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KINGSTON MILLS

by Richard Tatley

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## Abstract

This report is a compilation of several reports on Kingston Mills prepared by the author in 1977. It examines the early period when Kingston Mills was a grist and sawmill centre, the building of the Rideau Canal and its effects on the locality, the significance of the military presence, the coming of the railway and electric power, and the relation of geology to the history, including the modern era when the area has become attractive to tourists. The main sources are archival records, census records and canal records, travelogues and directories, newspapers, maps, pictures, and oral interviews.



## Introduction

Kingston Mills, Ontario, is located at the first falls on the Great Cataraqui River, about five miles north north-east of the City of Kingston, in the Townships of Kingston and Pittsburgh. It is an important lockstation on the Rideau Waterway, and also a notable hydro-electric power generating site. If reckoned to include some of the adjacent lands east and west, it can also be considered a small village (though not a very compact one), or a suburban extension of Kingston. In the past it has also been a railway depot, a post office, and an important saw and gristmilling centre. Apparently it has never been a prominent place in its own right, on account of its close proximity to Kingston proper, yet it has the distinction of being one of the oldest places of permanent settlement in the province.

### The Mills (1784-1905?)

Kingston Mills, originally known as Cataraqui Falls, captured the attention of the British authorities as soon as they decided to resettle some of the Loyalist refugees from the former Thirteen Colonies in Upper Quebec (later Upper Canada) at the close of the American War of Independence in 1783, and meanwhile to reoccupy the site of the old French fort at Cataraqui - now Kingston.

Since a gristmill and sawmill are prime requisites in any pioneer society, the British Governor in Montreal, Major-General Sir Frederick Haldimand, gave particular

instructions that a grist and sawmill be constructed near Cataraqui as quickly as possible, before the Loyalists moved in. (Technically this was also a legal requirement, since French seigneurial law then applied to all of Canada, and according to such law, the local seigneurs, or in this case, the King, had the exclusive right - and obligation - to build mills for the settlers, and to charge rents for using them.)

Haldimand's instructions were carried out, but not without difficulty; skilled millwrights were then in short supply, and so were the necessary parts and components (which had to be shipped in from Montreal). Furthermore, the winter proved very severe. The sawmill was not ready until the spring of 1784, and the gristmill later in the season. These mills were the first to be erected in Ontario, excepting those at Niagara, where Loyalist settlers had already started to move in.

At first the Cataraqui mills looked after the needs of all the settlements from Cobourg to Brockville, free of charge, until additional mills were established at Napanee, Millhaven and other centres. These helped to reduce dependence on the Cataraqui mills, which were rather awkwardly located, and from which it was difficult to float lumber downstream and westwards on account of the prevailing winds. Because the Cataraqui mills were located rather far inland, amid indifferent to poor farming lands, no settlement developed around them until the 1830's, though a road of sorts had been cut through the bush to link the site with Kingston by 1784. In addition, the government mills, though operated free of charge, seem to have acquired a reputation of being poorly run and frequently short of spare parts - which could not be replaced without a lot of "red tape".

In 1791 the Constitutional Act abolished the old

seigneurial law in Upper Canada, and thus legalized the construction of private mills which could compete with the King's mills. The government mills were then leased to a succession of tenants, who seem to have had endless trouble running them profitably and keeping them in repair. In 1794, for example, a flood swept away the mill-dam. After 1800 the mills seem to have gone out of use, and in 1805 the gristmill was destroyed by fire. In 1807 the two mills were rebuilt by Lt. David Brass, who had petitioned for the lease of the property. The sawmill remained busy, especially during the War of 1812, when it became an invaluable adjunct to the navy yards and forts. It burned down in 1818, but was rebuilt the following year, and was still intact during the 1820's. The gristmill proved less successful and seems to have disappeared before 1826.

Sawmilling was partially disrupted by the construction of the Rideau Canal locks in 1827-31 (when the old dam was cut away), and meanwhile the government decided to repossess the mill. About the same time the naval authorities at Barriefield became interested in the sawmill, and after complicated negotiations secured the lease by 1830. However, the naval yards were closed in 1835, and though reopened in 1837, the sawmill seems to have gone downhill steadily. After 1842, reference to it ceases.

In 1847, Col. Angus Cameron of Garden Island secured a new lease on the property and rebuilt the mill, along with (it would appear) some houses for the mill-hands. During the 1850's he sublet it to an American firm, Wood (or Blood), Bond and Company, which manufactured dressed lumber until the end of the decade, when the local timber-stands finally gave out. By 1861 the mill was abandoned.

In 1863, Dr. Edward Smith of Smith's Falls assumed the lease, demolished the sawmill, and built a stone gristmill on its site. This mill was operated by hired hands or

tenants, and catered to local needs, with indifferent success.

By 1878 the lease went to John Rourk of Kingston and his brother, who carried on for several more years, but gave up during the 1880's. In 1889 Clark Hamilton of Kingston - afterwards collector of customs - took over the lease, reopened the gristmill, and ran it until 1904. By then various industries had become interested in harnessing the falls for electric power. In 1904 the Kingston Street Railway Company obtained the lease from Hamilton, but nothing was done with the site until 1913. Meanwhile, in the spring of 1905 or soon afterwards, the old gristmill was damaged by a spring freshet, and afterwards crumbled away into oblivion.

#### Kingston Mills Village

As a local community, Kingston Mills seems to have developed very slowly. There was little settlement in the area until the 1810's, and the only local residents before 1826 seem to have been people connected with the mills.

In 1827 construction on the Rideau Canal locks was started, and with this sprouted a construction camp of squared log huts, strung out along the road to Kingston. A blacksmith shop was also built. Over 300 navvies (mostly Irish, apparently) plus various skilled tradesmen, are said to have worked at the site at peak periods until 1831. The mortality rate was high every season except 1827, primarily due to malaria and accidents, but in May 1832 the first steamboat passed through the locks on its way to Bytown. The original plans called for three locks, but in 1828 these were revised in favour of four locks, a waste weir, and two embankments - which in turn backed up the waters of the upper Cataraqui River, flooded out the swampy shallow

valley above the locks and created an artificial lake. (Since the timber in the valley was not logged out in advance, the lake was filled with desolate dead trees, and later stumps, which remained obvious until quite recent times.) The contractor for the works was the highly competent Robert Drummond, working under the supervision of the Royal Engineers.

After the canal was completed, the construction camp dispersed and Kingston Mills was left as just a small scattered village with a few taverns. Some of the log huts and buildings were taken over by the canal staffs, while others were pulled down or became dwellings. Despite the water-power, the canal traffic - which sometimes had to unload at Kingston Mills if the lower Cataraqui was too low and shallow for steamboats to pass - and a position along the original road from Kingston to Montreal (opened around 1801), the place remained insignificant.

During the later 19th century, activity increased a little. A succession of small taverns, owned by such men as William Blessing and Patrick Crowley in the 1850's, Joseph Dean and Charles Harrison in the 1860's, and Henry Wilson and John Redmond in the 1880's and 1890's, flourished briefly near the station. A post office was opened during the 1850's, and in 1855 the Grand Trunk Railway, seeking a convenient place to span the Cataraqui, built its first bridge across the gorge over the locks. (A railway station called Rideau, was subsequently opened a little east of the locks, but seemingly the railway had little effect on the growth of the community.)

Also, except during canal or rail construction, Kingston Mills evidently never had any stores or schools, and certainly no churches, though there is record of various tradesmen, such as barbers, butchers, nurserymen, carpenters, blacksmiths, millers, mariners and workmen - about what one would expect around an important lockstation in an

agricultural setting. The only known local industries (besides milling) were a potash works and a cheese factory; both conducted by the Byrne family on the Point Road (now Highway 15) in Pittsburgh Township during the 1870's.

During the 1890's and afterwards, more commercial development set in, but this tended to centre at the junction called Cunningham's Corners (now Code's Corner), about a mile east of the locks. Here were built a fine stone church around 1886 and a succession of taverns, run by Peter and (later) Edward Cunningham, and such other parties as John Bradden, Cornelius Canning and George Berryman. More recently, in the 20th century, as motor cars became commoner, stores were opened at the corners. Today there are three of them. Two subdivisions have also sprouted near the intersection since World War II, and two schools. Kingston Mills proper has become something of a backwater.

Also during the 1890's, if not earlier, Kingston Mills became a popular picnic place for Kingston and area residents, who usually arrived by boat or carriage. During the 1910's and 1820's, several private cottages were also built on the rocky promontory west of the locks, on leased government land. In 1948 this land was sold, and the cottages are now being crowded out by permanent brick homes. For about 30 years, too, starting around 1926, the old miller's house east of the lockstation (still extant) was used as a summer boarding-house for campers and fishermen. Today most of the tourist traffic consists of boaters using the Rideau Canal.

Additional housing developments now flank the lockstation on both sides. In 1942 a subdivision was laid out between the road and the east dyke, on former ordnance land, and since the war a ribbon of new houses has been built west of the station, along the south side of the road.



### The Hydro-Generating Station (1914 - )

The old mill site, which was leased by the Kingston Street Railway Company in 1904, went in 1908 to the Kingston Milling Company, which wanted cheap electric power for its mills in Kingston. After protracted negotiations with the government, terms for a power-station were arranged, and in 1913 the milling company transferred its lease to the Gananoque Electric Light and Water Supply Company Limited. This firm built a new dam and waste weir, plus a penstock and powerhouse, and by 1914 was generating power (then D.C.) for customers in Kingston, Gananoque and places between. The plant's capacity was doubled in 1926 as demand increased, and in 1976 a third unit was added. Three operators (today one) were needed to staff the plant, and the Company, having taken over the former miller's house east of the powerhouses, also built a second house near the falls. Both these houses still stand, and are leased to their present occupants by the Company.

### The Lockstation Buildings

Three lockstation buildings still survive at Kingston Mills, and all except the lockmaster's house appear to date from the 19th century. The lockmaster's house, the third at the site, was built in 1904 on the site of the earlier one, and apparently both were also used as the post office. Numerous other defunct sheds, workshops and lockmen's houses are on record, but little is known of most of them. Two exceptions to this rule are the Hogan house and the "Lodge", both used by canal employees until demolished around 1958 and 1972 respectively.

### The Military

Kingston Mills became important to the military authorities as early as the War of 1812, when the sawmill was used to provide lumber for warships and fortifications. In 1826-32 this link was intensified when the Rideau Canal - built for military reasons - was completed from Kingston to Bytown (Ottawa). Immediately afterwards the present Fort Henry was begun to protect the navy yards and the entrance of the canal. (The fort was intended as one out of six to prevent American troops from approaching Kingston and the river entrance, but due to costs and changing military thinking, the other five redoubts - to have occupied both sides of the Cataraqui - were never built.) With the advent of steamships on the Great Lakes - which were not prone to be cornered at the east end of Lake Ontario by contrary winds, and which could be turned into armed cruisers - an attack by water began to seem more likely, and in 1841 an advanced battery mounting extra guns was added to Fort Henry, projecting towards the lake.

Meanwhile the Rideau itself, always vulnerable to attack or sabotage, was given a few blockhouses at some of its more southerly stations, including Kingston Mills, though the complete set of blockhouses recommended by Colonel By was never built, for reasons of economy. The blockhouses were intended chiefly as arsenals and quarters for the militia, though in fact they might also be used as small forts if necessary. The Kingston Mills blockhouse, started in 1832 and completed no later than 1835, was usually used as a house for lockmen. During the Rebellion of 1837 and afterwards it was garrisoned by the militia, who also threw up roadblocks and searched the homes of suspected rebel sympathizers, such as the Baxter family of neighbouring Pittsburgh Township. This posture of defence continued until 1841. In later years the military function of the canal and works declined, though during the Oregon crisis

of 1845-48 (when the Martello towers at Kingston were built), the British military authorities again redoubled vigilance, and worked out the general strategy of withdrawing all garrisons (if necessary, in face of an armed invasion) towards the Rideau Canal, and destroying the roads behind them.

Around 1854 the situation had calmed sufficiently for most of the British regulars to be withdrawn to Crimea. About the same time the Rideau was transferred to the Canadian authorities (on the promise that it be maintained as before), and aside from renewed planning following the tensions of 1862, the military theme at Kingston Mills soon fades out. The blockhouse, meanwhile, was used until recently by some of the lockmen and their families.

#### Transportation

Transport to and from Kingston Mills during the 18th and early 19th centuries seems to have been largely by canoe, bateau and perhaps Durham boat during the warm season, and by sleigh or on foot during the winters. A road was built from Kingston to the mills in 1784, and around 1801 this road was extended to Montreal, though most of the traffic almost certainly continued to come by water. In 1826, meanwhile, a bridge was built across the mouth of the Cataraqui, from Kingston to Barriefield, and this route undoubtedly took precedence over the older road thereafter.

In 1832 Kingston Mills became an administrative centre on the newly opened Rideau Canal, and most of its commerce moved by steamboat. In 1855 the Grand Trunk Railway was built through the site, though seemingly with minimal effect - except that the railway soon captured most of the east-west shipping passing through Canada. The railway also hastened the decline of the Rideau, which in any case had to compete directly with the St. Lawrence after 1851.

Commerce on the canal through Kingston Mills declined afterwards, as new railways - and finally roads - usurped most of the traffic. Logs, booms and lumber scows, as well as coal barges, continued to use the Rideau into the 20th century, and meanwhile passenger excursion steamers began to ply during the 1870's, sometimes on a triangle from Ottawa to Kingston and Montreal and back, or on portions of this route. Excursions apparently reached their height around 1890 to 1910, only to decline with the advent of the automobile and the private motorboat; in 1920 the steamer Rideau Queen left the waterway for good. Today transport is mostly by automobiles and pleasure boats. Commercial traffic on the canal has disappeared completely, while the main highways now bypass Kingston Mills.

A Summary of the Village, its Buildings, Industries and  
General History, 1783-1977

The little hamlet of Kingston Mills, on the Rideau Canal system about five miles north-east of Kingston, Ontario has the distinction of being one of the oldest settlements in the entire province. It was one of the first places to be occupied when the United Empire Loyalists, following the British garrisons, first arrived to lay the foundations of Upper Canada, and is almost as old as the City of Kingston itself. Yet how different have been their respective histories! Kingston today is a fine old city with over 60,000 souls. Kingston Mills is a tiny, little known hamlet, not even deemed sufficiently important to have a set of highway road signs calling attention to it; though the road is now officially known as the Kingston Mills Road. The site gained prominence immediately as a milling centre as soon as the British arrived in 1783, and later it received additional incentives to growth, such as the building of the Rideau Canal (once the main route of commerce between Montreal and Kingston) in 1826-32, and a position on the Grand Trunk Railway, which was built through the site in 1855. With all these stimulants, Kingston Mills ought surely to have become a place of considerable importance. Yet seemingly, nothing of the sort happened. Though the hamlet has the best natural water-power in Frontenac County, and though its mills were the first to be erected in eastern Ontario, no village appeared there for nearly half a century. Canal construction from 1827 to 1831 suddenly created a temporary settlement, but this largely

evaporated once the canal was completed, and only a scattered handful of buildings remained. The coming of the railway, too, seems to have had little effect on the hamlet. No fewer than seven mills were erected at its falls, yet all have crumbled away and vanished almost without trace. Most - for reasons not altogether clear today - seem to have languished throughout much of their careers. At no time does Kingston Mills appear to have had over a hundred inhabitants, unless within recent times, when several score new homes have been built in its environs. Yet the recent housing developments ribboning the local roads, one feels, represent suburban growth reaching out from Kingston, rather than an expansion of Kingston Mills. Or, as some would say, a new community, once called Cunningham's Corners but now known as Code's Corner, has sprouted east of Kingston Mills, and more or less supplanted it.

Why Kingston Mills failed to develop into a really significant centre in its own right is a question that will be proved at some length in this report. However, it must be emphasized that this paper is based on rather rapid and limited research, that much remains uncertain and indefinite about the site and its history, and that further investigations might lead to considerable revisions to the conclusions presented here. Nonetheless, we proceed.

## Mills

### The First Sawmill (1783-1800)

It would appear that Kingston Mills has no history prior to the return of the British to Cataraqui in 1783. Though the French established an outpost - Fort Frontenac - where the City of Kingston now stands, in 1673, and a small settlement to accompany it, there is no record that they ever tried



harnessing the excellent water-power available at the Falls of the Cataragui River, just five or six miles north of the fort. Except for visits by Indians and coureurs-de-bois, the site remained a forested wilderness, disturbed only by the thundering cascade of the falls.

On August 27, 1758, during the Seven Years War, a British expedition commanded by Col. John Bradstreet bombarded Fort Frontenac into submission, razed it, and seized all its provisions, thus hastening the fall of New France into British hands a few years later. Now in possession of most of North America, the British made no effort to reoccupy Cataragui for another twenty-five years, preferring instead to maintain a base at Oswego, on the far side of Lake Ontario, with others at Fort Niagara and Detroit.

This situation was changed dramatically by the American Revolution and the ensuing War of Independence, which left the British still in possession of Nova Scotia, Canada and some of the posts around the Great Lakes, but minus their former thirteen colonies along the Atlantic seaboard. It also left the British authorities with the problem of thousands of Loyalist families who had remained faithful to the Union Jack during the conflict, and who, consequently, found it impossible to remain afterwards in the new United States of America. These people, forced to flee the United States, frequently leaving all their property and possessions behind them, had an overwhelming and undeniable claim on their mother country for assistance to begin a new life. Though some returned to England, and others went to the West Indies, many more had already fled to Nova Scotia, the St. Lawrence Valley, and Fort Niagara.

Inevitably the idea of relocating the refugees in what remained of British North America suggested itself, especially when it became clear that the new republic, instead of disintegrating after the war, was in fact consolidating itself into a viable nation.

It was therefore decided to relocate the Loyalists in what was then called Upper Quebec, along the St. Lawrence River west of Montreal, with the old site of Cataraqui as the focal point. On 1 July 1783, the British Governor at Quebec City, Major General Frederick Haldimand, ordered Major John Ross, commander of the garrison at Oswego, to abandon his post and move all his troops across the lake to Cataraqui, since it was already clear that Oswego was going to be on the American side of the border. In addition to establishing a post at Cataraqui, Ross was instructed to make immediate preparations to receive a large influx of Loyalists.<sup>1</sup> One urgent priority was a saw and gristmill - always prime requisites in any new pioneer society, where sawn lumber and flour would be at a premium. This was spelled out in a letter from Major Mathews, Haldimand's secretary, even before Ross left Oswego. In part the letter read:

I am directed by His Excellency the Commander in Chief to signify to you his desire that, on your arrival at Cataraqui you will look out immediately for the best situation there to build a Saw Mill and proceed without loss of time to get one up - the Iron work will be prepared here and forwarded to you as soon as possible.<sup>2</sup>

There was more than simple benevolence or practical expediency involved in these instructions: the British Government had legally bound itself to provide mills. According to the terms of the Quebec Act (passed in 1774 and not yet superceded), French seigneurial law was to remain in effect in the Colony of Quebec, which then included the Great Lakes region. According to seigneurial law, all potential mill sites were to be reserved for the seigneurs, who were obligated to provide satisfactory milling facilities for the settlers in their charge, at

prescribed rates. The settlers in turn were legally prohibited from building mills of their own or using any mills other than those provided by the seigneurs. Since there obviously were no seigneurs established in Upper Quebec - soon to be known as Upper Canada - the role of seigneur had to be assumed by the king. Thus the British Government had to provide its settlers with mills.<sup>3</sup>

Getting them erected was to pose problems, as Major Ross and the authorities were soon to discover. Ross arrived at the vacant site of Cataragui on July 30, 1783, with a detachment of 25 officers and 422 men, and bivouacked at the ruins of Fort Frontenac. The very next day he wrote to Mathews:

I have perused with attention the Instructions given to Lieutenant Tinling by Major Holland which shall be strictly adhered to and were it not for a scarcity of masons I should hope in a very short time to have the honor to inform His Excellency of everything being finished accordingly.

There is a very advantageous place for building Mills about five Miles from this Fort, but nothing more can be done than to collect and prepare materials until a Mill-Wright arrives please present the enclosed Sketch to the General.

The Iron Work & c arrived Yesterday.<sup>4</sup>

The sketch, prepared by Lieutenant Tinling, indicated chutes with a 46 foot drop at the Cataragui Falls; well suited for a saw or gristmill, despite a lack of suitable timber at the site.<sup>5</sup>

Presumably Ross began making preparations for building the King's mills, but for the moment there was little he could do. He had no millwrights to supervise the job, nor did he know precisely what General Haldimand wanted.<sup>6</sup> On

15 August Haldimand, through his secretary, sent more detailed instructions as to the type of mills to be built. Mathew's letter read as follows:

...Sorel, 15th August, 1783

I have received, and laid before His Excellency your Letter of the 31st Ultimo, with the sketch it covered, and I am directed to acquaint you, that His Excellency purposes, a Grist, and Saw Mill should be built, for which Purpose a Millwright, and as many Mason as can be collected will be sent to you as soon as possible:- His Excellency expecting every Day, the arrival of a number of Loyalists from New York, as well as those in this Province, many of whom he purposes to settle in the Neighbourhood of Cataraqui:- He is very anxious for the speedy advancement of the several Works, you are carrying on, and therefore desires you will by all opportunities acquaint him with your Progress, and any Discoveries you shall make respecting the Lands in the Vicinity of Cataraqui.

The Iron Work you have received with one Pair of Mill Stones, are intended for the Mills at Niagara, which have long been ready for their Reception. - The General therefore desires you will forward them by the first Vessel: - and Iron Work for a Saw Mill will be immediately sent up to you, and that for a Grist Mill, will follow by the Time you can be ready for it. P.S. His Excellency has ordered that two Masons from the Royal Artillery be immediately sent up to you, and should Col. Macbeam [Col. Forbes Macbeam, R.A. cmdr. at Sorel, 1783] wish them to be replaced by two others with you, the General

desires you will send them down.<sup>7</sup>

Meanwhile Major Ross, still stymied by the problem of finding a competent millwright, wrote again to Haldimand on 17 August 1783, underlining the difficulty and suggesting a possible solution to it. He noted:

There is an Officer of the Rangers at Niagara of the name of Brass of a remarkable genius (perhaps as any in America) and exceeding Good Mill-Wright, and a most usefull man in Colonisation he was sometime in Garrison at Oswego, on our first arrival there, & I was much obliged to him for his advice and assistance in many things should his Excellency think proper to encourage him I think from his universal Knowledge and good Character His Majesty's Service here would reap the greatest advantage. When I received His Excellency's directions concerning the Mills to be built here, I took the Liberty before I left Oswego to apply to Colonel Butler for a visit from Lieutenant Brass but he was so much employed that he could not then be spared. I am still in the predicament which I mentioned in my last, having no person on this Ground who understands that Business...<sup>8</sup>

Two weeks later, on 29 August, the Cataraqui commandant sent another letter to Mathews, repeating his problems but also reporting some encouraging developments. The letter stated:

I was favoured with a visit from Lt. Brass from Niagara, he has made a model of the sawmill and as His Excellency directs, the Grist Mill will be begun upon soon, but will now wait the arrival of the mill-wright.

General McLean [the acting commander at

Niagara] was so good as to send me a few Masons from Niagara which with those that are expected from Canada will greatly forward the Works here...

The Millstones and Iron work coming here without any directions, I Concluded they were intended for this place Lt. Brass now takes them with him for Niagara he says Bolting Cloth [for sifting flour] was also expected and wanted there.<sup>9</sup>

On 10 September, meanwhile, Haldimand directed his secretary to acknowledge Ross's letter of 17 August. He expressed satisfaction that work on the post was progressing well, and further advised:

His Excellency's letter to you by this opportunity will acquaint You that there are Persons who Will Accompany Mr. Collins that are perfectly acquainted with the Construction of Mills and the Distribution of Settlements. This Circumstance will obviate the difficulties you experience in that Respect, but His Excellency has nevertheless directed that Mr. Brass of the Rangers be sent to you if he can be spared from the Mills at Niagara, and that you find it necessary to apply for Him...<sup>10</sup>

Apparently the artisans and the mill equipment arrived too late in the season to see the work completed that year. On 3 November, Ross ruefully reported to Governor Haldimand: ...I was in hopes the Saw Mills would have been finish'd this fall, which the badness of the Weather has in some measure prevented. Lieut. Brass not being particularly wanted after the arrival of the men sent by Lieut. Twiss. I have not taken the liberty to write for him,



especially as there are so many people employ'd here at present.<sup>11</sup>

On 13 November 1783, Haldimand sent one more letter to Ross, expressing his hopes that a wharf could soon be built at Cataraqui, and adding: "If in the course of the Winter anything can be done in preparing the necessary timber for Grist and Saw Mills in the most convenient parts upon the intended Settlement, it would be forwarding the General plan".<sup>12</sup>

Though progress on the mills had been disappointingly slow that year, the foundations of the settlement had been securely laid. A military base was established, a township partly surveyed, and by October a series of treaties worked out with the Mississaugas, purchasing the lands west of the Cataraqui River.<sup>13</sup> Also a start had been made on the mills.

Major Ross, who appreciated Haldimand's concern about completing the mills, sent the Governor a dispatch in mid-February 1784, as soon as it became possible to resume communications.

The winter has been uncommonly severe and the frequent falls of Snow have in some measure retarded our operation, but as the weather now moderates and the days grow longer Work will go on rapidly, amongst other things, one Saw mill and preparations for another will be accomplished before the Settlers can arrive; a Grist mill is also ready to be put up as soon as the Weather will permit which together with the Saw mill on the same stream will go on in the Severest Season.<sup>14</sup>

Apparently the sawmill at least was largely completed by May, since Haldimand instructed the 34th regiment at Montreal to proceed to Cataraqui on 24 May, taking with it the iron work for the sawmill.<sup>15</sup> On 20 May, obviously

pleased with the progress made Haldimand sent a letter to Sir John Johnson, who had just been appointed leader of the Loyalist expedition to Upper Quebec, drawing attention to the feat. Haldimand's letter went as follows:

Mr. Collins has built a Saw Mill near to Cataraqui, I have taken it for the use of the King, & would have it immediately prepared for Work for the Public good of the Loyalists who will have the Planks & Boards necessary for their Houses gratis, this is one of the first things to be attended to and will prove a very advantageous circumstance.<sup>16</sup>

These hints were not lost on Sir John, who was instrumental in having another mill built at Gananoque a few years later.

Why had it taken so long to erect the sawmill at Cataraqui Falls? Some additional problems were touched upon by Ross in another report sent to Haldimand on 14 June 1784. Ross expressed his regrets that so little work had been done. One problem, he explained, was the fact that his men were expecting to be discharged soon, and consequently were unwilling to exert themselves very much. Respecting the newly finished sawmill, Ross made the following comments:

The Saw Mill is a very good one, but an expensive job, and taken much longer time building than what Mr. Brass of the Rangers told me was necessary. I believe the man employed on the occasion to be a very good artificer himself, but perhaps has not that influence or command over the workmen as Mr. Brass is said to have, he says he only agreed with Captain Twiss to build one Saw mill & one Grist Mill, wherefore I have sent for Mr. Brass (agreeable to your Excellency's directions in a former letter) and if he comes his Expeditions method in building

mills will I hope not only be a great saving to Government, but very beneficial to the new settlement.

I should be glad to have the Honor to know your Excellency's pleasure concerning the Regulations of the Saw mills, and what privileges the settlers are to derive from them.<sup>17</sup>

To the latter question, Major Mathews replied on 24 June 1784 that it was the Governor's wish that the sawmill should be operated for the accommodation of the Loyalists at Ross' discretion, without favour or affection in the use of the Crown. Haldimand also approved sending for Lieutenant Brass to assist with the gristmill.<sup>18</sup>

Even when completed and in operation, the Cataraqui sawmill remained trouble-prone. The main body of Loyalist refugees left Sorel on 24 May, and were still arriving at Cataraqui as late as 5 July. By that time 187 settlers had taken up land in "Township No. 1" around Cataraqui - later to be called Kingston Township - while hundreds more were moving into the Bay of Quinte region. By October, 220 settlers had cleared 86 acres around Cataraqui,<sup>19</sup> while land allocations were being made as far inland as the third and fourth concessions, not far distant from the King's mills.<sup>20</sup>

With such a vast influx of people pouring in, creating a great demand for sawn lumber, we can only assume that the Cataraqui sawmill was very busy indeed. Yet in no time at all the new mill revealed another serious drawback: its location, which was five miles inland from Lake Ontario - just far enough to be a nuisance to the settlers. Though a "road" of sorts had been chopped through the bush from Cataraqui proper to the mill site, the much preferred means of moving timber to and from the mill was by way of the Cataraqui River. While it was perfectly possible to reach the mill by water, moving out the lumber was not as easy as

it seemed. Major Ross, in another letter to Mathews (dated 2 September 1784), explained the difficulty clearly:

In your letter of the 24 of June you specified that His Excellency did me the Honor to require my Judgement hereafter of the Utility of the Saw Mills. I did not intend to make bold to offer my sentiments as early as this nor indeed am I properly prepared from the Confused state of the Settlement, as Yet. However, foreseeing from the Situation of the Mill already built, that it is likely to be unemployed by the Settlers particularly when the Other now in hand (which is much more advantageously placed) is finished.\* I thought it my duty to make inquiry into the advantages which Government might reap from it in Case the Settlers declined Supplying it with logs for their own purposes, and I therefore take the Liberty to enclose proposals (from a man of reputed responsibility) in behalf of Government.

Such is the Nature of the Winds in this place that they blow almost Constantly from the Lake the Settlers therefore have found great difficulty in transporting the Boards from the Mill and on account of Head Winds may have Cost them more before they got them to their respective Townships than if they had bought them on the ground. Taking the Weather for a Constancy together with the aid of the Stream, it is easier to transport from hence to the Settlement

\* At Millhaven on the Bay of Quinte.

Oposite Oswegatchie, even lower, than to the Bay of Quinty, wherefore the mill in Question will answer the purpose of Supplying the Settlement downwards and also all Settlers about this place, for which I hope it will turn out to Considerable Advantage.

I have not been able as yet to make an exact Computation of the Expencees of Bringing logs to the mill, therefore cannot well ascertain the profit: the mill is supposed to Cut 300 feet in 24 hours, which (scarce as the money is here), may be sold for £1-10 Shillings pr Thousand: but I can only guess at it - in Winter it will be an easy matter to Supply the Mills with Logs and to lay in a quantity when the Snow falls, at present it takes two teams of Horses. Should the Boards sell as I expect and the Labourers and drivers (b) taken from the Troops, I have presumed to venture the whole Calculation in my own mind not to exceed 17 shillings pr. 1000 feet, please to Honor me with His Excellency's answer on this subject -

P.S. Spare saws are much Wanted for the Mill.<sup>21</sup>

Comparatively little additional information has come to light thus far on the original Cataragui sawmill - which we may call the Kingston mills after 1787, when "Township No. 1" was officially renamed "Kingstown" or Kingston Township, in the District of Mecklenburg. An inspection report, dated 27 July, 1792 (to which we shall be alluding later), noted that the old sawmill had been rendered useless at that time, because the surplus waters had forced a passage through the dam the previous winter.<sup>22</sup> Repairs were carried out by the end of the year, and it would appear that the

sawmill remained in use at least until 1794, if not 1800. We do not hear of it after that time, and by 1807 plans were being laid to build a new mill at Kingston Mills.<sup>23</sup> In short, it would appear that the King's sawmill at the Cataragui Falls was not a great success, despite the fact that, at least until 1791, it was operating for the benefit of the Loyalist settlers, free of charge - or nearly so.

Why were the results so disappointing? Some of the probable reasons have already been suggested: an awkward location, making it an arduous task (in the days before steam-powered tugs) to tow lumber to the new settlements west of Kingston against a prevailing westerly head wind, plus the appearance of new mills more conveniently located. As early as 1784 a second sawmill had been built "at the middle of the Bay of Quinte" (Millhaven), to get around the above difficulty.<sup>24</sup> Between 1788 and 1792, additional mills were erected on the Gananoque and Moira Rivers, and perhaps at Collins Bay; later still, another was built at Portsmouth.<sup>25</sup> Inevitably these new sawmills reduced public dependence on the Cataragui mill. Yet there was probably another factor at work as well. Government owned mills were plagued with "red tape" and generally gained a reputation for being inefficiently run. Spare parts, for example, seemed to take forever to arrive, and sometimes for lack of them a mill might have to be shut down. It was true that after the Constitutional Act of 1791 - amongst other things - abolished the seigneurial monopoly enjoyed by the government mills, efforts were made to lease the mills to private entrepreneurs, but as we shall soon see, the leases were usually of short duration, which may have discouraged the necessary initiative and capital investment needed to keep the mills running smoothly. The new act undoubtedly decreased activity at the Cataragui mill by unleashing a flood of extra competition from new private mills.

Perhaps it should not surprise us to find David Brass commenting in 1807 that "the Kings Mills in the vicinity of the Town of Kingston have been for several years wholly unproductive to Government, and of little service to the Public."<sup>26</sup>

#### The First Gristmill (1784-1805)

The history of the first gristmill at Kingston Mills is closely interwoven with that of the sawmill: indeed, it is even conceivable that both mills were housed within the same building. The gristmill, like the sawmill, was completed in 1784, amid serious difficulties. It too had a short, problem-ridden existence, and met with a depressing end. Let us see for ourselves.

We have noted already that a gristmill was one of General Haldimand's immediate priorities, in that he ordered Major Ross to build one near Cataraqui as soon as possible in 1783. Ross was in no position to do so at the time, in that he lacked a millwright to supervise the job - to say nothing of a run of millstones and other components for a mill. Repeatedly he wrote to the governor, pointing out these difficulties and trying to arrange the services of Lieutenant David Brass of the Butler's Rangers, who was known to be a skillful millwright, but at that time Brass was fully engaged in building mills at Niagara - the first in Upper Canada. The most he could do for Ross was call at Cataraqui in August of that year, discuss the problem, and build a model of the proposed mill.<sup>27</sup> Meanwhile Haldimand arranged to send a number of artisans to Cataraqui in the fall of 1783, in company with John Collins, the surveyor (whose name came to be applied to Collins Bay) to attend to the gristmill.<sup>28</sup>

The gristmill was not started until the following year,



apparently due to the onset of winter; however in his progress report to Haldimand, dated 14 June 1784, Ross was able to announce that the gristmill at Cataraqi Falls was "now in hand and somewhat advanced".<sup>29</sup> (The sawmill was then complete.) While Collins is said to have built the sawmill, the man who actually directed the building of the gristmill (and probably the other as well) was Robert Clark, from Dutchess County, New York, a Sergeant Major in Jessup's Rangers who had served under General Burgoyne during the Revolutionary War. A carpenter and millwright by trade, Clark afterwards settled in Ernestown Township, west of Kingston, and in 1785 was also employed to build the gristmills at Napanee.<sup>30</sup> Major Ross, while conceding that Clark was a good artificer, nonetheless felt that Brass could have done a faster and less expensive job.<sup>31</sup>

At what date the gristmill became operational is uncertain; however, tradition has preserved a few details about it. In 1869 Clark's son, John C. Clark of Ernestown, was to recall that the gristmill was built of logs or roughly squared timbers, and that a number of soldier-settlers actually erected the building. Like the sawmill, it was operated free of charge.<sup>32</sup> Another tradition, preserved by A. M. Going in 1932, claims that the original gristmill stood on the west side of the falls, where the hydro-electric generating station is today,<sup>33</sup> but there seems to be no contemporary evidence to substantiate this claim. Going also alleges that a flume was blasted through the granite, using gunpowder, and that pieces of the broken rock were used for the foundations of the mill<sup>34</sup> - all of which is entirely possible, though once again, proof is lacking.

Were the original grist and sawmills on the Cataraqi housed within the same building? A few contemporary sources seem to imply that. For example, an inventory list of



government mills in Upper Canada, dated 1799, itemizes "one mill at Kingston for grinding corn & sawing plank",<sup>35</sup> but such a description seems to be the exception rather than the rule. Running two installations from the same shaft, while possible, would have involved considerable difficulty, especially in the 18th century, with the added likelihood of sawdust finding its way into the flour. There was ample space and power for two separate mills at Kingston Mills, and most sources speak of the two mills as if they were separate entities: for example, the gristmill is said to have burned around 1805, but not the sawmill.<sup>36</sup> Most of the evidence seems to suggest two distinct mills.

As might be expected, the Cataragui gristmill was very busy after the Loyalists arrived, at least for a while, since for about three years there was no other place in Upper Canada (aside from Niagara) where grain could be ground - and besides, there was no charge. Until other mills were opened, the Kingston mills had to serve the entire district from Elizabethtown (Brockville) to the Bay of Quinte: even settlers as far away as Cobourg are said to have trekked all the way to Cataragui to have their grist floured.<sup>37</sup> The preferred means of travel was by canoe, bateau or raft; or on foot in winter, either using a hand-sleigh or one's back to carry grain and flour. As an example, an "old and respected officer" described for the Reverend William Bell how

one of his men had been constantly employed for some days, with a hand-mill, grinding wheat for the use of the rest, when he (the old officer) resolved to attempt provinding flour at a less expensive rate. He dispatched his negro servant to Kingston mill with a horse and sleigh, and a small load of wheat. Five or six others went at the same time. No road being then opened, they

had to cut their way through the woods in the best manner they could. But there was a little snow on the ground, and the rivers were frozen over. After about a fortnight's absence the men returned, having effected their object, but without much benefit: for they and the horses, during their absence, had consumed the greater part of their loads. None of the settlers here are so far from a mill, yet some of them are from ten to twenty miles; and, till the roads were opened, they had to carry the grain all that distance on their backs.<sup>38</sup>

Gradually, other mills began to take on portions of the work. In 1785 Robert Clark built a second gristmill at Appanea Falls (Napanee), though this mill apparently was not operational until 1787.<sup>39</sup> In 1788 a third mill was built in Matilda Township, Dundas County, near the modern village of Iroquois.<sup>40</sup> Others followed in such regions as Fredericksburg, Ernestown and Marysburg Townships; not to mention several more in the Niagara region.<sup>41</sup> Despite the fact that most of these mills charged tolls - as at Napanee, for example - most of the settlers preferred to go to the mills nearest them, rather than trek to the rather isolated mills on the Cataragui.

