some years past, for largo numbers of them must have reached the period of smolthood, as the waters of the Saugeen are just as well adapted for their growth up to this stage of their existence as any of the streams in Canada, in which it is positively known they readily grow to this size. The query arises: Where are the grilse (young salmon of two or three pounds in weight on their first migration up river from the sea) and the adult salmon? The latter it may be said could scarcely yet be expected to be found in any numbers in the river, as sufficient time has not yet transpired for their development, though I venture to say that some have entered the river. But the former (grilse) should at certain seasons of the year be found there: and from the hearsay evidence received by Mr. Kerr, it must be a!most coneluded that they are in the waters of the Saugeen. It must be understood, however, that in ascertaining the actual results of an experiment for acclimatizing a migratory fish like the salmon to the waters of the great inland lakes, where this species was not hitherto known to havo existed, time must be given and patience endured in order to fully demonstrate so important a problem; as an evidence of this it may bo stated that in Tasnania, salmon were introduced many years ago in the waters of that country, where they never previously existed, and only after the lapse of some ten or twelve years, were they discovered to have become naturalized to those waters. With what has transpired of late years in this and other countries with regard to the nature aud habits of these fish, I am of the opinion that smolts, grilse and salmon now inhabit the waters of the Saugeen river and Lake Huron.

Scientific research has shown that the same kind of crustacean upon which the salmon family lives largely in salt water is found in great abundance in the waters of Lake Huron. The mysis, a genus of crustaceans of the shrimp family, abounds in rast quantities in all the large fresh water seas of the west, in addition to these, immense supplies of herring abound in those lakes, and they are also known to be the food of the different species of salmon.

## Maskinongé and Bass.

An experiment on a small scale was entered into at Rice Lake by Mr. Gilchrist, the officer in charge there; he expressed great 'anxiety to make a trial for the breeding of these fish. I thereforo proceeded to the lake in May last and selected a spot where the water of a small spring creek conld be easily and cheaply dammed back, so as to form a couple of small ponds. The object was not to try the artificial methods of propagation with these fish, but to see what would be the result from placing in these ponds a few bass and maskinonge just previous to their time of spawning, and closely observe their operations during the laying of their eggs; after they had deposited their ova they were to be put back into the lake which was close at hand. This boing doue, the eggs were to be closely watched during their incubation, and when hatehed out the young fry ware to be taken care of up to a certain stage, and then put into well-protected places in the lake.

Mr. Gilchrist succeeded in getting a number of maskinonge, but from an accident occurring, by which the dam gave way, the experiment in relation to theso fisb proved futile. With the black bass the success was more satisfactory, some forty of them were caught in the lake and placed in the pond, where they spawned freely
and shortly afterwards large numbers of young bass were observed swimming round in different parts of the pond; these fry were afterwards turuel out into the wators of Rice Lake. Mr. Gilchrist states in his report of the operations thus: "I am satisfied by this experiment that next yoar I shall be in a position to furnish a large quantity of young fish both bass and maskinonge."

A statement is here given in a condensed form of the numbers and descriptions of fish eggs that have been deposited in the several fish-breeding establishments in the Dominion during the past season. Nearly all of these ova are at the present time in the most healthy condition, and so far advansed that the young fish are noticeable in them with the naked eye. At some of the breeding-houses many of the young fry are now on the evo of hatching out. The numbers are as follows, the grand total being upwards of fourteen millions:-
Schedule of Fish Ora laid upon the Hatching Troughs of the several Breeding Establishments in the Dominion.


A further statement is berewith given of the numbers of young fish which have been hatched out at the Newcastle ostablishment since its commencement and the several etreams and other waters in Ontario into which they have been deposited.
Schedule of the distribution of the ova matured at the Newcastle Fish-breeding Establishment, since its incoption.
White's Creck, Cobourg.................................. 10,000 Salmon.
Trent River, Trenton....................................... 100, 000
Grafton Creek, Grafton................................... 150,000 ،

Black's Creek, Darlington..................................... 30,000
Lynde's Creek, Whitby......................................... 25,000
Duffin's Creek, Pickering.......................................... 160,000
Hyland's Creek, " ............................... 40,000




In addition to these numbers, there have been planted in several of the streams above mentioned 80,000 fry of the California Salmon (Salnio Quinnal), making a grand total of five millions one hundred and twenty-five thousand fry reared at the Newcastle hatchery.

In submitting to you the practical results of the operations carried on at thesevcral fish-breeding establishments in the Dominion under my supervision, from the commencement of the work, it will be necessary to state that many of these hatcheries have only been in actual operation for a very short time. The Sandwich building in Untario, and the Bedford works in Nova Scotia, were erected in 1875. The others (except the original one at Newcastle, in Ontario,) were built in 1873 and 1874 . It must therefore be understood that these lately-constructed breeding-houses have barely had time to be placed in thorough working order; nevertheless the total of vivified eggs now on hand, and of joung fish which have been planted in the waters of Canada, will be found to be very satisfactory indeed. The numbers of young salmon, salmon-trout and whitefish, which have been distributed amount to $14,340,000$. and the quantity of ova now on hand in the course of hatching out is $\mathbf{1 4 , 1 7 5 , 0 0 0}$ making a grand total of twenty-eight millions five hundred and fifteen thousancl.

> I have the honor to be, Sir,
> Your obedient servant,

SAMUEL WILMOT.

# APPENDIX No. 25. 

REPORT OF MR. A. B. WILMOT, NOVA SCOTIA.

Bedford, 31st December, 18 6. 6.

Sir,-[ have the honour herewith to submit my report upon the operations at this ostablishment during the last ycar.

The efforts of your Department towards introducing the work of salmon-culture into this Province during the last year, and the restocking of many of its almost totally-depleted rivers, have been received by the people generally with delight, and the great wealth accruing to the country from increasing its fisherics is fully understood and appreciated, and it affords me pleasure to gratefully acknowledge the many courtesies extended to me as the officer in charge of the work. The lively interest taken in the progross of the work, and the valuable local information willingly given by all with whom I have come in contact, has very materially assisted me in overcoming the many difficulties attending the opening of a new establishment. The sradual development of the embryo, and the successful hatching of the fish, was watched with enthusiasm by many scientific and practical gentlemen from Halifax and its vicinity, and their welcome visits to the hatching-house were a source of great pleasure, as well as encouragement to me.