All the same, the Cataragui mills either made profits in some form or other, or looked as if they could. The Church of England, for instance, wondered if the mills could be used to finance building a church at Kingston. On 5 January, 1790, the Reverend John Stuart of Kingston wrote to his sponsors (the Society for the Propagation of the Gospel), saying:

They are endeavouring to raise a fund for building a Church. A Memorial is ready to be sent to Lord Dorchester [who had voiced encouragement the

previous year] for a grant from Government of certain Mills near Kingston. In which if they succeed, and are not disappointed by their Bishop in procuring 100 Sterling from England, he thinks they shall be able to accomplish their design.<sup>42</sup>

The scheme, however, came to nothing, as the Government showed little sympathy for it.<sup>43</sup>

Meanwhile there was already some controversy as to how the Kingston mills should best be administered. In a letter to Haldimand, dated 2 September 1784, Major Ross proposed that the Cataragui mill be leased to Joseph Allen, a local merchant, and used primarily to supply the settlements downstream on the St. Lawrence,<sup>44</sup> but this suggestion was not adopted. In 1791 the problem came to a head when the Constitutional Act was passed, largely at the insistence of Loyalist settlers who did not care much for French civil and seigneurial law. Amongst other things this Act divided the old province of Quebec (as defined by the Quebec Act) into the two new provinces of Upper and Lower Canada, delineated the forms of government for each, and established freehold land tenure and British civil law in the province of Upper Canada.

This legislation, of course, did away with the monopolistic seigneurial privileges hitherto enjoyed by the government mills, and exposed them to the competition of privately owned mills. The problem was now quite simple: what should be done with the government mills? Should they be leased, or sold by auction to the highest bidder? In practice both policies were adopted, depending on the circumstances of each case.

At the time the matter was being argued, the Receiver-General of Upper Canada, Peter Russell, paid a visit to the Kingston mills and looked them over. His report to the new

Lieutenant Governor, John Graves Simcoe, on 27 July 1792, is most informative. Russell wrote:

I went up today to the Mill with Mr. [James] Russell the Master Carpenter - and from the Information of the Miller and my own observations I found the Houses & Works of the Saw & Grist Mills in tolerable repair - However from the Waste Water having forced for itself too large a passage last Winter, the Saw Mill is idle for the present & the Grist Mill is not always certain of a sufficient Supply - Mr. Russell having minuted the measurement of a Damn [sic] weirs & the deficiency in each Mill - together with the requisite Repairs of Dwelling house & c - will give me his Report & Estimate of the Expense which I shall not fail to transmit to you at the first opportunity. But for your present Information I beg leave to mention that the Damage done by the overflowing of the Waste Water may in my opinion be best repaired by running a Dam of 60 yards from Rock to Rock - the depth being ten feet - & making in this dam a flood Gate to convey the water to both Mills - & another Gate to let off waste water when necessary - The Saw Mill wants Saw Gates & some other trifling Repairs - The Grist Mill new Cogs, Rounds & handle Heads - & the whole iron work of both will require to be overhauled & put to rights - This (but I speak at Random before the Carpenter furnishes me with an Estimate) may cost £100 - But this is not all - for the House the Miller lives in is scarcely habitable I would therefore humbly advise that it may be converted into a Stable for the accommodation of the Sleigh Horses which bring

Corn thither in the Winter - & that another comfortable Millers House may be built in its Room - which together may possible cost £100 more - After these Repairs are done I should hope that the premises may be let for £100 per Ann - The Situation is certainly excellent the flow of water amply for the purpose & the Miller reports that the Grist Mill will grind 70 barrells in the 24 Hours, & the Saw Mill Saw with the assistance of one Hand 1300 feet in the Course of a Day - I consequently think myself founded in the opinion I give of its value - But as Government is seldom dealt justly by, either in her leases, or her Repairs, I would humbly Submit whether a Sale by Auction of the premises with an adequate proportion of land may not be more productive than risking a thorough repair & afterwards letting them for what they may bring.<sup>45</sup>

That the mills were repaired in 1792 is confirmed by an item in the list of Public Acts of that year, but the man who arranged to have it done was Richard Cartwright of Kingston, who was already emerging as one of Canada's foremost forwarders, shippers and wholesale merchants. As the record succinctly says,

Dec. 8, 1792: By cash paid to Mr. James Russell, Master Carpenter in the Engineer Department at Kingston, by his Excellency the Lieut. Governor's Warrant of this date, his Bill in favor of R. Cartwright for the repairs of His Majesty's Mills on Cataraqui...<sup>46</sup>

Cartwright's interest in the Cataraqui mills came just about the time that the Loyalist settlements around Kingston were getting firmly established with a few surpluses to export. Entrepreneurs like Cartwright were stepping into

the role of middlemen between the merchants of Montreal and the local farmers and fur traders; importing provisions and manufactured goods and exporting furs, potash, flour and wheat.<sup>47</sup> Hence it was natural for Kingston merchants to try to lease or purchase the local mills, since by so doing they could control the colony's chief export commodity (wheat) just as soon as it left the farm.

It appears that Richard Cartwright managed to secure a lease on the Kingston mills by 1792, if not earlier, since he is said to have been holding them when Governor Simcoe arrived in 1791. Little is known of Cartwright's tenure, which in any case was brief. In 1792, for some reason, he had to surrender the mills to the Crown;<sup>48</sup> however, the following year he made up for that by acquiring the flour mill at Napanee, which apparently was quite prosperous.<sup>49</sup>

For the Kingston Mills, alas, things seemed only to go from bad to worse. The official record reports that the mills were leased to Joseph Allen and Joseph Forsyth (both Kingston merchants) on 11 July 1793;<sup>50</sup> yet we also find a whole succession of other tenants paying the rents during the same years. Thus a Mr. Bell paid a rent of £64.0.0. on the mills for 1792-93, and a Mr. W. Allen £66.0.0. for 1793-94.<sup>51</sup> (Perhaps these men were subletting the property from Forsyth and Allen). The rents were usually paid in flour rather than cash, as per an order amongst Simcoe's correspondence, dated 26 July 1794, stating: "I desire you to receive from Mr. Allan, Tenant of the King's Mill at Kingston a sufficient quantity of flour equivalent to his yearly rent amounting to 60 pounds."<sup>52</sup>

The brevity of the leases may have discouraged the lessees from carrying out more than minimal repairs and maintenance on the plant. In any event, the gristmill, like the sawmill, seems to have acquired a reputation of being poorly run and looked after, especially now that there were

other mills available. Besides, the operations appeared accident-prone. On 27 April 1794, Cartwright noted in one of his letters that the dam at the Kingston mills had just been swept away by a spring freshet, resulting in a severe set back to the production of flour around Kingston.<sup>53</sup>

(Cartwright must have been thankful that he had given up the lease!) Presumably the dam was repaired promptly, since the plant was too badly needed to be left idle. Yet by 1796 the mill was said to be again in need of repairs,<sup>54</sup> and farmers were complaining that there were few good mills in the area. Noting the unsatisfactory situation John McGill, Commissary for the King's stores, advised Simcoe to grant longer leases on the mills or sell them outright to some enterprising person who would build a good mill.<sup>55</sup>

In 1797 the old gristmill was given one last lease on life when Joseph Allen himself took it over and tried to make it pay. Despite all his efforts, however, Allen was unable even to meet the yearly rents. An inventory of public property, listing the various government mills in 1800, summarizes the situation at the Kingston mills as follows:

One mill at Kingston for grinding corn & sawing plank, built by gov't and found by Simcoe in the possession of Mr. Cartwright who surrendered it to the crown; it was then let on lease by the receiver general & the rent regularly credited to Gov't, the present lessee Mr. Joseph Allen at £88 per annum, his lease will expire on the 10th of July this year, 1800, at which point he will be 3 years in arrears. The Sollicitor Gen. has instructed an action against him & his security for the Amt. of his debt.<sup>56</sup>

This foreclosure is practically the last extant record of the first saw and gristmills ever built in what is now



eastern Ontario. So far as is known, the original Kingston mills were never used again. Seven years later, a petition addressed to the Executive Council of Upper Canada noted that "the Kings Mills in the vicinity of the Town of Kingston have been for several years....of little service to the Public", and that "the Grist Mill having been destroyed by Fire about two years ago [1805?] the place has been altogether abandoned".<sup>57</sup> On this inglorious note ends the first phase of the history of Kingston Mills, Ontario.

#### The Second Gristmill (1807-1830)

The vacant mill site at Cataragui Falls had too much potential to remain desolate, however. The latent value of the property was no doubt increased when Asa Danforth extended the road from Kingston to the mills on to Montreal around 1801.<sup>58</sup> Sometime afterwards, a bridge must have been built across the Cataragui. This development must have resulted in a certain flow of pedestrian and vehicular traffic past the mill site, though we must not overestimate the importance of this; journeys in pioneer times were seldom undertaken except when strictly necessary, and then - whenever possible - by boat. Nonetheless, the Montreal Road must at least have helped make the mill site accessible to settlers in Pittsburgh Township and other regions east of Kingston. Perhaps this in turn triggered a demand that the mills be rebuilt.

In 1807 the Executive Council of Upper Canada received a number of petitions from individuals interested in leasing the property and restoring the Kingston mills. One of these, dated 26 February 1807, came from Amos Ansley of Kingston Township. Ansley asked for a perpetual lease at a rent of £36 per annum, and proposed in return to build a new saw and gristmill with two runs of stones, using the materials on



hand and supplying the rest for the sum of six hundred pounds Halifax Currency. The petition was rejected.<sup>59</sup> The same year three gentlemen from Ernestown Township, Isaac, Jacob and Daniel Fraser by name, petitioned for a twenty-one year lease (to commence on 17 November 1809) at rents of £30 per annum, in return for which they were prepared to erect a new gristmill with two runs of stones and a sawmill; all within a period of two years. This appeal too was denied.<sup>60</sup>

As it happened, the successful petitioner proved to be none other than David Brass, the former lieutenant with Butler's Rangers who had built the mills at Niagara, and whose services Major Ross had tried to obtain in putting up the original Cataragui mills. Since that time Brass had settled at Kingston, where he became roadmaster in charge of the road to the mills.<sup>61</sup> His petition to the government, dated 11 November 1807, read as follows:

Stating - That the Kings Mills in the vicinity of the Town of Kingston have been for several years wholly unproductive to Government, and of little service to the Public. - That the Grist Mill having been destroyed by Fire about two years ago the place has been altogether abandoned. That it would tend to encourage the further settlements of the Townships of Pittsburgh and the remote parts of the Township of Kingston, as well as conduce to the comfort of the inhabitants already settled there, if the Grist Mill was rebuilt, which he will undertake to do in the space of Eighteen months from this time on the following terms, namely That he shall put up a substantial Frame Building of Thirty by Forty feet, Two Stories high, upon a Stone foundation, with the necessary appendages for grinding and Boulting. That from the time the said Building

shall be completed, he shall be allowed to occupy the same, and the Lands and Appurtenances for Twenty one Years at the rate of Fifteen Pounds per Annum, with permission to erect a Saw Mill, and to have the use and benefit of the same for the said period. Provided any materials of the old Saw Mill and Grist Mill are delivered to him.

And at the expiration of the said Term he shall deliver up the Premises in a proper state of repair regard being had to the decay that time must necessarily occasion.<sup>62</sup>

Perhaps the Council felt that David Brass was the most deserving of all the petitioners. Whatever the reason, on 17 November 1807, it recommended:

that the Petitioner obtain a Lease, for the term of Twenty One Years, of the Mill Seat, with the Lands appurtenant thereto, within mentioned, at the annual Rent of Fifteen Pounds, Provincial Currency to commence Eighteen months from the date hereof, Upon condition that the Petitioner shall fulfill the Terms mentioned in the within Petition respecting the said Mill Seat, and of his giving sufficient Security to be approved of by the Executive Council, for the performance of the same.

Recommended also, that he shall be permitted to erect a Saw Mill, and to receive the Materials which may remain of the former mills. And that the rent above mentioned shall be paid half yearly into the hands of the Receiver General.<sup>63</sup>

It would appear that David Brass was as good as his promise, and that he had erected a new gristmill and sawmill on the Cataraqui no later than the spring of 1809,<sup>64</sup>

probably with the help of his son Peter. The two mills were separate structures occupying different sites, and since the new sawmill is known to have stood on the east side of the falls, it may be conjectured that the gristmill was built on the opposite side, around where the modern powerhouse stands. This, traditionally, was the site of the original mill. Presumably one or two houses were also erected for the miller and his assistants.

David Brass did not actually run the new mills himself. A schedule of Lessees of Mills shows that, as of 17 May 1809, George Hamilton and Joseph Wise were appointed to act on behalf of Mr. Brass in accordance with his original lease.<sup>65</sup> This same schedule also states that the period for which the mills are to be leased

is Twenty One years to commence on the expiration of the present lease which will be the 16th of May 1830 with liberty to renew said leases at the expiration of every seven years increasing the rent 1/3 each period of seven years not to exceed £100 per annum so long as he faithfully fulfills the conditions upon which the original lease was made to David Brass at and for the sum of £15 per annum, but increased to £20 per annum at the commencement of Mr. Hamilton's occupation thereof being the sixteenth of May 1816.<sup>66</sup>

Thus it would appear that by 1816 George Hamilton, who also owned the Hawkesbury Mills, had become the sole lessee of the Kingston gristmill. (The sawmill presently went to William Hamilton of Kingston,<sup>67</sup> while the Brass family seems to have moved away around the time of the War of 1812 - perhaps indeed because of it.)

Unfortunately, little information is available on the operations of the Kingston mills during this period. The early Kingston newspapers seldom make any reference to them

- which seems rather ominous - and the official record tells us only that George Hamilton continued to pay the rents as late as the 1820's. Mr. D. S. C. MacKay, in his short essay "Kingston Mills 1783-1830," summarizes a number of developments which probably had considerable impact on activities at the mills, and the best we can do is paraphrase them here.

First of all, the Kingston mills passed through the War of 1812 unscathed, protected behind the warships and fortifications guarding Kingston and the mouth of the Cataraqui River. Kingston was busy and indeed prosperous during the War, and no doubt the local mills were extremely hard pressed to meet the rising demands for flour and ship timbers required by the garrisons and shipyards.

Probably the mills remained busy for some years after the war ended in 1815. Harvests were poor and credit easy in 1815 and 1816, thus ensuring ready cash and high prices for flour.<sup>68</sup> However, in 1818 and 1819 the wheat market collapsed, credit tightened up, and the economy of Upper Canada plunged into a depression.<sup>69</sup>

Things improved during the 1820's when thousands of immigrants from the British Isles began pouring into Upper Canada, and the Canada Trade Act was passed in 1822, placing a tariff on imported American wheat and flour. The British market for Canadian wheat and flour revived around this time.<sup>70</sup>

Yet we cannot be certain that the gristmill at Kingston Mills (as the site was now commonly known) was prospering all this time. Much of the land adjacent to the mill site is not well suited to farming, and as late as the 1830's the place was still largely surrounded by bush.<sup>71</sup> Furthermore, pictorial and cartographical evidence suggests that the gristmill had already disappeared as early as 1827, though there was still a sawmill at the site then. None of the pictures drawn or painted at Kingston Mills during and after

construction of the Rideau Canal (1826-32) show a gristmill, and neither do any maps drawn at the time.<sup>72</sup>

Whether the mill was still operating or not, George Hamilton continued to hold the lease on the property. However, radical changes at the site were already in the offing. As early as 1815, the British authorities in Canada, worried about the possibility of renewed war with the United States and noting the vulnerability of the St. Lawrence River route to severance by American guns, ordered a feasibility study for developing an alternate navigable waterway from the Ottawa River to Lake Ontario.<sup>73</sup> The preferred route was by way of the Rideau and Cataraqui Rivers, coming out at Kingston.

In 1824 a surveyor named Samuel Clowes completed a detailed study of the proposed canal system.<sup>74</sup> Bowing apparently to the influence of the Duke of Wellington, who was strongly concerned about colonial defence, the British Government decided that the Rideau Waterway was indeed a military necessity, and began negotiating with the Canadian authorities - who were quite in favour of a canal, provided that Canada was not obliged to help pay for it! The Canadian government was prepared, however, to co-operate by helping to purchase the necessary lands, and once it became apparent that the British were serious about building the canal, feelers were extended to George Hamilton in 1825 to see if he would be willing to surrender his lease at Kingston Mills, before the expiry date.<sup>75</sup>

On 11 July 1825, Hamilton wrote to the Lieutenant-Governor's secretary, Major Hillier, that he was prepared to surrender his lease, provided that he could have in exchange a tract of wild land in Lower Canada; the exact size of which would be determined at a later date.<sup>76</sup> The Government in turn accepted these conditions and informed him so.<sup>77</sup> On 15 March 1825, Hamilton forwarded the lease to the government,

along with a covering letter:

...understanding that Government are desirous of repossessing themselves of this property for public purposes, I have to express my readiness to surrender on the terms of their being valued with the improvements and reimbursements made me for them in such manner as may be satisfactory to Government.<sup>78</sup>

In a Minute in Council dated 3 May 1826, the Government recommended accepting the surrender of Hamilton's lease on the terms set forth in his letter.<sup>79</sup> So informed, Hamilton wrote to Hillier on 3 June 1826, expressing his pleasure about the surrender of the lease.<sup>80</sup>

Hitherto everything had proceeded without a hitch. Then matters were abruptly complicated when the Navy Department also became interested in Kingston Mills - no doubt for its sawmill, which had obvious value for a nearby naval shipyard in the days of wooden ships. In a letter dated 29 August 1827, the department authorized Commodore Robert Barrie, the officer in charge of the naval depot opposite Kingston, to acquire Kingston Mills.<sup>81</sup>

Barrie, who was aware of the government's negotiations with Hamilton on the subject of the lease, wrote to the Lieutenant-Governor, Sir John Colborne, on 23 October 1827 to find out "whether the property still remains with Mr. Hamilton or is at Your Excellency's disposal?"<sup>82</sup>

Colborne's answer is not known. However, he probably informed Barrie that Hamilton had surrendered the lease to the government, but had not yet been paid for it. The delay was undoubtedly caused by the difficulty in deciding how much wild land Hamilton was entitled to. Probably Colborne allowed Barrie the option of dealing either directly with Hamilton or through the government offices already involved with the affair. Barrie apparently exercised both options

in an effort to settle the matter quickly.<sup>83</sup>

The matter was in fact settled anything but quickly. Hamilton received an offer from the Navy Department, but not to his liking. Finally, on 12 August 1828, highly irritated, Hamilton wrote Hillier, declaring that "a payment as proposed by the Admiralty would make the arrangement a very protracted one, under the circumstances I should propose that we forthwith appoint the experts to value the lease and improvements, making upon cash as the medium..."<sup>84</sup> On 7 September 1828, Hillier replied that he would officially pass this information on to Commodore Barrie, including the new proposal to accept a cash settlement instead of land.<sup>85</sup>

Barrie relayed Hamilton's new terms to his superiors in the Navy Department. They in turn instructed him to purchase the lease on the reserve, providing the asking price was not too high.<sup>86</sup> On 7 October 1829, Barrie wrote to Colborne explaining all this and asking whether Hamilton had yet specified a price? If not, Barrie preferred that the amount should be settled by arbitration. One point of special concern to Barrie was the expense of making repairs, because "the mill dam has been cut away and other damage done to the property by the canal contractors."<sup>87</sup> Meanwhile, on 20 November 1829 Barrie also wrote to Hamilton, informing him of the Navy Department's decision and requesting Hamilton to let him know the purchase price as soon as possible.<sup>88</sup>

Hamilton apparently soon came to terms with Barrie, since on 5 January 1830 we find him writing to the Provincial Government "praying to be reinstated in [his] lease of the Kingston reserve the Provincial Government not finding it convenient to comply with the conditions upon which they were surrendered."<sup>89</sup>

After a number of further delays, the lease was returned to Hamilton's agent, Richard P. Hotham, on 22 February 1830.<sup>90</sup> Hamilton then instructed Hotham to



investigate the present condition of the mill site. On 13 March 1830, Hotham sent a report to Hamilton in Hawkesbury, roughly estimating the value of the buildings on the mill-reserve and indicating the amount of damage done. This information was indispensable to Hamilton, since the cost of repairs was to be deducted from the purchase price. "The mills are at present useful", noted Hotham, "but very little water is being allowed to pass by the small sluice at the east end of the new dam."<sup>91</sup>

Armed at last with Hotham's report and the lease of the mill-reserve, Hamilton could finally transfer the lease to the Navy Department. Once the transactions were all signed, sealed and delivered (as of 23 October 1830),<sup>92</sup> Barrie could write to the Provincial Government, asking that the rents stipulated in the lease be cancelled. Barrie's appeal was read in Council on 2 December 1830, and the Council in turn agreed to cancel the rents because "these premises are held by His Majesty for the exclusive occupation and benefit of the Naval Service."<sup>93</sup> After five years of wrangling, the matter had been settled. George Hamilton received the handsome sum of £3,000 for all his trouble.<sup>94</sup> Kingston Mills was now on the verge of entering a whole new phase in its history, both as a major lockstation on the Rideau Waterway, and as an adjunct to the Kingston naval yards. But gristmilling effectively vanished at the site for the next thirty-five years.

#### The Second and Third Sawmills (1809-1842?)

Of the two milling operations attempted at Kingston Mills in pioneer times, sawmilling seems to have been more successful than gristing, although regrettably little information is available about it.

As we have observed, the lease granted to David Brass



in 1807 contained the option of rebuilding the sawmill as well as the gristmill. Brass appears to have done both. The new sawmill was probably beside the Cataragui Falls on the east bank; certainly a later mill was located there at the time the Rideau Canal was started.<sup>95</sup>

Presumably the sawmill was included when Brass sublet the property to Joseph Wise and George Hamilton. That it was a going concern in 1811 is proved by the following advertisement, which appeared in the Kingston Gazette from 22 January until 9 April of that year:

For Sale, at the Kingston Mills,  
Boards and Plank of  
all descriptions, at the usual prices.  
N.B. No credit will be given, but  
Produce of every kind taken in payment,  
at a fair valuation.

Jan. 22 (129)<sup>96</sup>

During the next few years, when the colony was at war, the sawmill was no doubt exceedingly busy, turning out planks and timbers for the warships being rushed to completion to protect Kingston and maintain British naval ascendancy on Lake Ontario. On 14 December 1814, for example, we find the following advertisement printed in the Gazette, underlining the interconnection between the two:

#### NOTICE

WANTED, a great quantity of PLANK, to be brought from Mr. Cumming and Kingston Mills, to the Naval Yard, during the Winter. Tenders will be received at the Naval Store Keeper's Office, on the 26th instant, which must specify the rate per Hundred feet.

Point Frederick, 11th Dec. 1814<sup>97</sup>

On the other hand, the signing of the Rush-Bagot

Agreement, limiting the number of warships on the Great Lakes in 1817, may have led to a slump in activity at Kingston Mills.

By 1816, at the time that George Hamilton became the lessee of the gristmill (sometimes along with his sons), one William Hamilton - perhaps a relative - seems to have taken over the sawmill. Unlike George, William Hamilton appears to have taken up residence at Kingston Mills by the spring of 1816.<sup>98</sup> Apparently he ran the sawmill with success for a number of years. Then, on 26 September 1818, disaster struck. As the Kingston Gazette tersely reported on 29 September of that year:

FIRE! - Saturday night last the Saw Mill at the Kingston Mills, owned by Wm. Hamilton, Esq., of this Town, was consumed by fire, and a considerable quantity of Boards, & c. with it. - We have not heard the amount of property lost.<sup>99</sup>

Within a few months of this setback, plans were being made to build another sawmill - the third - at Kingston Mills. One Robert Stanton undertook to carry this out, probably for the Hamiltons, judging from the following item printed by the Kingston Chronicle on 29 January 1819:

CONTRACT FOR SAW LOGS

To be delivered at the Kingston Mills.

TENDERS will be received by the subscriber, until the 15th February next, from persons willing to enter into contract for supplying LOGS for a Saw Mill, at the above premises, for one year from the first of May next.

Particulars will be made known on application to the subscriber.

ROBT. STANTON

Kingston, 28th Jan. 1819<sup>100</sup>

From the above, and from the evidence of contemporary maps and pictures, it is evident that the Kingston Mills sawmill was still in commission when work was started on the Rideau Canal in 1827. For example, Colonel By's map showing the plans for the new canal locks in 1827 shows a sawmill near the east falls with a curved jack-ladder feeding into it, along with a smaller adjacent building beside the ladder, and a third small building (perhaps the miller's house) standing immediately to the north-east. A timber slide is shown directly west of the mill.<sup>101</sup>

All the same, the inception of canal construction evidently caused disruptions at the sawmill. Though the building stood a safe distance east of the new locks, and thus escaped demolition, the canal workmen (as Commodore Barrie noted) saw fit to cut away the old government dam that provided a head for the sawmill before October 1829.<sup>102</sup> A new dam was erected a little further upstream, but during 1830 at least, not enough water was being allowed to flow past it to keep the mill running.<sup>103</sup> Probably this situation continued only until the upper waters of the Cataraqui had been raised to the desired level by the canal contractors.

The mill was soon repaired and back in service again, now as an adjunct to the shipyard; however, on 30 December 1835 the Cobourg Star, copying the Kingston British Whig, made the following comments on the situation at Kingston Mills:

The old saw mill is still in partial operation, but the great body of surplus water of the Canal is permitted to be wasted, totally unused. This at a village within six miles of the second town in the province, is an unprecedented occurrence, more particularly when the great cry for water

power in Kingston has hardly ceased to be heard.<sup>104</sup>

That same year the prosperity of the sawmill was probably dealt another blow, when the naval depot at Point Frederick was ordered closed and dismantled. Nevertheless, the old mill remained in operation for several years more, though apparently none too happily. On 7 December 1837 the Brockville Recorder, likewise borrowing from the British Whig, observed that there was one sawmill at Kingston Mills, but that it wasn't prosperous. This was in stark contrast with Brewer's Mills, further up the canal, where both a sawmill and a gristmill were thriving, and enabling the owner, James Mathewson, to send a dozen timber rafts down to Quebec City every year.<sup>105</sup>

From this time onwards, the old navy sawmill at Kingston Mills seems to have faded slowly out of existence. A sketch by the artist C. D. Shanly, dated 1842, shows the old mill still standing,<sup>106</sup> and a map dated 1847 also marks it,<sup>107</sup> but seemingly the mill was already out of use before that time; in any case, plans were already underway to build a new one.

On 19 December 1861, the Brockville Recorder, in an article about the mill site, remarked that a sawmill had been erected at Kingston Mills for the use of the Royal Navy during the War of 1812, but that after the Rideau Canal had been built, the mill had fallen into disuse. The site was then left unoccupied for some years (said the paper) until an American got a lease for building a new manufacturing sawmill on the property.<sup>108</sup> This fourth sawmill proved to be the last ever built at Kingston Mills.

#### Kingston Mills Village (1783-1825)

The overall history of Kingston Mills village especially

during the 18th and 19th centuries, can only be pieced together in a general sort of way from various old maps, paintings, drawings, travellers' commentaries and county directories, supplemented occasionally by newspaper statements and church and census records, and - now and then - by local tradition. The resulting mosaic, when reassembled, gives us anything but a complete picture, but fortunately there is enough evidence to allow us to describe the community in detail at various intervals, and to detect a number of trends around the village over the years.

During the first, or pioneer, phase of the hamlet's history, before the building of the Rideau Canal, it would appear that no village worthy of the name developed at the Catarauqui mills. As we have seen elsewhere, Catarauqui Falls attracted the attention of the British military authorities immediately after their arrival from Oswego on 30 July 1783, as the best site available for a saw and gristmill. There seems to have been no lack of visitors to the place that summer. Amongst others, a large party of Mohawk refugees from New York State, led by Chief Joseph Brant and his sister Molly, arrived unexpectedly at Catarauqui and journeyed upriver as far as the falls.<sup>109</sup> However, though the required mills were completed the following year, it would appear that the site remained uninhabited, except by the miller and perhaps a few assistants. (We have already noted Peter Russell's commentaries on the decayed state of the miller's house by 1792.)<sup>110</sup> In short, the site has practically no history at all before 1825, independent of the mills themselves.

Perhaps government policy helped to retard the growth of a settlement at Catarauqui Falls for a time. The site of Kingston Mills proper was surveyed as Lots 35 to 40, Concession IV, Kingston Township, by 1797, and of these Lots 35 to 40 were automatically set aside as a reservation

for the King's mills.<sup>111</sup> The lofty granite outcroppings cordoning off the site from the new lakefront settlements and the rising town of Kingston no doubt emphasized the lonely isolation of the place and discouraged land seekers from trying to settle there. By 1797 most of the lots in Kingston Township as far north as Concession IV and east as far as Lot 24 were in private hands,<sup>112</sup> but even so the general advance of settlement was still about a mile distant from the Cataraqui mills. According to the Domesday records, it was not until the spring of 1817 that the lots flanking the mill-reserve on both sides were deeded - to one Francis Cockburn, about whom, unfortunately, nothing is known.<sup>113</sup>

By about 1811 the name "Kingston Mills" was in fairly general use, but aside from a few individuals such as William Hamilton (owner of the local sawmill) who are known to have lived there during the 1810's, there is still no real evidence of a village. Apparently it took the Rideau Canal project to create a "community" of sorts at Kingston Mills.

#### Kingston Mills Village and the Rideau Canal (1826-1832)

The construction of the Rideau Waterway, utilizing the Great Cataraqui River for much of its course, had a profound and immediate effect on the locality of Kingston Mills. It altered the setting by flooding the shallow, swampy valley north of the mill site, and creating a sizeable artificial lake - though this was not part of the original plan.<sup>114</sup> The actual construction of the canal created a temporary construction camp community at the site, and made the place hum with activity. It probably hastened settlement in the area, in that some of the navvies or workmen undoubtedly remained in the vicinity after the work was done.<sup>115</sup> Once completed, the canal brought a steady stream of commerce

through the village for seven months of the year, and also gave employment to a number of local residents.

Our purpose at this point is only to outline the actual changes wrought at Kingston Mills by canal construction, rather than describe the new installations themselves. These will be discussed in more detail under the theme of transportation. The actual canal work was started in May 1827, first under a contractor named McDermott or Macdermott,<sup>116</sup> but this individual was quickly superceded by the highly competent Robert Drummond, who also executed the works at Brewer's and Davis' Mills.<sup>117</sup>

The lock construction camp established by Drummond for his work crews constituted the first "village" settlement at Kingston Mills, but we have little detailed information about it. A map of the canal route (Fig. 1) through the site, drawn probably in 1827 when work was just starting, indicates "Mr. Drummond's Establishment" as consisting of three buildings in a row, facing two others (probably across the Montreal Road); all occupying a site a short distance west of the canal route. Close by and alongside the projected site of the three combined locks is marked a "smith's shop", perhaps built by the Royal Engineers.<sup>118</sup> The above camp could hardly have accommodated the entire work force as construction proceeded. Nearly 300 men are said to have been engaged at the lock site in 1829,<sup>119</sup> and as many as 389 in 1830,<sup>120</sup> along with as many as 60 soldiers and royal engineers. A second map of Kingston Mills, dated 1831 (Fig. 2), shows about ten buildings west of the locks, strung out along the Montreal Road (mostly on the north side), besides a store and a dwelling used by the contractor. Whether the other buildings were barracks, sheds or workshops is not stated.<sup>121</sup>

A number of these buildings call for special commentary. Besides the blacksmith shop, we also find a store and even a



schoolhouse and perhaps a tavern, in existence by 1831.

#### The Store

The store was located along the "King's Road" on the north side, about one-fifth of a mile west of upper lock, amidst the construction camp buildings. Perhaps we may infer that it was the commissariat building for the contractor's clerk, and that such commodities as flour, salt, tea, tobacco, beef and salt-pork were distributed from it.<sup>122</sup> In any event, the store evidently ceased to function as such after the canal was completed, though the building perhaps survived; indeed it may have been turned into a tavern during the 1850's.

#### The Schoolhouse

The schoolhouse, like the store, appears on an 1831 map of the lockstation. It is shown east of the falls and the sawmill, on the south side of the Montreal Road, apparently very close to the modern residence of Mr. L. D. Duetta.<sup>123</sup> Presumably it was intended to provide the children of some of the construction crews with a little basic education. In 1857-58 we find an individual named Daniel Callaghan, described as a schoolteacher, living at Kingston Mills,<sup>124</sup> and local tradition recalls that he was apparently an ex-soldier who taught at the "Point School", about halfway between Barriefield and Kingston Mills.<sup>125</sup> Conceivably Callaghan's first posting was at the original school at Kingston Mills; later, when it closed - or was relocated on the Point Road (now Highway 15) - he may have continued his calling there, while still residing at Kingston Mills. Callaghan is said to have died around 1884 at an advanced age.<sup>126</sup> In any event, the Kingston Mills school, like the



store, did not long survive the completion of the Rideau Canal in 1832. No further record of it has been found.

. . . . .

Presumably all these buildings were of frame construction, but whether the workmen's quarters were large barracks like those built by John Redpath at the Jones Falls works,<sup>127</sup> or simply huts is uncertain. Certainly the evidence suggests the latter. The Reverend Robert Bell, commenting on the scene in August of 1830, mentions a "great number of huts" being used by the Irish labourers at Kingston Mills,<sup>128</sup> and likewise Adam Ferguson's travelogue account of 1831 notes that "the log-huts, etc. are government property, stamped with the broad arrow".<sup>129</sup> Pictures and maps from the period indicate that most of the lower-lying ground around the new lockstation had been cleared by 1838, if not earlier.<sup>130</sup>

And the occupants of the camp? Again, at least at Kingston Mills, the evidence suggests most of the workmen were Irish navvies, who are usually described (by Anglo-Scottish observers) as rowdy, brawling and ignorant.<sup>131</sup> Presumably this was what Richard Hotham meant when (in 1830) he says that he was "sorry to observe that the present settlers at the village are of the lowest description of Irish: and French Canadians - it would be advisable to pause before granting leases to any of them."<sup>132</sup> Certainly most of the settlers who later took up land around Kingston Mills were Irish Catholic, and probably some of them had once been labourers on the locks. The French Canadian workers may have been largely canoemen and axemen, while the skilled tradesmen - masons, carpenters, smiths, stonecutters, coopers etc. - were probably Scots and Englishmen.<sup>133</sup> Commenting on the canal works on 14 November 1829, the Kingston Chronicle noted that nearly 300 men were employed at the site, and assures us that the atmosphere at the mixed

community was one of cordiality and good fellowship<sup>134</sup> - which would seem a remarkable achievement on Mr. Drummond's part, if true. On the other hand, the place was exceedingly unhealthy, on account of the swamps and mosquitoes (some of which carried malaria), and also, no doubt, because of unsanitary conditions in the camps. In all the work seasons except 1827, fever laid many of the men low, and at times the canal work was virtually brought to a standstill.<sup>135</sup> In 1830 a total of 500 workmen are said to have perished from disease between Kingston and Newboro.<sup>136</sup> Accidents meanwhile claimed many more lives, especially amongst the Irish, who were unfamiliar with the building techniques; some were killed by explosions (or by flying rocks and debris), while others were buried under tree roots while grubbing.<sup>137</sup> The total cost of the canal in terms of human lives will never be known.

The old canal records also indicate that some of the workmen at Kingston Mills had their wives and children with them, and that at least a few of these succumbed to the fever; four women and four children are said to have perished at the station in 1830.<sup>138</sup> Perhaps their presence accounts for the opening of the school, as suggested earlier.

Once the canal was officially opened (on 25 May 1832), the construction camp community appears to have largely dispersed. Perhaps there was no longer work for most of the navvies, and no doubt many were anxious to leave such a fever-infested wilderness. Nevertheless, a small settlement remained and carried on at the lockstation, as Kingston Mills entered a new phase of its long and complicated history.

#### Kingston Mills Village (1832-1860)

The five years of construction of the Rideau Waterway had

made radical changes in the appearance of Kingston Mills. In 1826 the site had consisted of a wooden sawmill with an adjacent building, a dam and a timber slide near the "King's Road" to Montreal, plus a rather large house or tavern north-east of the mill.<sup>139</sup> A wooden bridge about 220 feet long, decked with planking, spanned the river above the mill-pond.<sup>140</sup> To the south lay the rocky gorge of the Cataragui, to the north a broad, shallow swampy valley "filled of heavy timber some standing and others under every stage of decay"<sup>141</sup> with the creek meandering through it.

By 1832 the scene was very different. Three splendidly executed stone built locks, a turning basin, a fourth detached lock, and an excellent curved stone dam incorporating a waste weir, now flanked the falls. The works at Kingston Mills cost £60,000, and are in fact the most extensive on the entire waterway, excepting only those at Ottawa and Jones Falls.<sup>142</sup> The swampy valley upstream had been flooded and turned into a lake of about 6,400 acres, while two earthen embankments or dykes were needed to prevent the waters of the lake from turning the dam. Unfortunately it was not an especially beautiful lake, since no one had taken the trouble to cut and remove the timber in the valley; with the result that the new lake was filled with desolate dead trees, and afterwards with forlorn stumps, some of which remain to this day.<sup>143</sup> (As a result the upper Cataragui River came to be dubbed the River Styx!). A new low level, fixed timber bridge, some 296 feet long and built on a long gradient descending eastwards, ran from the upper (detached) lock, curved left, and spanned the overflow channel of the waste weir; replacing the original Cataragui bridge.<sup>144</sup> In addition, a second bridge was built across the detached lock in 1832. This structure was a balanced, double-leafed drawbridge with two identical lift spans

meeting and forming an arch over the centre of the lock, and two pairs of pivoting balance arms chained to the two leaves to provide the lift.<sup>145</sup> (It also proved necessary to raise part of the Montreal Road by several feet when the upper valley was flooded.)<sup>146</sup> Meanwhile Kingston Mills now looked something like a village, with several frame or log buildings spread out along the road (particularly west towards Kingston).

### The Blockhouse

Another important new building at Kingston Mills was erected around this time; the blockhouse. Since the canal was intended primarily for military defence, it was deemed necessary to render it secure from attack or sabotage, especially at those stations most exposed to assault. A detailed discussion of the blockhouse will be presented later under the theme of military defence. At this point, suffice it to say that, in accordance with Colonel By's recommendations, Kingston Mills station, being one of the most important on the waterway, and also one of the most vulnerable, received a stone built blockhouse with a squared timber upper storey soon after the canal was completed. The building is said to have been underway at the time of By's final report in May 1832,<sup>147</sup> and was definitely completed by 1835;<sup>148</sup> indeed it seems to be marked on a map of the canal station, dating from about 1833.<sup>149</sup> Usually it was used to house canal employees. In addition, the British Ordnance Department (which looked after the Canal until 1856) also bought some of Mr. Drummond's wooden buildings for use as storehouses, workshops and dwellings for the lockmen.

### The Original Lockmaster's House

Another important building inherited from the contractor was the original lockmaster's house. This was the house used by Drummond as his own personal residence during lock construction.<sup>150</sup> The building stood on the rocky headland projecting into the artificial lake, west of the lockstation and facing the locks across a small bay. A wooden bridge was built across the bay to provide access from the house to the locks.<sup>151</sup> A map of the station, dated 1850, indicates a square stone building surrounded (apparently) by wooden porches,<sup>152</sup> but a report of the Commissioner of Public Works in 1860, affirms that the house was built of wood.<sup>153</sup> A painting by the station clerk, Thomas Burrowes, in 1838 shows a two storey house with verandahs on at least two sides.<sup>154</sup> The present owner of the property, Mr. Dell Potter of Kingston Mills, reports that the stone and mortar foundations of an old square house now underlie the lawn between his present residence and the old family cottage about a hundred feet away.<sup>155</sup> Hence we are probably justified in concluding that the old Drummond house was built of wood, on stone foundations. Presumably the building was occupied by lockmaster John Brady, after the Ordnance Department took it over, though in 1835 the lockmaster's family was said to be residing in the blockhouse,<sup>156</sup> while the canal inspection report of 1852 affirms that lock labourers were living in the house, the lockmaster himself was using the house built for the clerk of works.<sup>157</sup> By that time, it appears, the old Drummond house was already in decayed condition. The annual report of the Commissioner of Public Works for 1860 gives us the following commentary on the building:

The Lock House at Kingston Mills is becoming uninhabitable. This is a wooden house, built by the contractor for his own use, and as it was in tolerable repair when the Lock Houses were

built, no Lock House was built at this station. The present house is approached by a bridge about 150 feet long. This bridge is now decayed; a new house ought to be built. There is a good site for one at the roadside, near the Swing Bridge.<sup>158</sup> It was estimated that the new house would cost \$1,600.<sup>159</sup> Apparently these recommendations were carried out, since lockmaster Robert Anglin was later to recall that the house he was occupying in 1901 had been built about 1860 to replace the original.<sup>160</sup>

#### Taverns (1830-1860)

To return to the village in general, one of the earliest descriptions of Kingston Mills after the completion of the Rideau waterway was penned by Edward J. Barker in 1834. To quote him:

The village at this place is small, comprising two taverns and about a dozen houses; the country round is not thickly settled, nor is the land generally called good. <sup>161</sup>

The early taverns at Kingston Mills deserve special mention. Small inns and taverns, of course, abounded in the days when roads were wretched and land travel necessarily slow, and on roads with any amount of traffic local hostelries might be found every few miles, offering travellers liquid refreshments for a penny, and sometimes a meal or a night's accommodation. Stables would usually be appendaged to the properties, with hostlers to look after the horses.

The Montreal Road past Kingston Mills was no exception to the above picture. Not a great deal is known about the taverns around Kingston Mills, but it is clear that a succession of them flourished there from about 1832 until

as recently as the First World War. Most of them seem to have catered to land travellers rather than boat passengers on the Rideau Canal.

It is possible that food and accommodation were sometimes to be had at Kingston Mills from the very beginning, when the gristmill was first built in 1784. People may have had to wait their turn to have their grain ground, and perhaps some refreshment was obtainable at the miller's house. However, there is no direct evidence to suggest that anyone was running an inn or tavern at the site until the early 1830's, even after Asa Danforth opened the Montreal Road from the mills to Montreal around 1801.

Things may have changed in 1827 when the canal construction camp sprang up. Beer and spirits were apparently provided by the contractor as part of the navvies' rations,<sup>162</sup> but presumably Mr. Drummond took steps to make sure that alcohol never became a problem amongst his crews. Both he and the Royal Engineers may have taken a very dim view of the establishment of any grog shops near the works, and taken steps to prevent it.

#### *The Pecor Tavern*

Be that as it may, the first tangible evidence of a tavern at Kingston Mills dates from about 1833, just after the canal work was completed. A map dating from about that time shows two buildings immediately east of the sawmill, and owned by a man named Picar.<sup>163</sup> One of these, standing about where the electric-powerhouse operator's house is today, may have been Picar's house or barn; the other, located directly beside the road in front, may have been a tavern. The Kingston Chronicle & Gazette, on 7 January 1835, mentions a tavern and dwelling at Kingston Mills, owned by one J. B. Pecor, a former resident of Kingston.<sup>164</sup> (Pecor is also



said to have sold a farm about three miles from the Mills in 1831.)<sup>165</sup> Probably Pecor's tavern was one of the two mentioned by E. J. Barker in 1834.

The Pecor tavern did not last long. On the night of 3 January 1835, both the tavern and the owner's house (one and the same thing, perhaps) went up in flames.<sup>166</sup> They were not replaced. On 30 December 1835, the Coboury Star, echoing the British Whig, published the following progress report on Kingston Mills:

But little change has taken place at this station during the past year. A handsome blockhouse has been lately finished, and is occupied by the family of the lock-master. Mr. Pecor's tavern destroyed by fire in the early part of last winter, has not been re-built, but another tavern kept by one of the lockmen, is opened in its stead. The old saw mill is still in partial operation...<sup>167</sup>

### *The Second Tavern*

Little is known of the second tavern mentioned above and in 1834. Even its very site is uncertain. However, a succession of old maps, dating from 1838, 1840 and 1853 respectively,<sup>168</sup> all indicate a small wooden building on government land west of the locks, close to the point where the road once forked on approaching the lockstation. In 1853 - if not earlier - this building, neatly fenced off from both roads, was being used as an inn.<sup>169</sup> Its proprietor is unknown, but a possible candidate is one William Kleping, or Klepling, who is said to have had a tavern at Kingston Mills at one time.<sup>170</sup> There actually was a William Klepling, who is mentioned as having paid rent on a shed on Ordnance lands in 1852 and 1858,<sup>171</sup> and



conceivably he was using the property as an inn. Further evidence, however, is needed to confirm or refute this hypothesis.

An interesting sequel to the story of this shadowy inn has been furnished by Mr. Earl Doyle of Kingston, who was lockmaster at Kingston Mills for 35 years. Mr. Doyle recalls discovering a number of old copper coins at the approximate site of the inn during the 1920's, when he and his men were erecting a fence past the spot. Two of the lockmen, both long time residents of Kingston Mills, recalled that a house had once occupied that site, and that its last occupant was one "Kate Blessing".<sup>172</sup>

#### *The Blessing Taverns*

The name of Blessing was once very prominent at the Mills, partly because this family, too, was once engaged in tavern keeping. William Blessing, head of the clan, was an Irish farmer, born in 1813, who had emigrated with his wife (and perhaps his mother) to Kingston Township, sometime before 1851. The census of that year lists four of his children, all of whom had been born in Canada West.<sup>173</sup> By 1852 Blessing was occupying part of Lots 39 and 40, Concession IV, Kingston Township, immediately east of Kingston Mills, where he cleared a lot of land and erected a tavern on the north side of the road (which then ran a little south of its present route), near the far end of the east dyke.<sup>174</sup> Judging from maps, other buildings stood on Blessing's land, including a barn a short distance east of the tavern, a small dwelling (?) immediately adjacent to the tavern, and a second house a few hundred feet west, where the Montreal Road crossed a tiny rivulet - about where the old stone home of Mr. Leo Hogan, Junior, now stands. Across the road from this house stood a second

barn.<sup>175</sup>

Mr. Blessing had much the same luck with his hotel as Pecor had had nearly twenty years before. In 1852 or 1853 his tavern and the adjacent building both burned to the ground,<sup>176</sup> but the unlucky landlord simply shifted his operations to the other house near the rivulet, and carried on.<sup>177</sup> Perhaps the barn across the road became a stable during this period.

William Blessing died at Kingston Mills late in December 1860,<sup>178</sup> and his tavern disappeared with him. No members of his family are known to live anywhere around Kingston today.

#### *The Crowley Tavern*

Two other inns or taverns are known to have existed near Kingston Mills during the 1850's. One of these was owned by Peter Cunningham, and stood about a mile east of the lock-station, at the site later known as Cunningham's Corners,<sup>179</sup> and today as Code's Corner; a community whose history will be summarized later. The other hotel belonged to Patrick Crowley, another Irish immigrant farmer who (like Blessing and Cunningham) was established east of Kingston Mills - on Lot 40 - by 1851.<sup>180</sup>

In 1858 Mr. Crowley is said to have been running a hotel,<sup>181</sup> presumably on the aforementioned lot, somewhere east of the Blessing property. Perhaps the hotel was in the Crowley house, which stood somewhat to the west of the modern church at Cunningham's Corners.<sup>182</sup> Probably this hotel was not open very long, as there is no further reference to it. In any event, the Crowleys appear to have passed on or moved away during the 1860's.

### Miscellaneous Buildings

Around the lockstation, meanwhile, the record becomes scanty until the 1850's and maps become our best source of information. One map drawn by Thomas Burrowes in 1838,<sup>183</sup> and another dating from around 1840<sup>184</sup> indicate that many of the construction camp buildings put up along the Montreal Road west of the canal in 1827-31, particularly those farthest away, were soon demolished or moved elsewhere. Similarly the large house near the sawmill, which appears in the paintings of Thomas Burrowes around 1831 and apparently pre-dated the canal, also disappears by 1838.<sup>185</sup> Perhaps this building was uncomfortably close to the new east dyke, and therefore had to be removed. On the other hand, on the 1838 map we find three buildings around the west end of the canal basin; two of which were very small and probably served as sheds.<sup>186</sup> Between 1838 and 1840 two more workshops were erected near the others, south-west of the basin, while another building appears beside the road, about where the present lockmaster's house now stands.<sup>187</sup> The last named structure was being used by the canal clerk as an office in 1852. The maps also confirm that by 1838 the lock basin itself had been enlarged and a dry dock added at its westerly end.<sup>188</sup>

### *The Smith's Shop*

Another building mentioned occasionally during the 1850's was the smith's shop. We have noted earlier that the map of Kingston Mills in 1827<sup>189</sup> or thereabouts indicates a blacksmith shop directly alongside (and west of) the projected canal route, at the very onset of construction. A British government inspectional report of 1852 also alludes to such a building, then being used by the Royal Engineers,<sup>190</sup> and on 31 March 1859 we find reference to a

"fire in the foundry".<sup>191</sup> It is distinctly likely that the smith's shop built for canal construction purposes was the same structure mentioned in the 1850's. A letter from Lockmaster Brady to the canal superintendant in July 1855 places the shop close to the canal dry dock,<sup>192</sup> in much the same location indicated by the 1827 map. The forge may have been destroyed in the 1859 fire, as there is no further reference to it after that date. On the other hand, there are several references to blacksmiths at Kingston Mills during the 1880's and 1890's.

#### *Mahoney's House*

The written record of the 1850's also mentions one more building in particular at Kingston Mills, referring to it as Mahoney's house. Evidently it stood on ordnance land, and had once been occupied by an A. S. Mahoney,<sup>193</sup> but its location is otherwise unknown. It may correspond to a house indicated on the maps of 1853 as standing west of the locks at the end of the small bay on the drowned land, on the north side of the Montreal Road.<sup>194</sup> A. S. Mahoney himself is likewise unknown, though there appear to have been several Mahoneys who settled around Kingston, and one D. F. Mahoney was, in fact, a squatter living in a house on part of Lot 36, Concession IV, Kingston Township, right next to the mill-reserve, by 1853.<sup>195</sup> The safest surmise is that A. S. Mahoney was an Irish lock labourer who occupied one of Drummond's construction huts before 1854; in that year a settler named Thomas Wafer began paying rent to the ordnance offices for the use of Mahoney's house.<sup>196</sup> Wafer turned the building into a store (or continued using it in that capacity), catering to the navvies then building the Grand Trunk Railway.<sup>197</sup> (The railway will be discussed under the heading of Transportation.) On 14 April 1855 we find Wafer

writing to the Ordnance Department to have the rent slashed because the railway had stopped and there was no longer any business,<sup>198</sup> a significant commentary on the degree of activity at Kingston Mills at the time. Three days later the department asked Lockmaster Brady to report on whether the rents were indeed too high. Brady agreed that they were, for the same reasons given by Wafer.<sup>199</sup> Presumably the rents were reduced, since Wafer continued to occupy the house for about three more years.<sup>200</sup> In 1857 and 1858 the house was leased by one Patrick Joyce, who seems to have died soon after.<sup>201</sup> Beyond that, Mahoney's house disappears from the records.

#### *More Miscellaneous Buildings*

The ordnance files also mention a number of houses, sheds and shanties near the lockstation, and the individuals who leased them during the 1850's but the records are not very informative about the buildings or their locations.

The maps, however, are more explicit and indicate a number of new additions. A map dated 1853 shows that the two very small sheds at the end of the dry dock had been replaced by a large new workshop, while three more new buildings - a barn and two houses for workmen - had been erected on high ground to the south-west.<sup>202</sup> Evidently these structures had to be demolished soon after, to make way for the railway.

Several other buildings had sprouted meanwhile west of the old lockmaster's house, including a barn and a stable, while a root house is also shown a little north of the lockmaster's house.<sup>203</sup> (Fig. 3)

On the "triangle" between the locks and the river gorge, few structures are indicated during the period, except the blockhouse. A small building is shown near the

site of the modern powerhouse on the Burrowes map of 1838, and in 1853 we find two more, located close beside the gorge;<sup>204</sup> their purpose is unknown. East of the river, between the sawmill and the road, two more buildings suggesting a house and barn are marked on the maps of 1838 and ca. 1840;<sup>205</sup> perhaps these were used by the operator of the mill. On the 1853 map, a new house and shed(?) are shown, closer to the road. More intriguing than these are the ruins of a defunct building overlooking the river a short distance east of the sawmill. The outline of this structure is marked on both the map of 1840 and the Burrowes map.<sup>206</sup> One is immediately reminded of the gristmill built by David Brass around 1807-09, but the unknown building seems a trifle far removed from the falls to have received power from them. Further investigations might solve the mystery.

Between 1838 and 1853 a handful of other buildings are indicated along the Montreal Road, where the modern "Station Road" (then the Point Road) intersects with it. Two buildings were on the north side of the Montreal Road, where some of the homes of the modern Keeler subdivision now stand; these two structures disappeared, one at a time, and a new cluster of buildings, including a house, barn and outbuildings, arose on the south side of the corner, around 1838 and afterwards.<sup>207</sup> By 1853, if not before, these buildings appear to have belonged to one P. Dean - probably Patrick Deane, a yeoman farmer<sup>208</sup> who may have been related to Joseph Deane, lockmaster at Kingston Mills from 1867 to 1892.

#### *The Byrne Farm*

Further south on the Point Road, around the modern intersection of Highway 15 and the "Middle Road" (which was

newly opened in 1838), a settler named Henry Main, or Mayne, was clearing land on what is now Lot D, east of the Cataraqui River, Pittsburgh Township, between 1821 and 1828. Main went so far as to build a house with stone foundations,<sup>209</sup> yet in 1829 he sold his land and moved away.<sup>210</sup> By 1831 it was owned by John McLennon, apparently an immigrant from Rosshire, Scotland,<sup>211</sup> but in 1849 McLennon sold the property to Edward Byrne.<sup>212</sup> Local tradition has it that a surveyor named "Captain" James Byrne was the first of this family to settle at the corner, and that Edward Byrne, a doctor, was James' son,<sup>213</sup> but the official records in the land patent volumes - to say nothing of early maps - indicate the opposite, that Edward Byrne was the pioneer-farmer (and hence, probably, the surveyor), and that James was the son.<sup>214</sup> (James Byrne is definitely stated to have been a captain in the 47th regiment.)<sup>215</sup> By 1853 Edward Byrne had cleared some additional land north of Henry Main's former holdings and built a house and stable.<sup>216</sup> Eventually the farm totalled 127 acres, and the intersection became known as Byrne's Corner.<sup>217</sup> Edward Byrne died in 1890, having already sold the land to James. Some members of the family continued to live there until 1901.<sup>218</sup>

#### *Cataraqui Grange*

Another farm on the next lot south has an interesting history. This is the old Cataraqui Grange, a stone residence on Highway 15, and home of the Baxter family for over 100 years. George Baxter emigrated to Canada from Dundee, Scotland in 1817, and eventually became principal of the Royal Grammar School at Kingston.<sup>219</sup> He married Grace Baillie of Barriefield, purchased 400 acres of bush in what is now Pittsburgh Township, and built a house. The building was not completed at the time George's parents arrived to join



them.<sup>220</sup> William Lyon Mackenzie was a brother-in-law of George Baxter; having known the family in Scotland, Mackenzie went to Quebec City to meet George's sister Isobel, and married her in Montreal. Mackenzie is said to have been a frequent visitor at Cataraqui Grange.<sup>221</sup>

Knowing a man like William Lyon Mackenzie could be troublesome, however, and in the winter of 1837-38 troops are said to have searched the Baxter home and camped on the grounds, since a rumour had it that the "little rebel" (then a fugitive) might be hiding there.<sup>222</sup> George Baxter was meanwhile dismissed from his post as principal by the authorities (though he had never been active in politics), and retired to the stone house and his gardens;<sup>223</sup> in 1843 he helped to found St. Mark's Church.<sup>224</sup> Mackenzie, for his part, apparently revisited the house during the 1850's (by which time the amnesty had been proclaimed!) Tradition has it that the former rebel arrived at the railway station near Kingston Mills one evening and tried to walk the two miles to the Baxter home cross-country, but got lost in the dark. Spotting a light, he made his way to a shanty, which proved to be occupied by a former American negro slave. Learning who his visitor was, the negro, glad to help a fighter against oppression, promptly secured a lantern and guided Mackenzie to his destination.<sup>225</sup> (Mackenzie's daughter, and his grandson, William Lyon Mackenzie King, were also frequent visitors at Cataraqui Grange.)<sup>226</sup>

#### Summary (1827-1860)

In summary, then, it appears that Kingston Mills, after the brief "boom" created by the building of the Rideau Canal in 1827-32, went into a slump immediately afterwards, and remained a very modest little hamlet during the period of 1832-60, despite its position on the Montreal Road and the



extensive commerce being handled by the Rideau Waterway between Montreal and Kingston - at least until 1850.

Beyond what would be needed to maintain a lockstation, there is little sign of anything at Kingston Mills during those years, except a few taverns and a sawmill - and sometimes not even that! Few of the usual features of 19th century village life can be discerned at the site; a store and a school appeared briefly during canal construction, only to vanish again once the construction camp was demobilized. Despite all inducements, including its splendid water-power, Kingston Mills was most reluctant to become a real village. All the laurels seemed to be going to nearby Kingston, which by 1846 was already a city, with a population of more than 7,000:<sup>227</sup> by 1851 the figure had climbed to 11,585, and by 1861 to 13,743<sup>228</sup> - not counting the military establishments. It is said that the port of Kingston, from the opening of the Rideau Canal in 1832 at least until 1846, was "the most important shipping centre at the eastern end of Lake Ontario",<sup>229</sup> as steamers and schooners gathered to take passengers and freight to all other centres on the lake.

#### Kingston Mills as a Transshipping Point (1832-1855)

It has been alleged that tiny Kingston Mills once had an important share in the transshipping business, until about 1850. Since the actual canal installations of the Rideau system, as engineered by Colonel By, ended at Kingston Mills, the argument goes, it must be that Kingston Mills, rather than Kingston proper, flourished as the canal terminus, especially as the Rideau Waterway, until 1846, was the preferred route of navigation from Montreal to Lake Ontario. Was Kingston Mills ever in actual competition with the town of Kingston?

Any authoritative answer to this question, of course,

would have to be based on an exhaustive study of shipping records from the various forwarding companies using the Rideau Waterway during its early years; a search not attempted as yet by this writer. If we content ourselves with general or circumstantial evidence, we find that there were, indeed, transshipments of cargoes from Kingston Mills to Kingston from time to time during the 1830's and 1840's. These were made necessary because of a large sandbar called the "Shallows", located a short distance downstream from the Kingston Mills locks,<sup>230</sup> and also, fluctuating water levels on Lake Ontario (which had the incidental effect of lowering the river between Kingston and Kingston Mills). Despite instructions from Colonel By, the Shallows had not been deepened by the time the canal was opened in 1832,<sup>231</sup> but notwithstanding, Mr. Drummond's steamboat, the Rideau, had no trouble taking Colonel By, his family and a special party through the entire system from Kingston to Bytown (Ottawa) for the formal grand opening on May 25 - 29.<sup>232</sup> The Rideau began making regular trips on the waterway immediately afterwards, and was soon joined by a number of other steamboats, scows and rafts.<sup>233</sup> There was never any question in anyone's mind that the Rideau Canal was meant to provide a water route all the way to Lake Ontario and Kingston. Furthermore, from about 1834 to 1850, the usual pattern for commerce was for steamboats to ply from Montreal to Bytown, through the Rideau to Kingston, thence back to Montreal along the St. Lawrence - which was navigable on the downstream course even before locks and canals were built past its rapids. By 1845 there were 30 steamboats on this run.<sup>234</sup> Obviously such a route would have been impossible if the Cataraqui River from Kingston Mills to Kingston had not been navigable. Cargoes were unloaded at the Mills only when absolutely necessary.

Yet the lower Cataraqui River did pose problems for

navigation at times. On 13 July 1833, the Kingston Chronicle & Gazette devoted considerable space to a discussion of the problem. The editor noted that the steamer Rideau had grounded at the Shallows over two weeks earlier, while trying to pass a raft partly filling the channel. The steamer also had trouble passing Brewer's Mills, where water had been drawn off for canal repairs, but afterwards had had no further difficulty reaching Bytown, and the return trip had been accomplished without incident. The newspaper concluded, therefore, that the Rideau Canal really was deep enough for boats, despite rumours to the contrary, and noted with satisfaction that Captain Bolton (who had succeeded Colonel By as superintending engineer) was then engaged in widening the channel at the Shallows.<sup>235</sup>

Nonetheless, the problem still lingered. On 1 February 1834, the Chronicle & Gazette was lamenting that the Shallows near Kingston Mills had not been removed, and that there was little time to clear them away before the navigating season opened. The paper also noted that the Ottawa Steam Boat Company was planning to extend its runs to the Rideau during the coming season.<sup>236</sup> Apparently the Shallows were soon dredged and the impediment was removed,<sup>237</sup> yet the Cataragui remained a problem area of the waterway. On 31 October 1842, John C. Clark of Kingston - son of the millwright who built the original Kingston mills - noted in his diary that "the waters of Lake Ontario are three feet four and one-quarter inches lower than they were in the year 1838";<sup>238</sup> which meant the same was true of the lower course of the river. In 1855, as noted earlier, the ordnance office was complaining to the owner of the sawmill at Kingston Mills that sawdust from the mill was clogging up the channel, causing frequent groundings by the boats.<sup>239</sup> More dredging is reported during the 1890's, and from more recent times, former Lockmaster Earl Doyle of Kingston

recalls that work was needed periodically on the river during the 20th century, to keep the canal up to standard.<sup>240</sup>

Is there any further evidence of extensive transshipments at Kingston Mills? In 1840 we find reference made to immigrant workmen being hired to break stones along the road between Kingston and Kingston Mills,<sup>241</sup> which suggests a good deal of vehicular traffic, though not necessarily connected with the canal. Otherwise the evidence is negative. The map of 1853 indicates four docks along the shores of the drowned lands west of the locks,<sup>242</sup> but only one of these is close to the Montreal Road, while all the others are located on the rocky headland now occupied by private dwellings and cottages, where there was then no road to provide access. Thus we are probably justified in concluding that these docks were intended primarily for mooring boats and scows, rather than unloading cargoes. Furthermore, there is no sign of extended wharfage or freight sheds - which is not what we should expect if cargoes were customarily being unloaded at Kingston Mills. Nor is there any evidence of downstream wharves in the gorge, where, again, transferring loads would have been almost impossible.

On the other hand, by 1842 the town of Kingston had no fewer than 20 wharves extending from the site of Fort Frontenac to Mississauga Point, besides numerous warehouses.<sup>243</sup> R. A. Preston, in his lengthy essays on the port of Kingston (1954-55), never once alludes to any commercial activity upstream at Kingston Mills. In his analysis, Kingston proper is always the transshipping point for cargoes and passengers from both the St. Lawrence and the Rideau.<sup>244</sup> Undoubtedly the canal steamers were obliged to disgorge their cargoes at Kingston Mills from time to time, such as the late season, when the waters might be unusually low, or whenever the Cataraqui channel might be obstructed, but such situations were not the normal state of affairs. No doubt, too, there

were local shipments unloaded at the site, but probably not many, since there was little in the vicinity except scattered farms. In short, there seems to be little basis for the belief that Kingston Mills was ever in commercial competition with its all-powerful neighbour downstream.

### Industry

#### The Fourth Sawmill (1847-1863)

Our first clear hint of the fourth and final sawmill to be erected at Kingston Mills comes from a map dated 1847, which shows the mill site (then available for lease), and notes in a footnote that a Mr. A. Cameron was planning to build a new mill at the falls.<sup>245</sup> This was evidently done, since Lockmaster Brady reported collecting rents for the water privilege from Angus Cameron in 1848 and subsequent years.<sup>246</sup>

Angus Cameron was evidently a gentleman of some means and substance. The Kingston Directory of 1857-58 reveals that he was, amongst other things, a colonel in the army or militia, and reeve of the Township of Wolfe Island.<sup>247</sup>

During the 1850's Colonel Cameron was a resident of Garden Island - which is probably significant, since the island was then wholly owned by the firm of Calvin & Breck, who were in the forefront as shipbuilders, steam tug operators, and lumber merchants around Kingston for over half a century.<sup>248</sup> Cameron may have entered into some sort of partnership with Calvin & Breck to supply them with lumber when he decided to lease the mill site at Kingston Mills and erect a sawmill. In any event, the records show that Cameron paid rents to the lockmaster, usually at six month intervals, from 1848 to 1859. The usual amount was \$200 per annum.<sup>249</sup> On 1 July 1851 he also began paying for the privilege of landing and piling lumber on ordnance land below the locks.<sup>250</sup>

The sawmill itself was a manufacturing plant,<sup>251</sup> located approximately where the old one stood at the east

bank of the falls. According to the census records of 1851, the mill was in operation for eight months of the year, and employed eighteen (or twelve?) hands to run it. The equipment featured three gates and 50 saws, capable of cutting about 3,000,000 board feet of lumber per year. The cost of the mill was reckoned at about \$5,000.00.<sup>252</sup>

Further information can be derived from C. W. Cooper's essay of 1856. According to him, the Kingston Mills sawmill contained three gangs of saws, one with 32 saws, another with 20, and the last with two saws, a lath, a mill edger etc. The plant could allegedly cut an average of 10,000 board feet per day, and engendered about £4,000 per annum in the lumber trade.<sup>253</sup>

The most complete description of the mill, however, comes from an inspection report from canal superintendent James D. Slater to the secretary of the Board of Works, dated 12 November 1862. The mill is said to have "a gang of 36 saws, slabber, 6 to 12 saws English Mill, 2 saws lath Mill, 3 circular saws, edger, 1 circular saw, 1 but [sic] saw and 2 Bull wheels for drawing Logs from the Mill pond", besides machinery for removing sawdust. The head of the water-power is given as 26 feet, but seemingly the mill owners had been using only 15 feet of this. The mill itself was evidently a frame building, with dimensions of  $91\frac{1}{2} \times 83\frac{1}{2}$  links - which would come to 60.4 x 55.1 feet. It was then reckoned to be worth \$2,733.47, but by 1862 it was idle and starting to deteriorate. The mill property, pentagonal in shape, came to roughly seven acres.<sup>254</sup>

Cameron did not continue to run his mill personally. During the 1850's he chose to sublet it to an American firm known as Messrs. Wood (or Blood) Bond & Company.<sup>255</sup> This concern apparently built several frame buildings to accommodate the work crews.<sup>256</sup> Also connected with the enterprise were a six horse stable and waggon shed,<sup>257</sup> besides a

temporary timber slide built on the dam and used whenever the waters were low.<sup>258</sup> In July 1856 the Company applied for permission to erect a permanent timber slide. Permission was formally granted on 23 July 1856,<sup>259</sup> but there is no indication that a slide was ever built, and certainly there is no mention of such a structure when the property was described in the report of 1862.<sup>260</sup>

The operations of the sawmill did not always harmonize with those of the canal. The mill operators tended to try to draw off as much water as they wanted, regardless of the effects this might have on canal navigation, and if restrained they would complain about the inadequacy of the water supply.<sup>261</sup> Log drivers and timber rafts could be a nuisance to navigation as well, while sawdust and debris from the mill sometimes accumulated in the canal channel. On 15 March 1855, for example, the ordnance office sent the following complaint to Colonel Cameron, at his home on Garden Island:

It having been reported to the Commanding Engineer in the Canal District that saw dust from your mill has accumulated in the Channel Leading to No. 47 Lock to the obstruction of the navigation of the Rideau Canal - I have therefore to request you will immediately remove the Same - rendering the water from 7 feet 3 inches to 4 feet and I have also to aprise you that you will be held Liable for all or any damage that will arise from detention of the trade on the canals...<sup>262</sup>

Matters did not improve over the following few months. On 6 April 1855, Lockmaster Brady reported to the District Commanding Engineer that sawdust was still choking the channel.<sup>263</sup> Later still, in response to complaints by boatmen that their vessels were grounding below the Kingston Mills locks, Brady wrote to Lieutenant-Colonel Chaytor, the



District Commanding Royal Engineer, on 18 May 1855, reporting that he had sounded the channel below Lock No. 47, in company with W. (?) H. Deane (perhaps one of his lockmen), and found conditions worse than ever. "There is more sawdust let off in the Canal Water this last month from the mill than there has been for the Last year" noted the lockmaster.<sup>264</sup>

How the above situation was resolved is uncertain. According to Sections 13 and 24 of the Rideau Canal Act, mill owners had been made liable for any damage their mills might do to the waterway. The dumping of sawdust, slabs or other rubbish into the canal channel was expressly forbidden and the canal commissioners were given the power to make offending mill owners pay the costs of removing such debris - or risk the cancellation of their leases.<sup>265</sup> In 1862 the mill equipment included machinery for removing sawdust,<sup>266</sup> which may have been installed by Cameron (or by Wood Bond & Company) in response to pressure from the authorities, but it is just as likely that this equipment was part of the original plant for sweeping sawdust away from the saws - probably into the river! There is no record that the mill ever had an incinerator for burning waste. In any event, the problem soon solved itself. The timber reserves in the region ran out by the late 1850's,<sup>267</sup> and after 1859 Angus Cameron stopped paying his rent on the property.<sup>268</sup> By 19 December 1861 the Brockville Recorder definitely affirms that the sawmill was closed for lack of logs. Eleven months later, a government field inspection found that the buildings on the property were largely unoccupied and deteriorating.<sup>269</sup> Finally, another field report, dated 19 September 1863, practically penned the epitaph of the lumbering industry at Kingston Mills, by stating that "the Saw Mill is being literally pulled to pieces and carried away while the whole property is largely deteriorated for want of care".<sup>270</sup>



The Lumbermen's Houses (ca. 1848-1863)

As adjuncts to the sawmill, a group of seven buildings was built or taken over by the proprietors of the sawmill, primarily to house their employees. Thanks to Slater's field report of 1862, some detailed information is available about these structures. (See Fig. 4) Quoting verbatim they consisted of:

- A Small frame cottage one story clapboarded, shingled roof, 2 small brick stove pipe chimneys size 67 x 33, Links -
- B Small frame house clapboarded & shingled roof,  $43\frac{1}{2}$  x 29 Links with leanto Kitchen  $27\frac{1}{2}$  x 22 Links, a board shed about 18 x 18 Links, neither of these houses are inhabited and are much out of repair,
- C [No description given]
- D Framed house 47 x 37 Links and a shed or stable at west end  $33\frac{1}{2}$  x  $31\frac{1}{2}$  Links -
- E Frame house clapboarded and shingled roof  $1\frac{1}{2}$  stories high 50 x 41 Links with a leanto Kitchen  $16\frac{1}{2}$  x 54 Links - occupied by Lock Master Robinson,
- F Small frame building for office 1 story 50 x 20 l. not occupied,
- G Frame house 46 x 31 Lks  $1\frac{1}{2}$  stories with Kitchen leanto  $36\frac{1}{2}$  x 31 Lks, and  $14\frac{1}{2}$  x 31 Lks, respectively, not occupied.

The buildings E, F, & G have been painted white, paint faded, the buildings are out of repair and subject to depreciation for want of care, some of the flooring torn up and and [sic] depradations appear to be still going on...<sup>271</sup>

The sketch map accompanying Slater's report shows that

buildings A, B and C were located in a row along (and south of) the Montreal Road, while the other four structures formed a second row a little to the south of the first. All were apparently built by Angus Cameron, or by Wood, Bond & Company, with the possible exception of house B, which occupied approximately the same site as a building marked on the maps of 1840.<sup>272</sup> House B and its shed also appear on the map of 1853,<sup>273</sup> and thus would appear to have been the oldest of the group.

None of these buildings outlasted the sawmill very long. The report of 1862 estimated their value at about \$800, but noted that their original cost was much greater, and that all were in need of repairs.<sup>274</sup> The necessary renovations were not forthcoming, as none of the parties who tendered for the lease of the property in 1863 were interested in running a sawmill.<sup>275</sup> Inevitably, the buildings soon ceased to exist. Parts of them may have been incorporated into new structures at Kingston Mills.

#### The Third Gristmill (1863-1905?)

Though sawmilling was finished at Kingston Mills with the demise of Angus Cameron's mill, the site had far too much potential to remain vacant. Moreover, in 1856 the Rideau Canal - no longer a paying proposition<sup>276</sup> - had been formally transferred from the British Ordnance Department to a rather reluctant Province of Canada, which, in an effort to offset the annual operating deficits, began studying the mill sites on the waterway as a possible source of revenue.<sup>277</sup> Consequently, in the winter of 1858-59 Lockmaster William Robinson was asked to give his estimation of the potential value of the water-power at Kingston Mills. On 1 February 1859, Robinson presented his assessment, which was highly encouraging. He reckoned that there was room for two mills,

including a gristmill with 16 stones, operating 365 days a year. Transport facilities, he added, were excellent, both by road and canal. A woollen mill was another possibility.<sup>278</sup> Similarly, a memo from the Commissioner of Public Works, dated 1 June 1864, was even more optimistic, estimating that the site could provide enough power for four mills, each with 40 horsepower. A new gristmill would be sure of patronage, continued the argument, since there were no flour mills within 12 miles to do any custom work. Abundant deposits of gypsum (a requirement for plaster of Paris) were also available only one and a half miles away.<sup>279</sup> On 19 December 1861 the Brockville Recorder also referred to the need for a gristmill at Kingston Mills, for the benefit of Pittsburgh Township residents who then had to go either to Gananoque or Collins Bay with their grist. The government was quite ready to consider an outright sale of the mill site, on the grounds that the land was not indispensable for canal purposes, though George H. Perry, who conducted some field-work inspections at the time, urged that the adjacent lands not be sold.<sup>280</sup> In the end this view prevailed and the lease system was continued at Kingston Mills.