The weather during tho early part of last winter was quite exceptional in its nature, being very open, with an oxceedingly heavy rainfall. The consequent high state of the water in the river, during January, caused me a great amount of trouble aud anxiety, as large quantities of sediment and other deleterions matter were carried into the hatching troughs and deposited upon the ova. In order to remove this, almost constant washing was necessary, and the excessive handling of the eggs at a time when the embryo was assuming a definite shape, and evincing the first signs of animation, caused a considerablo loss, and had it been continued for any lengthened period, a most serious failuro would have resulted. As filtration was the only means $y$ which the foul matter could be removed, I determined to adopt it, and it has proved of incalculable value to mo, and since this is the only breeding establishment in the Dominion which is supplied with filters, I will give you a brief description of them for the information of your Department and of those engaged in fish-breeding on foul streams. I'he filters are three in number, and placed one at the head of each aisle, close to the main tank or reservoir. They are made of good sound two-inch plank, are two and 'ahalf feet wide, and of sufficient length to reach across the aisle. They stand on staging one foot from the floor of the house, and are of the same height as the main tank, with which each filtoring box is connected by three inch pipes, these pipes entering the main tank one foot below the height of water usually standing in it. Running lengthwise of each box, there is a strong partition reaching within two inches of its bottom, thus dividing it into a front and back chamber, which have a connection at the bottom, but not at the top. These two chambers are filled with fine gravel, and the water entering the back one through the three-inch pipes, mentioned above, passes down through the gravel in that compartment underneath the partition, and thus rises to its level in the front chamber, passing upward through the gravel in that. By this means the water is forced
through six feet of fine gravel, which remoses the greater part of its impurities. It then passes into a three-inch pipe, which conncts the different filtering boxes in such a manner that they are made to act as one, so that in the event of one box becomingr choked with sediment, and the supply of water from that stopped, the oxcess from the others would flow towards it, and supply the particular hatching troughs allotted to that filtering box. This connecting-pipe is tapped by a number of inch pipe.s, each of which conveys a stream into a hatching trough. The filtering boxes can be cleansed at any time without disturbing the ova, by opening a blow-off pipe at the bottom of each, through which the gravel is forced by the weight of water ovor it. This mode of filtration is both simple and economical, and could bo introduced in alt fish-breeding establishments, without necessitating any alteration in their present plan, and from my experience in the business, I consider filtoring, if not absolutelynecessary, a $\nabla$ ery desirable inprovement, and as a labour-saving appliance, it stands prominent.

As stated in my last annual report upon this establishment, a large proportion of the ova was laid on zinc hatching trays, being first covered with fine gravel, and for the purpose of thoroughly testing the relative merits of the different kinds of material used for hatching trays. I instituted a number of experiments, among other-s, was one upon earthen saucers, a small number of which I had purchased for the Miramichi establishmonts during my last season in charge there.

For the information of all concerned, I give below the number of ova placed ypon each kind of tray with the number hatched and the precentage of loss from each.

| Description of Tray. | No. laid down. | No. batched. | Percentage of lozs |
| :---: | :---: | :---: | :---: |
| Zinc tray covered with gravel. | ....160,000 | 90,000 | $\cdot 44$ |
| do uncovered............... | .. 10,000 |  | Total loss. |
| Iron trays, covered with gravel | .240,000 | 180,000 | $\cdot 25$ |
| do uncovered.......... | .... 60,000 | 45,000 | - 5 |
| Earthen saucers .................. | ...100,000 | 85,000 | $\cdot 15$ |
|  | 570,000 | 400,000 |  |

A dai!y account of the loss was kept from the 15 th of December, at which time all unfertilized eggs, or those injured in transportation wore removed; as shown by these figures the total number hatched was 400,000 , or about 70 per cent. of the number in the hatching troughs on the 15 th December. It will be scen that the greatest success was obtained from the earthon saucers, and this with very much less labour and trouble than from any other description of tray. The smooth glazed surface of the earthenware preventing the sediment and vegetable matter from collecting and adhering to any great extent, thus obviating the necessity of frequent washing. The percentage of loss upon iron wire, uncovered as well as covered, was not great, but this result was secured only by great exertion on my part; the uneven surface of the gravel permitting large quantitios of slimy vegetable matter to collect upon the trays, which could not be removed by washing. This water contains an excessive quantity of slimy substance, and filtering through gravel will not remove it, as it will sediment. To effect its removal, charcoal is roquired in addition to the gravel. If this foul matter is allowed to remain upon the trays for any length of time, the gravel becomes matted together, and vegetation starts, then it is impossible to prevent fungus from growing upon and killing the ova. To prevent this, I was obliged, during last winter, to removo all eggs laid on gravel from their original beds to others three different timos. Of those eggs laid on uncovered zinc, all died bofore the lst day of April, and a similar loss would havo resulted to those upon zinc trayn covered with gravel, had I not been aware from former experience of the existence of a secret and deadly poison generated by chemical action of the iron contained in the water upon the zinc. To prevent this injurious action, I removed all except a small number, from the zinc plates to the iron-wire trays and thus saved them. Having
at this establishment the same iajurious chemical action to contend with as at Miramichi, and from the fact that the few eggs left upon the zinc trays, and subjected to that action, having all died subsequently, $I$ am convinced that had all my ova last ycar been laid upon zinc trays, either covered with gravel, or uncovered, and had been allowed to remain there until the 1st of May, as at Miramichi in 1874-75, I would have been compelled to report as heavy a failure and loss, as was met with at that place, the particulars of which were contained in my last report upon that establishment.

As I am the first and only person engaged in fish-breeding in the Dominion, who has met with this peculiarly injurious substance, found only at this and the Miramichi establishments, I may be permitted to refer to the causes of the loss experienced there, and to Mr. Samuel Wilmot's remarks thereon, as contained in his last annual Repert upon the different breeding establishments.

From numerous indications observed at the time this loss took place, I becamo convinced that the chemical or electrical action of the iron apon the zinc was the great cause of failure, and that this was intensified by the sluggishness of the current passing over the eggs. As I was unable then to produce any positive proofs of the correctness of my statement, I am not surprisel at the incredulity with which they were received, more especially when the fact is taken into consideration that at all the other establishments ova placed on precisely the same description of tray, prepared in the same manner, produced favourable rosults. But at these places no chemical or electrical action takes place, as the waters contain no iron, and $4 t$ is in this difference the evil consisted. The waters in use at Nowcastle, Ont., Restisouche and Gaspé are principally spring brooks and ran through a limestone country, while the stream at Miramichi, throughout its entire length, passes through low bogs and barrens, and takes its source in a swamp or marshy lake. In the former streams the waters are beautifully clear and pure, while in the latter it is of a dark red colour indicating the presence of iron. Mr. Wilmot, referring to the possibility of the zine being injurious, says: "But it must be very doubtful indeed in this case from the fact that the ora had remained upon the trays between five and six months withont any previous injury." This I account for from the fact that during the five or six months of winter the supply of water in all streams is principally from pure, running spring brooks, the bogs and barrens being then solidly frozen and retaining any injurious substances they may contain. The rivers are low and the banks firm, and no displacement or washing of the soil takes place, but it is quite a different caso about the lat of May (when the loss occurred); then the stream with all its tributaries was swollen, the banlss were heavily washed and large quantitios of earth containing this chemical substance were carried down, and consequently a greater amount entered whe hatching troughs and was deposited upon the surface of the trays. It is then that the injury is done.