On 9 August 1862, an Order in Council was issued to the Commissioner of Public Works, instructing him to advertise that the Kingston Mills site was to be leased or sold, for \$3,500 (the estimated value of the sawmill and its adjacent buildings), plus \$300 per year for the water privileges.<sup>281</sup> When Slater visited Kingston to receive tenders on 1 May 1863, he found only three people on hand, none of whom were interested in purchasing the sawmill; all were contemplating grist or woollen mills.<sup>282</sup> Slater received two offers; one from Dr. Edward Smith of Smith's Falls, who was prepared to pay the demanded annual rent,<sup>283</sup> and the other from a Mr. Coulson, who was ready to do the same and lay out \$4,000 to develop the site within two years.<sup>284</sup> In reporting to the

Secretary of the Department on 5 May 1863, Slater asked permission to grant the lease to Dr. Smith, who (he said) did not want the existing buildings.<sup>285</sup> This was approved, and for the next fifteen and a half years the property was in his custody.

Little is known of Smith's lease, which apparently ran from 1 July 1864 for 21 years, but it would appear that he used it to build and operate a new gristmill. In 1866 Smith secured a \$4,000 mortgage on the property.<sup>286</sup> It may also have been Smith who built two adjuncts to the mill, a stable and a dwelling for the miller, which are known to have been in existence by a later date.<sup>287</sup> Evidently he either sublet the mill or hired other parties to run it for him; in 1867 one John Woodruff is said to have been operating the flouring mill at Kingston Mills, along with Joseph Woodruff. (Both of these men resided in Kingston.)<sup>288</sup> The mill itself, well represented in photographs, stood on the east bank of the falls, almost exactly where Angus Cameron's sawmill had been. It was a stone built structure,  $3\frac{1}{2}$  storeys high, and driven by an over-shot wheel at the end of a wooden flume. According to the lease records of 1879, the building was 32 feet by 42, had three run of stone, and four gates, 8 feet by 12.<sup>289</sup>

It would seem that the gristmill experienced lean times during the depression of 1873-78, since the proprietor appealed - successfully - to have the rents reduced for a three year period, starting 1 January 1876.<sup>290</sup> Even so, the mill may still have been run at a loss during this period. It would appear that during the summer of 1878 Edward Smith's lease was taken over by one John Rourk and his brother, who apparently belonged to a family prominent in the Kingston mercantile community. The Frontenac County Atlas of 1878 indicates that the Rourk brothers were then in possession of the mill at Kingston Mills.<sup>291</sup> Evidently they contemplated

a number of improvements, requiring more power, but on 28 September 1878 the canal superintending engineer, Frederick A. Wise, wrote to the department, recommending that Mr. Rourk not be granted permission to erect a new dam at Kingston Mills.<sup>292</sup> On the other hand, Rourk was successful in having his arrears of rent (perhaps inherited from Smith) cancelled by Order in Council on 19 November 1878.<sup>293</sup> Indeed, just four days earlier the old Smith lease was formally cancelled, and Rourk was given the option of securing a new lease.<sup>294</sup> On 4 January 1879 the Rourk brothers took advantage of the opportunity, gaining renewed permission to run a flour and gristmill for a term of 21 years.<sup>295</sup>

Exactly how long the Rourks continued to operate the mill is uncertain. A local directory for 1883-84 speaks of the mill as running all the year round, and during this decade two individuals, a Thomas Hughes and a James W. Thompson, both millers by trade, are listed amongst the inhabitants of Kingston Mills.<sup>296</sup> In 1888, however, the Rourk lease was cancelled by Order in Council,<sup>297</sup> and amidst the correspondences over a new lease in 1889 we find the statement that "the mill was idle for a long time, and is not bringing in any return at present."<sup>298</sup>

Perhaps the renewed depression of the later 1880's led to the closing of the mill. In 1889 the operation gained one more lease on life when Captain Clark Hamilton, who later became collector of customs at Kingston,<sup>299</sup> took over the property after some negotiations with the Department of Railways and Canals. The new lease contained the added option of running a plaster and cement works as well as a mill.<sup>300</sup> Hamilton evidently reopened the gristmill and carried out a number of improvements to the site. There are signs that he too had difficulty making the business pay. But the gristmill remained open, nonetheless, apparently under the supervision of a Pittsburgh Township farmer named

George Toner during the late 1890's,<sup>301</sup> and of Donald Graham, a part time lock labourer, after the turn of the century.<sup>302</sup>

Meanwhile there were other parties studying the mill site with considerable interest around this time. During the 1890's at least ~~two~~ firms, the Boynton Wall Plaster & Cement Manufacturing Company of Kingston, and the Kingston Light Heat & Power Company, both made inquiries about obtaining the lease from Hamilton.<sup>303</sup> Nothing came of these discussions, but other negotiations bore fruit on 8 March 1904, when Hamilton formally transferred his lease to the Kingston, Portsmouth & Cataraqui Electric Railway Company.<sup>304</sup> Undoubtedly the railway company was interested only in developing hydro-electric power at Kingston Mills, and therefore acquired the existing lease by way of negotiating for a new one.

One of the principal parties behind the scenes was John M. Campbell, a Kingston businessman who was president of both the Kingston Milling Company Limited and the Gananoque Electric Light and Water Supply Company Limited. On 10 August 1906, the street railway company - in which Campbell seems to have had an interest - transferred the lease to the Kingston Milling Company.<sup>305</sup> The milling company, too, had no interest in the old gristmill, having very extensive facilities of its own at the Kingston waterfront, powered by steam.<sup>306</sup> Like the street railway, the Kingston Milling Company wanted to generate hydro-electricity at Kingston Mills. Apparently there followed some long and protracted negotiations with the government, which had been wrangling and quarrelling with mill owners on the Rideau for over half a century.<sup>307</sup> Finally, in 1913, an agreement was reached, the old lease was cancelled, and a new one issued. This was speedily reassigned to the Gananoque power company - of which Campbell was head - and a new phase in the industrial history of Kingston Mills began.<sup>308</sup>

As for the old gristmill, its exact fate is not known. Former Lockmaster Earl Doyle, who was born near Kingston Mills in 1895, still recalls the mill in its operating days, and remembers being present when his father's wagons arrived with grain to be ground. Donald Graham was the miller at that time, having rented the mill from J. M. Campbell.<sup>309</sup> Not long afterwards, while Mr. Doyle was still a small boy, the mill-dam gave way one spring and the ensuing flood carried away the west end wall of the building, along with the mill-wheel. The old mill was then left to crumble and collapse, and for several years afterwards its ruins were a prominent sight. In part, Mr. Doyle believes, the remnants were demolished by the Gananoque company, though the modern generating station occupies a site on the opposite side of the river-bed. Mr. Doyle believes that the flood occurred in 1912,<sup>310</sup> but the circumstances suggest a somewhat earlier date. A statement by Mr. E. A. Moxley of Westbrook, Ontario, in the Kingston Whig-Standard on 7 November 1960, places the collapse in the spring of 1905 - which is probably very close to the truth.<sup>311</sup> To date, this writer has not been able to find a contemporary reference to the incident. It is said that the old mill-wheel still lies where it fell, in the river channel below the falls,<sup>312</sup> and more than one commentator recalls seeing one of the millstones, lying on the ground between two elms near the canal basin, where picnickers used to use it for a seat, or a hearthstone for campfires.<sup>313</sup> Otherwise, little trace remains of the enterprises which for 120 years were the mainstay, and indeed the very name, of Kingston Mills.

#### The Gristmill Stables

As noted earlier, a stable and a miller's house were both erected during the 19th century as adjuncts to the last



gristmill. The miller's house, which is still standing, will be discussed later. Of the stable, suffice it to say that it stood less than a hundred feet east of the gristmill, and was used by local farmers who brought their grain to the mill in horse drawn vehicles. Also called a drive shed on a map drawn in 1903, the stable was a frame building, apparently over 50 feet long.<sup>314</sup> It may have been built shortly after the mill was completed, and if so was perhaps constructed of timbers left over from the defunct lumbermen's houses. According to Earl Doyle, the old horse shed had been torn down by the end of World War I,<sup>315</sup> and since clay from that location is said to have been excavated for the new power dam in 1913-14, we may conclude that the stables were demolished around that time.<sup>316</sup>

#### Potash Works

A few small secondary industries are known to have been attempted around Kingston Mills during the late 19th century, usually employing just a few people. One of these was a potash works, which is mentioned in the census of 1871, and was apparently owned and run by Edward Byrne.<sup>317</sup> We may therefore deduce that the works were located on the Byrne farm, on the north half of Lot D, Pittsburgh Township, near the junction of the Middle Road and what is now Highway 15, but nothing further is known about them. As there is no further reference to these works, and none of the old-timers in the area seem to recall them, we may conclude that they soon passed out of existence.

#### Cheese Factory

Better known is the former cheese factory, another of the Byrne family enterprises. This too is listed by the census



of 1871,<sup>318</sup> and also appears in the Frontenac County Atlas of 1879; marked on the property of James Byrne, west of the Barriefield Road, close to the intersection with the Middle Road.<sup>319</sup> The census records indicate that the factory was run by James Byrne, and it is probably significant that the residents of Kingston Mills in 1883-84 included one dairyman and two cheesemakers.<sup>320</sup> The cheese factory seems to have lasted for quite some time, though it ceased to produce cheese before the turn of the century. Mr. Earl Doyle, who was born in 1895 and lived on the next farm, remembers playing around the old building as a boy, and recalls that it was an ordinary rough, wooden board structure set on natural stone, without foundations of any kind.<sup>321</sup> Similarly, Mr. Albert ("Abbie") Dunlop of Cushendall, a native of the area since 1914, also remembers the old cheese factory, which, he affirms, was never operating in his day.<sup>322</sup>

In more recent times, a second cheese factory was opened on Concession II, Pittsburgh Township, about two miles east of Kingston Mills. Probably like the original, this enterprise consumed a lot of local farmers' milk for several decades.<sup>323</sup>

#### Kingston Mills Village (1856-1900)

Throughout the latter half of the 19th century, our main sources of information about the Kingston Mills settlement are the old county directories, which give us brief descriptions of the village at different intervals, plus lists of the principal residents who lived there. Occasionally the directories are supplemented by maps, secondary sources, travelogues, land patent books and archival records. Put together, they suggest a small village community based on agriculture, road and canal

traffic, the mills and the lockstation, never large, but with some local life of its own. We hear occasionally of craftsmen and specialized professions, but seldom of merchants and storekeepers, except at the nearby settlement of Cunningham's Corners (now Code's Corner), which was sometimes reckoned as part of Kingston Mills, and sometimes not.

One rather flattering description of Kingston Mills was penned by C. W. Cooper of Kingston in 1856. To quote him:

Within this Township [Kingston] on the Rideau Canal, about five miles from the city is situated "Kingston Mills" - a pretty and picturesque spot whose scenic beauties approach to grandeur; they are heightened by that splendid specimen of human art and skill, the Locks of the Rideau Canal, by which vessels ascend a height of 45 feet through five capacious basins of hewn stone. At Kingston Mills is a very extensive Saw Mill, and a Tubular Bridge carries the Grand Trunk Railroad across the chasm formed by the stream and the lofty rocky banks.<sup>324</sup>

Cooper's narrative also confirms that a post office had already been opened at Kingston Mills.<sup>325</sup>

The Kingston City Directory for 1857-58 also notes the sawmill, locks and railway bridge at Kingston Mills. Only six names are listed as actual residents at the village, including two hotelkeepers (William Blessing and Patrick Crowley), one school teacher (Daniel Callaghan), and the Blood, Bond & Company lumber merchants. The others were a sawyer and a carpenter respectively. An appendaged list gives us 30 more names, but with one exception all are described as farmers, yeomen or labourers.<sup>326</sup> (At nearby Brewer's Mills, by contrast, we find 15 residents listed for the above years.)<sup>327</sup>

During the next decade, Kingston Mills seems to have expanded a little. Another directory, dated 1865, gives us the following description of the site:

KINGSTON MILLS. - a post village, near the first locks on the Rideau Canal, in the township of Kingston, county of Frontenac. Distant from Kingston, the county seat, 6 miles, and from Montreal, 184 miles. Population about 150.<sup>328</sup>

The following list of residents now contains ten names, including three innkeepers, two farmers, one boot and shoemaker, one blacksmith, and a saddle and harness maker, besides William Robinson, then collector of canal tolls (and lockmaster), and Thomas Burrows [Burrowes], who was postmaster, an engineer and surveyor by training.<sup>329</sup> Since some of the listed people lived in adjacent parts of Kingston and Pittsburgh Townships, it seems likely that the 150 population figure covers several square miles around the lockstation. The Kingston Mills post office is said to have served most of the region as far as Bermingham (Joyceville) at one time.<sup>330</sup> (In 1865 Brewer's Mills is assigned a population of just one hundred.)<sup>331</sup>

The next available source on Kingston Mills is the Frontenac County Atlas of 1879, which, unfortunately, gives no detailed information on the site, beyond showing the adjacent farm lots and their owners as of 1878.

Another detailed glimpse of the village is provided by the county directory of 1883-84. The picture remains similar to that of 1865:

Kingston Mills - A Village in the Township of Pittsburg, 2nd concession, 36 lot, quarter mile from G.T.R. station called Rideau, 6 miles from Kingston; population about 150. This village is situated on the Rideau Canal, and has first-class water power and a large mill running the year

round.<sup>332</sup>

The follow-up list is much more informative. It tallies the names of 45 inhabitants of Kingston Mills and vicinity, showing considerable diversity of occupation. The appendices for Kingston and Pittsburgh Townships in turn add the names of ten more people (apparently farmers) who received their mail from Kingston Mills post office. Amongst the residents of 1883-84 we find three millers, two lumber dealers, four butchers, three drovers, one hide dealer, two blacksmiths, two cheesemakers (perhaps employed at James Byrne's factory), a barber, painter, teacher, real-estate dealer, notary public, pawnbroker, two carpenters, two mariners, a wine salesman, two railway employees (including a station-agent), several labourers, and of course the lockmaster, Joseph Deane. Rather surprisingly, no innkeepers are included on the list.<sup>333</sup>

One should not leap to the conclusion that Kingston Mills had developed a business section, lined with shops and stores during this period. Most, if not all, of these local entrepreneurs seem to have conducted business from their own homes, which were sometimes one or two miles from the lock-station. All of the drovers and butchers listed, for example, appear to have been farmers, and Mr. Earl Doyle for one recalls that at least some of them customarily operated from their own farms. (One of the above, Albert Lundman, a butcher by trade, is said to have lived near Cushendall, or Stephentown Creek, nearly halfway between Kingston Mills and Joyceville, yet he is listed as a resident of Kingston Mills.)<sup>334</sup>

Indeed, it is sobering to consider the description of Kingston Mills as contained in the next county directory, that of 1885-86. Here we read:

Kingston Mills - A Village in the Township of Kingston, 6 miles from Kingston and  $\frac{1}{2}$  miles from station G.T.R., situated on the Rideau Canal being

the first lock station. Population about 50.<sup>335</sup> There follows the names of only 11 residents, including the postmaster and the miller, and even when we add the names of local township residents whose mailing address was Kingston Mills, the number comes only to 17.<sup>336</sup>

On the other hand, the directory of 1887-89 gives a different picture again. This source describes Kingston Mills as a village in Pittsburgh Township, six miles north-east of Kingston, and reckons its population as about 200.<sup>337</sup> Again, the following list of residents (totalling 22) indicates a fair variety of occupations, including three hotelkeepers, two nurserymen, three builders and carpenters, and an assortment of barbers, plumbers, shoemakers, tanners, coopers, boatbuilders and the like. Some of the inhabitants seem to have changed jobs over the interval from 1883: Thomas Blake shifted from financial activities to the nursery business, James Doyle from butchering to shoemaking, John Redmond from labouring to nurserying, and John Smith from wine selling to hotel keeping, though perhaps the latter case actually involved no change at all!<sup>338</sup>

Besides the above, we are given the names of 13 Kingston Township residents and 50 from Pittsburgh who collected their mail from Kingston Mills, despite the fact that a new post office called Cushendall had just been opened on the Point Road, between Code's Corner and Joyceville.<sup>339</sup>

The last of the local county directories to give us information on Kingston Mills is the edition of 1895. This one, however, states only that the village is in Frontenac County, and that its population was about 175. A mere five individuals, including a grocer, the miller, the postmaster, and two hotelmen, are listed as residents, though in fact both the hotels were located at Cunningham's (Code's) Corners, which was starting to rival Kingston Mills in importance on the local scene. Twenty-five other

householders from the local townships are also listed as subscribers at Kingston Mills post office.<sup>340</sup> Beyond this point, the written record, aside from dry canal and land patent records, peters out, and the researcher must rely more on photographs and local tradition.

#### Post Office (1853-1937)

The community of Kingston Mills first received official recognition on 1 April 1853, when it was formally granted a post office, and this distinction continued until as recently as 1937.<sup>341</sup> The office seems to have serviced a very considerable region, from Tuttle's Hill as far east as Bermingham (Joyceville),<sup>342</sup> though in later years other offices were opened to relieve some of the pressure.

Unfortunately, not a great deal has hitherto come to light concerning the Royal Mail at Kingston Mills. Even the precise location of the post office is not always clear; it seems to have migrated from place to place over the years.

According to the records, the first postmaster at Kingston Mills was W. H. Deane, whom we have encountered occasionally as a partner in Angus Cameron's sawmill venture after 1848.<sup>343</sup> Deane continued to serve until 29 January 1858; apparently death or illness terminated his tenure, since the position afterwards remained vacant for two months.<sup>344</sup> Where the office was located at this time is unknown.

On 1 April 1858, the position of postmaster went to a Henry Crawford, whose connection with the area is likewise unknown, though a number of individuals named Crawford are stated to have taken up land along the river downstream from Kingston Mills between 1797 and 1802.<sup>345</sup> Crawford held the position only for five months, until 31 August 1858. After another month long vacancy, the job went to Thomas Burrowes

on 1 October 1858.<sup>346</sup>

Presumably this Thomas Burrowes was the same individual who had worked on the Rideau Canal under Colonel By, and who afterwards became Clerk of Works for the waterway, settling at Kingston Mills with his family. Burrowes evidently took up farming during or after his service with the canal staffs,<sup>347</sup> and we can only surmise that the post office was located in his farmhouse, which still stands about half a mile west of the lockstation, near the old road in from Kingston. After the railway was opened and the road rerouted along its present course from Tuttle's Hill, the Burrowes home (and post office?) must have become very isolated. Perhaps this was the factor that inspired complaints in the Daily British Whig on 13 January 1866, alleging that the Kingston Mills post office was badly located, in an area with few inhabitants, and that hardly anyone ever called there. The editor suggested that the office be relocated directly at Kingston Mills, or at Cunningham's Corners three-quarters of a mile away, and noted that many complaints had already poured in, but despite promises to the contrary, nothing was ever done. (The newspaper was also upset because its weekly circulation was suffering as a result.)<sup>348</sup>

Perhaps something was done later that year. On 1 July 1866, one Robert Brownley succeeded Mr. Burrowes as postmaster. Nothing more is known of this individual, except that he retained the job until January of 1868.<sup>349</sup> Then, on 1 February 1868, Charles Harrison, proprietor of the "Bridge Inn" (q.v.), took up the duties of postmaster,<sup>350</sup> and it seems likely that the office was then located in his tavern, which stood a short distance east of the locks near the "Station Road" intersection, and is probably the same house now occupied by Mr. Leo Hogan and family. (This location was only a short distance from the "Rideau" railway station (q.v.) on the G.T.R., where the mail was probably dropped



off and collected.)

On 1 November 1880, Charles Harrison, who had probably given up operating a tavern by that time, formally resigned as postmaster, and thereafter the remaining postmasters were always the lockmasters.<sup>351</sup> Thus on 1 January 1881 Joseph Deane took on the job until 25 March 1892, about which time he died. On 1 September of that year Robert Anglin, the new lockmaster, became the postmaster until he resigned both positions in the spring of 1919. His successor, William Burton, served as postmaster until 31 July 1923, when blindness forced him to give up both jobs. As a matter of course, the new lockmaster, Mr. Earl Doyle, also became postmaster, as of 18 September 1923,<sup>352</sup> though in practice the work began to devolve more and more upon his wife, who died in 1940.<sup>353</sup> Mr. Doyle has confirmed that the post office was always located in the lockmaster's house as far back as he can remember<sup>354</sup> - which means to the turn of the century; from which we may probably conclude that the office, since 1881, was always housed there (and in the previous lockmaster's house which occupied the same site).

During the 1930's, when trucks began assuming more and more mail deliveries, the need for rural post offices declined. The office at Kingston Mills outlasted a number of others in the region, notably that at Cushendall, on the highway to Joyceville, but finally in 1937, the decision was made, and the Kingston Mills office was officially closed on 15 April, some 84 years after it was founded.<sup>355</sup>

#### Buildings Erected, 1860-1900

Against the backdrop of the above sketches of Kingston Mills, we may proceed to an examination of some of the buildings and premises known to have existed at the site in the latter portion of the 19th century. For convenience, a start will



be made with government buildings erected or acquired for the canal staff, to be followed by a discussion of various private residences, taverns and the like, and concluding with a brief survey of properties and activities at Cunningham's Corners, which has emerged as the new "business centre" for the Kingston Mills region.

#### *The Second Lockmaster's House*

We have noted earlier that the original lockmaster's house, located on the rocky headland west of the lockstation, was condemned as uninhabitable in 1860, and that a new house was recommended, to be located between the Montreal Road and the dry dock. In 1894, Lockmaster Robert Anglin, in commenting on the house extant in his time, recalled that the building had been built around 1860 by his predecessor, Joseph Deane.<sup>356</sup> Since nothing further is heard of the original house, whose demolition was suggested late in 1860, we may infer that the second lockmaster's house was built in 1861 or soon afterwards. In 1862 Lockmaster William Robinson is said to have been using one of the houses built for the sawmill crews, east of the locks.<sup>357</sup>

The new lockmaster's house stood approximately where the old clerk's house mentioned earlier was located, and indeed may even have incorporated the earlier building into itself. A description of the house by Canal Superintendent A. T. Phillips in 1902 indicates that it was built in three sections, one of which rested on stone foundations, with two wings laid on timbers on the ground and tied to the centre section;<sup>358</sup> all of which suggests an amalgamation of various surplus buildings at the lockstation. It may have been poorly constructed from the beginning. A statement by Anglin in 1901 noted that the house was "frame clapboarded and plastered with no other lining."<sup>359</sup>

Lockmaster Anglin did not particularly like the house. On 3 January 1901, he complained to the superintendent that the house had no upstairs habitation, that it was very cold in the winters and damp in the summers, and that it was actually undermining the health of his family. The house itself, Anglin went on, was undermined by rot: part of the sills were rotten and sunk in the mud.<sup>360</sup> In 1904 he went further, and alleged that his house was "the worst lockmaster's house from Kingston to Ottawa".<sup>361</sup> It was then contrary to the department's policy to spend any government money on accommodation for the lock staff,<sup>362</sup> but Phillips seems to have decided that this case was exceptional. In 1902 he advised his superiors that the house should be replaced.<sup>363</sup> The following year, in a letter to Chief Engineer Schreiber, Phillips noted that the house would be very difficult to raise because of its three sections, and because it had an old fashioned stone chimney extending from the cellar to the roof. He also commented that only three of its rooms were habitable in the winter and spring.<sup>364</sup>

In 1904 Anglin's complaints were at last rectified. A new house - the one still extant at the station - was erected, while the old one (according to the lockmaster's journal) was sold to Lockman Doyle,<sup>365</sup> who presumably demolished it or moved it away in sections.

#### *Lockmen's Buildings*

Little can be discerned at present about the various houses or shanties that must have accommodated the humble labourers who assisted the lockmaster at Kingston Mills during the latter half of the 19th century. Any such buildings were probably not very elaborate, since most of the station staff worked at the locks only during the season of navigation, from May to December annually. On 9 April 1888, lockmaster

Anglin noted in his journal that an old log house occupied by Lockman John Redmond had just been destroyed by fire, resulting from sparks thrown off by a passing railway locomotive;<sup>366</sup> from which we may conjecture that the house in question stood near the railway tracks, perhaps on high ground west of the locks and the railway bridge, where various canal buildings are known to have been located in earlier times.

It might be noted in passing that photographs confirm that a few small wooden buildings were still occupying the heights of land south of the railway tracks as late as the turn of the century. (Perhaps these huts were built for the railway crews engaged in laying the extra track in 1890.) Mr. Earl Doyle (born in 1895) recalls two hilltop shanties on the Kingston Township side of the gorge, at the above location, in the days of his youth. He also recalls that one or more persons residing in these shanties died from some strange disease, and that no one attended the funeral, for fear of catching it! Mr. Doyle also affirms that the two shanties had disappeared before he assumed the duties of lockmaster in 1923.<sup>367</sup>

*The "Lodge" (1881-1972?)*

The old lockmen's house called the "Lodge" was situated in the triangle between the locks and the Cataraqui River near the blockhouse, and was only recently demolished. Unlike many of the other old canal buildings, it is well documented. Officially listed as "building No. 72", the "Lodge" was built on contract by William Sommers (of Ottawa?) in November 1881, to house some of the seasonal workmen.<sup>368</sup> Of frame construction with cedar shingles, the building was 18 feet by 13 feet 4 inches, and consisted of one and a half storeys, each with a single room;<sup>369</sup> the lower for eating, and the

upper containing bunks where the men could lie down.<sup>370</sup> There was also a chimney, probably for the cook-stove, but no cellar or foundations.<sup>371</sup> Mr. Earl Doyle affirms that the "Lodge" was originally planked on the exterior with boards and battens, and that this was later replaced by tongue and grooved clapboarding. No changes, he says, were ever made to the interior, except the installation of electric lights.<sup>372</sup> A despatch from canal superintendent Phillips to the chief engineer, on 16 April 1896, mentions that three lock labourers were then residing in the building,<sup>373</sup> and Mr. Doyle confirms that the lockmen regularly used to eat there while on duty. The "Lodge" was said to be in fair condition around 1930, but it was demolished around 1972.<sup>374</sup>

#### *The Storehouse*

Another government building at the lockstation which may date back to the 19th century is the canal storehouse. This structure, still extant, is 25 feet by 28 feet 6 inches in size, has two storeys (each with a single room), and is built on a concrete floor. It is of frame construction, with the usual tongue and groove sheeting and a roof shingled with cedar.<sup>375</sup> Its age is unknown, but it may date from as early as 1882, when an annual report from the Department of Railways and Canals indicates that a new storehouse had just been built at Kingston Mills station.<sup>376</sup> However, even if this storehouse occupied the same site as the present building, we cannot be sure that the two were one and the same. The records also mention a barn built by Lockmaster Joseph Deane, which was converted into a storehouse in 1894, following Deane's death.<sup>377</sup> (One is inclined to doubt that a barn would have been erected close to the canal basin, and thus to suspect that this

account refers to some other building.) As for the present storehouse, we are assured by former Lockmaster Doyle that the building was in existence before he took up his duties in 1923. (The same also applies to the nearby "Collector's Office", which will be discussed later.)<sup>378</sup>

### *Miscellaneous Sheds*

The evidence of various maps and photographs proves that the "triangle" between the locks and the river at Kingston Mills was once disfigured by a number of ugly wooden sheds. Reference has already been made to three such buildings, built along the river before 1853. Others, apparently on government land, were built in a row on the rocky slopes south of the blockhouse, perhaps before the turn of the century. Their exact purpose is unknown. A map of the mill site, drawn in 1903, indicates six sheds on canal lands, of these, two are shown near the road bridge west of the blockhouse, a third appears just south of the blockhouse, while the remaining three form a cluster across the road from the blockhouse, midway between the upper lock and the waste basin.<sup>379</sup> (See Fig. 4) Two of these sheds may date back as far as 1853, judging from a map of that period;<sup>380</sup> the others were presumably built afterwards. All were apparently out of existence by 1923, although one Kingston Mills resident, Mr. Frank Sheldrick, recalls an old building with a chimney, which he says stood east of the blockhouse until it was demolished in 1974.<sup>381</sup>

### *The Burrowes - Bolton House*

The old Burrowes farmhouse stands about half a mile southwest of the lockstation, yet it deserves special mention, in that it is probably the oldest surviving building around

Kingston Mills today, with the possible exception of the blockhouse. The Burrowes house was apparently built around 1832, if not earlier, and despite repeated remodellings it still retains many quaint, archaic features - including massive walls and a cell-like basement room known locally as the "dungeon" - which all help to make it a thoroughly fascinating building.

The house, currently the residence of Mr. Allan C. Burr and his wife, stands on high ground commanding a fine view, directly atop the granitic "knob" or ridge which dominates the local topography around Kingston Mills. The modern setting is curious, since it is set far back from the modern Kingston Mills Road and behind the C. N. railway embankment. Indeed, the property would be totally cut off from all public access roads were it not for a well constructed overpass bridge built of ashlar limestone masonry, which has a clearance of ten feet six inches<sup>382</sup> and carries the railway tracks over the long winding driveway leading to the house. From the setting, it is immediately obvious that the house antedates the railway, and on closer inspection it becomes clear that the front of the building was once the rear, and that the home originally faced south-west rather than north-east as it does today.<sup>383</sup> The explanation for this phenomenon seems to be that the house was built along the original Kingston Mills road, which followed the shores of the river south of the present highway. When the railway was completed in 1856 and the road rerouted to the north along its present course, the old road was abandoned, leaving no obvious trace, and the property was left isolated.<sup>384</sup>

The house seems to have been the original homestead of Thomas Burrowes, the Englishman from Worcestershire who emigrated to Canada in 1818 at the age of 22, and presently found employment under Colonel By on the Rideau Canal.<sup>385</sup>

Much of his work was done in the Dow's Lake area near Bytown, though he became "thoroughly familiar with the line from Kingston to Jones Falls".<sup>386</sup> Colonel By found Burrowes a hot tempered man, but noted that he did excellent work, and it was perhaps on the colonel's recommendation that Burrowes was appointed Clerk of Works for the canal in 1832.<sup>387</sup> Burrowes settled at Kingston Mills, on lot 36, Concession IV, Kingston Township, then a stretch of desolate bush, and built himself a homestead - apparently the same house that sits astride the granite ridge today. His wife Grace died there in March 1837,<sup>388</sup> but after an interval he remarried, to an Irish girl named Margaret Morrison, and raised a family of six daughters and one son.<sup>389</sup> Eventually he resigned his position as Clerk of Works, and spent the rest of his life at Kingston Mills, where he developed a large farm. He died around 1868, but not before leaving posterity a splendid set of watercolour paintings which form a valuable portrayal of most of the lockstations on the Rideau Waterway during the 1830's, 1840's and 1850's.

Unless an earlier house pre-dated the existing building, we must assume that the Burrowes home was built not later than 1832. Its walls are constructed of undressed fragments of stone, cemented with clay mortar, and are necessarily very thick - about two feet altogether<sup>390</sup> - and it is tempting to speculate that the building stone may have consisted of rubble left over from construction of the locks. There was originally a wooden or log section to the house, demolished around 1948 or 1949, which was used within recent memory as a kitchen and servants' quarters, but there is no obvious sign of any enlargements having been made to the limestone cellar.<sup>391</sup> The house was built in the English style, with a large central hall on the main floor, which today has five rooms. The upper storey has eight bedrooms, some of which are rather small, and may have been used as nurseries.



Originally there were two chimneys and two fireplaces on each floor; later, stoves were used to supply heat. More recently still, a gravity-type furnace was installed in the basement, to which was added a blower. Before 1962 the home was heated with hot water radiators; today steam radiators can be found in every room.<sup>392</sup> The house contains many signs of rustic workmanship, including hand-planed doors to some of the bedrooms, and hand-carved railings on the stairwell. Originally there was a built-up carriage road which approached the house from the west and encircled it; nearby was a stable, where a garden shed now stands. There was also a verandah at what was originally the front of the house, and another at the rear. Both have since been removed.<sup>393</sup> Photographic evidence indicates that the house was apparently plastered on the outside around the turn of the century (a necessary precaution, considering the tendency of clay mortar to crumble readily). Today the building is faced with stucco, added in 1948-49.<sup>394</sup>

In one corner of the basement is a small room with two windows, both barred. Local tradition has it that this room served as a cell or lock-up for lawbreakers at one time, and the idea seems to gain credibility when it is noted that Thomas Burrowes once served as a Justice of the Peace. However, Burrowes did not hold such a position when he first settled at Kingston Mills, and the present owner, Mr. Burr, believes that the bars were installed when the house was originally built. So far as is known, there was no crisis during the nineteenth century which would have overtaxed the Kingston jails; one is at once reminded of the Rebellion of 1837 and its aftermath, yet as we have noted elsewhere, the uprising found very few active supporters in traditionally loyalist Kingston and its environs. The "dungeon" contains none of the amenities usually associated with jail cells. Mr. Burr is of the opinion that the room



was intended simply as a wine cellar, and that the bars were meant to keep thirsty mischief-makers out, rather than in!

In addition to the house, the property contains an area of over 50 acres, plus a milk shed and barn.<sup>395</sup> The former is now collapsing, and the latter, which has a rubble and mortar foundation similar to the walls of the house itself, is also slated for demolition, since the adjacent lands (except for haying) are no longer being farmed. Besides, the interior foundation walls of the barn (which is no longer being used to shelter cattle) have started to collapse as a result of the cold of winter.<sup>396</sup>

As for the later history of the property, we may repeat the suggestion made in the section dealing with the Kingston Mills post office that the house perhaps served as the Kingston Mills post office from 1858 to 1866, when Mr. Burrowes took on the job of postmaster.<sup>397</sup> In 1858 or immediately thereafter, the government road which presumably ran immediately south of the ridge, was relocated and projected on its present course north of the railway tracks, leaving the Burrowes home stranded.<sup>398</sup> At what point the present railway overpass was built, and whether it was constructed through the embankment or through a trestle formation that may have preceded the embankment, are questions that cannot be answered as yet, though Mr. Burr recalls that the steel trellis carrying the rails over the opening has been renovated at least once since he took up occupancy of the land in 1950. He has also noticed hinges in the masonry, to which gates were once hung to keep cattle from straying.

This writer has found no certain record of the property until 1886, when a gentleman named Henry Bolton, who seemingly moved to Canada from Ireland, had become owner of the farm.<sup>399</sup> The Boltons lived as "gentlemen farmers", and were apparently wealthy enough to employ servants and hired

hands. They also renamed the property "Mount Bolton" (the Burrowes family had called it "Maplehurst"),<sup>400</sup> and a framed window which once filled the arch over the main entrance is still kept in storage in the basement. On the window glass are the words "Mount Bolton". Henry Bolton added a number of refinements to the home, including a steel windmill beside the river and a piping system to bring water into the house during the warm season.<sup>401</sup> Unfortunately, Bolton's heirs seem to have been less careful with money than their father was, and in November 1912 Mr. Bolton's executors sold the property to Samuel and William McAdoo.<sup>402</sup> The McAdoos were farmers and drovers, but apparently they were rather sloppy and unenterprising people, in whose custody the property began to deteriorate; the windmill was left to collapse, the outside pipes froze and burst, and even the well was allowed to cave in. The plaster on the house crumbled, and the farm apparently became unkempt and nondescript.<sup>403</sup>

Matters improved again in 1948, when a Kingston entrepreneur named Floyd Shillington, who was then running a service station in the city, bought the property from Samuel McAdoo's widow, intending to establish his residence there.<sup>404</sup> Shillington demolished the old wooden kitchen at the back of the house, stuccoed the walls to protect them, added a sunporch to the front, bored a well in the basement, installed a hydro line, and generally improved the place; however, he was forced to give up his plans to live there, and in 1950 he sold the house and barn with seven and a half acres to the present owner, Mr. Burr.<sup>405</sup> The remaining pasture land went to Arthur G. Reid, a farmer who owned the adjoining lot, but in May of 1955 Mr. Reid sold about 44 acres of that land back to Mr. Burr.<sup>406</sup> Aside from remodelling the heating system and moving the furnace in the basement, the Burrs have made few changes to the house, and in fact are keenly interested in its long and eventful past

history.

*The Keenan House*

Many other old landmarks have recently perished around Kingston Mills. Of these, the latest example is the old Keenan house.

The Keenan house stood on Lot 35, Concession IV, Kingston Township, near the extreme west end of the west canal embankment. It was a stone built structure, one and a half storeys in height, with four rooms on the main floor; a concrete block addition on the north side provided extra space plus a garage. Close by stood a barn with stone foundations and a clay tile silo. Today everything is in ruins. The barn burned down around 1975, and the house, already abandoned and vandalized, met the same fate in the spring of 1977, perhaps at the hands of youthful arsonists.<sup>407</sup>

The early history of the Keenan house is unknown. Mr. Earl Doyle recalls that a farmer named Felix Keenan was residing in the house in the 1920's.<sup>408</sup> Felix Keenan's two daughters, Elizabeth and Mary, who now live about a mile west of Kingston Mills, have further recollections. Born in 1916 and 1912 respectively, the two ladies report that they grew up in the old stone house. They also affirm that in 1924 the house and lands were sold to "Colonel" Alfred H. Fair of "Fairmont", Kingston Township, who was then developing the "Hemlock Park" dairy farms, north-west of Kingston Mills. (Fair's enterprise in turn gave rise to the Hemlock Park Dairy, which remained in business until about 1967.) The old Keenan house meanwhile became a domicile for some of Colonel Fair's employees, who were often the very farmers that Fair had bought out when expanding his holdings. Later, during the late 1960's, Fair's son-in-law, James Harrington, a Kingston lawyer, tried leasing the old house -

not very successfully, perhaps because of its isolated setting. After that, the house stood abandoned, until its recent destruction by fire.<sup>409</sup>

On the subject of its early history, the Keenan ladies were able to say only that the house was built long before their time. They also agree that it was in existence before the Keenan family moved in, and also recall hearing that it was originally built by "an old English lockmaster at Kingston Mills".<sup>410</sup> Now, a search through the list of lockmasters from the olden days reveals that all were Irish - with the possible exception of William Robinson, who held the post from 1857 until his death on 9 September 1867.<sup>411</sup> A study of the old land patent books shows that a William Robinson and wife were in possession of Lots 35 and 36, Concession IV, Kingston Township by 1864, if not earlier, and that Robinson prepared a will on 23 June 1866.<sup>412</sup> Again, on 14 October 1867, Maria W. Robinson is found to have sold the two lots to John Branigan, an Irish farmer, who in turn resold them to Felix Keenan, Senior, on 1 May 1883.<sup>413</sup> Finally, Mr. Earl Doyle vaguely recalls hearing of a "Robinson house", somewhere west of the locks, though he does not identify this house with the old Keenan property.<sup>414</sup> Another difficulty is raised by the Frontenac County Atlas of 1879, which does not indicate anything at the site of the old Keenan house - though it does mark a building a little to the east, near the drowned lands.<sup>415</sup> Despite this, it remains a possibility that lockmaster Robinson once owned the Branigan-Keenan farm, and that it was he who built the old stone house, during the 1860's.

*The Hogan House (1890?-195?)*

The former Hogan house, like the Keenan home, is another case of a defunct dwelling that perhaps dated back to the

19th century. Unlike the Keenan house, the Hogan residence was owned by the Department of Railways and Canals and built on canal land. Combining local tradition and documentary evidence, the following picture emerges about the building.

The Hogan house stood on the hilltop, north of the road and immediately west of the lockstation, about where the modern highway rock-cutting is,<sup>416</sup> and very close to the site of the unidentified "inn" marked on the maps of 1853. The building was evidently a tall wooden two storey house with clapboard walls (painted grey), a front verandah, and rather a steep roof. It was an impressive structure, and looked even more so from its elevated position.<sup>417</sup> Canal records indicate that the outer dimensions of the house (listed as No. 71) were 21 feet 8 inches by 31 feet, that it had a cellar with a concrete floor, and stood on a rough masonry foundation. It had seven rooms, lath and plaster walls, and an adjacent well. On 12 May 1930, it was stated to be in fair condition, but growing old.<sup>418</sup>

The date of construction of the house is not known, though local testimony indicates some time in the 19th century. All parties agree that it was built by one Patrick Hogan, grandfather of Mr. Leo Hogan, one of the present inhabitants of Kingston Mills. It would seem that Patrick ("Patty") Hogan was born in Cork, Ireland, around 1860,<sup>419</sup> and in 1885-86 a man of that name is listed amongst the residents at Kingston Mills.<sup>420</sup> Hogan married one of the Keenan girls, and for several years was employed as a lockman.<sup>421</sup> Earl Doyle recalls hearing that he obtained two or three buildings from the railway at the time that rail construction camps were built around Kingston Mills, and that he moved them to the hilltop and combined them into one,<sup>422</sup> and in fact the finished house did have two wings, at least in 1930.<sup>423</sup> If we take the above testimony to apply to the time that the railway was being double tracked

through Kingston Mills, it would follow that the Hogan house was assembled in 1890 or shortly afterwards. According to Elizabeth and Mary Keenan, Patty Hogan quit his job at the lockstation before 1910 and purchased a farm in Pittsburgh Township, around the Middle Road.<sup>424</sup> This is confirmed by Mr. Leo Hogan, who reports his grandfather died in January 1933.<sup>425</sup>

The old Hogan house, meanwhile, became the residence of Lockman John Duffy, a son-in-law of Patrick Hogan who worked on the canal for about 40 years.<sup>426</sup> Duffy is said to have paid for electrifying the house.<sup>427</sup>

As for its later history, we can say only that it stood vacant by the late 1950's, after Duffy's retirement, perhaps in somewhat decayed condition. Since the road was shifted and the rock-cutting blasted out about 1959, we must infer that the house was demolished not later than that date. Mr. Leo Hogan believes that the house was destroyed prior to the road reconstruction, as it was no longer in use and had become obsolete.<sup>428</sup>

#### *The Miller's House*

The miller's house, now the residence of the operator of the electric power plant, also appears to date from the 19th century, though its early history is unknown. Mr. Gordon Doyle (born 1897), a brother of Earl and a long time employee at the generating station, confirms that the house was in existence before his time, and that it was originally used by the miller who ran the old gristmill. Mr. Doyle also believes that the house has been extensively remodelled, with the upper storey and the back shed added at a later date.<sup>429</sup> Similarly Mr. Lorne Keeler, who resided at the house from 1925 to 1966 while working for the power company, reports that it is built of planks standing on end, and that

it was not new when he first moved in.<sup>430</sup> The house in fact may have been built about the same time as the gristmill, and if so some of its timbers may have been salvaged from the old sawmill employees' houses demolished around 1864.

In 1914, as mentioned earlier, the miller's house passed with the lease of the mill site to the Gananoque Electric Light Company, which used the building as a residence for its "boss" operator at the power-station.<sup>431</sup> We shall have more to say of it in connection with the generating station, and also under the subject of recreation at Kingston Mills.

#### Miscellaneous Taverns (1860-1900)

During the later 19th century we find reference to five more taverns - or their proprietors - around Kingston Mills, not counting several more that developed at Cunningham's Corners. Two of these four taverns are almost unknown, and may in fact be identical with some of the others. The five proprietors known by name were Joseph Dean, Henry Wilson, Charles Harrison, John Smith, and John (?) Redmond.

#### *The Joseph Dean Tavern (fl. 1865)*

Our sole source of information about this inn is the county directory of 1865, which laconically lists "Dean, Joseph, innkeeper", amongst the residents at Kingston Mills.<sup>432</sup> It may be that this Joseph Dean was one and the same person as Joseph J. Dean, who succeeded William Robinson as lockmaster in 1867; however, J. J. Deane is said to have been a lockman at Kingston Mills on a regular basis since 1859,<sup>433</sup> and if he also ran an inn it must have been during the off season only, unless he had the help of his family. Joseph Deane's name does not appear in the local land patent books until March 1874, when he purchased the south part of Lot 38 east



of the lockstation.<sup>434</sup> On the other hand, there were other Deans in residence at an earlier date. One Patrick Dean - perhaps a relative of Joseph - is mentioned in the 1850's, and appears to have had a house and a few outlying buildings at the junction of what is now the Station Road and Montreal Road.<sup>435</sup> (In later years the Redmond tavern occupied this site.) Lacking any further evidence, we may guess - precariously - that the Dean tavern was located at this corner, and that its existence was fairly brief.

*The Henry Wilson Tavern (fl. 1865)*

This inn is almost as obscure as the preceding one. Once again, the sole reference to it is found in the county directory of 1865, which notes "Wilson, Henry, & Bro. innkeepers".<sup>436</sup> On another page we find a Henry and Thomas Wilson listed amongst the residents of Pittsburgh Township, and living on Lot 39 in the Western Addition to the township - which means just east of Kingston Mills.<sup>437</sup> A check with the land patent records confirms that a Henry Wilson bought part of Lots 38 and 39, totalling 68 acres, for the sum of \$440 on 25 March 1863.<sup>438</sup> This in fact seems to designate part of the land occupied by Patrick Dean in the 1850's, as well as part of William Blessing's former land. We cannot conclude, therefore, that the Wilson tavern was identical with those of either Blessing or Dean, since Dean's hotel appears in the same list as Wilson's, and a third tavern, that of Charles Harrison, seems to have occupied the site of the Blessing tavern at the same time. None of the old-timers interviewed by this writer remember hearing of the Wilsons or their tavern.

*The "Bridge Inn" (Charles Harrison's Tavern)*

With the Harrison tavern we find ourselves on somewhat firmer ground. The Harrison family, like most of those that settled around Kingston Mills, was Irish in origin and Roman Catholic in religion.<sup>439</sup> The land patent books are not helpful in this case in that they mention no Harrisons as owning land at Kingston Mills. Yet the directory of 1865 lists "Harrison, Charles, innkeeper" under the heading of Kingston Mills,<sup>440</sup> and the Atlas of 1879 shows Charles Harrison as holding the arable portion of Lot 39, near the east embankment, on both sides of the Montreal Road.<sup>441</sup> Mr. Leo Hogan, the present owner of most of the land, is a maternal great-grandson of Charles Harrison, and affirms that the family homestead included part of the shoreline of the drowned lands as far north as the promontory of Esther Head.<sup>442</sup>

Both Mr. Hogan and former Lockmaster Earl Doyle agree that the Harrison tavern occupied the site where Mr. Hogan's present stone built house stands, on the south side of the highway near the end of the east embankment. Furthermore, both men believe that the modern house actually was the tavern. No one knows how old the house is. The stone facing, judging from two cornerstones, was added in sections from 1879 to 1881 by Charles Harrison himself (who became a stonemason in his later years),<sup>443</sup> but the basic construction of the building seems to be wood and plaster, and is probably considerably older. The house indeed stands approximately where William Blessing's second tavern was located in the 1850's, and it is possible that Charles Harrison simply acquired the old tavern after 1860 and carried on with it.

According to Hogan family tradition, the Harrison hotel was known as the "Bridge Inn", evidently because it stood close to a wooden, road bridge (now replaced by a culvert),

across a small rivulet near the end of the dyke.<sup>444</sup> The name of the inn is confirmed by an old wooden sign that formerly hung out at right angles to the front of the building. The sign, still in the possession of the Hogan family (and badly in need of restoration), reads "Bridge Inn" - "C. Harrison". The inn is said to have catered mostly to travellers, and to have offered meals and overnight accommodation, but no liquor.<sup>445</sup> It probably had a stable close by, and Mr. Hogan confirms that a barn was still standing immediately west of the house during the late 1920's, during his own youth.<sup>446</sup>

How long the Bridge Inn continued to cater to the public is uncertain; however, in the directories of the 1880's Mr. Harrison is described only as a builder, and there is no reference to a hotel.<sup>447</sup> By 1895 only his son George Harrison (who died around 1936) is mentioned,<sup>448</sup> and thus the Bridge Inn at Kingston Mills fades from the record.

*The John Smith Tavern (fl. 1887)*

The Smith tavern is another of those establishments about which nothing is known today, except for a county directory dated 1887 which says that a John Smith was keeping a hotel near Kingston Mills at that time.<sup>449</sup>

This may have been the same John Smith who is listed in the directory of 1883-84 as a seller of wines and liquors.<sup>450</sup> There is no record of anyone of that name owning land at Kingston Mills proper, but on the other hand we do find a J. Smith in possession of part of Lot 3, Concession III, Pittsburgh Township, in 1878.<sup>451</sup> This property lies along the modern Highway 15, just north of Stephentown Creek, about two miles from Kingston Mills. Perhaps the Smith tavern was located there.

*The Redmond Tavern (fl. 1890's)*

This tavern seems to have been the last at Kingston Mills, yet this writer has found no documentary evidence of its existence. None of the county directories mention it, yet there is a strong local tradition vouching for it, and placing its site at the corner of the Station Road and the Montreal Road, on the west side, about where Patrick Dean had once had a house. Mr. Gordon Doyle of Kingston (born in 1897) recalls a squared log house at this spot, with a gabled roof and a facing of clapboard, and a horse shed close by. He also affirms that the house was once a tavern, offering beverages and refreshments to travellers, and perhaps having room for a few overnight guests. The inn, he says, was kept by the Redmonds, though it had ceased to be a tavern when he knew it.<sup>452</sup> Mr. Earl Doyle also recalls the building, which he asserts was no more than a house.<sup>453</sup> Other old-timers remember a big wooden house at the junction. Mr. Leo Hogan, who lives nearby, dimly recalls a house at the corner in the early 1930's, which he says was once the home of Lockman Sandy Lunman.<sup>454</sup> Mr. Lorne Keeler knows a little more. He asserts that he and Lockman Will McKane demolished the Redmond home after Sandy Lunman died.<sup>455</sup>

The proprietor of the Redmond tavern was presumably John Redmond, who purchased parts of Lots 36 and 37 near the mill site from the ordnance offices on 21 November 1882.<sup>456</sup> Redmond's name flits through the records in a variety of circumstances: in 1883-84 he is mentioned as a labourer (perhaps with the canal staff);<sup>457</sup> in 1885-86 a "John Redmond, stock-raiser", is documented;<sup>458</sup> in 1887 we find a John Redmond listed as a nurseryman;<sup>459</sup> and in 1888 the lock-master's journal refers to a John Redmond amongst his men.<sup>460</sup> He is also mentioned in 1895.<sup>461</sup> Conceivably the man may also have run a tavern in his home during the 1890's.

John Redmond apparently died in 1900,<sup>462</sup> leaving his

property to his son Joseph, who seems to have moved away to Cunningham's Corners the following year.<sup>463</sup> At present, nothing more is known about the Redmond tavern at Kingston Mills.

#### Cunningham's Corners (1851-1977)

Towards the latter part of the 19th century, onwards into the 20th, commercial activity tended to drift away from the lockstation and centre around the road intersection about a mile east. In part this development probably came about because the Point Road (Highway 15), which originally swerved to the north-west and came out near Kingston Mills (following approximately the route of the modern Station Road), was later projected onwards in a continuing north-easterly direction to miss the lockstation and form a junction a mile east. (See Figs. 2-3) This tended to take land traffic between Kingston and Perth away from Kingston Mills. The railway may have hastened the process when it relocated the local station at this junction from the earlier site nearer the locks. The corners really came to life in the 20th century, with the advent of the automobile and, later, the asphalt surfaced highway, which have left Kingston Mills as something of a backwater by comparison. Known locally as Cunningham's Corners for nearly a century, and as "Code's Corner" since the Second World War,<sup>464</sup> the crossroads deserves a brief commentary here because it was usually reckoned as part of Kingston Mills village. Sometimes, though, it was also considered part of the settlement of Cushendall, a local post office opened a few miles up the Point Road towards Joyceville in 1887.<sup>465</sup> The sign in front of the local church betrays the confusion, in that it reads "Kingston Mills Parish (Cushendall)".

Cunningham's Corners took its name from the family of

Peter Cunningham, an Irish immigrant born in 1799,<sup>466</sup> who in 1847 was a recent arrival in Canada West. In the spring of that year he purchased 165 acres of semi-bush land at Lot 41, Concession IV, Kingston Township (now Pittsburgh),<sup>467</sup> and soon erected a dwelling and barn on the Montreal Road, close to the modern railway crossing.<sup>468</sup> By 1851, however, Peter Cunningham had moved over to the corner itself and had opened a tavern and stable (?) on the north-east side, about where the Cheetham store now stands.<sup>469</sup> Meanwhile he raised a large family, most of whom became yeomen farmers.<sup>470</sup>

Peter Cunningham's tavern is marked on the map of 1853,<sup>471</sup> but there is no further mention of it. In 1865 a Francis Cunningham (not a son of Peter) is mentioned as a boot and shoemaker, at or near Kingston Mills.<sup>472</sup> Otherwise, the next signs of commercial activity at Cunningham's Corners appear in 1887, when Edward Cunningham, evidently a grandson of Peter, was running another hotel at the junction.<sup>473</sup> Old-timers agree that this inn occupied the approximate site of the modern Cheetham store<sup>474</sup> - or in other words, that it stood about where Peter Cunningham's original tavern stood. Very possibly it was in the same building, perhaps the old family home. Also in 1887 there is mention of a hotel run by one Edward McLaughlin,<sup>475</sup> whose family then owned a farm immediately east of Cunningham's Corners.<sup>476</sup>

Edward Cunningham's tavern fades from the scene again, and in its place we hear of a tavern on the same site, run by Edward Braddon, whose family had taken over the old Crowley farm (Lot 40) in 1871.<sup>477</sup> Mr. Earl Doyle recalls this tavern, which apparently was still in business after the turn of the century.<sup>478</sup> Afterwards it reverted to being a home, apparently that of John Cunningham. After his death a man named David Dean opened a store in the building and ran it several years, until 1944, when he decided to relocate

diagonally across the intersection.<sup>479</sup> The old frame house, now insulbricked, again became a residence, until it burned, along with a large adjacent shed, around 1970.<sup>480</sup> In 1972 the property was sold to Mr. Howard Cheetham of Cushendall, who erected the present store.<sup>481</sup>

Another tavern appeared at the Corners before the turn of the century. This one, owned by Cornelius Canning, a long time local resident, stood at the south-west side of the corner, where the present "Code's Corner" store is.<sup>482</sup>

"Corney" Canning's tavern is said to have been destroyed by fire, perhaps during the 1910's.<sup>483</sup> In its place arose the "Berryman Hotel", named for the proprietor, and said to have been a stage-stop at one time.<sup>484</sup> This in turn was later acquired by Mrs. John Hickey of Glenburnie, who ran it as a grocery store; later still, around 1928, it went to her niece, Elizabeth Coyle and her husband Leo Coyle, who carried on with it until the 1940's, when Elizabeth died.<sup>485</sup> About 1947 the store was sold to Orrville Code, who renamed it the "Code's Corner Store"<sup>486</sup> - a name that most people have applied to the whole intersection. Orrville Code died around 1950, and the store was again sold - first to a Bill Farrer,<sup>487</sup> and finally (February 1977) to Mr. and Mrs. Robert Waddell of Napanee, the present proprietors.<sup>488</sup>

The south-east angle of the crossroads was once occupied by a house and barn owned by a farmer named Edward Cunningham - apparently a son of the Edward Cunningham who once ran a tavern at the corners.<sup>489</sup> This house, a frame structure, became David Dean's second store in 1944.<sup>490</sup> This store apparently remained in business until the modern railway overpass on Highway 15 was built, and both buildings had to be demolished to make way for it.<sup>491</sup>

Lastly, we should mention the Stenson Store, which stands at the north-east side of the corners today. This store occupies the site where two farmers, Bernard and Peter



Cunningham, lived until the 1950's; the old family barn close by still stands.<sup>492</sup> In 1964 a man named James D. Thompson demolished the house and built the present store, which was sold to its present proprietor, James Stenson of Pittsburgh Township, in 1972.<sup>493</sup>

*The Church at Cunningham's Corners*

The Kingston Mills parish church, called the Holy Name of Jesus Church, is a handsome gothic structure with a manse appendaged to it, located west of the junction of Cunningham's Corners. It is the second church to serve the local area. The original, a small log mission church, was first erected in 1846, south of Stephentown Creek, about a mile or so north of the corners.<sup>494</sup> Later converted into a shed, the building stood until fairly recent times.<sup>495</sup> It may have been planked on the exterior, but (in its latter days at least!) it apparently had no floor.<sup>496</sup> The old building was torn down to make way for a new local service road.<sup>497</sup>

During the 1880's it was decided to build a new, more suitable church. Land for the building and rectory was donated by Edward Bradden and his wife Jane on 26 June 1886.<sup>498</sup> The cornerstone was laid in June 1887, and on 15 August 1892 the bell, newly arrived, received its official blessing.<sup>499</sup> The red sandstone was quarried at Blake's quarry on the Cataraqui River, south of Joyceville,<sup>500</sup> and according to Mr. Earl Doyle, almost all the local people, Roman Catholic and Protestant alike, helped lend a hand to erect the church.<sup>501</sup> (At least one non-Catholic at Kingston Mills today has verified this tradition.)<sup>502</sup> The Reverend Bernard J. Higgins was the first pastor, to be succeeded by the Rev. J. J. Collins in 1899, and he in turn by the Rev. W. T. Kingsley in 1907. After he was transferred, the Rev. D. A. Casey took over in 1924, to be followed by the Rev.

T. J. Raby in 1953, and by the present pastor, the Rev. J. J. Hanley, in 1969. The parish of Kingston Mills was meanwhile organized in 1896.<sup>503</sup>

In 1954, at the suggestion of Father Raby, the Cana Home Builders Cooperative was organized to provide affordable homes for many young families in the area. This group purchased some land west of the church, and succeeded in building about 30 houses doing most of the work themselves.<sup>504</sup> Around the same time, the Holy Name School was built east of the church, and in 1957 the Sisters of St. Martha were persuaded to come and teach there.<sup>505</sup> A convent was also provided for the sisters. The nearby Meadowcrest Public School was built later. This school, now closed, is due to become an annex of the separate school.<sup>506</sup>

#### Kingston Mills (1900-1977)

The balance of the history of Kingston Mills village is largely the record of its roads, bridges, the locks and the railway (which will be discussed later under the subject of transportation), plus its use as a recreation centre and its most recent buildings. Let us begin with the lockmaster's house.

#### The Third Lockmaster's House (1904 - )

We have seen how complaints from Lockmaster Robert Anglin prompted the canal department to replace the old lockmaster's house with the present building in 1904. Former Lockmaster Earl Doyle alleges that one James Sommers of Ottawa - perhaps the son of the contractor who built the "Lodge" in 1881 - built the present house for the department.<sup>507</sup> The lumber for the building was apparently supplied by the E. Slater & Company of Kingston,<sup>508</sup> and perhaps the foundations derived

in part from the original house. By 30 August 1904, Anglin could report that a man named Savage was currently at work painting the new residence.<sup>509</sup> The house measures 26 feet by 33 feet 4 inches on the outside, is of frame, lath and plaster construction with cedar shingles, has two and a half stories, and contains seven rooms, with a cistern in the cellar.<sup>510</sup> In 1908 a furnace was installed, and in 1912 a new porch was built. Another room was later added at the rear, and a single car garage built on the north side.<sup>511</sup> (This latter addition has been rendered inaccessible and useless by the raising of the road level in recent years.)

It would seem that Canal Superintendent Phillips obtained an authorization to spend \$1,800 to build the house, and was appalled to find Anglin exceeding his budget.<sup>512</sup> But the lockmaster perhaps made up for this in part, since we are told that in his time the grounds at Kingston Mills used to boast some lovely flower gardens, making the station one of the prettiest on the Rideau waterway.<sup>513</sup>

Since the lockmasters were also postmasters, it has been suggested that the house was also the post office. This has been confirmed by Earl Doyle, who remembers the post office there both in his own youth and during his term as lockmaster.<sup>514</sup> (The office was apparently closed by 1946.)<sup>515</sup>

Under present canal administration policy, the lockmen are no longer permitted to reside at their stations, and the lockmaster's house stands vacant. However, it has recently been designated as the setting for a new interpretative centre for canal visitors, and should be assuming that role in 1978.

#### The Collector's Office

Close by the lockmaster's house and the previously discussed storehouse, stands the collector's office. This little

building is 16 feet 6 inches by 12 feet 6 inches on the outside, rests on concrete piers, and is built of wood with tongue and groove sheeting and cedar shingles. It has only one room and one storey, with no furnace or cellar.<sup>516</sup> Photographs prove it was in existence in 1930, much the same as it is today, and Mr. Earl Doyle (born in 1895) recalls that the building was always there, as far back as he can remember. Thus it may date back to the 19th century. Even as a youth Mr. Doyle recalls a little tin placard on the building, bearing the words "Collector's Office".<sup>517</sup>

#### The Canal Storage Shed

According to a site study ordered by Parks Canada in 1975, an aerial photograph of Kingston Mills, taken in 1928, shows what looks like a storage shed beside the existing storehouse.<sup>518</sup> When questioned about this, Earl Doyle agreed that there had once been a shed at that location, used for storing cement. He adds that this building was very rough and not very substantial. He also says the shed was torn down, probably during the 1930's, as the need for it diminished.<sup>519</sup>

#### The McKane House

Local residents at Kingston Mills recall that Lockman William (Bill) McKane, who once lived in the "Lodge", later built himself a small wooden house on the promontory west of the locks. According to Mr. Dell Potter, the McKane house was standing in the early 1940's, in the days of his youth. The house stood very close to Mr. Potter's present residence and the old Hogan house.<sup>520</sup> Mr. Lorne Keeler recalls that William McKane obtained two lean-tos in Barriefield, moved them to Kingston Mills, and combined them into one, which became his retirement home.<sup>521</sup> Around 1954-56, Mr. Potter believes, the

McKane house was torn down and replaced by the present brick house owned by the Kerr family.<sup>522</sup>

The Graham House (1932? - )

This house, still extant, was also built by one of the canal lockmen. It stands on a portion of Lot 39 in the western addition to Pittsburgh Township, just east of Kingston Mills, and was built by Dan Graham (perhaps a son of Donald Graham, the last operator of the old gristmill), about 1932. Dan Graham, already in ailing health, died in June 1933.<sup>523</sup> His widow lived in the house for a time, then leased it and moved away to Brockville. She later moved back in, and died 13 July 1953.<sup>524</sup> Her two sons, Donald and Lloyd Graham, at once sold the house to Mr. Lorne Keeler, the operator of the power generating station, who was then living in the former miller's house (now owned by the power company). Keeler leased the Graham house until his retirement in 1966, when he moved in with his wife and stayed there until 1972. He found the house in poor condition in 1966, and proceeded to renovate it, adding a new kitchen and tearing down a back shed. In 1972 he sold the house and retired to an apartment in Kingston.<sup>525</sup>

The Keeler Subdivision (1942- )

The Keeler subdivision at Kingston Mills is located on a triangular piece of land between the east embankment and the Kingston Mills Road (Lots 38 and 39, Pittsburgh Township). This land, hitherto canal property inherited from the Ordnance Department, was leased by Mr. Lorne Keeler around 1940 for pasturing a dairy cow.<sup>526</sup> On 16 October 1942 Mr. Keeler purchased the entire plot for \$70.00, excepting a frontage of 200 feet along the drowned lands (including the dyke!) which was retained by the government.<sup>527</sup> He then had

it surveyed and subdivided into five half acre lots (there not being quite enough land for six), and sold each lot for \$300.<sup>528</sup> His son Joseph Keeler immediately bought one, and the others followed rapidly. Each new owner built himself a house on his lot. Mr. Keeler remarks that the surveyor was able to find only one of the original boundary stones (at the extreme east end) when demarcating the limits of the land.<sup>529</sup>

#### The Hydro-Electric Generating Station (1914- )

With the steadily rising demand for hydro-electric power in Ontario around the turn of the century, especially in urban centres, it was almost inevitable that the site of Kingston Mills - by far the best in Frontenac County - would be tapped sooner or later. Though a number of enterprises expressed interest in leasing the property for that purpose, the successful contender - as we have seen - proved to be the Gananoque Electric Light & Water Supply Company Limited in 1913.

The Gananoque power company was first founded in 1885 to generate electricity from steam at Gananoque.<sup>530</sup> Later it developed a hydro station on the Gananoque River. The Company is still independent today, and has a number of plants on the Rideau waterway, but its oldest station after the one at Gananoque is that at Kingston Mills.<sup>531</sup>

We have already noted how John M. Campbell, president of both the Gananoque power company and the Kingston Milling Company, obtained the lease for the water rights at Kingston Mills, but it was not until 1913 that all the roadblocks were cleared away and construction could begin. The old gristmill - already in ruins - and its attendant stable were demolished, and a new dam and waste weir built beside the road bridge behind the original. The old mill-pond now

became the waste weir for the generating station, while a new pool was created between the power company dam and the old canal dam which was now redundant. A turbine generator with a capacity of 750 kilowatts, housed in a concrete powerhouse located on the west bank of the river at the foot of the cataract, was installed along with a steel pipe penstock running down from the dam.<sup>532</sup> The new plant was in operation by 1914, and powered a line into Kingston (serving the Milling Company amongst others), and also another line along the road to Gananoque.<sup>533</sup> The current then supplied was D.C.; A.C. power came later. At that time all the customers were on a direct line from Kingston Mills, without any side-branches.<sup>534</sup> The plant ran all year round, but at first the power was always shut off at midnight, partly because demand was limited in those days, and so was the amount of water available.<sup>535</sup>

It required a staff of only three men, each working a daily shift of about eight hours, to look after the station. One of these was the "boss" operator; the others were subordinates.<sup>536</sup> (Today the company employs only a single man.)<sup>537</sup> The first employees appear to have been William McKane (who worked only in the winter, alternating with canal work), and C.E. ("Charlie") Clark, who was chief operator until 1925; then Lorne Keeler, who joined the firm in 1922, succeeded Clark and ran the station until December 1966, when he was followed by his fellow employee, Gordon Doyle, who in turn retired in 1970.<sup>538</sup> The operators were charged with keeping the plant clean, doing repairs and keeping the power flowing.<sup>539</sup> On the whole the operations were self-regulating, with only the occasional problem caused usually by lightning, a short circuit, or a pole broken in an automobile accident. The last resort in an emergency was to telephone Gananoque.<sup>540</sup>

As the years passed, the service was improved. In 1926



a new unit and penstock were added to the Kingston Mills plant, boosting its capacity to 2,400 horsepower - by far the greatest in the county.<sup>541</sup> An arrangement was concluded to interchange power with the Kingston Public Utilities Commission (which gets power from the Hydro-Electric Power Commission of Ontario), to make good one another's deficiencies.<sup>542</sup> A.C. power was introduced. The Gananoque company meanwhile opened additional plants at Brewer's Mills (1939) and Jones Falls (1948).<sup>543</sup>

In the meantime, the power company worked harmoniously with the Rideau Canal staffs. Both made daily checks of the water levels, and both were usually appraised of the water situations upstream at Washburn, Jones Falls and other lock-stations. As a result, there was almost always enough water for both the canal and the power-station.<sup>544</sup>

In 1960 the company set up a thermal generating station to reduce its dependency on water-power, and in 1972 it built a major 44 KV line to strengthen its link with Ontario Hydro's grid.<sup>545</sup> Most recently, in 1976 it added a new penstock and generator (in a separate building) to the plant at Kingston Mills.<sup>546</sup> The present chairman of the board, Mr. John M. Campbell Senior (son of the aforementioned John M. Campbell), says that the firm plans to add a few false windows to the new building, to improve the aesthetic effect from the road at Kingston Mills.<sup>547</sup>

#### The Power Company Cement Shed

As a by-product of its power plant operation, the Gananoque power company erected two other buildings at Kingston Mills. One of these was a humble cement storage shed. This strictly utilitarian building stood near the power dam, across the road from the houses owned by the power company, east of the falls.<sup>548</sup> It was apparently constructed from timbers left

over from the demolished mill and stable, and featured two large, heavy doors each about four feet wide and five and a half feet high.<sup>549</sup> It was always unpainted, and had a tarred roof.<sup>550</sup> Seemingly it was built to store cement while the dam and powerhouse were under construction; later it was used as a garage.<sup>551</sup> The canal superintendent considered the building an eyesore, and repeatedly urged the Gananoque company to get rid of it.<sup>552</sup> Finally, before 1942, Lorne Keeler secured the necessary permission from J. M. Campbell, and the old black shed was torn down and burned.<sup>553</sup>

#### The Hydro Station Operator's House

This house was the second structure built by the power company. The firm of course inherited the old miller's house, located on high ground east of the falls, along with the lease of the mill site, and used it to house the chiefs operator and his family. However, it soon became incumbent on the company to provide extra quarters for its staffs, and around 1920 it built a single storey wooden bungalow, which was usually the assistant operator's residence.<sup>554</sup> Lorne Keeler, who moved into the house in 1922, recalls that it was quite new at that time.<sup>555</sup> The house, still extant, faces the power-station from across the river, and is connected with it by means of a footpath.

Mr. Keeler remained in the house only a few years, before shifting to the old miller's house, which stands next door to the east. After a short interval, the new house was occupied by Gordon Doyle in 1925. Finding it too small for a family including three grown girls, Mr. Doyle considerably enlarged the building, raising the roof and adding a second storey. He lived in the house until 1968. Afterwards it became the home of operator Dick Allen.<sup>556</sup>

### The Miller's House (Continued)

As noted earlier, this old wooden house, once used by the gristmill, was taken over by the power company in 1913 and used as the chief operator's home. Charles E. Clark lived there in the early 1920's, to be followed by Lorne Keeler in 1925. Mr. Keeler dwelt there until 1966.<sup>557</sup> The lease terms, he says, were moderate, being part of the job.<sup>558</sup> At first the electricity was free, though later it was metered.<sup>559</sup>

The miller's house has a great many rooms, and Mr. Keeler affirms that the old building was used as a summer tourist resort for part of its long and many sided history.<sup>560</sup>

### Kingston Mills as a Recreation Centre

No one knows when Kingston Mills first began to attract attention as a recreation centre. We have already found the site described in 1856 as "pretty and picturesque"<sup>561</sup> - which it probably was, if one chose to ignore all the stumps and dead trees in the drowned lands. By the 1870's there were excursion passenger steamers plying on parts or the whole of the Rideau Waterway, and by the 1890's this had become a popular form of recreation.<sup>562</sup> The excursion steamers may well have conducted picnic parties to Kingston Mills and other scenic spots on the canal. Then, too, Kingston Mills was conveniently close to Kingston, both by land and by river, so that city dwellers could easily come out to the lock-station by carriage or small boats for a pleasant outing. (There is little sign that they ever came by train.) In May 1895, the British Whig commented on the numerous pleasure points available to Kingston residents, singling out Wolfe Island, Cape Vincent, Gananoque, Channel Grove, Brophy's Point, and Kingston Mills, as being the most popular.<sup>563</sup>

Camping, canoeing, fishing and steamboating were all listed as available on the Rideau. The article continues:

THE GREAT CATARAQUI RIVER

Just above the long bridge [at Kingston] which spans the embouchure of the Cataraqui, where stretches a reach of placid river, between green sloping and often wooded banks, a rank growth of reeds and rushes in many places nearly fills up the stream. Here a boat may wind its way for miles in an absolute solitude - only a wild duck or a heron breaking the stillness of the scene. Following this quiet river for six miles from its junction with the St. Lawrence, we reach a bold, rocky gorge framing a foaming cascade, which, even yet is a pretty waterfall, though hemmed in by artificial surroundings, and made to look like a sort of appendage to a mill. The abrupt rock banks are the most romantic feature of the scene, rising almost sheer above the river, clad with a tangle of foliage and creepers. Just below are works of the Rideau Canal, which begins here, and is carried by five [sic] locks up an ascent of forty-five feet. Suspended above the gorge is the iron line of the Grand Trunk Railway bridge, two of the greatest public works of Canada being thus represented at this point. Walking across the bridge, we get from its giddy heights a pretty bird's-eye view of the winding Cataraqui, with Kingston in the distance, beyond marshy flats, whose yellow tint in autumn contrasts richly with the soft blue of the sky and river.<sup>564</sup>

Old-timers still remember when large picnics were held at least once a week on the grounds near the lockstation, which are said to have been much prettier than they are

today, being much festooned with flower gardens maintained by the Anglin family.<sup>565</sup>

In keeping with the recreation aspects of Kingston Mills, a number of individuals began leasing portions of the rocky wooded headland west of the locks from the canal department and building cottages on it. Apparently the first to do this was Sandy Potter, an engineer on the Kingston and Pembroke Railway, who erected a quaint little wooden cottage on the point, facing the lockstation, about 1917.<sup>566</sup> The cottage, later supplemented by an ice-house, is still standing today, though now amid a rather crowded setting. Originally it was surrounded by pines and bordered at the rear by a crooked rail fence.<sup>567</sup> Later a second cottage, owned by George Masoude, was built a little to the north-east; this one, too, still stands.<sup>568</sup> Further along the shoreline, a third cottage was built by S. J. Dainty of Kingston, on the point below the modern home of Mr. Frank Sheldrick.<sup>569</sup> This old building, now much decayed, was torn down in 1974.<sup>570</sup> Other cottages dotted the headland at various points. All were occupied only during the warm season.<sup>571</sup>

In 1948 the government decided to discontinue the leases on the cottage lots, and handed the cottagers an ultimatum: either purchase the lots outright, or vacate them. Most of the owners chose to buy.<sup>572</sup> The headland is now covered with over a dozen modern brick homes, built mostly since 1950, and occupied the year round.

#### Kingston Mills Tourist Home

For about 30 years Kingston Mills had a hotel or boarding-house for summer visitors. Known as the Kingston Mills Tourist Home, it was operated by Mrs. Lorne Keeler in the old miller's house, and flourished from the late 1920's

to the 1950's.<sup>573</sup> The Home, which was licensed, served meals and could take a maximum of 19 guests. The season lasted from 15 May to 15 or 30 September, depending partly on the weather.<sup>574</sup> Most of the guests came to fish, and Mr. Keeler kept 10 rowboats, which he kept close to the blockhouse.<sup>575</sup> (His neighbour, Gordon Doyle, had six more, which were stashed nearby, under a willow tree.)<sup>576</sup> All of these boats were capable of taking an outboard motor, and it was big business renting them.<sup>577</sup> Apparently they had no trouble with thieves. For several decades the tourist home was a valuable source of additional income for the Keeler family.