Mr. Wilmot further states, "Moreover theso zinc plates were prepared with two coatings of parafine varnish, which made them quite impervious to the action of the wate:" This may be the case in other walers, but is not so at Miramichi. The chemical substance eats off and completely removes this coating of paratine varnish within two months after the trays are placed in the water, leaving them nearly in the same condition as before being painted. Similar injurious properties of iron being found in the waters of the Sackville River, I was enabled to continue my oxperiments for the purpose of determining the correctness or inaccuracies of my convictions.

The conclusions I have arrived at from the results of these experiments are these : That in the waters at this, as well as at the Miramichi establishment, zinc becomes a deadly poison, and cannot be used with any hope of a successful issue. The iron wire trays, although not subject to the same chemical action, are injurious from the fact that they cannot be kept from rusting. By the use of gravel upon either of theso trays the evil is not entirely romoved, and the labour of keuping them cloan is increased four fold. To remove these objections, I have introduced, and by the authority of your Department, have now in use at this establishmont, a tray made of commonear thenware of the same shape and size as those of zinc or iron. The ari . intages derived from
their use are many and at once apparent. While admitting of no chemical or electrical action they possess all the benefits to be derived from the use of a gravel bed (being themselves of an earthy or gravelly nature), without the great disadvantage of collecting sucb large quantities of sediment or other foul matter. The saving in disturbance and the consequent reduced loss of ova from handling is a great merit, independent of all others they possess will commend their introduction into all establishments, also by their use the capacity of a hatching-room is at once doubled, as these trays can be laid one upon the other in the troughs without injury to the eggs on the lower tray as would be the case with trays covered with grarel.

Before leaving Miramichi last season I piaced 30,000 eggs upon earthen saucers, and requested Mr. Sheasgreen, who was left in charge, to inform me of their success. His statement is that those eggs required much less labour than any others in the house, and that nearly all hatched, thus bearing out my experience on the same trays here.

## Distribution of Fry last Spring.

The number of salmon fry hatched from the eggs laid down in this establishment last season was very satisfactory, (being about 70 per cent.) taking into consideration the unfavourable circumstances attending their collection, all had hatched out and were placed in the nussing troughs about the 10th May, and when four weeks old I commonced their distribution. This wats performed as far as possible under my jersonal supervision, and resulted in almost perfect success, no loss being met except from one small lot; when possible, the railway was used, as being more expeditious, and submitting the young fish to less :ough usage than when carried in waggons. Some of ihe roads over which I travelled were almost impassable, and from their generally wretched condition throughout the Province during the spring, I consider 20 miles the extreme distanco to which the young fish should be carried by that mode of conveyance. An attempt was made to convey 10,000 fry to Gold River, Lunenburg county, but failed in consequence of the exceedingly rough road travelled over, and until conveyance by steamer or sailing vossel can be obtained direct, I fear it will be impossible to plant any young salmon in that river.

The distribution in accordance with the instructions received from your Department was as follows:-


In putting these fry into the different rivers, I endeavoured to get them as fur up stream as possible an.I in the neighbourbood of the natural spawning grounds, in order that they might be submitted to similar circumstances as attend those hatched naturally. All the rivers mentioned above are still visited by considerable numbers of salmon every fall, but these are being gradually diminished by mill rubbish and tilth destroying the spawning beds. The most notable river in this respoct that I am acquainted with is River Philip. This naturally was a beautiful river; its waters were as clear as crystal, and its gravelly bottom presented one continuous admirable spawning ground. Large numbers of mognificent salmon and sea-trout frequented
it and ascended to its upper waters to deposit their ova, and the eatch of these fish was a source of considerable revenue to the original settlers. Now the case is entirely different. The wholesale destruction of the parent tish during the spawning season, when they are utterly unfit for food, and the pollution and obstruction of the river, by the construction of impassible dams and the collection of mill rubbish, slabs and sawdust, has greatly reduced the number of fish entering it for the purpose of depositing their ora. Its banks are covered with logs and slabs, heedlessly thrown into it from the saw-mills above, and every eddr and pool is tilled with decaying sawdust and other filth; and during the spring and fall, when the freshets are high and all the mills working, the water is thick with sawdust, and the fonl and poisonous gases arising from the disturbed putrid matter deposited upon its bed. The result is, that the river is no longer a suitable home for the salmon and other fish during their infant stages, and its injurious effects are being felt in the almost total cessation of the natural reproduction. As a convincing evidence of this fact, I might state that of 110 salmon eaught in the fall of 1875 , for the $4 e$ of this establishment, only four grilse (salmon three year:s old) were found ; and of 140 taken this last fall, but one was found to be a grilse. During the past summer a very efficient tish-ladder was constructed, under the supervision of Mr. W. H. Rogers, in the dam at Oxford village, and quite a number of salmon passed over it. This good work should be extended to every dam on the river and a free passagerway for tish maintained to the head of the stream. By means of these fish-ladders and the prevention of mill rubbish being thrown into the river, and the protection of tho parent fish when depositing their ova, the natural reproduction of both salmon and trout will be largely increased, and this, in connection with the yearly planting of considerable numbers of artificially hatched fry, will in a few years make this river as productive as it formorly was. In addition to the above canses of depletion, tuw which exist to a certain degree in many rivers in this Province, I find thore are two other causes equally destructive, viz., the catching of black or spent salmon in the spring of the year, and the taking of thousands of the salmon parr while on their way down to sea. From the peculiar nature of many of these rivers, a large proportion of the parent tish entoring them in the autumn for the purpose of depositing their ova remain over winter in the deep pools and reachos, and do not attempt to roturn to the se:b until the spring freshets set in. Thoy are then, of course, in very poor condition and entirely unfit for food; being ravenous with hunger they take bait or fly greedily, and are caught in large numbers by the inhabitants. As an instance of the extent to which this illegal and destructive mode of fishing is carried, I am informed that in River Philip between 50 and 60 of the salmon spawned by me in the fall of 1875 , and bearing my mark, were caught last spring, the inhabitants being ignorant of the fact that they were unclean tish, and that it was a violation of the law to catch them. I have heard also of considerable numbers having been taken in other rivers of the Province. In fact, it is considered the farourite fly and bait fishing of the season by those ignorant of their condition.

Salmon are also caught in large numbers in many rivers, and I have froquently heard boys ray that they have caught over 100 in a day. These parr are about five inches in length, and are then one year old. Having spent their first year in the shallow parts of the river, and in the vicinity of the beds from which they were hatched, they commence their migration to sea during the month of May. When they arrive at the mouth of the river, they continue swimming about in the deeper and cooler waters until the iniddle of July, when thoy reach the smolt stage and go out to sea. It is during this period of two months that they are caught to so great an extent as I have stated, both by bait and fly. At this age they should be strictly protected, as they have then escaped the many natural cnemies of their infant stage, and in a short timo would return to their native water's tor the purpose of reproduction. Accepting as correct the statement of some writers on the salmonidæ tribe, that " Not more than one egg from every thousand deposited by the parent fish produces a fry," then we have the average production of about ten parrs from each fish entering these rivere, and presuming that 75 per cent., or say 80 per cent. of these
have survivel their first year, and arrivet at the mouth of the river on their way to sea, it will be seen how very destructive is this mode of taking them in such a wholesale manner, to the future stock of the river. Under the present system of artificial propargation introduced into the Province by rour Department, and the strict enforcement of the Fishery Jaws, these rivers would in a shore time beerme a souree of much greater wealth that at present. But I fear it will be a very difficult matter to accomplish the great object aimed at, until the fishermen learn that the law protects them in their rights, mather than deprives them of them, and become aware of the necessity of protecting the salmon as carefully as their farm stome when about to re-prodace; and the mill owners are taught to regard others intereste as well ats their own and until the inhabitants generally, instead of being silent ondrokers at the deperdations rommitted be poachers, decide to assist rather than olprestatf of Fishery Overseers and Wiadens.

## Oia collected this season.

The operation of collecting a stock of ova for this season's hatching was attended with great diffenlty, and consequently a greatly increased expenditure. The parent fish were searee, and from the low state of the water during the month of October, it was a very difticult matter tor secure them. River Philip, from which I expected to whtain my main supply, did not fulfil my expectations. Fishing commenced there on the 1 st of October and continued without intermission until the 20 th November, and yot only 140 fish were talsen. Judging from my experience of the last two yoars. I consider that number as many as can be depended upon from this river, and as it will require about $\mathbf{0 0 0}$ salmon to fully stock this establishment, it will be neeessary to extend my future operations to some other rivers.

Finding that up to the 20th of October but 13 tish had been taken, and the river still continuing umusually low, I applied for and obtained the consent of your Depa"tment, to commence fishing on some other streams. I accordingly set a erew of men to work fishing on the Last, West and Middle Rivers, which empty into Picton Harbour, and also another crew on the Annapolis River. From these I obtained 128 salmon, making, with those subsequently taken in River Philip, 268 in all. Of this number, some few died from improper handling, and from the necessurily imperfert and temporary arrangements I was enabled to mako for their retention. Some masuificent salmon were taken from these rivers, the average being about eighteen pounds, with a considerable number exceeding thirty pounds in weight. A rather peculiar feature presented itself at West River, in the great preponderance of female over male fish: of eighty salmon canght, but five were found to be males. This was also the case at Middle River: of eighteen fish taken only two were males. 'This jeculiarity I account for fiom the fact that in all the rivers emptying into the cinlf of St. Lawrence from this Province, mate fish compose the principal part of the first run, and they gencrally enter the rivers a fortnight in advance of the females. These males being still quite bright and fat, are more eagerly soughtather and fished for by the inhabitants, than are those coming later, and linown as the black she fish. From many (vidences. I observed of fishing laving been practised on these rivers, I am certain that nearly all the male fish were caught before the females entered, so that a large proportion of the ova which would have been deposited naturally by these lish, would have been lost from want of impregnation.

On all the rivers where I have oporated in Nova Scotia, I regret to time a spirit of determined lawlessucss that is most discouraging. On River Philip, as previously, reported to you, all manner of opposition and annoyance was thrown in the way of my efforts to procure fish. In accordance with your instructions, two special night guarliams were chgaged to aseist the Wardens in the prevention of poaching. This "upears to have aroused the ire of a gang of lawless ruftians residing on the river a tew miles below Oxford ; and linding that their illegal dishing could not be carried on in sudety, they gave me all the amoyance posxible. The guardians and myself were repeatedly stoned while passing down the river in a canoc, hy these cow:adly despo
$5-d \mathbf{5}$
radoes, who were lying in ambush on the bark, and who, aided by the darkness of the night and their intimate knowledge of the locality, made good theír escapo when pursued. My nets were stolen, and threats malle towards the men I had employed in fishing. Finding that, notwithstanding all their opposition, a considerable number of fish had been taken, and were confined in the reception tank at Oxford village, they determined by one final effort, more fiendish than all others, to destroy the whole number at once, by throwing a large quantity of lime into the mouth of the sluiceway which conducted the water to the reception tank, about 200 feet distant. In committing this dastardly act, they were aided by the intense darkness of a stormy night, and the proximity of an old saw-mill, amongst whose rains they conld secrefe themselves, until an opportunity for accomplishing their designs presented itself, when they could steal quietly out, deposit the lime in the water, and thus make good their cscape unseen and unhearl. In this effort to destroy my fieh they were only too successiul, as a large number of them became quite blind in the course of a few days (a white filmy substance having grown over the ball of the eje), and when turned into the river, they would rush wildly about, dashing themselves violently against the banks, and inany of them were afterwards found dead upon the beach. In addition to the death of the fish, a loss of over 100,000 eggs resulted from this brutal act. This same gang cominitted a number of other depredations during the fall, notably, that of breaking into Warden Moore's house during his absence, and stealing therefrom a quantity of fishing material which had been scized from soine of its members for illegal fishing. Mr. Moore's wife and two sons, who were in the house at the time, were unable to offer any resistance, as the doors were guarded by a ruffian, armed with an axe, and who threatened to cut them down if' an alarm was given, or an attempt made to go out. Two of these burglars can be identified and positively sworn to by the inmates. I have also strong circumstantial evidence against two of this gang, of having stolen my net from Mr. Fillimore's premises. These few instances of lavlessness stated will show the desperate characters 1 had to coutend with on this river, and tho causo of the great additional expense 1 was obliged to incur to prevont their fully carrying out their evil intentions. In fact, they set the law and the Wardens at defiance, and are most determined poachers, and glory in their lawlossness and oppositions to my efforts; and it is a great pity that they cannot be brought to justice and punished with the utmost rigor of the law. Fears of bodily harm and injury to proporty render it almost impossible to obtain convicting eviconce against them; and unless some decided measures are adopted for their suppression, I fear it will be useless for mo to attempt to take any fish there next ycar. On East River, also, a similar opposition was met with. A number of fish had been caught and corfined in a creel, and placel under the charge of two young men, when a gang of drunken miners came upon them during the night, drove them off with stones, broke open the creel, and carried away all the fish it contained. Through the exertions of Mr. Marshall, the local Overseer, two mombers of this gang have been identified and committed for trial at the next ensuing Court, when it is to be hoped they will receive the punishnent their lawlessness deservos. Finding such a decided opposition to my oporations on this river, and being unable to give the work my personal supervision, I deemed it advisable to discontinue fishing. Poaching is boldy and largely carried on in this river, chiefly liy spear and toreh, and the small staff of Wardens is altogether unable to prevont it.