#### The Refreshment Stands

Lastly, we must acknowledge another entity catering to summer visitors: the refreshment stand. The present building, built of concrete blocks west of the lockstation, was erected around 1970.<sup>578</sup> However, old-timers recall an earlier building, located on approximately the same site, but a little closer to the road.<sup>579</sup> This was a wooden building (on leased land) and already old by 1960. Mr. Dell Potter remembers it unfavourably as a shabby structure, faced partly with insulbrick, and lacking such basic amenities as a well or washrooms,<sup>580</sup> but his neighbour, Frank Sheldrick, who ran the old stand around 1960-63, says it was a neat, clean, handsome building which drew plenty of patronage in the summer months, from boaters and picnickers.<sup>581</sup> It required four people to staff it.<sup>582</sup> Mr. Sheldrick says he grew discouraged with the venture because he could not buy the land (which was leased for \$50.00 per season), and also, because break-ins were frequent, despite whatever precautions were taken.<sup>583</sup> Around 1963 he sold it to a Scotsman named Doherty, who ran the stand for a few more years. The

operation went downhill, especially after Joshua Nichols opened a new marina nearby, at Esther Head, offering competition.<sup>584</sup> Mr. Potter suspects that the health department may have ordered the stand closed.<sup>585</sup> The building was then demolished, and replaced by the present concrete building.

### Summary

During the 20th century, Kingston Mills has been both an industrial and a recreational centre - though the nature of both roles has changed considerably throughout. At the beginning of the century, the little hamlet was still a minor milling centre. Today it is a significant hydro-electric power generating station, still growing in that role.

As a recreation centre, the site has probably seen its best days, during the 1890's and until the 1910's, when travel was, on the whole, slower and more difficult than it is today, and a picnic to its grounds was considered a real outing. Leisurely and genteel gatherings are today almost a thing of the past, as a restless public becomes more and more accustomed to high speeds and mobility, and less and less accustomed to creating their own forms of recreation - unless by continuous travelling. Similarly, the suburban scenario is starting to enmesh Kingston Mills, as more and more modern homes are being built in its environs, and the remaining old cottages are being choked out by the endless proliferation of brick homes.

Nevertheless, as one of the most important stations on the Rideau Canal - which today caters solely to recreational boating - Kingston Mills is still thought of primarily as a recreation centre, as thousands of pleasure boats and their occupants pass through its ancient locks every year. Fortunately, the lockstation itself being government owned



and surrounded by a combination of high bluffs, the railway tracks and bridge, and the waterway, has largely escaped intrusions from the 20th century, and retains much of its 19th century flavour - besides its scenic attractiveness. These very factors may make the station an even more prominent haven for tourists and recreationists in the years to come.

## Kingston Mills and The Military

Much of the history of Kingston Mills is closely connected with matters military. No fortresses have ever guarded the lockstation, or crowned the granite hills close by to protect it. The nearest thing in this regard is the single blockhouse, now an absurd anachronism which has somehow managed to remain intact for nearly 150 years. Seldom has Kingston Mills echoed to the tramp of military boots or the yells of an N.C.O. and, so far as is known, never has a single shot been fired there in anger. Yet, for nearly a century much of the life and activity of this tiny community hinged on the military; a fact to which the empty blockhouse still stands as a silent witness.

Military concerns had a major impact on Kingston Mills long before the construction of the Rideau Canal locks and the blockhouse built to protect them. The gorge and cataract on the Cataragui caught the attention of the British (military) authorities from the moment they reoccupied Fort Frontenac in 1783, at the end of the American Revolutionary War. Their interest was, of course, in the water-power, and, while they were thinking primarily of civilian requirements, there can be little doubt that the Cataragui saw - and gristmills also catered to the needs of the local garrisons, whose primary duty in the early days was to police the settlement - and to be on hand in the event of possible troubles with the Indians (a concern which soon evaporated). A soldier, Captain Redfern Crawford of the Royal Regiment of New York, negotiated the purchase of the land tract west of

the Cataraqui River from the Mississaugas in 1783.<sup>1</sup> A Loyalist officer, Robert Clark, supervised the construction of the gristmill (and perhaps the sawmill as well).<sup>2</sup> Troops did the actual work of squaring logs and erecting buildings.<sup>3</sup> Once in operation, the mills - the sawmill particularly - served military as well as civilian purposes, sawing beams and planks for wharves and barracks around Kingston.

Meanwhile, relations between Great Britain and the new United States of America, after the Treaty of Paris in 1782-83, remained uneasy, since many Americans regarded the War of Independence as incomplete as long as British aliens remained in control of any part of North America. They were willing to believe that the British in Canada were aiding and abetting the Indians of the "old north-west" in their struggles against the advancing American settlers, and that the inhabitants of Canada, chafing under British rule, would welcome any invading American forces as liberators. During the Napoleonic Wars, when British warships were corralling American merchant ships carrying war supplies to France, and sometimes impressing American seamen into the Royal Navy, tempers were inflamed almost to the boiling point, and war was averted only narrowly in 1807. Not having a fleet that could challenge the supremacy of the Royal Navy on the seas, it was obvious that any American war effort would be directed primarily against British North America - which was weakly garrisoned and thinly populated, apparently ripe for the plucking.

From the British viewpoint, Kingston was of great strategic value, not because it commanded the source of the St. Lawrence River (it does not, and neither does any other place), but rather because it was the largest settlement west of Montreal and the major transshipping point from river bateaux to lake sailing vessels.<sup>4</sup> Its loss in wartime would have left all the more westerly British outposts in Upper

Canada stranded and cut off from outside aid. Kingston had been selected as the primary shipbuilding centre, or naval base for the British fleet on Lake Ontario, which until 1813 meant the Provincial Marine, a lifeline of armed vessels developed by the Army to move provisions and troops to the forts farther west.<sup>5</sup> Perhaps the early founding of the Kingston mills on the Cataraqui was an important factor in the decision to locate the dockyard and naval base at Kingston. The mills, located a short distance upriver, were not immediately vulnerable to an enemy assault by water, and besides, they were owned by the authorities, and hence there could be no problems with private owners. Plans were, in fact, laid to transfer the shipyard and base to York (Toronto), early in the 19th century, but before this could be done, war broke out in 1812.<sup>6</sup>

Kingston was very poorly fortified at the onset of war, but fortunately the Americans at first channelled their energies into attacks on other parts of the frontier, around the Detroit and Niagara Rivers - which represented the leaves and branches of the great Canadian tree, rather than the trunk, embodied by the St. Lawrence. A severance of the trunk, of course, would have proved fatal, but American strategists apparently never realized that until 1815, and before they could rectify their error, peace was proclaimed.<sup>7</sup> Around Kingston, meanwhile, the defences were hastily strengthened. Blockhouses and a palisade were erected by stages around the town itself, with batteries facing the lake, while a redoubt with a blockhouse and barrack block were thrown up at Point Frederick to protect the naval yard.<sup>8</sup> Another small blockhouse and battery were built on Snake Island, and in 1812 a fort, consisting of earthworks, a palisade, a barrack block and two stone towers, were erected by Captain Jacques Viger and his Canadian Voltigeurs on Point Henry.<sup>9</sup> (Only the latter point

possessed much natural strength.) In 1812, too, the small garrison of Royal Veterans under Major Donald MacPherson was reinforced by a militia contingent called the 1st Regiment of Frontenac, and during July and August ten companies of the 49th Regiment of Foot arrived at Kingston, guarding fresh provisions.<sup>10</sup> By the winter, there were 600 regulars and 1,000 militiamen in service at Kingston and its environs, with another 2,000 part-time reservists within a day's march of the town.<sup>11</sup>

Actually, the main line of defence for Kingston - and Upper Canada as a whole during the war - was the fleet on the lakes. The services of the Provincial Marine on the Great Lakes - and after 1813, of the Royal Navy - have never received the acknowledgement that they deserve. In large measure, the successes of British and Canadian arms on the Niagara and Detroit frontiers in the year 1812 were dependent on British control of Lakes Erie and Ontario, permitting the rapid movement of troops and supplies to endangered fronts.<sup>12</sup> On the other hand, the defeat of the British fleet at Put-in Bay on Lake Erie in 1813, with the resultant loss of control of that lake, was followed by the evacuation of Detroit, the land invasion culminating at Moraviantown, and the temporary occupation of the Niagara Peninsula by the enemy.

No comparable battle ever took place on Lake Ontario during the war, since both Commodore Sir James Yeo and his American counterpart, Commodore Isaac Chauncey, were fully aware of the implications of a decisive defeat. The naval war on Lake Ontario developed into a "shipbuilders' war", as each side raced to build up a bigger and more powerful fleet. Control of the lake swayed back and forth from one side to the other. In 1813 the Americans became strong enough to attack and capture York by sea. Kingston, which should have been their main objective, was never attacked, since the Americans apparently had an exaggerated idea of

its strength - as the British had of Sackett's Harbor. On the whole, Lake Ontario generally remained under British control during the war, thanks to the Kingston naval yards - which were supplied with lumber by the Cataraqui mills. The mills themselves were an adjunct to the naval base at the time, as Lieutenant-Colonel Nicolls observed in a letter to Sir George Prevost, the British commander-in-chief, on 13 January 1815.<sup>13</sup> Would it be claiming too much to suggest that the very survival of Upper Canada during the War of 1812 was dependent in large measure on the Kingston mills?

During the years following the War of 1812, when renewed hostilities remained a distinct possibility, the British Government gave serious attention to the problems of defending Canada - which, incidentally, was considered a remote and minor colony, and very costly to protect. The war had proved that Upper Canada west of Kingston, could not be defended successfully without naval ascendancy on the Great Lakes, and in 1814 the Duke of Wellington, who was keenly interested in the defence of Canada, asserted bluntly: "I have told the Ministers repeatedly that naval superiority on the lakes is the sine qua non of success in war on the frontiers of Canada, even if our object should be only defensive".<sup>14</sup> However valid this opinion might have been from the military viewpoint, experience had also shown that a continual naval race on the Great Lakes was prohibitively expensive, and that, in the final analysis, the British could not hope to keep pace with the Americans. (When, for example, in 1814, the Kingston naval yards fitted out a full scale man-of-war, the St. Lawrence, which mounted 102 to 112 guns and was in herself a match for the entire enemy squadron on Lake Ontario, the American response was to lay down the keels of two comparable battleships at Sackett's Harbor.) This factor, plus a general war-weariness on both sides, led the British government to ignore Wellington's

warnings and acquiesce to the Rush-Bagot Agreement in 1817, which in effect spelled disarmament on the Great Lakes. Each side was to maintain only a single armed vessel (mounting a single cannon) on both Lake Ontario and Lake Champlain, and two more on each of the upper lakes.<sup>15</sup> This left Canada stripped of her first line of defence, though the naval yards at Kingston were not dismantled. It was hoped that the Agreement would lead to reduced tensions - and expenditures - but in point of fact it did neither. In 1817-25 the Americans completed the Erie Canal, which thereby enhanced their manoeuvring abilities, and also built two military roads toward the St. Lawrence.<sup>16</sup> During the 1820's General Jacob Brown, the American commander-in-chief, was calling for a fortress on the south side of the St. Lawrence to cut off transport on the river in time of war.<sup>17</sup> The British response was to order studies, build extensive land fortifications, and develop alternate water routes for military transport. The costs, borne entirely by the British taxpayer, were staggering, and probably outweighed the amounts hitherto being spent on the Great Lakes warships.

It is not our intention here to retell the story of the construction of the Ottawa and Rideau Canal systems in any detail. Suffice it to say that, thanks to the machinations of officials in Canada, such as the Duke of Richmond and his successor, the Earl of Dalhousie, (both of whom were ardent canal enthusiasts), backed up by the prestigious Duke of Wellington (who was Master General of the Ordnance from 1819 to 1827),<sup>18</sup> the Ottawa River canals were started in 1819, fortresses were built at Fort Lennox and Quebec City, and the Rideau Canal, from the Ottawa River to Kingston, was undertaken in 1826, and completed in 1832. Discharged troops, meanwhile, were settled in the vicinity of Perth and Richmond after 1816, to form a secondary line of military settlements to strengthen the weak cordons of defence.



The completion of the Rideau Canal at once transformed Kingston Mills into a place of considerable significance. Colonel By himself underlined the importance of Kingston Mills when he decided to designate the site as one of two first class lockstations on the canal, along with Bytown (Ottawa). This move automatically entitled the local lockmaster to a higher rate of pay than that received by the lockmasters at other stations.<sup>19</sup> As a first class station, Kingston Mills was also assigned an administrative function. It was to be staffed by a lieutenant of the Royal Engineers, who was responsible for inspecting all the works as far north as the Narrows station, between Upper Rideau and Big Rideau Lakes. Besides the usual array of lock labourers and lockmaster, there was also to be an overseer of works stationed at Kingston Mills.<sup>20</sup> This post was assumed by Thomas Burrowes, a civilian canal supervisor who had done excellent work for Colonel By around Dow's Lake and other portions of the waterway.<sup>21</sup> The entire staff, of course, was subject to the authority of Captain Daniel Bolton of the Royal Engineers, who succeeded Colonel By as canal superintendent in 1832.<sup>22</sup> (Bolton's headquarters were at Bytown.) The above arrangements continued almost unchanged until the canal was transferred to the Canadian government in 1856.<sup>23</sup>

#### The Blockhouse (1832)

Besides its role as an administrative site, Kingston Mills was now of considerable strategic consequence, since any invasion from the United States would be certain to make the Rideau waterway one of its prime objectives - and Kingston Mills was the closest lockstation to the border. As a result, a blockhouse was started there in the spring of 1832, at the time of Colonel By's final report to the Ordnance Department.<sup>24</sup> The building is shown on a map dating from

about 1833,<sup>25</sup> and was probably completed by that time.

The blockhouse was part of a much larger plan to protect the whole Rideau system. Since the waterway was built for military, rather than commercial reasons, and would obviously be a prime target for the enemy in wartime, it was deemed essential to fortify it; indeed, without fortifications the canal was considered incomplete.<sup>26</sup> Colonel By recommended a blockhouse at every single lockstation, as well as a fortress at Bytown (now Ottawa),<sup>27</sup> and meanwhile plans were already underway to fortify Kingston on a big scale - not so much to protect the town itself as to safeguard the naval yards and the entrance to the canal. However, since the canal alone cost the immense sum of about £776,023,<sup>28</sup> the British Parliament - which had never really been given a chance to approve the scheme in the first place - was understandably less than enthusiastic about adding any extras to the bill. As it happened, only four lockstations were fortified in any way in 1832-33. Kingston Mills was one of these, and the others were the Isthmus (Newboro), the Narrows, and Merrickville.<sup>29</sup> Thus the fact that Kingston Mills got a blockhouse at all becomes doubly significant.

In several respects, blockhouses seemed an ideal mode of defence for the Canadian ordnance canals. They could be built of local timber and stone, and hence were relatively inexpensive. Their simple, spartan design with the overhanging second storey, and their settings, usually on elevated ground, gave them a threatening, intimidating appearance, especially to an enemy without artillery. Portholes and loopholes enabled defenders to fire at enemies a distance away, while slits and machicolations in the overhang of the upper storey permitted direct fire at adversaries right against the walls.<sup>30</sup> Colonel By proposed a few further refinements in a letter to General Gothar Mann on 15 March 1830:

The lower part of these blockhouses I propose building with stone, there being a sufficient quantity remaining at each station from the rock excavation to enable that part to be built of masonry, with walls four feet thick, at the same price as timber. These walls would support strong flooring beams, with a layer of masonry, to render the lower storeys fire-proof and nearly bomb-proof, as shown by the section. The roofs and timber-work I propose covering with tin, which will render these buildings very durable and difficult to destroy by fire, as tin remains free from rust in this climate upwards of sixty years.<sup>31</sup>

The blockhouses, explained Colonel By, were meant to "secure depots in time of war for provisions, ammunition and small arms for the militia".<sup>32</sup> They would be, in short, rallying points for the militia in times of crisis, and could serve as lockmen's houses in times of peace. Besides functioning as arsenals, barracks or residences, the blockhouses had another potential use, implicit but seldom mentioned. They could, as a last resort, be used as small fortresses to fend off or delay an enemy attack on the canal installations themselves.

The Kingston Mills blockhouse, though smaller than the one at Merrickville, is essentially built to Colonel By's specifications, though it never seems to have been given the recommended plating of tin.<sup>33</sup> Its lower walls are of squared limestone laid in regular courses, while the upper storey is of logs on projecting, heavy timber framing. The roof framing in turn is of squared timber rafters, tie beams and ceiling beams. There is a four foot deep crawl space under the timbers of the floor beams of the main floor.<sup>34</sup> Intended primarily to house troops and militia, the blockhouse did in fact serve that purpose from 1838 to 1841, and perhaps again

on later occasions; however, throughout most of its history the building was used as a lockmen's residence - of which more later. Today, little altered from its original conception, the sturdy old structure awaits restoration.

#### The New Defences of Kingston (1832-1841)

The elaborate permanent fortifications built or contemplated around Kingston during the 1830's and 1840's, and the thinking behind them, also call for some brief commentary here, since their purpose was primarily the protection of the canal entrance - and the naval depot, which was not located at Kingston proper, but at Navy Bay, on the Barriefield side of the Cataraqui River, where the Royal Military College now stands. They were, in short, to be Canada's front line of defence, now that the fleet was gone.

The revamping of the Kingston fortifications had to wait until 1832, when the Rideau was completed. Until then the canal occupied centre stage. But the problems of protecting Kingston had not been forgotten, and in 1825 a military commission under Sir James Carmichael-Smyth was sent to Canada by the Duke of Wellington to investigate the defence requirements of the colony.<sup>35</sup> Besides calling for the construction of the Rideau Canal itself, the Commission recommended massive fortresses at several strategic points to make up for the lack of naval power on the Great Lakes. Kingston in particular was to be fortified on the city side of the harbour, while three towers were to be built, one on Cedar Island, another on Snake Island, and the last on the mainland north of the existing Fort Henry "to command a hollow way by which the Dockyard could be approached."<sup>36</sup> Nothing was done to implement these plans, beyond the quarrying and dressing of a little limestone.<sup>37</sup>

Three years later, with the Rideau now well in hand,

another commission under Sir James Kempt arrived to take another look at the military situation. The Kempt Commission assumed - in lieu of the Rush-Bagot Agreement - that any invasion would come by land,<sup>38</sup> and with Kingston emerging as more than ever the hub of transport and communications between Montreal and the posts of western Upper Canada, the defence of the Kingston area became of paramount importance. A water-borne assault from the west on Lake Ontario was not greatly feared, since enemy sailing ships could be seen for miles from the lofty summit of the hill at Point Henry, and besides, the prevailing winds - usually from the west - could easily leave an enemy fleet with no easy means of retiring from the east end of Lake Ontario. The real problem - until steamships became common - was to prevent enemy raiders from sailing down the St. Lawrence, screened from view by Wolfe Island and the Thousand Islands, landing men downriver undetected and striking inland through forested country to the highly vulnerable Rideau Canal.<sup>39</sup> Therefore the Commission called for six large redoubts, or forts, to keep enemies at a distance of 2,300 to 2,700 yards of the canal entrance. Plans for these forts were actually drawn up. Three were to be built west of the old town of Kingston; one close to the (modern) campus of Queen's University, another near the (modern) corner of University Avenue and Princess Street, and the third close to the old graveyard on North Street, Kingston. Three others were to be built east of the Cataragui; one on Point Henry, with the other two at positions north-east and north-north-west of Point Henry, in the Barriefield area. Towers were also to be erected at Cedar Island, Hamilton Cove, the neck of the Point Frederick peninsula, and at Murney's Point in Kingston.<sup>40</sup> All of these installations were to be able to cross-fire with one another, and had they all been built, Kingston would have become the most heavily fortified place in British North America, not

excepting Halifax and Quebec City. Each redoubt would have required a garrison of about 200-250 men, and each tower about 30 more along with gunners for the various batteries envisaged at such places as Fort Frontenac and Point Frederick.<sup>41</sup>

In fact, of all the above proposed works, only Fort Henry - the present fort - and (later) a few towers, were actually built, at a cost of \$400,000.<sup>42</sup> The other forts recommended by the Kempt Commission were dropped one by one because construction costs were so high, and because land values shot up astronomically (only Fort Henry stood on crown land).<sup>43</sup> Besides, military thinking changed during the 1830's with the rising predominance of steamboats on the Great Lakes. Unlike sailing ships, which might be becalmed at the east end of Lake Ontario, steamships could come and go as they pleased - and furthermore, some of them could be turned into armed cruisers. This in turn made a water-borne attack much more likely than a land invasion, in which case forts farther inland from Fort Henry would be of doubtful value. This changed perspective led to the addition of a new advance battery to Fort Henry in 1841, mounting extra guns facing Lake Ontario and overlooking the naval yards.<sup>44</sup>

Actually, for all its impressiveness Fort Henry, left in isolation, could never have fulfilled its original purpose, that of deflecting an overland attack on the Rideau Canal - though it would certainly have helped to tie down part of any invading force. To fulfill that original role would have required the companion forts that were never built. However, by the standards of the times Fort Henry itself was almost impregnable, with its shell-proof, vaulted casements built into its pentagonal limestone walls, themselves set below ground level and surrounded by a great ditch 40 feet wide and 30 feet deep which, with reverse fire-chambers and loopholes in the walls, would have become

a death-trap for any attacking infantry able to come that close to the fort - not forgetting the twenty-seven 24 pound cannon set on travelling platforms along the walls.<sup>45</sup> Not until mortar artillery was perfected would this superb specimen of nineteenth century military architecture become obsolete.

The main redoubt of Fort Henry, built under the supervision of Lieutenant-Colonel Ross Wright of the Royal Engineers, assisted by Captain Richard Bonnycastle, was completed by 1836, despite the ravages of cholera.<sup>46</sup> A year later came the first challenges to the defences of Kingston, the Rideau Canal, and Kingston Mills. Rebellion broke out in the Canadas.

#### The Rebellion (1837-1841)

The rebellions of the late autumn of 1837 were centred in Lower Canada and western Upper Canada, in areas far removed from the Rideau, and from the military point of view they amounted to little more than minor policing actions. Yet the excitement aroused was immense (in those times of poor communications), and fears were not allayed by the border troubles which followed - wherein expatriot Canadian rebels and their American sympathizers conducted a number of sporadic raids on the frontiers from American territory, at such places as Amherstburg, Pelee Island, Navy Island, and later, Prescott.<sup>47</sup> Though every raid was successfully repulsed, the military authorities took no chances and prepared for anything.

And anything seemed possible. Rumours flew thick and fast. Fugitive rebel leaders - some said Mackenzie himself - were supposed to be hiding in the Kingston area;<sup>48</sup> rebels were reputedly meeting and drilling in all sorts of places; Kingston itself might be attacked.<sup>49</sup> Not surprisingly, then,



Major Richard Bonnycastle (as he then was), in his position as commandant at Kingston, resolved to call out the militia, on a six months' basis, to bolster the defences of Kingston.

The first such orders were issued in mid-December. On the thirteenth the newly formed Frontenac Light Dragoons were instructed to set up a picket at a tavern on the Napanee Road.<sup>50</sup> On the fourteenth orders were issued to equip the militia with winter uniforms, consisting of a plain blue pilot-cloth or flushing mini about jacket, single breasted, without pockets, plus a row of bell buttons with a Prussian collar with hooks and eyes; pantaloons of the same material, without pockets, and buttoned up in front; and fur scull caps with a leather peak.<sup>51</sup> Mittens were also issued, and militia officers were given a white anchor to wear on their sleeves, above the elbow.<sup>52</sup> On 18 December 1837, several companies of the First and Second Frontenac Militia mustered for inspection before Lieutenant-Colonel Bonnycastle at the Tete de Pont Barracks (Fort Frontenac).<sup>53</sup> More drills followed, and even religious services were not neglected.

The militia soon had their responsibilities assigned. As early as the fifteenth, they were ordered to occupy stations at such places as Point Frederick, various blockhouses (apparently all at Kingston) and the Cataraqui bridge toll gate.<sup>54</sup> Church bells were to signify a call to arms. On 3 January 1838, a subaltern and ten militiamen were dispatched to Waterloo (now Cataraqui village) to set up a picket.<sup>55</sup> This group was recalled on the nineteenth when word was received that the rebels had been dislodged from Navy Island.<sup>56</sup> Meanwhile, on 19 December 1837, Lieutenant-Colonel Cubitt of the Royal Artillery, who had mustered 50 militiamen himself, was gratified to hear that the commander-in-chief at Montreal was sending additional regulars to Kingston.<sup>57</sup>

To the modern researcher, reading these orders and dispatches today from the safe, smug hindsight of nearly 140

years, the whole situation of 1837-38 seems almost comically overblown. Colonel Bonnycastle's dragoons and militia were chasing phantom enemies. There seems to have been little sympathy for either rebels or republicans in the Kingston region - which is hardly surprising, considering the Loyalist background and military character of the settlements. We are told that a total of eight men in the Johnstown District, for example, were rounded up and charged with treason, and that all were released for lack of evidence.<sup>58</sup> In fairness, however, we must remember that no one at the time knew exactly how serious the rebellion threat was, or whether the back roads were not infested with desperate men. To Bonnycastle and his subordinates, the situation was anything but comical. Militia contingents and Mohawk warriors were called in for miles around, some from Lennox, Addington, Hastings and Prince Edward Counties, and even an artillery corps from Perth.<sup>59</sup> They set up pickets along the roads, conducted patrols, carried dispatches, and manned stations, serving both day and night, in the dead of winter.<sup>60</sup> Apparently what the militia lacked in formal training they more than made up for in zeal and enthusiasm, and more than once Colonel Bonnycastle saw fit to commend them for duty well done.<sup>61</sup>

In Colonel Bonnycastle's order records, we find one clear reference to Kingston Mills. The order reads as follows:

Kingston 25th Feby 1838

The Dragoons will patrol [sic] in small picquets of five, the roads to Kingston Mills, to Pittsburgh as far as Major Logies ? , to Waterloo, and to the Penetentiary. The Infantry Picquets will place Sentinels on the Barriers on the Montreal, Napanee, & Penitentiary Road. The Troops will all take of [sic] their clothes and

go to bed after nine. If any alarm shall be given,  
Capt. Smith Commanding in the Tete de Pont will  
immediately send an officer to the Lt. Col. Comm.

Signed R. H. Bonnycastle

Lt. Colonel

Militia Kingston<sup>62</sup>

This order finds an interesting corroboration in the Kingston Chronicle & Gazette, which noted on 28 February 1838 that Captain Mathewson (the member for Frontenac) and his officers had promptly gathered 100 militiamen and armed them during the alarm the previous Thursday [22 February?]. They had then taken up a strong position at Kingston Mills, on the Gananoque Road, placing mounted videttes in various directions, and setting up extensive barricades on the road. They also garrisoned the blockhouse. Thus the newspaper could safely reassure its readers that Kingston proper was secured against enemies in that quarter at least.<sup>63</sup>

One might judge from reports of this nature that Kingston Mills was garrisoned more from fear of an attack on Kingston itself than from worries of sabotage to the Rideau Canal - which after all was then shut down for the winter. Yet there was great concern about the canal too - and not only from the military. Local farmers wondered what would happen if saboteurs managed to blow up a few key installations, such as the immense dam at Jones Falls.<sup>64</sup> Just one well placed charge could not only ruin navigation on the canal, but also release a disastrous flood. Moreover, at this time the notorious "pirate of the Thousand Islands", Bill Johnston, now at the height of his career, was busy raiding Canadian commerce on the St. Lawrence with little or no interference from the American authorities. His depredations grew so serious that the military authorities had to establish special outposts at Gananoque, Brockville, Prescott, Cornwall and Lancaster to help neutralize him.<sup>65</sup>

There was considerable anxiety that Johnston or some of his followers might make a raid on the Rideau, which was, after all, a prime symbol of British power. On 2 July 1838, Captain Bolton, the canal superintendent, wrote to Lieutenant-Colonel J. R. Wright, Commander of the Royal Engineers at Quebec City, underlining the danger:

Colonel Marshall, having...stated that there were great apprehensions, that Johnston or some of the disaffected persons connected with him, would attempt to destroy some of the works of the Canal, I consider it my duty to report the same for your information, with the general Remark that, excepting By Town now occupied by a Military force, every station is open to the attacks of disaffected individuals, who could with ease so injure the works as to render the Canal useless for the season.<sup>66</sup>

Four days later Bolton sent another letter to Colonel Rowan at headquarters, quoting a rumour that 40 men were lurking in the country near the Rideau, apparently planning sabotage.<sup>67</sup> Colonel Wright agreed that the works were vulnerable, but discounted the risks of attack. He felt that Johnston and his men were primarily interested in plunder, and would not be likely to risk proceeding 20 miles inland, past the garrisons at Gananoque, Brockville and Prescott.<sup>68</sup> All the same, the locals were nervous, and in July 1838 a force of loyal men voluntarily gathered to guard the works at Chaffeys,<sup>69</sup> while Benjamin Tett, one of the leading merchants of Newboro, received orders from Colonel Henry Dundas at Kingston to have loyal men from the area mount a guard at the Narrows station and Jones Falls.<sup>70</sup> Tett also received reports that a number of suspicious characters had recently been seen in the area.<sup>71</sup> No doubt it was comforting to all concerned that Colonel By had made

a policy of manning the Rideau at least partly with former veterans of the 7th and 15th companies of Royal Sappers and Miners - which meant that most lockstations would have at least one or two retired soldiers on staff who could provide some leadership and training in times of crisis.<sup>72</sup>

Hitherto there had been only four blockhouses along the Canal. Now, in view of the apparent danger to the waterway during those troubled times, the military authorities ordered extra wooden guardhouses erected at Jones Falls, the White Fish dam (near Morton), and several other stations.<sup>73</sup> Other stations were now provided - not with blockhouses, which were rather expensive and did not make very suitable residences - but with single storey stone lockmasters' houses, set on elevated ground, and fitted out with loopholes and projecting porches. Such buildings might serve both as residences and as centres of defence. Eleven of them still stand, albeit somewhat altered.<sup>74</sup>

Kingston Mills was not given such a building, since it already had a lockmaster's house (left over from canal construction days) and a blockhouse. However, the blockhouse itself received renewed attention at this time. On 31 August 1838, Lieutenant-Colonel Cubitt of the Royal Artillery wrote to a superior officer:

I have the Honor herewith to forward the estimate for fitting up the Blockhouse at Kingston Mills, certified by Major Bonnycastle & myself agreeable to your Letter of the 20th of this month - the cause of this delay, arose from Major Bonnycastle being of opinion, that the work performed, should have been certified by Cap'n. Bolton, who is in charge of the same - - -<sup>75</sup>

The estimate was approved on 27 September,<sup>76</sup> but precisely what work was done is uncertain; apparently, though, the building was whitewashed. The blockhouse continued to house

military personnel for some time, at least until 1841.

As early as 28 February 1838, meanwhile, Colonel Bonnycastle found it necessary to dismiss some of the militia contingents from Hastings, Lennox, Addington and Prince Edward, simply because he could not accommodate them.<sup>77</sup> Yet only a few days later night pickets were re-established;<sup>78</sup> tensions had not yet subsided. On 7 March 1838, two more units from Addington, along with the Mohawk Indians, were told they could now go home, with thanks from Sir John Colborne.<sup>79</sup> Still later, on 21 April 1838, the Frontenac Dragoons under Lieutenant Wilson, plus the 2nd Addington Light Dragoons under Captain Clarke, were also disbanded, since cavalry were proving costly to maintain. Colonel Bonnycastle, in farewell, lauded them as the most "orderly, obedient, zealous, and excellent body of officers and men" in the province. It was thanks largely to them, he added, that Kingston enjoyed such "security and tranquility" during the recent alarms.<sup>80</sup> Perhaps Bonnycastle's praise was offered at least partially "tongue in cheek", since he had received a number of complaints from private citizens about lives and property allegedly being put in jeopardy by rampaging dragoons,<sup>81</sup> who sometimes searched people's homes without a warrant<sup>82</sup> or spent a little too much time at some of the local taverns on cold winter nights.<sup>83</sup> Yet we have no reason to suppose that such infractions happened frequently, nor to doubt that these amateur soldiers, on the whole, conducted themselves quite well under the circumstances.

By this time the situation within Canada was clearly under control. But tensions remained. Bill Johnston was still at large, there were still rumblings from the Hunters' Lodges (various American secret societies hoping to liberate Canada from British rule), and, apparently, some fears of possible Canadian "fifth column" activities. As a

result, various militia units remained encamped at Jones Falls, the White Fish dam, and Kingston Mills throughout the summer.<sup>84</sup> The canal seems to have carried more than the usual amount of military stores around this time; two gunboats are said to have passed through in July 1838.<sup>85</sup> On 18 September 1838, a detachment of the 71st Highland Regiment, newly returned to Kingston, was sent to relieve the militia at Jones Falls, the White Fish dam, and Kingston Mills.<sup>86</sup> These regulars did not remain long. On 8 October 1838, Major T. FitzGerald issued the following garrison order from Kingston:

No. 4. The detachments of the 71st Regiment stationed at Kingston Mills, Jones' Falls and the White fish Dam, will on being duly relieved, return to Kingston and join the Company of their Corps.<sup>87</sup>

On 17 October, the 71st Highlanders evacuated Kingston Mills<sup>88</sup> (perhaps in a canal scow in tow of a steamboat), and were soon afterwards transferred to Quebec. Once again, the militia took over.

Even now, people were still apprehensive. The following November the raid near Prescott occurred, culminating in the Battle of the Windmill, and again tensions ran high.<sup>89</sup> The militia, on a rotating basis, remained on duty. Only gradually did the alarm subside. A dispatch to the military secretary in Montreal, dated 21 December 1840, reassessed the risks to the Rideau as follows:

...It appears to the Major General to be a matter for consideration whether it is necessary for the Officer com'g [sic] at Gananoque to visit the 2 small parties stationed at Jones' Falls, and the White-Fish Dam and with respect to the larger party at Kingston Mills, His Excellency does not himself apprehend any danger of the works being



destroyed, and considers the party there, may be considerably reduced: but as it is a work of great importance, The Major General is desirous to submit the matter for the decision of the Commander of the Forces.<sup>90</sup>

A few weeks later, on 2 January 1841, Captain Bolton of the canal staff wrote to the ordnance offices (apparently in Montreal), concurring in the opinion that the danger to Kingston Mills was now remote, and suggesting that the large party there could be reduced or removed altogether. The same, added Bolton, was true of Jones' Falls and the White Fish dam.<sup>91</sup>

Presumably the guards were told they could go home shortly afterwards, and thus the Rebellion crisis petered out at Kingston Mills. Militarily, all was quiet until the next flare-up in British-American relations.

#### The Oregon Crisis (1845-1847)

In the wake of the Rebellion crisis, the British military authorities did comparatively little in Upper Canada, except build the advanced battery at Fort Henry in 1841-42 to help fend off a possible attack from the lake. Other fortifications, including a fortress at Niagara and the proposed additional redoubts around Kingston, were postponed indefinitely by a cost-conscious British government.<sup>92</sup> Even the Army did not wholly object to these economies, since it again appeared likely that any future invasion of Canada West might come by way of the Great Lakes, and there was no possible way to fortify the frontiers completely.<sup>93</sup> Better, it seemed, to rely on troops rather than fortifications, and hope to be able to rush enough men to an area of contention fast enough to deal with any emergency. This was essentially a return to the 1812 strategy. Few permanent

fortifications were built by the British Army in Canada after 1842.<sup>94</sup>

The most notable exceptions to this rule were the four Martello towers hastily built around Kingston in 1846-47. In 1845 James Knox Polk was elected President of the United States on a ticket of belligerent expansionism, embodied in the slogans "All of Oregon or none!" and "Fifty-four forty or fight!"<sup>95</sup> Such uncompromising demands - practically for the entire Pacific seaboard - again raised the spectre of war between Britain and the United States, and no one had any illusions that such a conflict could be confined to the Oregon country. With unusual alacrity, the British authorities rushed to strengthen the defences of Kingston - and the entrance to the Rideau. Four Martello towers, each a self-contained bastion, were built along the shores; one at Murney's Point, a second on the harbour shoal opposite the Kingston city hall, a third at Point Frederick, and the last on Cedar Island.<sup>96</sup> These towers, along with various earth-works, and a battery built in front of the city hall (plus the guns of Fort Henry) could provide interlocking fire to help ward off an attack by American steamships.<sup>97</sup> (In part this programme was merely carrying out some of the recommendations of the Kempt Commission 17 years earlier.) The usefulness of the towers was highly questionable, of course, against a determined assault, and no doubt their significance was largely psychological, intending both to reassure Canadians and impress Americans as to the intensity of Britain's continuing commitment to defend Canada.<sup>98</sup> In addition, Martello towers looked strong and impressive, they could be erected fairly rapidly, and they cost infinitely less than their alternatives.<sup>99</sup>

Canada was again bracing for war. By 1847 there were five battalions of British regulars in the country, of which one - plus the wing of another - were stationed at Kingston.

Their average strength was only 602 officers and men; not enough for the tasks assigned to them (each soldier was getting about four nights' sleep per week).<sup>100</sup> Again the militia was called out, and various positions - including Bytown, Prescott and Brockville - were manned by the Canadian Rifles.<sup>101</sup>

As for the Rideau, the canal, though starting to lose its commercial importance, was just as vital for military defence as ever. Again there was concern raised about protecting it. On 25 February 1846, Colonel Holloway, the commander of the Royal Engineers in Canada, wrote a lengthy memo to the inspector general of fortifications, advising that if American troops were to invade Canadian territory, and the British garrisons were forced to fall back before them, the withdrawals should be towards the Rideau Canal. The British should destroy the roads behind them, and do everything they could to delay the advance of the enemy.<sup>102</sup> (Had war actually broken out, one could easily envisage a battle - or at least a rearguard action - taking place around Kingston Mills, the defence of which would have been an important priority to the British and Canadians.)