On the West, Middle and Aunapolis livers uo depredations wero committed, but threats of burning my spawning shels, cutting the nets and breaking opon the creels, wore freely made, and to prevent theso actr a lauger number of men was necessary than would otherwise have been roquired.

In addition to the men ongaged in working the nets, I employed cthers to guard the fish, after being placed in the crecls, so that the expenditure for the collection of ova this soason was doublo what it would have been had no opposition been met with. It being nocessary for mo to visit each of these rivers frequently during the season of catching for the purpose of giving instructions as to the care of the fish, and to ascertain when they were ready for manipulation, and as the apawning season on all rivers
extends over a period of three weeks, necossitating froquent trips to each river for the purpose of taking the eva, the travelling expenses of mysolf and assistant considorably increased the cost of this branch of the service.

At River Philip a much larger number of male fish was taken than was required to impresnate the ora secmred there, and in order to utilize these malos as woll as the excoss of females at West River, I determined to try the experiment of conveying the milt from the tormer to the latter place and thero perform the fecundation. During a eonversation with Mr. Mowat, of the Restigoucho establishment, almost two years ago, he informed me he had experimented upon conreying the milt a short tistance. and that he had been tolerably staceessfal, and a fair pereentage of the eqges treated in that wity had hatched.

To that gentleman is due the credit of the first inception of this idea, and if as satisfactory rosults are obtained as I have every reason to expect, a most important cliscovery will havo beet made in fish-broeding, the utility of which will bo at once understood and appreciated by all engeged in the business, and who have to operate upon different rivers in order to obtain their supplies of ova. To Mr. Venning, Inspector of Fisheries for New Brunswick, who was at River Philip in the hopes of getting a supply of ova for the Miramichi establishment at the time this experiment was tried, I am under deep obligations tor his valuable advice and personal assistanco in the matter. 'The milt after having been taken from the male fish was mixed with a small quantity of water and put into bottlos which were tightly sealod, so as to exelude the air and prevent putretaction. These bottles were then placed in pails of water, the temperature of which was kept as near as possible to that of the river water from which the fish were taken. After laving carried it over 200 miles, and twenty-four hours after it was taken from the fish, this milt was mungled with the ova at West River, and precisely the same coagrlation and changes in appearance and feeling of the ova were observed as when the usual mode of impregnation was practised.

One hundred and twelve thousand cers were treated in this way, and the loss up to the present time has not cxceeded that fiom those diftorently troated. The embryo can be seen in a large proportion of them when placed under a miscroseope, but their development has been somewhat retarded by the extremely low temperature of the water prevailing since they were placed in the hatching troughs. For the purpose of testing the extent to which the milt could be oconomised I experimented on a small number of ova by using the milt a second time, that is, after allowing it to remain upon one lot of eggs a sufficient lensth of time to cause coagulation, it was poured upon a secend lot. Of this latter lot very few have addled and the embryo is now visible in many of them. As tho minimum quantity of milt required to impregnate a given number of eges has not fot, that I am aware of, been discovered, and as this particular information would be of great value to the science, it would be well if all engaged in tish breeding wuald experimont upon it. I have, on several occasions, felt the want of this lnowledge, and I presume otbers have been similarly situated. If oxperiment, were instituted by all in charge of breeding establishments in the Dominion on those points, about which there at present exists a douht, and the results made known through the medium of their annual reports, a very material benotit would be deriven, and it wonld tend to perfect or correct any errors that may exist in the system of artificial propsgation of salmon introduced by Mr. Samtel Wilmot. From his devotion to the science and his indefatigable efforts towards its improvement aud perfection, 1 am sure any information offered him would be gladly accepted.

The total number of ova procured this season was ?alout $1,100,000$, including the 119,000 eggs experimented upon as stated above. The loss up to the present time has been very light, exceptirom the lot injured by the lime, of which ont of 160,000 I have but 60,000 left, and $[$ fcar that I will eventually lose thoso. All othor oggs in the house are looking remarkably healthy and promising. In those taken in the carly part of the season the fish are now alive, and can be distinctly secn moving within the shell. In those taken later the embryo is not as far adranced, but the form of the,
fish can be observed, and I have every reason to expect a most successful issue to his season's operations.

Some writers on practical fish-breeding state that the ova cemnot be transported duting the first ten days after inpregnation without a heaty loss, and my experience corroborates this statement. I find that the loss from this cause is fully ten per cent. under the most favorable cireumstances and the greatest eare. The frequent disturbance which the eggs necessarily receive while being tiansported and bofore being placed in the hatching troughs has an injurious effect by preventing the development of the embryo. This, together with the execssive'handling and injuries to which the parent fish are subject in rivers where no permanent and suitable arrangements are made for their retention, causes the pereentage of loss to be much greater than would be the case if the parent fish could be secured in the immediate vicinity of the hatehing house. I beg to call the attention of your Department to the fact that at this establishment only do these unfavorable circumstances exist, and in order to remove them and place meon the same footing as others, I hopo you will consent to the adoption of the plan preposed by me last April, viz., that of securing a portion of my supply of parent fish from the Sackville River by means of the appliances then described.

In addition to my presont arrangements at River Philip: some othor means are requirod by which a larger supply of ova can be obtained, and I know of no river offering the advantages possessed by the Sackville. The first cost of the plan I propose will not exceed the yearly expenditure for the collection of ova under presentdifficulties, and after the first year being self operating, it will require no outlay whatever.