In 1847, apparently in another move to accentuate the military character of the canal, the lockmasters were issued uniforms, consisting of gray trousers, blue cloth jackets with scarlet collars and cuffs, ordnance buttons, and an embroidered crown on the right arm.<sup>103</sup> Such outfits also tended to increase the authority of the lockmasters over boatmen and other users of the Canal.

No doubt troops and militia again became a frequent sight on the Rideau during this anxious interval, but whether any of the lockstations were garrisoned in any permanent sort of way at this time is doubtful. Unlike the Rebellion period, the prospect was not of sporadic raids by small groups of disaffected Canadians or extremist Americans, but

of an all out invasion by the United States Army. This being so, the Rideau would have been safe - so long as the various border garrisons held out.

Though the Oregon crisis was a much more serious matter than the Rebellion and its aftermath, the second threat in fact blew over faster than the first, without any blood being shed. President Polk's expansionist aims were also directed against Mexico, and the prospect of war in that quarter rather diminished his enthusiasm for a war against Britain. Accordingly, the Oregon dispute was settled by a compromise in 1847, before the Martello towers at Kingston could be completed.<sup>104</sup> The towers were completed anyway, though not armed, and troops moved in by 1848.<sup>105</sup> The towers remained garrisoned until 1880.

#### The Period of the U.S. Civil War

As the threatening clouds of the Oregon crisis dispersed, relations between Canada and the United States improved somewhat. The Americans were now preoccupied with internal development, railway building and commerce during the 1850's, and increasingly, with sectional conflicts and rivalries. All this left them with little time or energy to devote to their northern neighbours beyond the signing of the Reciprocity Treaty in 1854. For its part, the British government felt sufficiently reassured to withdraw most of its troops from Canada with the outbreak of the Crimean War in 1853.<sup>106</sup> The Kingston naval dockyards were closed the same year,<sup>107</sup> and meanwhile negotiations were opened with the Canadian authorities to hand over the ordnance canals to Canada. After much haggling, an agreement was reached, and ratified in June 1856, though the British were careful to insist that the canals be maintained in good operating condition, and that troops and munitions continue to be

permitted to use the Rideau free of charge.<sup>108</sup>

The calm of the 1850's gave way to new tensions in the 1860's, as the Civil War erupted between the States, and the grim possibility emerged that the war might somehow spill over into Canada. Britain managed to offend the North by recognizing the Confederacy as a belligerent, and it seemed possible that she might go further and extend diplomatic recognition as well. Relations with the North were further strained in 1861 when the British mail-ship Trent was stopped and searched by an American warship on the high seas, and two Confederate couriers aboard were seized. This incident alone almost sparked a war.<sup>109</sup> Others followed, including the Alabama escapade and the raids on Johnson's Island and St. Albans, Vermont, by Confederate conspirators operating from Canadian territory. Congress, irritated, moved to abrogate both the Reciprocity Treaty and the Rush-Bagot Agreement.<sup>110</sup> Canada, meanwhile, had to face the prospect of an all out invasion by the largest seasoned veteran army in the world, as soon as the war between the states came to an end.

The reaction in Britain was the old standby expedient of rushing more troops to Canada. In 1861 and 1862 the Imperial garrisons were increased in strength from 4,300 to 18,000.<sup>111</sup> In addition, the British authorities appointed no fewer than three new military commissions, in 1862, 1863 and 1864 respectively, to re-examine the problems of colonial defence. The first was headed by Colonel J. W. Gordon of the Royal Engineers, and the latter two by Lieutenant-Colonel W. F. D. Jervois, also of the Royal Engineers and deputy director of fortifications.<sup>112</sup> Both commissions concluded that Canada West could not possibly be defended successfully against the Americans unless a large fleet of ironclads could be brought in to give the British naval ascendancy on the Great Lakes - a return to Wellington's sine qua non of 1814. This meant that the ordnance canals - and the Welland - would have to

have been rebuilt and given much larger locks to admit the passage of ironclads.<sup>113</sup> (The cost, needless to say, would have been astronomical.) Apparently the canals were no longer considered so essential for the movement of men and material, since by 1860 the Grand Trunk Railway, running from Riviere du Loup to Montreal and on to Kingston (and Kingston Mills!), Toronto and Sarnia, was available to transport troops and stores all year around.<sup>114</sup>

Had the Gordon and Jervois recommendations been adopted, little of the Rideau Canal as built by Colonel By would have been left intact. But the immense costs doomed these reports from the start. The British government was not prepared to spend millions of pounds on canal installations of little value except to the military. Far better, it seemed, to rely on the war-weariness of the American people, and otherwise try to settle differences around the conference table. As it happened, the much dreaded invasion did not materialize, while the Treaty of Washington, in 1871, managed to resolve most of the issues in contention.

During the American Civil War there seems to have been little activity out of the ordinary along the Rideau Canal, and certainly, unlike 1838, no new rush of building activity. True, there were some renewed fears of sabotage, and on 2 January 1862, the canal superintending engineer, James Slater, wrote to the secretary of the Board of Works, Toussaint Trudeau, suggesting that a guard of nine men be mounted at each lockstation.<sup>115</sup> At five key stations - Ottawa, Long Island, Merrickville, Jones' Falls and Kingston Mills - a stronger guard of 18 men should be posted.<sup>116</sup> Apparently this recommendation was not adopted, nor do we hear of any other gestures by the canal authorities to protect it during this period. As in 1845, a military invasion seemed more likely now than sporadic sabotage.

The danger became a little more serious after the end of

the American Civil War, when thousands of discharged Irish-American troops from the Union Army were attracted to the Fenian Brotherhood, a secret society dedicated to the liberation of Ireland from British rule. Some of the more extreme members of the Brotherhood wanted to conquer Canada and use it as a base for striking at Britain itself.<sup>117</sup> The Fenians were a real danger to Canada only insofar as they might have succeeded in stirring up a war between Britain and America.<sup>118</sup> They certainly had many sympathizers in the United States. However, British and Canadian agents were active within the movement and keeping their governments informed of the society's plans.<sup>119</sup> All the same, the Brotherhood succeeded in conducting a number of raids across the border in 1866, at such places as the Maine-New Brunswick border, the Niagara frontier, the Quebec-Vermont border, and even Manitoba, often throwing Canadian border towns into a frenzy of apprehension.<sup>120</sup> Around Kingston and the St. Lawrence, for example, at least eight regiments of the line and about 10,000 volunteers divided into five brigades, plus three field batteries and seven garrison batteries, were stationed at such points as Cornwall, Prescott, Brockville and Kingston, (and places farther east) in June 1866, with reserves at Montreal, Quebec City and Ottawa.<sup>121</sup> At one point the Fenians began assembling at Ogdensburg for a raid, but they were effectively prevented from making a crossing by gunboats on the St. Lawrence.<sup>122</sup> Had they managed this, there would certainly have been lively activity on the Rideau, as troops would have been rapidly conveyed down from Ottawa to meet the invasion. The canal would, for once, have been used exactly as it was meant to be used. No doubt, too, the Fenians would have done their best to destroy it. But the invasion in this quarter never came about, though as late as 1868 there were rumours about an impending raid on Kingston by Fenians anxious to liberate some of their



imprisoned brothers in the penitentiary there.<sup>123</sup>

Somewhat paradoxically, the main effect of all this petty filibustering was to strengthen the cause of Confederation amongst Canadians and Maritimers - and also, incidentally, to spur on a few reforms of the Canadian militia system, which for lack of good training performed with dubious effectiveness during the Niagara raid of June 1866.<sup>124</sup> By 1872 the Fenian Brotherhood had become a memory.

### Epilogue

In essence, the military history of the Rideau Canal - and Kingston Mills - ends with the Fenian disturbances and the Treaty of Washington. As early as August 1869, the British garrisons in Canada were being drastically scaled down for political reasons, and Kingston itself was left with a mere six companies of the Royal Canadian Rifles, plus a battery of garrison artillery.<sup>125</sup> Two years later the last British regulars left Canada. South of the border, meanwhile, there was still talk of annexing Canada, but gradually the emphasis shifted towards peaceful persuasion rather than naked force to achieve that end. The Rideau, no longer regulated by the Army Ordnance Board, and no longer having any troops to transport, settled down completely to the needs of local commerce, and later, recreation.

The blockhouses and defensible lockmasters' houses now lost almost all semblance of fortifications, as canal staffs (no longer employed by the ordnance department), began adapting these uncongenial structures, as best they could, into somewhat more comfortable civilian residences. At Kingston Mills the blockhouse became a lockmen's domicile - as in fact it always had been except during times of crisis. Two married men and their families are said to have been

living in it during 1896,<sup>126</sup> while in 1905, according to canal records, three unmarried employees asked permission to move in, promising to vacate if any married man needed accommodation.<sup>127</sup>

The blockhouse was also remodelled in various ways over the years, though never very seriously. The musket loopholes were sealed up, and sometime during the late 19th century windows were opened in the upper storey and an exterior stairway added. Before 1909 there was a wing added to the east side of the building. Around that date the wing was partly removed and enlarged by the Fallon Brothers of Cornwall, who had contracted to build concrete abutments for a new steel bridge.<sup>128</sup> In 1913-14 a galvanized iron roof was added to this section.<sup>129</sup> As late as 1965 the old building was still housing some of the lockmen and their families.<sup>130</sup> Today the blockhouse - by far the oldest structure in the area - stands closed and empty. In recent years there have been demands for its demolition, or at least its removal to another site, since the building abuts uncomfortably close to the road passing through Kingston Mills. Happily for history and culture, however, these calls have not been heeded, and it may be that the old blockhouse will soon be properly restored, to continue as a silent but eloquent testimonial to the role of the military on the Rideau Canal.

## Transport Facilities at Kingston Mills

Both by natural endowments and human artistry, Kingston Mills has become exceptionally well supplied with transport facilities. Thanks to the Great Cataraqui River, the site has always been readily accessible from Lake Ontario to anyone with a canoe or small boat. In 1783 the newly arrived British improved upon this by building an access road from the Cataraqui settlement (Kingston). Around 1801 a road was also built from Kingston Mills to Montreal. The Rideau Canal, when completed in 1832, suddenly gave Kingston Mills direct access to Chaffeys, Newboro, Smith's Falls, Perth, Merrickville and Bytown, on the Ottawa River, and more importantly, put it directly on the main artery of trade and commerce through Upper Canada for a period of about twenty years. Then in 1856 came the railway, reinforcing the community's direct communications with Montreal, Kingston and Toronto, along what had become the new main corridor of Canadian commerce. In 1857 the main road through the village was also improved. Having been awarded so many opportunities for growth and expansion (not forgetting the superb water-power potential of the site), it becomes almost inexplicable that Kingston Mills could never manage to become a place of any importance - until one remembers the ever present, overpowering proximity of the city which stands barely five miles away.

The interrelationships between the roads, the canal and the railway with Kingston Mills - and with one another - have never been studied systematically, and this report

makes no pretense at doing so. A brief, superficial study such as this can barely begin to establish any definitive conclusions or meaningful connections between the arteries of trade and commerce and the lockstation. Undoubtedly much trade and commerce has passed through Kingston Mills over the years. How much of it actually originated from, or terminated at, Kingston Mills itself? What proportions of its exports in flour or lumber left by boat, by train, or by road? What effects precisely did the canal have on the village, the road, or the railway? Was it just an accident that Kingston Mills happened to be on the first road to Montreal? Did this make any difference to the community? Aside from employing a few local people, did the opening of the canal have any perceptible effects? Did the railway just happen to go through Kingston Mills, or does its route signify something special? Has the railway related in any meaningful way to the lockstation, or not? Some detailed investigations might produce interesting results, but at the level of this inquiry, all we can do is present a few factual statements and guess at their implications.

#### The Early Montreal Road

In an earlier section of this report we noted that the establishment of saw and gristmills was one of the top priorities of the British when they decided to re-establish a base and colony at Cataragui in 1783. The early Kingston mills were, of course, accessible by water, and we can only assume that most of the flour and lumber was transported away by boat and raft during the warmer seasons. On the other hand, we also hear that a road was chopped through the forest from Cataragui (Kingston) to the mill site by 1784.<sup>1</sup> Given the usual condition of pioneer roads, we may surmise that it was used primarily in the winters, when mud

and stumps would not be any problem, and when navigation was impossible.

As to the route of the first road to Kingston Mills - which must have been one of the earliest roads to be built anywhere in Upper Canada - the evidence suggests that it corresponded to the present Montreal Road, which winds its way sinuously through the oldest parts of Kingston northwards more or less along the Great Cataraqui River. At some point the road must have deviated eastward from its present route, since all of the pre-railway maps of the Kingston Mills region show a road running considerably south of the modern Kingston Mills Road, fairly close to the swampy shores of the Cataraqui and avoiding Tuttle's Hill.<sup>2</sup> A sharp curve is indicated just where the road reached the grounds of the lockstation. At this point the old and the new Kingston Mills Roads become one.

In 1801 - according to one source - a trunk road was reputedly completed for the first time from Kingston to Montreal, by Asa Danforth.<sup>3</sup> The usefulness of this road was somewhat curtailed for a time, since we are told that many rivers were left unbridged. Presumably, boats had to be used to make up the deficiency.<sup>4</sup> The original Danforth Road evidently incorporated the old Kingston Mills Road into itself, probably for reasons of convenience. The gorge at the Cataraqui Falls is the first narrow point in the river, north from Kingston, and hence the first place where a bridge could be built across the river easily. (No bridge was actually built across the 600 yard stretch of the lower Cataraqui, between Kingston and Point Frederick, until the summer of 1829.<sup>5</sup> Until that time, travellers and forwarders had to cross in punts, or on a cabled scow-ferry used by the military since about 1789.)<sup>6</sup>

It is impossible to assess accurately the effects of the new Danforth Road on Kingston Mills. This writer has

been unable to find any statistics indicating the volumes of traffic in wheeled vehicles over the road, and furthermore, the case is complicated by the alternate route that must have developed fairly early from Kingston to Montreal via Barriefield. Did travellers prefer to pay the tuppence fare to cross the Cataraqui River by boat before 1829, or did they usually take the older, more roundabout route further inland past Kingston Mills? At what date was a bridge first built at Kingston Mills? There was definitely a bridge in existence before 1827 - one of Colonel By's maps proves that.<sup>7</sup> But how old was the bridge at that time? Once again, evidence is lacking. Another problem involves the competition of the St. Lawrence River as an alternate means of entry into the country. How many travellers would have used the bumpy, mirey, lonely Danforth Road when they had the alternative of going by Durham boat and sailing vessels along the St. Lawrence, at least for part of the year? Not many, one suspects. Apparently no one ever bothered trying to establish stages over the road until the 1820's or 1830's. As noted earlier, there is no record of inns nor any sign of a village at Kingston Mills until the construction of the Rideau Canal in 1827-32. For lack of better evidence, we may conjecture that the only traffic along the Danforth Road - except in winters - was entirely local, and that its effect on the Kingston Mills settlement was minimal.

By 1819 - if not earlier - we find officials called pathmasters being elected annually at Kingston and put in charge of the local roads. In the above named year one John Tuttle was given the responsibility for the road from Kingston to the Mills, though precisely what duties were entailed with the position is not stated.<sup>8</sup> By 1825 the

Kingston Mill road had been divided into two divisions, with John Tuttle in charge of the Eastern Division, and one William Evans acting as roadmaster of the Western Division.<sup>9</sup>

Very likely the dividing point was at Kingston Mills itself. Meanwhile, one John Baily, in 1825, was elected roadmaster for the road from Point Frederick to Kingston Mills.<sup>10</sup>

Seemingly, by 1825 a fairly extensive network of roads already existed on both sides of Kingston Mills. Besides the Montreal Road, the Point Road had been opened from Barriefield. This road originally swerved to the north-west (just north of the modern junction with Highway 401) and intersected with the Montreal Road immediately east of Kingston Mills, along the route now called the Station Road. (See Figure 2). In addition, by 1824 the Perth Road had been hacked a distance of 52½ miles, from the Montreal Road to the village of Perth.<sup>11</sup> Corresponding approximately to the modern Highway 15 for part of its course, the Perth Road intersected with the Montreal Road at Cunningham's Corners<sup>12</sup> (now Code's Corner), though for many years it did not directly connect with the Point Road, which came out farther west. A report in 1824 describes the Perth Road as sparsely settled, full of pot-holes, and scarcely passable at all by wheeled vehicles. On the other hand, we hear that the last seven miles of the route, along the Montreal Road through Kingston Mills into Kingston, consisted of good road.<sup>13</sup> Presumably some maintenance work was being done by the pathmasters.

#### The First Cataragui Bridge

Sometime between 1801 and 1826, as we have noted earlier, a wooden bridge was erected across the narrow point of the Cataragui River gorge at the height of the cascade. Little has come to light concerning this early bridge. It was surely in existence shortly after the Danforth Road was built, but the year of construction is uncertain. Since one of the early sawmills was apparently located on the east



bank of the river, it may be that a bridge of sorts was built across the falls even earlier than 1801. On 6 May 1826, according to the Kingston Chronicle, a man named John Brewer was paid £3 for effecting repairs to the Kingston Mills bridge,<sup>14</sup> and the following year - at the time canal construction was starting - we find one Robert Rorison receiving two payments of £25 apiece for repairs to the bridge,<sup>15</sup> which was perhaps suffering at the hands of the construction workers. The original bridge seems to have been replaced by a new structure around the time that the canal was completed.

What sort of a device was the first Kingston Mills bridge? A sketch of what purports to be the original mill on the Cataragui shows a fixed, low level, single span timber structure strengthened by a single Warren-type<sup>16</sup> truss. As Mr. Robert Passfield has pointed out, the Warren truss was not invented until around 1848, in England, and hence the authenticity of the drawing is suspect!<sup>17</sup> Colonel By's map of 1827 suggests a wooden bridge with deck planking, about 220 feet in length, with some overlap over the west bank of the river.<sup>18</sup> (This bridge seems to occupy the same position as the present structure.) Another map of the lock works, drawn by Colonel By in 1831, does not show any bridge at the site at all.<sup>19</sup> From this we may assume that the original bridge had been demolished by that date, and that the replacement structure was built soon afterwards.

#### The Second Cataragui Bridge (1832?-1876)

The second Cataragui bridge is somewhat better documented. It was a low level fixed structure across what was now the overflow channel of the canal waste weir. Built of timber, it was 296 feet in length by 24 in beam, and was known as the Long Bridge.<sup>20</sup> It extended all the way from the locks,

around a curve past the blockhouse to the river, on a long gradient descending eastward, and consisted of a continuous span with heavy longitudinal stringers supported on timber bents braced with lateral struts.<sup>21</sup> Like the earlier bridge, it was topped with a plank deck and heavy wooden handrails. Largely rebuilt in 1850,<sup>22</sup> this bridge lasted until 1876, when it was replaced by a similar structure.<sup>23</sup>

#### The Rideau Canal (1826-1832)

The coming of the Rideau Canal route from Bytown (Ottawa) to Kingston, unlike the local roads, was to have profound effects on Kingston Mills. Perhaps the canal had little impact on trade and industries at the site, but (as described in an earlier phase of this study) it did, at least, create a temporary construction camp at the spot, and it more or less sustained a small village there afterwards. Today, of course, the lockstation (third most extensive on the entire waterway, after Ottawa and Jones Falls) is Kingston Mills' sole claim to fame - except, perhaps, for the hydro-electric generating station.

The reasons for the construction of the Rideau Waterway by the Royal Engineers for the British Army Ordnance Department as an alternate inland water route for the transport of troops and stores in the event of renewed war with the United States after 1815, are so well known as to require no further elaboration here. After Samuel Clowes submitted his detailed survey of the Rideau-Cataragui route in 1824, there was no longer any question but that the route would go directly past the Kingston Mills. In 1826, with the Lachine Canal now completed, Lieutenant-Colonel John By arrived in Canada, with orders to build a Rideau-Cataragui Canal along Samuel Clowes' projected route. Establishing his headquarters at Bytown (which he founded), Colonel By completed his first transit of

the entire route in May 1827, using three Hudson's Bay Company canoes and fifteen Canadian men. The 126 mile journey took three days.<sup>24</sup> Colonel By also prepared plans for the various lockstations, including Kingston Mills, for which he envisaged three locks in direct succession, with a lift of eleven feet eight inches each, and a short canal running up to join the channel of the upper Cataraqui. He also proposed deepening and straightening the upper river and building two more small locks at Jack's Rifts (about eight miles upstream) and Billedore's Rifts (eleven miles upstream), to carry the canal to Lower Brewer's Mills.<sup>25</sup> (As it turned out, the works at Billedore's and Jack's Rifts were never built, while the works at Kingston Mills were to be greatly expanded - of which more later.) Colonel By, with the backing of Commodore Barrie of the Kingston naval yards, also pleaded strongly for locks larger than the proposed 100 feet by 22 - over the objections of Major-General Sir James Carmichael-Smyth, the Duke of Wellington's aide, who considered the idea needlessly extravagant. By, however, partly made his point, when the Kempt Commission of 1828 reviewed the case and agreed that the locks should all be 134 feet by 33.<sup>26</sup>

#### Contract Labour

The canal works at Kingston Mills, like most of those on the system, were built by a private contractor, under the supervision of the Royal Engineers. The idea of hiring private contractors to build the various sections of the Rideau Waterway was first suggested to Colonel By by General Gother Mann, then Inspector-General of Fortifications in Canada, in 1826.<sup>27</sup> General Mann had already received a memo on the subject from Sir James Carmichael-Smyth, outlining the advantages and disadvantages of the practice.<sup>28</sup> The

advantages were said to be as follows:

- (a) contractors were readily available
- (b) no large establishment of engineer officers, clerks of works, etc. would be needed
- (c) there could otherwise be no hope of terminating the work at any pre-set time or deadline.<sup>29</sup>

One disadvantage was also cited: that contractors would want to get paid at once, and would not be able to wait for Parliament to approve grants every year. On the contrary, they would wish to get started immediately, so as to be able to arrange to feed and house their staffs one or two years in advance; something they could not do if they had to negotiate a fresh contract every season. There was some opposition to the idea of hiring private contractors instead of leaving the entire project to the Royal Engineers, but in fact most of the works were built by contract labour.

In December 1826, invitations to tender appeared in various Canadian and American newspapers. The terms were very detailed. Distances involved and work to be done were spelled out, along with the types of natural materials to be used. The basis of payments was also explained. All work was to be completed within two years of signing and the signatures of two responsible parties (from within Canada) were demanded as securities. The dates and places to which tenders were to be sent were also given. Further details were obtainable from the newspaper offices, or from Colonel By's office at No. 37 St. James Street, Montreal.<sup>30</sup> As a further incentive, Colonel By also advertised his itinerary for the benefit of any parties wishing to meet him, as for example in the following announcement, which appeared in the Montreal Herald on 20 December 1826.

Memorandum: Colonel By will leave Montreal on Monday, the 7th of January next and will proceed through the line of the Rideau Canal from By-town

to Kingston, which will enable any person wishing to Contract for the Part of the Works above advertised to obtain from him on the Spot any further particulars they may require.

Royal Engineer Office, Rideau Canal,  
26th December 1827. [sic]<sup>31</sup>

The response was lively and the competition apparently keen. On 21 May 1827 Colonel By was writing to his superior, Colonel Durnford, that he had "six large canoes filled with persons wishing to become contractors".<sup>32</sup> Several of these were Americans, and Colonel By wrote to ask permission to employ some of them. He emphatically insisted that no contractor take on more than he could manage over a two year interval, and therefore divided the waterway into stretches of ten miles, with one contractor responsible for each section.<sup>33</sup> (Kingston Mills became Section No. 23.) The bids were considered by the Commissary General's department, based in Montreal, and the first tenders accepted early in 1827.<sup>34</sup> The terms were quite specific, leaving little room for misunderstandings. Each contractor was to be considered fully responsible for the completion of his share of the work, to the satisfaction of the supervising Royal Engineer, within two years. The contractor was expected to hire and direct his own employees, and was responsible for any sub-contracting to be done. Locally available stone was to be used, and would be put at the contractor's disposal, but all other materials were to be supplied by the contractor himself. He was to have the option of getting provisions and tools from the government stores, but the value of these items was to be deducted from the payments made. The contractor must pay the costs of moving all commodities.<sup>35</sup> The Commissariat and Ordnance Departments were instructed to issue camp equipage, rations and the like from their stores. These included such commodities as rope, linseed oil, coal, gas, tar, blankets,

cauldrons, ink, quills, parchment, tallow, pork, flour, rum, etc. - which would be charged to the contractors.<sup>36</sup> (Some of the requisition forms were apparently not specific enough, and this led to confusion.)<sup>37</sup> Provisions were transported by boat in the warm seasons, and by sleigh during the winters, and were distributed on site under the supervision of the Royal Engineers.<sup>38</sup> Transport costs were heavy, and inevitably, costs climbed during construction.

One of the worst defects of the contracting system was the tendency of some individuals not to investigate costs and conditions carefully before tendering. Ignorant men sometimes bid far too low, thus undercutting abler men who were then tempted to give up in despair - or disgust.<sup>39</sup> Some contractors did poor work, and seemed to care little about the results, or their reputations.<sup>40</sup> As a result, their workmen often quit, surmising that their employers wouldn't be able to pay them.<sup>41</sup> This often meant that inferior workmen were engaged, with time being lost and costs going up.<sup>42</sup> Colonel By soon decided it was best to release the poorer contractors from their agreements, if for want of capital or ability they found they could not carry them out. (Robert Legget has noted that all the canal contractors except four either went bankrupt or otherwise terminated their arrangements.)<sup>43</sup> As a rule, time soon weeded out the incompetent operators, and troubles on that score diminished.

The works at Kingston Mills were apparently less affected by some of these problems than were other stations, since Colonel By, almost from the beginning, found an excellent man for the job. At first his choice seemed to fall upon a Mr. McDermott, or Macdermott. A report in the United Empire Loyalist, dated 16 June 1827 and derived from the Kingston Chronicle, refers to him as follows:

The Rideau Canal: We yesterday visited the foot of "Tuttle's Hill" the place at which, a few days

since, ground was broken for the first time on the Kingston section of this splendid work. A Mr. Macdermott has contracted for the first two miles and a half of the Canal, and has cleared away the greater part of wood from the scite [sic]. He commences digging on Monday...<sup>44</sup>

Yet for some reason, the man engaged to carry out the actual works was not Macdermott; instead, a contract was awarded on 14 May 1827 to Mr. Robert Drummond. Concerning the change of plan, we hear only:

Lt. Colonel By promised a Mr. McDermott a Contract for the Works at Kingston Mills but after he had Commenced active operations and went to considerable expense in making the necessary preparations, Lt. Colonel By refused to give him the Contract.<sup>45</sup>

No explanation for Colonel By's decision has thus far come to light.

Robert Drummond, Contractor (1791-1834)

Robert Drummond, the entrepreneur who actually built the works at Kingston Mills, was one of the four principal contractors who satisfactorily completed his share of the work on the Rideau Canal. Drummond was born in Scotland in 1791, of humble origin,<sup>46</sup> but steadily worked his way up in the new world - though the details of his rise are obscure. By 1828 he was already emerging as one of the leading landowners and shipbuilders in Kingston.<sup>47</sup> In 1827, however, we find Drummond and his family at Bytown, until he undertook the Kingston Mills portion of the Rideau Canal. In January 1828 the family moved to Kingston,<sup>48</sup> while Robert Drummond himself built a temporary wooden residence (on stone foundations), immediately north-west of the locks and



basin at Kingston Mills. This later became the first lockmaster's house (q.v.).

Mr. Drummond's initial assignment was a monumental one: to build a set of three locks, each 100 feet by 28, with a lift of eleven feet eight inches each, plus a dam and a section of canal to connect these installations to the meandering course of the upper Cataraqui River.<sup>49</sup> In 1828 he also took over the Brewers' Mills segment of the job, when the previous contractor, Samuel Clowes, proved unable to complete his work.<sup>50</sup> The following year Colonel By decided to abandon his original idea of dredging and straightening the Cataraqui River above Kingston Mills, and building locks at Jack's Rifts and Billedore's Rifts. Instead, By decided to do away with the two proposed locks, by heightening the dam at Kingston Mills and building two extensive flanking dykes; thus drowning the shallow swampy valley north of Kingston Mills (along with the two rifts) and creating an artificial lake<sup>51</sup> - all of which meant that much more work for Robert Drummond! In 1828, meanwhile, the decision to enlarge the lock chambers was made official, and as an added afterthought it was decided to incorporate waste weirs into all the dams built on the Waterway.<sup>52</sup> All in all, Mr. Drummond ended up building four locks and a waste weir at Kingston Mills, plus a lock, dam and waste weir at Brewers' Mills, and a lock, dam and waste weir at Davis' Mills,<sup>53</sup> all to the demanding standards set by the Royal Engineers. So pleased was Colonel By with Drummond's work that he visited the sagacious Scotsman at his home on 21 August 1831, when the work was nearing completion, and presented him with a handsome engraved silver cup to commemorate his achievement.<sup>54</sup>

As for Drummond's later accomplishments, we may add that he developed a shipyard in Kingston, at the site occupied until recently by the Kingston Locomotive Works, then sold

this operation and opened a second shipyard at Portsmouth.<sup>55</sup> (One of his side ventures, in 1831, was to buy the hulk of the old battleship St. Lawrence, which had been laid up at the naval yards since the War of 1812, and have it towed across to Kingston harbour to be used as a wharf. Unluckily a storm arose that very night and swamped the vessel.)<sup>56</sup> Drummond also became keenly interested in steamboating, having built one called the Pumper for canal work. This craft, hastily renamed the Rideau, became the first boat to complete a transit of the newly opened canal in 1832.<sup>57</sup> Having helped build the waterway, Drummond became one of its most ardent champions,<sup>58</sup> and by 1834 he was operating two steamers, the Rideau and the Margaret, along the waterway regularly.<sup>59</sup> In 1831 he built a third steamer, the John By, for the route, only to find to his chagrin that the new vessel drew too much water to squeeze through the locks, and therefore had to be restricted to runs on Lake Ontario.<sup>60</sup> In 1834, once the Carillon-Grenville Canal was opened, permitting small steamers to ascend the Ottawa River to Bytown, trade and commerce from Montreal could begin using the Rideau in earnest, and in that year Robert Drummond became the Kingston agent for the new Rideau and Ottawa Steam Boat Forwarding Company, headed by the Honourable John Molson of Montreal.<sup>61</sup>

By now Mr. Drummond was regarded as one of the leading citizens of Kingston. He was - it seems - universally popular, his enterprises were prospering,<sup>62</sup> and a long and busy career seemed to lie ahead of him. Fate, however, decided otherwise. Cholera was then raging in many parts of Upper Canada, particularly along the St. Lawrence, and on 20 August 1834, the disease claimed Robert Drummond.<sup>63</sup> Hitherto in excellent health - despite numerous exposures to malaria while working on the Rideau<sup>64</sup> - Drummond suddenly took ill at his cottage near Kingston, and died

within a matter of hours.<sup>65</sup> He was just 43 years of age. The Kingston Chronicle & Gazette paid tribute, not only to his "active, enterprising spirit", but also to his "candid, open, generous nature". It described him as "warm and unshaken in his friendships; and in his domestic relations... most faithful, kind and affectionate".<sup>66</sup> By many, he was considered a public benefactor. At his funeral - held the very next day - a long procession, including people of all social classes and most of the leading citizens of Kingston, braved the cholera to accompany his coffin to the grave; Bishop Macdonell presided.<sup>67</sup> An undeserved end for a very good man, one feels, and it is regrettable that no portrait of Robert Drummond has thus far turned up, nor any monument to his memory been erected either at Kingston or Kingston Mills.

#### Lock Construction (1827-1831)

According to the Kingston Chronicle, work on the Kingston Mills locks started on 22 May 1827, "at the foot of Tuttle's Hill, four miles from the town".<sup>68</sup> Progress was apparently good that year. A report covering the period from 21 September to 31 October 1827, notes "Works at Kingston Mills, chopping clearing & grubbing excavating of Locks constructing Dam etc. ...In Progress."<sup>69</sup> Mr. Drummond and his men were then working under the supervision of Lieutenant Robert Boteler, of the Royal Engineers, who was given the responsibility of inspecting all the works underway as far as the Narrows at Rideau Lake. Not surprisingly, Boteler was obliged to be continuously on the move.<sup>70</sup>

Work carried on into 1828. On 23 January of that year we find Colonel By writing to General Mann in the following vein:

...that I inspected the various works of the

Rideau Canal accompanied by Capt. Savage & Capt. Victor Roy. Engineers, between the 7th & 17th Instant, and have the satisfaction to state, we found the arrangements making by the different contractors, for opening the various works in the spring, proceeding with a rapidity far exceeding our most sanguine expectations.

...23 & 22 Sections At the 23rd and 22nd Sections, Kingston Mills Mr. R. Drummond has contracted to build four locks of 9 feet lift each, a Dam 18 feet high and to make the necessary excavations & embankments, and to clear the extensive swamps in these Sections.

The clearing & excavations for the Locks, and the clearing of the Swamps are proceeding with rapidity: he has a quantity of stone quarried and 20 stone cutters at work preparing for the Locks; he has also a large quantity of stone collected to build the dam, the moment the Spring floods will permit, and is making preparations to commence the Coffer Dam for the outer Lock...<sup>71</sup>

It was not long, however, before a new enemy began to dog and harass the entire canal project: malaria. Also known by such labels as "ague" and "bilious fever", the disease, disseminated by mosquitoes in the foetid swamps of the wilderness, broke out with a vengeance in August of 1828, and afterwards kept recurring with malignant regularity every successive working season.<sup>72</sup> The effects were worst along the Kingston side of the watershed, and by September of 1828 work was virtually paralysed at Brewers' Mills and Jones Falls.<sup>73</sup> Kingston Mills proved just as unhealthy a site as the others. On 6 September 1828, we find Captain Savage, in a letter to Colonel By, describing the grim picture as follows:

...At Kingston Mills, Lieut. [Henry] Briscoe Roy<sup>1</sup> Eng<sup>r</sup>, the asst. Overseer, the Contractor, his Clerk, Foreman, and nearly the whole of his men (about 100) have been attacked, the Clerk and 12 men have died, Lieut. Briscoe still continues extremely ill, with the lake fever...<sup>74</sup>

John MacTaggart, who worked under Colonel By on the Rideau as Clerk of Works until 1828, has left us a more graphic description of the fever and its effects:

In the summer of 1828, the sickness in Upper Canada raged like a plague; all along the banks of the lakes, nothing but languid fevers; and at the Rideau Canal few could work with fever and ague; at Jones's Falls and Kingston Mills, no one was able to carry a draught of water to a friend; doctors and all were laid down together. And people take a long time to recover amid these hot swamps; it is not two or three weeks ill, and then up and well again, but so many months.<sup>75</sup>

In 1829 and 1830 the scourge reappeared, usually in August and September, claiming a grim toll every time. One estimate places the total number of deaths at 500<sup>76</sup> - which probably represents the toll for all stations between Kingston Mills and the Isthmus. Colonel By tried to alleviate the situation by dispensing medical supplies and ordering a corridor some 300 to 400 feet wide cut through the forests around the foetid areas in March 1830, in an effort to improve air circulation.<sup>77</sup>

In 1829, meanwhile, the following progress on the works was reported:

Section No. 23. Kingston Mills. Clearing etc. - completed - excavations for Locks about 2/3rds done. Dam 3/4rs built - cut and rough stones for the Locks, about 3/4rs of the quantity

required in the quarry. Cofferdam at the head of Kingston Bay commenced.<sup>78</sup>

More colourful are some commentaries published by the Montreal Gazette on 22 June 1829, concerning the Kingston Mills project:

The works in the vicinity of KINGSTON ... are going on rapidly. One Lock will be completed in the course of eight or ten days, and the Dam, which is allowed to be of the best architecture on the line, is in full progress. Great praise is due to the Contractor for his unparalleled exertions, which must be apparent to every candid observer.<sup>79</sup>

The same report also mentions another of Mr. Drummond's innovations: the steamboat Pumper, which had been launched early in June of 1829.<sup>80</sup> An ungainly scow-like craft, about 80 feet by 15,<sup>81</sup> the Pumper was so named because it carried extensive steam-powered pumping equipment, used to drain the areas behind the coffer dams which had to be erected temporarily around the lower end of the bottom-most lock. By all accounts, the steam pumps were a vast improvement over the old method of pumping by horses or hand.<sup>82</sup> The steamboat is said to have had a twelve horsepower engine,<sup>83</sup> which we may surmise was used both to power the pumps and the paddle wheels. We may also conjecture that the craft was further used to tow in scowloads of provisions, plus limestone for the locks and dam from the quarries near Barriefield.<sup>84</sup>

Also in June, Drummond decided that it was time to begin work on the new canal channel, either at Kingston Mills or Brewers' Mills. On 6 June 1829, the following invitation was printed in the Kingston Chronicle:

TENDERS will be received at the Engineer Office, Kingston Mills, until the 24th day of July next,

for excavating about 50,000 Cubic Yards of Earth, upon the Cataragui Creek, (line of Rideau Canal) - Specification of the manner in which the work is to be performed may be obtained by application to Lieut. Briscoe, R.E. at Kingston Mills.