The natural instinets of the fish will be utilized in securing them, and no handling will be necessary until they are ready to deposit their ova, and the injury to both fish aud eggs will thus be avoided. I was unable to obtain any definite information as to the number of salmon entering this river last fall, but I have reason to believo that between E 00 and 300 passed up the fish-ladder on their way to the spawning grounds. I sav at one time between 80 and 100 salmon lying at the bridge over the moath of the river, and from the numbers observod leaping out of the water firther down, I should judgo that 360 salmon were in a radius of 100 rods. These salmon are not as large as those found in River Philip; they average about twelve pounds, with occasionally a twenty pound fish among them. A great many were scon leaping in the still waters of tho river near its mouth, and above the dam. $\Lambda$ slight effort was made to take some pargnt fish from the river, but from want of proper nets and fishing implements it failed. Having deposited in this river last spring 140,000 fry, the produce of the larger fish in River Philip, and as this number will probably be doubled next yoar, the future stock of salmon in this river will be much larger than those at present entering it, and there will be no necessity of going elsewhere for my supply of parent fish. The annual expenditure for this branch of the sorvice will then be saved, but in the meantime I ean see no way of reducing it below that of the past season. Should your Department prefer breeding from larger tish than are found in the Sackville River, I would advise utilizing thoso of the Musquodoboit. By constructing a small reception house there a considerable number could be socured annually, and as these fish spawn two weeks carlice than those entering the rivers emptying into the Gulf of St. Lawrence, the season of collection would be extended, and I would be enabled to give this delicate and important branch of the work my personal attention at both places. The conveyance of the ova to the hatehing-house could bo done by a sailing vessel, or small steam launch, and would not be expensive.

Mr. William Anderson, the local Fishery Overseer, informs me that a large number of salmon onter that river annually, and that they can be easily taken and retained.

The principal improvements made in this establishment during the past summer have proved very bencficial, and are as follows:-The rebuilding and raising of the dam across the river, from which the supply of water to the liatehing house has been increased and made more cortain. The erection of a good substantial fenco around the grounds; the construction of a dry stone wall on the bank of the river to keep out the freshets, and the partial leveling of the grounds. Inside the hatehing room, the
alteration of the hatching troughs, which has greatly reducod the labor of taking proper care of the ova, and some minor changes, together with the introduction of the earthen tritys, by which the capacity of the hatching room has been doubled, have given me ats perfect a hatching establishment as could be desired, and I hope that next year I will be able to report a much larger number of ova on hand than at present.

I have the honour to be, Sir,
Your obedient servant,
A. B. WILMOT,

Fishery Oftirer.

# APPENDIX No. 26. 

REPOLi' OF Mli. W. H. VENNLNG.

Mirmicili, New Brunswich,<br>31st Docember, 1876.

Sir,-I hatve the honour to submit the following Report of proceedings in connec:tion with the Miramichi Fish-breeding Establishment since 31st December, 1875.

On Mr. A. B. Wilmot's promotion to the Bedford establishment, the house was placed under my superintendence, and in tho care of his Assistant, Mr. Isaac Sheasgreen, whose oxperience amply qualified him for the charge. The ova laid down in the fall of 1875 continued to progress very favorably with scarcely any appreciablo loss, not tlireo per cent. of the eggs having died under Mr. Sheasgreen's care. About the middle of May the young fish emerged from the oggs and continued to thrive with searcely any loss until the sustaining sace was nearly absorbed. On the 23rd Junc, a telegram from Mr. Sheasgreen informed mo that tho young salmon were ready for distribution. In accordance with your instructions, I proceeded to Newcastle and made arrangements with Mr. Sheasgreen and Oversoer Hogan to convey the fry to the several rivers in which you had decided to place then. On reaching the hatching-house, I found in the troughs about 60,000 healthy and active joung salmon; the sac wits now entirely absorbed, and the fish requirod immediato removal. With the assistance of Orerseor Hogan and Mr. Sheasgroen, they were distributed as follows:-


The water being cool and favorable, this distribution was made without any apprecinblo loss, not fifty fish having dicd during transportation, which was done principally by horso and waggon. The balance, consisting of about 11,000 , I had placed in neveral largo cans, made expressly for the purposo after a pattern furnished hy Overseer Mowat, of the Restigouche establishment; 5,000 of these were for the IRichibucto River, 3,000 for tho Shediac, and 3,000 for Hopewoll River, in Albert County. On the morning of the 26 th Junc, I loft Miramichi station by rail, having arrangod with Conductor McLellan to stop the train where the road crossed the Richibucto, to chable me to place the fry in the hoad waters of that river. The day was excessively hot, and the cans were placed in a car containing salmon packed in ice, which kept them cool and conduced much to the safoty of their transport. On roaching tho crossing, the train was stopped, and, with the assistance of Conductor McLollan, the young fish wero transferred to the water without any serious loss, but very few of them showing any sigas of weakngss. On reaching Moncton, the fish in the remaining cans showod evident signs of oxhaustion from excessive
heat, but a supply of ice placed in the top of the cans, which were provided with a proper receptacle to contain it, revived them; but I did not consider it prudent to loave the Shediac lot over till next morning to mect the train for that place, and concluded to take the whole of them to Hopewell. On roaching Penobsquis Station, where I had a waggon engaged to convey them to Hopewell River during the night, an inspection of the fish convinced me that they would not stand the journey; as several of them had died, and many of them showed evident signs of woukness. Under the circumstances I concluded to save them from impending death by placing them 11 the head waters of the Kennebecassis River, which fortunately flowed past this station within a few hundred yards of the platform. With the assistance of Mr. William Morton, who liad arranged to take me to Hopewell, I conveyed the cans to the river and set tho young fish at liberty. A large number were apparently lifeless, but in a few moments after loing placed in the cool water of the river, they revived and showed considerable activity, and I have no doubt were able to take care of themselves, as the water is well adapted to their noeds, having formerly been a grood salmon stream.

I regret that I was not able to meet your wishes with regard to Shediac and Hopewell Rivers; the extensive heat of the day rendered this impossible, and obliged me to save the young fish by placing them in the nearest suitable water. 13y next season the Albert Company Railway will probably be completed, when I hope to be able to be more successful in getting a portion of the next brood safely placed in Hopewell River.

As you were informod in my Report of 29 th of March last, the fall freshets of i875 and those of the spring of 1876 very seriously injured both the feeding dam that supplies the hatching house, and the retaining dam of the reception pond. When these dams were first built under the superintendence of Samuel Wilmot, Esq., no experience was had as to the extent of occasional fieshets which are much more extensive than so small a stream would indicate; consequently, they were not substantial onongh to withstand those that have since occurred. It was necessary to have both theso dams thoroughly repaired and ready for fall operations. In accordance with your permission I availed myself of the practical knowledge and experience of J. H. Harding, Esq., and accompanicd by him, proceeded te Newcastle, in August last, made a thorough inspection of the injured dams, and entered into arrangements for their substantial repair, in the manner advised and pointed out by Mr. Harding. Tendors were asked for the performance of the necessary work from Mr. Thomas Ramsay and Mr. Elson Tozer, both practical and responsible men. The tender of Mr. Tozer being lowest, the work was given to him, to be clone according to the plan explained by Mr. Harding, on the spot, under the immediate superintendence of Overseor Hogan. During the progress of the work I paid several visits to the place, and saw that everythiug was properly and substantially done. On the 20th September I was notified that the dans were completel, and, on a final inspection, found them tight and strong, and to all appearance the work had been faithfully done. They havo since withstood the fall freshets, which were exceptionally heavy; all the new portions romaining intact withont the slightest signs of defect, but a portion of the old work in the feeding dam gave indications of weakness. The promptattention of Mr. Sheasgrcen strengthened this, and I have now no fear that all is safe for the winter: and spring. Next summer a small outlay will be necessary to renew this portion; but with the assistance of one man, Mr. Sheasgreen will bo able to clo this himself, and then I have every reason to beliere they will stand for some years.

The practical knowledge of Mc. Harding was of the greatest value in these repairs, and I gratefully acknowledge the important and valualje assistance he gave me in a work for which I have no especial aptitude.

On the 1st September I instructed Oversece I[ogan to employ the necessary assistance and use every endeavor to procure a good stock of parent fish for the fall operations. During the months of August and Scptember the river was very low, and the salmon remained in the deep water of the tide-way, waiting for the fall freshots to enable them to pass the bars which prevented their ascent. No fish were
caught until about the middle of the montly; between that and the middle of October a number were taken, and everything promised an abundant supply, as salmon were rery plentifnl below the nets, The fall rains were very heavy and the rise of the river was so great that all the nets were swept away at the rery time when the fish were passing up in large numbers. Several attempts were made to replace the nets und keep them in position, but without success, owing to the great force of water, and the vast quantity of leaves and drift stuff brought against them by the freshet. $M_{1}$. Itogan then abandoned his set nets and resorted to the swee? net; by unremitted excrtions of himself and the men employed, they succeeded, during the last two weeks of October, in taking 141 salmon, which were placed in the pond without the loss of a single fisl. The men continued their work, day and night with the sweep net, and took twenty more female fish, and a large number of males, which unfortunately had deposited their spawn and milt, and consequently were of no service. These were liberated when taken, and the men were dismissed from further labours. The fish in the pond were conveyed to the reception house, and on the 30 th October Mr. Sheasgricen informed me by telegraph that they were ready for manipulation. On the list November I went to Neweastle to superintend the spawning and laying down the impregnated ova in the hatching troughs. At my request Mr. Mowat of Restigouch House met me in Newcastle to give his advice and assistance in these operations, and on the 2nd November we proceeded to the hatching house, which we found clean, neat and orderly; the floors had been repaired, the hacthing troughs and trays thoroughly cleaned and re-varnished, the walls whitewashed and everything about the establishment was in a most satisfactory state, reflecting great credit ou Mr . Sheasgreen. Wo found in the reception house sixty-five female aud seventy-five malo fish, all in good condition, with ova and milt fully developed and ready for depositing. Mr. Sheasgreen, assisted by Mr. Mowat, at once proceeded to manipulate the fish. Tho females yiclded, on an average, about 10,000 ova cach, and the preponderance of males gave an abundant supply supply of milt. The manipulation of the fish and the laying down of the ova was coneluded without any appreciable loss, the number of dead eggs not amounting to one in a thousand; in all my experience I have.never seen so small a loss in so large a rumber of manipulated fish.

About 610,000 impregnated ova were laid down, occupying about two-thirds of the space in the hatching troughs. Being very anxious to have the space filled, and learning that salmon were plentiful in River Philip, where Mr. A. B. Wilmot was engaged in getting his stock for the Bedford house, on the 11th November I went to Oxford in the hope of obtainiug a fun ther supply of ova. The continuous rains raused a very heary frewhet in the river, which broke down the dam at Oxford, allowing the fish to pass up the river out of thoir reach, just as my men had got their nets in fishing order. After two days unsuccessiul work I dismissed the men, Mr. Wilmot promising to uso evory exertion to get more ava after the freshet subsillod. In this hopo I was disappointed, for althongh a number of fish were taken by Mr. Wilmot's men, they hal all deposited their spawn and milt, and further efforts were abandoned.

I regret much that the sudden and hoavy freshet prevented Mr. Hogan from setling a larger supply of parent fish, but as every possible exertion was made to necuro a large stock, no blame can attach to him or to tho men employed in this difficult and laborious work.

The froshet in the stream which supplies the hatching house continued several weeks after the oggs were luid down, and caused the water to become very impure. About the 25 th November Mr. Sheasgreen informed me that the quantity of sediment depositod on the ova was so great as to threaten their destruction. I immediately asked and obtainel your permission to place filters in connection with the main tank to remove this sonrce of danger. On the 27 th I went to Noweastle for this purpose, and on reaching the hatching house I found the ova covered with so heavy a deposit of black sediment that they were scarcely visible in the trays; but I also found to my great gratification, that so far the loss had been almost inappreciable, not more than 1,500 dead eggs having been removed since the ovat was laid down. On carefully
washing soveral of the trays the egge presented a bright and healthy appearance, the embryo being discernible in all. This being the casc, I considered, in that stage of development, the sediment was less hurtful to them than disturbance would be, and I directed Mr. Sheasgreen to let thom remain another week without washing or noving them.

On making moasurements and planning the position of the filters I found that they could not be attached to the main tank without very considerable changes in the height and position of the troughs, necessitating a greater amount of disturbance to the ova than would then be prudent. As the froshet wais then going down, and the water every day becoming clearer aml purer, I considered it more prudent not to attempt putting in the filters at that time. I made arrangements to have them prepared, and ready to attach without loss of time, if necessary, when the further development of the owa would admit of the manoidable motion without risk. I'uring the first week in December the whole of the ora wan carefully washed with the most gratifying result, and coming out of the sediment bright and healthy, with the very small loss of only 700 in this critical operation. As the weather has since set in cold. and as the freezing of the shores and surface of the stram will effectually prevent the flow of any large amount of sediment: I have atrong hopes that no further danger nead be apprehended from this source. Before the spring freshets set in, the ova will be so far advanced that 1 do not fear any serious danger fiom them.

In the course of next summer the floors of the hatching house will need to be coated with tar to prevent decay, and all the troughs will have to be removed, made thoroughly tight, and painted, for the sanne purpose. When this is done, the necessary changes can be made, the filters put in properly, and so arranged as to sive a more complete control of the water supply. This will remore all danger from sedimentary deposits, save much labour, and conduce greatly to future success. In the meantime, as the ova are progressing fatourably, beyond my most saugume hopes, I apprehend no further danger from sediment, nor from any other cause that careful attention cannot guard against. If no unforeveen accident occurs, I have every reason to expect that not less than 600,000 young fish will bo ready for distribution next May.

I have obtained from Mr. A. B. Wilmot a number of the earthenware trays now used in the Bedford house, and as soon ats the ovil will bear removal, I propose to transfer some thousands of them from the zinc trays, in order to test, by actual experiment whether the former iuce better adapted to the water of the stream from which the troughs are supplied. Mr. Wilmot's opinion is that some foreign element in this water causes a chemical action when in contact with zinc, which is unfarourable to the healthy development of the ova. Should the result prove that this opinion is correct, the adoption of the earthenware trays will save much moro than the cost.

The experience of the past two seasons convinces me that in future it will not be wise to trust to the mode hitherto employed to procure the parent fish. Some more certain and effectual means will have to be adopted. I propose next season to commence earlier, and to extend our efforts to the south-west, as well as to the northwest brauch of the river. In addition to the bar net heretofore used, l propose to adopt the sweep net, and to employ it in pools where tho fish lie waiting for the fall freshets. This mode will, I am convinced, not only be more successful, but also more economical, than that heretofore employed. The great diticnlties that have attended our past efforts to secure a sufficient supply of ova will, I hope, by this means, be overcome, and in future seasons I trust that every foot of available space in the hatching troughs will be atilized.

I have the honour to be, Sir,<br>Your obedient servant,<br>W. H. VENNING.<br>Inspector Fisheries, N.B.

# APPENDIX No. 27 • 

REPORT OF MIR. VIBERT.

To the Hon. A. J. Smith Minister of Marine and Fisheries, Ottawa.

Gaspe Basin, Province Quebec,<br>31 st December, 1876.

Sir,-I have the honour to submit my Report for the past year on the operations connected with the Gaspé Fish-Hatching Establishment.

The new dam built last scason proved perfectly secure and kept a good supply of water all the winter. The salmon ora turned out very well, a rery small percentage died; and the young fish wero placed according to your instructions in the St. John and Dartmouth Rivers.

I was somewhat disappointed at not boing able to set my nets in good time to serure a number of parent fish; owing to freshets, it was the 27 th June before we rould put out a net, and by the 10th August only some fifty salmon had been captured, and during this period we raised the net twice or three times on account of the high state of the strean. In this position of affairs I found it alvisable to set a net at Malbay River, and I accordingly made arrangements to secure salmon there and place them in ponds till the spawning season, and, compared with last year's operations, I had reason to be well satisteed with the number of fish captured at said river.

Being very anxious to fill my hatehing house with ova this autumn, I started with men and canoes on the Brol October up the Dartmouth River, and next evening we camped four miles above the falls, where there is a fine pool, and we found abont fitty fish there. On the two following days we were employed making a crib to placo the fish in, and on the 7th, Saturday, we scined and captured fifty-three large salmon and placed them in the erib withont injury; it took over six and a half hours to secure those fish. Finding I had very few male salmon, I sent men on the 9 th ujf and down stream, and the canoe from above reported some twenty fish in a pool not many miles above as. Next day, the 10 th, we all went up and ciplured seventeen salmon, which we hrought down in a wooden canoo; the rapids being very low at this time it was necessary for two men to wide in order to push our craft over as quickly as possible; we rucceeded in placing our fish in the arib in grood order.

On the 11th and 12th we went to Jean Lonis Fork, about ten miles from our camp; here we only found a few salmon and no male fish amongst them. The river heinis very low, it was impossible to bring any fish down, and next day we managed to secure three male and three fimale fish, and placed all in the crib without injury. On the morning of the 13 th October we captured eight more salmon in the pool at our camp, two of which were males, making eighty-four tish seined in the river. That afternoon we examined the fish and found forr females ripe, so we commenced spawning operations; and on the 14 th I came down with 60,000 ova, leaving Mr. Davis with two men in charge of the crib, and to continue the work. On the 1 (ith, the river rose about fifteen inches, and Davis was compelled to move the crib wereral feet inshore; and before all was finished, the stream rose bank high, and it was very fortunate on this account that we had tho salmon so secured or we might josisilly hare lost the best part of them.

1 remained below to atterd to fish in ponds and place ova in the building as it was sent from above. Owing to a number of fish not being ready, it was 26 th October before our operations were eompleted, when I estimated I had some 700,000 eggs from up the river, and 170,0100 from ponds.

On the 30th October, I proceeled to Barachois River, where I found eighteen Salmon in pond, but only six females out of that number.

I finished spawning here on the 2nd November, having obtained 50,000 ova; owing to stormy weather I was "ompelled to send them to Gaspé by land.

The salmon in pond in realr of the building did very well, but I was unwilling to place any large number there on account of injury from the gill nets. If a number of salmon are retained in this pond next summer, I should advise placing a board fence round the dam to prevent the possibility of persons injuring or interfering in any way with the fish.

A: Mr. Samuel Wilmot will, no doubt, advise your Department of the most reliable means to secure parent salmon for the future, it is scarcely necessary for me to make any remarks on the subject. I believe the plan of purchasing salmon from net fishermen at Anse aux Cousins will be the best method that can be adopted; provided small-mesh nets are used, so that the fish may be uninjured. There is also a very great alvantage in having the parent tish as near the building as possible, so that the ova can be deposited in the trotirh at once.

I estimate that there is neally one million ora in this establishment, all looking well; aud I trust nothing will oceur to prevent a large percentage of salmon fry being realy for distribution next summer. Everything has been well secured for the winter, and there is a very good supply of water running through the troughs.

I have the honor to be, Sir,
Your obelient servant,

PHILIP VIBERT,<br>Fishery Overseer


[^0]:    Ottawa,
    1st January, 1877.

[^1]:    - By resolution of the Board, of the 23rd of April, 1874.

[^2]:    5－c 5

[^3]:    *These instrumenta are similar to those in use at the seven Observatories in Great Britain and Ireland in connection with the British Mettorolsical Uffice.

[^4]:    *These figures are taken from Customs House Returns of Exports.

[^5]:    *To the above quantity of fish caught by Canadian fishermen within the division of Bonne Espérance, must be added 61,800 quintals taken by achooners from United States and the Maritime Provinces; which makes the total quantity of cod taken on the north coast of Labrador, 104,707 quintals.

[^6]:    - Fish sold to city fish markets fresh.