Kingston, 4th June, 1829.<sup>85</sup>

We are not informed of where the above sub-contracting work was to be done, nor which parties may have tendered on it and won it.

Late in July 1829, the Lieutenant-Governor of the day, Sir John Colborne, took a tour through the line of the Rideau Waterway from Bytown, and was said to be "much pleased with the general appearance"<sup>86</sup> of what he saw. In November 1824, the editor of the Kingston Chronicle also paid a visit to the construction site at Kingston Mills. On the fourteenth he informed his readers that he found three stone locks underway each "exhibiting the most substantial pieces of architecture we have ever witnessed and a science in their construction highly creditable to the talents of Mr. Drummond the contractor for this section of the works." Nearly 300 men, continued the editor, were employed at the site, and though the community was a mixed one, the atmosphere was said to be one of cordiality and good fellowship, with the utmost regularity prevailing in every department. The account also mentioned the steamboat used to pump water from behind the coffer dam, using double engines. The editor concluded by wishing Drummond the best of luck.<sup>87</sup>

Other parties periodically visited the works, including Colonel Durnford, who made a tour of inspection at least once a year. On 19 November 1829, Durnford was able to report that Colonel By had started work on every lock and dam required for the entire system, except the dam at White Fish Falls.<sup>88</sup> At the end of the year By also notified his superior:



...the saving arising from my proposal to do away with the Locks at Billidores & Jacks Rifts by placing a fourth Lock at Kingston Mills, raising the Dam at that place, and forming certain embankments to retain the water, so as to convert Cataroque Creek into a fine sheet of water, extending to the high land on each side and thereby drowning that pernicious swamp, by forming it into a small Lake of about 9,400 acres was deducted which deduction amounted to £8102,,2,,0 and this alteration was approved of by the committee.<sup>89</sup>

On 31 December 1829, By reported that over 60% of the canal works were completed, and that he expected the whole system to be ready by August 1831.<sup>90</sup> He also noted that the contractors (not surprisingly!) were frantic to finish their work as quickly as possible.<sup>91</sup> Further delays, such as those caused by the fever, only diminished their profits that much more.

The work dragged wearily on throughout 1830. In the summer of that year (the peak of the work season), a total of 1,316 labourers are said to have been employed between the Isthmus and Kingston Mills.<sup>92</sup> Many of them had their wives and children along with them. On 15 March 1830, Colonel By sent another progress report to General Mann. The text in part reads as follows:

...The Progress Report and Plans show the works as they are now completing...yet I have no doubt the whole will be finished in August 1831: and I beg to state, notwithstanding the excavations are carrying on at the lower lock at Kingston Mills, also the deepening and clearing Cataroque Creek, and cutting through the Isthmus between Mud and Rideau Lakes during the winter, which owing to the intense frost,

adds considerably to the expense, yet such is the dreadfully offensive smell arising from the decayed vegetable matter in these excavations, that I am apprehensive of the breaking out of the fever afresh, and have, as a matter of necessity, to lessen these expensive excavations, ordered the dam and locks at Kingston Mills to be raised, which lessens the excavations in Cataroque Creek; ...<sup>93</sup>

Alas, the Colonel's fears were well founded. On 1 August 1830, Mr. Drummond was said to be employing 388 workmen at Kingston Mills; of whom 217 or 56% became ill by September (not counting one member of the Engineering Department).<sup>94</sup> Eight workmen, plus four women and four children, perished that year at the station from ague.<sup>95</sup> The record also carries the following comments:

Remarks: Mr. T. Burrows - Asst. Overseer occasionally ill with former Ague. Mr. R. Drummond the Contractor is now away for the reestablishment of his health - the whole of his Clerks, Foremen and sub-contractors (14 persons) have been ill and had to leave the plans. The Master Mason still dangerously ill in Kingston - about 1 man killed by an accident not included in this Return.<sup>96</sup>

Accidents in fact claimed a large number of lives. Most of the navvies at Kingston Mills appear to have been impoverished Irishmen who were interested in wages, and were unfamiliar with the construction techniques. Some were blown up by gunpowder, others were buried alive by tree roots, earth and stones while grubbing.<sup>97</sup> Some, too, were killed by flying rocks as charges were set off.<sup>98</sup> One day in February 1831, while Mr. Drummond and various others were sitting down for their noon meal in the contractor's house, a blasting charge for the uppermost lock threw a rock weighing about 700 pounds a distance of 200 yards. The

immense projectile went right through the building and landed about six feet from the dinner table. No one was hurt, but we are not informed whether or not the company carried on with their lunch.<sup>99</sup> A few months later, a twenty pound rock went through the roof of the house.<sup>100</sup> Work at Kingston Mills must at times have resembled an artillery barrage. Altogether about 50 people were killed in accidents at the site, according to a later reckoning by Thomas Burrowes.<sup>101</sup>

Despite the high costs to life and limb, progress was perceptible. On 1 May 1830, the Chronicle presented a lengthy article on the activities at Kingston Mills: four locks were now underway at the site, for which the limestone was being quarried from the "shores of the Bay a distance of 4 miles". The meandering creek above the falls, continued the paper, was to be rendered navigable by constructing a stone dam and two extensive wing walls to back up the water. Several factors were helping to force the costs upward: the decision to build a new waste weir, which would require a thick wall of cut or ashlar masonry on both sides, and the necessity of digging the lock pits out of solid granite (to say nothing of the cost of contractor's steamboat).<sup>102</sup> The newspaper also commented on the broad swampy valley above the falls, which was said to be full of large sized timber; partly growing and partly decayed. It should, advised the paper, be cleared away and hauled out using oxen in the winter, before the area was flooded - something the contractor was not being paid to do.<sup>103</sup> (As it turned out, even though there was still a sawmill at Kingston Mills most of the timber was left uncut - except for some clearing ordered by Colonel By for health reasons. The results, of course, were extensive stands of desolate dead trees - and later stumps - along the upper portions of the waterway; none of which did much to enhance the canal's scenic charm!).

In 1830 Colonel By added for the record a detailed commentary on all the extra works ordered at Kingston Mills and the reasons for them:

Alterations and Extra Works

Having ascertained that the Ground, it was proposed to occupy, was not adapted for the placing of four Locks in Connection, it has been necessary to have one detached, the space intermediate being formed into a Bason [sic], it has also been deemed expedient to construct a Waste Weir, from the consideration that it would materially tend to insure the permanent durability of the Dam and Works in general, and at the same time provided for the drawing off the Water, should it be required at any future period to repair the Embankments, or clean the bed of the Canal from deposits [sic] or other obstructions.

The Line of Canal between Kingston Mills, and Brewer's Lower Mills has been rendered more direct, by quitting the Creek and cutting through numerous points, this was rendered necessary for the reasons afforded relative to the alterations adopted at Section No. 20 - which are equally applicable in the present instance, and to which may be added that from the extreme Sinuous character of the Creek in question, its navigation by Steam Boats must always have been a tedious and at the same time a difficult operation, even had it been practicable without incurring an enormous and unnecessary expenditure, to have increased its width and depth to the dimensions required.

The necessity of quitting the Creek at various points having been fully ascertained, and an error in the original levels also discovered, in order

to save depth of Cutting and meet the said error, the total lift of the Lock and height of the Dam, have been increased, --- this gives 7 Feet Water in the Chamber of the Lock at Brewers Lower Mill, and renders an extension of Embankments unavailable.

Having stated the reasons which rendered alterations from the plan approved of by the Committee indispensably necessary, I beg to offer a few remarks in explanation of the Causes which led to the errors in the original Levels. - In the first place, a Large portion of the Country on each side of the Cataragui Creek is either Marsh or flooded for several months during the Summer Season, and when the Water is evaporated the heat of the Sun acting upon decaying Vegetable Matter, slimy deposits Creates Miasmata of so malignant a description, that only those seasoned by Long residence can possibly escape its effects, and which has been but too clearly demonstrated from the number of Labourers, who have fallen Victims to disease whilst employed, although every precaution, by clearing land to create free Circulation of air has been adopted, with the hopes of mitigating the sickness which prevails periodically in the Kingston Sections of the Canal, and without which expense having been incurred, the Works could not have been executed, Secondly, The Marshes totally impassable in Summer, are generally but very slightly crusted over with ice during the Winter Season, unless a continuation of very severe weather occurs, one of my overseers nearly lost his life from repeatedly breaking through the same whilst employed in taking a Survey of the Creek.

The impossibility of taking Correct levels in such a Country with Instruments having been proved, to obtain correct data, I was Compelled to adopt the expensive mode of constructing temporary Dams, across the Creek in question at certain distances, and by which means, the errors in the original levels were discovered, these explanations will I trust prove satisfactory, and at the same time shew the numerous and Varied difficulties which have been met with, and I beg further to remark, that I am fully Convinced, taking every thing into Consideration, that the forming the Canal, as above described, is the least expensive mode, and at the same time it provides the necessary facilities for a Steam Boat navigation, which the original plan did not afford.

Clearing the Line of Canal between Jack's Rifts and Kingston Mill Pond

...Increase of Expense arises from the necessity of quitting the Creek at various points to render the Water Communication more direct and available; also from the Clearing a greater Space than required for the bed of the Canal to create free Circulation of Air, to mitigate the extreme Sickness which prevails periodically.

Grubbing the necessary part of above distance

Increase of Expense arises from quitting the Creek, the necessity of which has been explained.

Earth Excavation on the above distance

Arises from the necessity of altering the sites of the Locks to suite the nature of the ground, and to Keep the Lower Lock as much out of the River as possible, to avoid bad foundations, and partial piling, which latter would otherwise have been required, as it was considered that the

building of Masonry partly on rock, and partly on an Artificial foundation, might be attended with injurious results.

Rock below Surface on Lake Ontario

...Increase of Expense arises from more Rock Excavation having been ascertained to be necessary than at first anticipated, which may have arisen from the fluctuations of Lake Ontario.

Embankment for Basin

...Increase of Expense arises from the necessity of having a detached Lock to suit the Ground, and the forming of the Space between it and the Combined Locks into a Basin.

Masonry of Three Locks

...Increase of Expense arises from an error in the Original levels, which rendered an increase in the lifts of the Locks necessary to rectify the same, and at the same time to save depth of Excavation at those places where it was deemed advisable to quit the Creek, which from the unhealthy nature of the Country would have been attended with a heavier expense than the plan adapted; also from the Contract price exceeding the Estimated one, arising from the high rate of Wages demanded by Artificers and labourers in Consequence of the great Sickness which prevails in the Vicinity of Kingston Mills.

There are no documents in this office from which it can be ascertained, the saving upon each Item in Consequence of placing a 4th Lock at Kingston Mills, and the doing away with the Works at Billedore's and Jack's Rifts, it appears that a Saving of £8102,,2,,0 would accrue from the Alteration which was deducted from the Amount of Works required at Kingston Mills.



Masonry for Side retaining Walls

Increase of Expense occasion of - See last remark.

Four Pair Sluice Gates Complete

Increase of Expense arises from the substituting Crabs and Chains for Racks and Pinions, and Cast Iron Valves for Wood - and an additional pair being required for the detached Lock.

Pumps and labor Keeping Locks dry

...Increase of Expense arises from the not having allowed a Sufficient Sum for this Service in the original Estimate the Keeping of the Works clear of Water whilst Constructing has been attended with great difficulty, so much so, that the Contractor found it expedient to use a Steam Engine at his own expense.

Dam

...Increase of Expense occasion of - See remark on Masonry of Locks, also from the additional height and consequently, thickness given to the Dam to prevent the Water from flowing over it.

Masonry of the 4th or Upper Lock

...In consequence of doing away with the Works at Billidore's and Jack's Rifts a fourth Lock was to be Constructed at Kingston Mills, but from the nature of the ground, it has been necessary that the same should be detached, which was not anticipated at the period of forming the Estimate given to the Committee, and has occasioned an Increase of Expense on the Masonry of Locks - See also remark on Masonry of three Locks.

Pointed Sill for ditto on Rock

An Oak Sill was required for the detached Lock.

Masonry of Waste Water Way or Bywash

To enable the Water to be drawn...

A Waste Weir was considered necessary to insure the permanent durability of the Dam and Works in general. Also to provide for the draining off the Water between Kingston Mills and Brewer's Lower Mill, in order that repairs to the Embankment, when required, might be made with greater facility and to enable the bed of the Canal to be cleared of deposits and other obstacles which might interrupt the navigation.

Embankments to retain Water raised by Dam 900 Yards

...Embankments were indispensably necessary to retain the Water raised by the Dam - See remark on Dam and masonry of three Locks.

Raising a part of the Montreal Road as it Will be flooded by Water raised by Dam.

...The necessity of this Work has proceeded from the additional height given to the Dam of three feet eight Inches.

Sill at Stop Gate For Bywash

Required for the Stop Gate of the Waste Weir to rest upon.<sup>104</sup>

As of 31 March 1931, Colonel By reckoned that the Kingston Mills works would probably cost £52,972/11/3½.<sup>105</sup>

In February of 1830, an anonymous commentator penned a lengthy memorandum of a journey from Kingston to Bytown. From this Description of a Journey along the Rideau Canal comes the following description of the works underway at Kingston Mills:

To the traveller who passes this Route it is unnecessary to be proby [sic] in describing the Town of Kingston...where two headlands form a barrier between the Lake and an extensive Bay which runs up into the country for the distance

of five miles in a direct line to the spot where the waters of the Cataraqui Creek falls into it, and where the falls had been taken advantage of to erect mills termed Kingston Mills....and the shores of the Bay afford excellent quarries of a bluish limestone admirably adapted for building materials while their distance presents no serious obstacle as they can be transported by water in summer and with sleighs in winter....Kingston Mills. This may be denominated the outlet of the Rideau Canal...There the country becomes rugged and uneven in the surface - the rocky hills approach each other and the waters of the Cataraqui Creek come rushing down into the Bay and the first lift from the level of Lake Ontario is to be made. Difficulties here presented themselves which would have (paralysed?) less experienced Engineers, and defeated Contractors not endowed with stern perseverance. All these however are in a fair way of being overcome under the superintendence of a Mr. Drummond the Contractor, and a considerable progress in the completion of a piece of well executed work is already made. The lift is overcome by four locks of 14 ft 8 inch lift each. The Sills are composed on the one side of the creek of greyish limestone, and on the other of a hard Granite very difficult to break, and of which the Lock Pits have to be excavated at great expense of Labour. On gaining the summit here at the Top of the locks, the country spreads out into an open vally [sic] through which the creek winds in a very crooked course. It not being navigable it was found necessary to back up the waters to a sufficient depth. This has been done by erecting

a substantial dam with two long Embankments. This is nearly finished and has the promise of durability, both the stone work of the Dam and locks are built of Grey limestone brought from a quarry on the banks of the Bay about four miles distant, and locked up with the rough granite as excavated from the Lockpits. Several circumstances have intervened to enhance the expense of the operations here. Besides the hard excavation of the Lockpits already mentioned; it is necessary to cut a waste weir for the escape of the creek waters when raised to their proper height by the Dam; and of sufficient size to slow their discharge, under all the varieties of rise and fall, - it not being intended to let the superfluous water flow over the Dam as in other places. In addition to this the swampy vally [sic] through which the creek passes & which is filled of heavy timber some standing and others under every stage of decay has to be cleared and as the ground is swampy this work must be done in winter at a great labour in raising the frozen trees. Here the contractor is not sufficiently paid for his labour when only allowed the same sum as he gets for cutting and clearing off timber under the usual circumstances. In this place I observed the adoption of a steam engine for pumping out the water in the lower lockpit which certainly is preferable on the score of economy to using the hand or horse pump, though more expensive in the outset to the Contractor. Owing to the narrowness of the valley where the locks are placed and the high rugged land in the vicinity preventing the waste weir being carried around, the creekwater escapes by the side of the lower locks, - hence

its wall requires to be built strong & thick of cut stone on both sides instead of being backed up as usual in some place. From the side of the second lock coming from the granite rock there is a beautiful living spring of excellent water...Now soon the Canal is in operation a large track of vally will be here filled with water Kept back by the Dam, - which will form a complete lake having deeply indented bays around it, upon which the traveler [sic] will enter when he has risen through the Locks. This sheet of still water will extend 6 miles to Brewers Lower Mills which form the next scene of operation on the Canal.<sup>106</sup>

The year 1831 proved the final year of construction at Kingston Mills. On June the eleventh the Kingston Chronicle carried a short announcement that three of the locks at Kingston Mills were now completed, and the fourth nearly so. The gates, it continued, opened with ease, and the entire project would be completed the following August.<sup>107</sup> Another account, also penned in 1831, tells us a little more:

We had a pleasant scamper through the woods, and in due time reached the canal. Some very fine locks have been constructed here, of solid masonry and beautiful workmanship, but executed, I should think, with no very rigid considerations of economy or expense. An extensive embankment has been formed, to deepen a shallow lake, and the canal, from this point, will very soon be opened into Kingston Bay. The log-huts Etc. are government property, stamped with the broad arrow, and the inmates, I regretted to observe, stamped also with the sickly hue of an aguish district.<sup>108</sup>

Finally, on 1 October 1831, the Chronicle briefly informed its readers that the canal works were as good as

finished. The waterway was largely filled up, the canal locks appeared to work perfectly, and Mr. Drummond's contract was due to expire in about three weeks.<sup>109</sup> The cost of the Kingston Mills works in money came to about £60,000<sup>110</sup> while the Canal as a whole amounted to about £800,000:<sup>111</sup> over three times the projected figure of 1825.

We find still another description of Robert Drummond's work, in a pamphlet written in 1834 by Edward John Barker, editor of the Kingston British Whig. The information in the pamphlet was apparently supplied by Drummond himself, and the article reads as follows:

After passing along the Cataragui Creek to where the Cataragui was wont to rumble down a precipice of some 30 feet high the approach is made through a gorge with lofty granite rocks on both sides continuing all the way to where the falls of the Cataragui formerly were, along this gorge the creek is not more than 120 or 130 feet wide but the shores are bold and steep with 6 feet of water in the shallowest parts. - On the whole route from Kingston to Bytown there is no natural part of the Canal which impresses the beholder with more fearful delight than the portion of the Cataragui Creek - the awful sublimity of the lowering rocks inspires a species of pleasure difficult to describe and although the scenery on the Rideau River and on some of the Lakes is hardly to be surpassed both for splendour and loveliness yet it yields in grandeur to this part.

The lift to be overcome at Kingston Mills is 46- $\frac{1}{2}$  feet divided into equal portions of 11' 8" each. - The original fall was not so high but the water has been raised 20 feet to overcome two small rifts between this place and Brewer's lower Mills.

- The Locks are 4 in number and being the first on the Canal require a short description which may serve for all the rest as all are built in nearly the same way. - They are composed of cut limestone, or sandstone (a species of freestone of almost eternal duration) which are the only building materials used in the entire line. - They are 110 feet long clear of the gates, 33 feet wide with a depth of 5 feet of water over the sills. - The gates are framed of oak and are put up in a most substantial manner. The crabs, chains and other iron Works was manufactured in England and at Three Rivers in Lower Canada, they are of the best material and most approved patterns.

Between the 3rd and 4th lock is a capacious basin built in the same manner as the locks, sufficiently large for the largest sized Steamboat to turn or pass. - The time of passing them will occupy about 12 minutes each, upon an average.

The locks themselves are situated on the west side of the old falls and the site now occupied was blasted out of the solid granite rock, nearly 2000 yards cubic were removed.

To raise the waters at this place, a dam and two extensive embankments are made. - The dam is built with rough limestone, is about 300 feet in length - 34 feet high in centre and is flanked on the east end by the waste weir - one embankment to the eastward extends 2600 feet and the other to the westward 3200 feet in length. The height of these embankments is various, the highest part about 23 feet and the lowest not exceeding so many inches. - They are well built with stone and clay but are not perfectly water tight. - Over the locks is



thrown a long and lofty wooden bridge the high road to Montreal passing through the village. - ...The sole contractor and architect was Robt. Drummond, Eng. of Kingston.

During the period of erection the place was very sickly and 500 labourers are said to have lost their lives.

The foregoing extract affords a glimpse of the difficulties to be overcome in the western section of the route especially, from the rugged and disrupted state of the primitive rocks encountered. Col. By always placed great reliance on Mr. Drummond for his perseverance, energy and faithful performance of whatever he undertook to do...<sup>112</sup>

A dryer but fuller account written around 1834 by Lieutenant Frome, may be found amongst the professional papers of the Corps of Royal Engineers:

...From hence to Kingston Mills, 10- $\frac{1}{2}$  miles distant, the water is kept up to a level by the dam constructed at the latter place. The old course of the stream is followed for the greater part of the distance, with occasional cuts across its bend to shorten the distance, but near Kingston Mills, the flat marshy country through which it flowed is completely inundated, and all traces of the Old Cataroqui have vanished. The channel is here marked out through the mass of dead timber on each side, presently the most desolate appearance.

The dam at Kingston Mills, which retains the waters to this level, is constructed on the same principle as the others, of stone placed on edge. Its height is about 30 feet, and the length on the top, from the rock on which it abuts, near the wing-wall of the upper lock on the right bank, to

the cut stone pier of the sluiceway, which joins its abutment on the left, near 400 feet. There is a far larger mass of clay and broken stone at the back of the key-work than was originally intended, with a very gradual slope upstream. An earthen embankment extends to the east, from the sluiceway, for about 1000 yards, till it meets the high land; and a similar mound of nearly the same length is also raised across some low land to the westward, to prevent the water from turning the works. The locks, built of limestone, are four in number, the upper being detached, with a large basin between it and the other three, which are combined, and of an extra thickness on the river side, being without any backing, and faced with ashlar. The lift of the detached lock is 11 feet 8 inches, allowing 7 feet 8 inches water on the upper sill, and 5 feet in the basin, which is retained on the west by a large earthen embankment faced with a stone wall. A species of lay-by, or dock, is connected on the east side with this basin, large enough to receive a steam-boat, and with piers to which gates may be hung. The lifts of the other three are also 11 feet 8 inches each, allowing 8-feet water on the river lock, making a total lift of 46 feet 8 inches from the surface of Lake Ontario to that of the Cataroqui, as raised by the present dam. ...The excavation was through a species of granite, and was an expensive as well as a tedious undertaking, rendered still more so by the difficulty of procuring hands in the spring and autumn, owing to the very unhealthy situation. All the works between the isthmus and Kingston, as well as some on the other side of the Rideau Lake, the same

delay was experienced from this cause. At the head of the bay where the Rideau Canal enters Lake Ontario, the depth of water is at all seasons sufficient, but within a mile of the locks a rocky shoal, as has been mentioned, crosses the route. A coffer-dam was at an early stage of the work formed round a narrow part of the channel proposed to be deepened; but the canal was completed, and in operation, before anything was done to remove this impediment; so that steam-boats were obliged, at certain seasons, to unload at Kingston Mills, there not being 4-feet water over the bar. A channel has however since been cut round it, without meeting with any rock that required blasting under water, and the communication is now uninterrupted to Kingston, 5 miles distant from the mills...<sup>113</sup>

The official opening of the Kingston Mills locks (and of the entire Rideau Canal) took place on 24 May 1832.<sup>114</sup> (The event would probably have been held the previous autumn, except that William Merrick, proprietor of the mills at Merrickville, decided to dam the Rideau River that season to repair his mills - which left the downstream portion of the waterway much too low for boats to pass.<sup>115</sup> Colonel By was not pleased!) Most of the local newspapers, preoccupied with the cholera scourge, devoted scant space to the grand opening; however, the event did not go uncelebrated. A large crowd of Kingstonians saw the official parties off, while others went to Kingston Mills to witness the first transit.<sup>116</sup> At 12:47 p.m., the dockyard cutter Rattlesnake, commanded by Lieutenant Holbrook, plus two barges (one containing officers of the 66th Regiment) arrived at the lockstation. It took eleven minutes to lock through the first chamber, (on account of a piece of wood that managed to get jammed between the gate and the sill) but only five

minutes to pass through the second lock, four to go through the third, and about three to four minutes to move the vessels across the basin. At 1:47 they entered the upper reach, amid three rousing cheers. With sails unfurled and the British ensign flying, the cutter soon disappeared amid the trees on the serpentine channel leading to Brewers' Mills;<sup>117</sup> it proceeded as far as Jones's Falls before returning. Much later, around 4:00 p.m., the steamboat Pumper - now appropriately renamed the Rideau - came into view, with Colonel By and his family, plus a specially selected group on board; apparently Lieutenant (now Captain) Briscoe was on hand and of course the indefatigable Robert Drummond. Each of the three received three cheers, followed by more cheers for the Rideau Canal. Undoubtedly for all of them this tour was the proudest event of their lives. Within 50 minutes the Rideau had ascended to the upper reach, to continue a leisurely voyage to Bytown. The onlookers meanwhile went home, highly pleased with the day's events. Some members of the official party are said to have voted the Kingston Mills locks the best along any canal in North America.<sup>118</sup> After fantastic exertions and staggering costs, the Rideau Waterway was at last a reality. For Kingston Mills and vicinity, life would never be the same again.

#### Canal Administration

The basic story of the actual administration of the Rideau Waterway following its completion has already been summarized at considerable length by Judith Tulloch, and consequently - given the limited nature of this hasty compilation - this writer proposes no more than a recapitulation of the Tulloch Report, along with a few incidental details he has managed to uncover, pertaining to the Kingston Mills lockstation.

In 1832, upon his abrupt recall to England, Colonel By

left a staff of 73 men to operate the Rideau Canal. Of these, about half were discharged Royal Sappers and Miners.<sup>119</sup> Captain Daniel Bolton was named to succeed Colonel By as superintending engineer (with his headquarters at Bytown), while John Burrows became the first overseer of works.<sup>120</sup> Corporal G. Hay of the Seventh Company was recommended as lockmaster at Kingston Mills, but this appointment was apparently not confirmed, as the position went to an Irishman named John (or Thomas) Brady, that same year. Brady continued as lockmaster for 24 years.<sup>121</sup>

Under the Ordnance Department (which ran the canal from 1832 to 1856 until its transfer to Canadian control) the superintending engineers for the Rideau were Captain Daniel Bolton (1832-1843), Lieutenant-Colonel Fraser Ringler Thomson (1843-1847), Captain Charles E. Ford (1847-1852) and Captain John Chaytor (1852-1856).<sup>122</sup> When the Board of Works for Upper and Lower Canada assumed control, John S. Killaly became superintending engineer, from 1856 to 1858; to be followed by James D. Slater, from 1858 to 1867. With the advent of Confederation, the British North America Act assigned all matters of shipping and navigation to the jurisdiction of Ottawa, and consequently the new federal Department of Public Works took over the Rideau; James D. Slater carried on under this department until 1872, when he was succeeded by Frederick A. Wise, who carried on until 1879. In that year the Department of Railways and Canals was organized to take charge of all government transport facilities. Wise remained as superintending engineer under this department until 1894. Then Arthur T. Phillips, one of his subordinates, succeeded, and continued to manage the waterway until 1934.<sup>123</sup> Meanwhile, the first Chief Engineers, in succession, were John Page (1867-1890), Toussaint Trudeau (1890-1892), Collingwood Schreiber (1892-1905), Matthew J. Butler (1905-1910) and William A. Bowden (1910-1924).<sup>124</sup>

These men were responsible for the upkeep of the actual canal installations themselves, while the superintending engineers managed day to day affairs on the canal.<sup>125</sup> The secretaries to the department, in turn, were supposed to provide a link with other branches of government.<sup>126</sup> In 1936 the Department of Transport replaced the Department of Railways and Canals, but management of the Rideau remained essentially unchanged.<sup>127</sup>

As for the Kingston Mills station, we have noted elsewhere that it was designated a first class station in 1842,<sup>128</sup> (if not earlier), because of its position as terminus of the system, and its distance from the canal headquarters at Bytown; perhaps another factor was the extensive nature of the works at the site. As a result of the extra responsibilities entailed, the lockmasters at Kingston Mills were paid 4s. 6d. per day, as opposed to 4s. per day for the keepers of second class stations like Brewer's Upper Mills, Jones Falls, Smith's Falls, Merrickville, Long Island and Bytown, or 3s. 6d. per day for the other lockmasters at third class stations.<sup>129</sup> In 1857, when dollars replaced pounds and shillings, the lockmasters at Bytown and Kingston Mills received 90¢ a day. The others were paid only 80¢ and 70¢ respectively.<sup>130</sup> After 1857 the lockmasters at Kingston Mills were being paid \$300 per year, partly for acting as customs collectors as well.<sup>131</sup> Such pay was not particularly lavish, even by the standards of the day, but as a rule the lockmasters also got a residence, plus the right to cultivate gardens on ordnance land - provided that this did not interfere with their regular duties.<sup>132</sup> In 1847 the Ordnance Department began issuing uniforms to the lockmasters, consisting of a blue greatcoat with scarlet collars and ordnance buttons, plus a blue cloth shell-jacket with scarlet collars and cuffs with an embroidered crown on the right arm; in addition, grey cloth trousers and blue forage caps decorated with a scarlet band

were also issued. (New outfits were supplied annually, except the greatcoats, which were replaced every two years.) The uniforms were valued at £2.19.8 apiece;<sup>133</sup> perhaps they were issued to give the lockmasters greater authority over boatmen and mill owners. In 1848 the uniforms were made compulsory. In that year we find Captain Charles Ford, the senior Royal Engineer at Bytown, instructing the lockmasters that they must appear properly dressed at all times.<sup>134</sup> (Such orders must have been highly unpopular on hot summer days!)

The lockmasters were considered responsible for the water levels, stores, dams, reservoirs and booms at their stations, and to keep the premises neat and tidy; this usually entailed a fair amount of maintenance and clean up work, especially in the autumn and spring. They were also empowered to hire or dismiss workmen (subject to the approval of the superintending engineers), and were expected generally to uphold the interests of the department and the canal.<sup>135</sup> They were further required to be on duty 24 hours a day, seven days a week, from 1 May to late November, and generally had to sleep quickly to sleep at all; not until the early 1930's were the hours shortened.<sup>136</sup> (After the Province of Canada took over the canal in 1856, uniforms ceased to be issued to the lockmasters, though in 1903 Superintendent Phillips made a move in that direction, by ordering ten dozen straw hats for the Rideau staffs: 36 with the word "lockmaster" on them (in gold letters), 60 more with the label "lockman" (in silver letters), and 24 with "bridgeman" on them, (in silver letters).<sup>137</sup>

The first lockmaster at Kingston Mills was John Brady, who was appointed to the post in 1832; he was then 25.<sup>138</sup> Brady remained in charge until the time of the canal transfer in 1856-57, when he was replaced by William Robinson. Robinson seems to have done a very competent job for ten



years; upon his death on 9 September 1867<sup>139</sup> he was succeeded by one of the locklabourers, Joseph Deane, an Irishman with an impetuous temper. Despite the occasional clash with some of his neighbours, Deane remained lockmaster until his death on 28 March 1892.<sup>140</sup> His successor in turn was Robert Anglin of Brewer's Mills, whose family ran a sawmill there.<sup>141</sup> For some reason - perhaps political, in view of the recent change in government - Anglin was dismissed in December 1896, only to be reinstated the following year.<sup>142</sup> Anglin retired in 1919, and was replaced by William Burton, an army veteran who had lost an eye during the Boer War; unhappily he lost his other eye in 1923 while serving at Kingston Mills, and had to retire.<sup>143</sup> His successor in turn was Mr. Earl Doyle, whose family had lived for generations near Kingston Mills. Mr. Doyle retired in 1958, after 35 years on the job. His immediate successors did not remain long.<sup>144</sup> The best sources of information on most of these men are the journals they kept as lockmasters, and the extensive correspondences they maintained with their superiors. A record that gives a vivid picture of some aspects of canal life at Kingston Mills, but which, to date, has not been properly investigated.

The lot of the lockmen was even less enviable than that of the lockmasters. Of the 73 labourers employed on the canal in 1832, 30 held permanent positions; the others worked only during the navigating season.<sup>145</sup> They were paid a mere three shillings per day, and even this was slashed to 2s. 6d. per day in 1834.<sup>146</sup> When the Canadian government Board of Works took over the canal in 1856, it drastically reduced the number of lockmen, apparently as an economy measure on a waterway that was no longer economic; only seven permanent labourers and 53 seasonal workmen were employed in 1857, at rates of 60¢ a day (50¢ in winter).<sup>147</sup> In July of that year seven labourers - John Sargent, William Dean, John Redmond, James Doyle, John Wafer, Richard Phillips and John Gray - are

listed on the staff at Kingston Mills, under Lockmaster Robinson.<sup>148</sup> By November of 1858, Superintendent Slater reported only three full time labourers were still being employed on the Rideau, one each at Ottawa, Jones Falls and Kingston Mills; here the man was John Sargent.<sup>149</sup> The temporary crews were now reduced to 36. In more recent times, Mr. Earl Doyle recalls that he had six men working under him in 1923, all seasonally; as canal traffic diminished, some of the men were transferred elsewhere and one died, so that the staff at Kingston Mills became reduced to four, then three, men.<sup>150</sup> Some of the men employed during the 1910's, 20's and 30's included Patrick Hogan (who died in 1933), his son-in-law John Duffy (died 1967), Alexander ("Sandy") Lunman, Ernest ("Ernie") Campbell, Herbert Peck, William McKane, and Ross Dobbs, who took ill and drowned from one of the lock gates during the 1930's.<sup>151</sup> As explained elsewhere, these men, during the navigating season, occupied various canal buildings such as the "Lodge" and the blockhouse, with their families.

Communications between the canal superintendents and the lock staff, of course, were originally maintained by letters and dispatches carried by steamboats. In 1889 some of the key stations on the system - including Kingston Mills - became linked with Ottawa by a telegraph system. The first telephones were opened around the Ottawa end in 1906, but in 1910 a telephone was also installed at the lockmaster's house at Kingston Mills.<sup>152</sup>

### Canal Maintenance

Given the general harshness of the natural environment in Canada (with its long, cold winters, rapid spring freshets, and often considerable precipitation), the wear and tear on canals like the Rideau has often been considerable. Flood

waters have increased erosion, debris has been known to damage or clog some of the workings, and frosts have taken their toll. In 1955 the annual maintenance bills were said to have averaged about \$500,000.<sup>153</sup> Well it was that the system was so well designed and built in the first place.

On the whole, the works at Kingston Mills have not required many serious repairs since they were first built. In 1833, new sluices were installed in the gates and the floor of the bottom lock (which had been washed out by turbulent water from the sluices) was repaired.<sup>154</sup> In 1837, some of the ashlar masonry of the lower breastwork was found to be bulging, and the stone sills lifting under the pressure. In consequence, iron bars were bolted to the wall and the sill to contain them, and the masonry again grouted with cement.<sup>155</sup> In 1847 the canal had to be shut down in its lower stretches from 1 August onwards, in order to effect repairs at Brewer's and Kingston Mills - much to the fury of entrepreneurs like Benjamin Tett of Bedford Mills, who was unable to export his sawlogs for the balance of the season.<sup>156</sup>

More serious trouble developed in 1872, when the area around the lower sill of the bottom lock collapsed; by late June of that year, Superintendent Slater reported to the department that a foot of water per minute was leaking out of the chamber from under the lower gates, and shipping companies were being warned to use the lock entirely at their own risk.<sup>157</sup> The superintendent recommended shutting down the lock for a week to effect repairs. The lock was closed on 25 June,<sup>158</sup> but repairs were to take much more than a week. First a coffer dam was built below the sill and the chamber drained. Then it was discovered that one side of the platform above the broken sill had sunk about a foot. The wall on the east side of the gate recess was built partly on that platform - which meant that the whole wall-section was undermined. By way of repairs the empty space

below the wall was filled with timber, and the platform raised by building a new wooden one on top of the old. On 9 July, Slater reported that the repairs would prove successful if the platform settled on a solid foundation, but if it kept sinking, the entire section would have to be rebuilt to a depth of about six feet below the sill.<sup>159</sup>

On 10 July 1872 the lock was reopened to navigation. The leakage, however, only grew worse. Three days later, Lockmaster Joseph Deane, in a telegram to Slater, warned that the lock was now losing 28 inches of water every two minutes, that the sluices were down, and that the eastern half of the twin gates had sunk three inches and was hanging heavily on its collar.<sup>160</sup> On the fifteenth the lock was again closed and fresh repairs begun. The foundation of the recess platform (which in this area was built on clay) was found to have eroded to a depth of six to eight feet below the level of the mitre sill, while the bottom course of masonry on the east side of the recess wing wall had dropped about a foot as a result. The whole wall section was in danger of collapsing.

Slater therefore decided that the only solution was to rebuild the entire structure.<sup>161</sup> A hole, with an area of 30 feet by 40, and varying in depth from two to ten feet, was filled up with masonry and concrete, plus rows of sheet piling. The job, which engaged about 55 men, took nearly a month and cost \$8,633.57; one contractor, William Davis by name, was paid \$3,075.91. Not until 12 August was navigation resumed that year.<sup>162</sup>

From time to time, other, less extensive, sections of the locks have been strengthened or renewed. In 1899-1900 the upper wing walls of the upper lock were rebuilt, and several new stones laid in hollow quoins and on the coping of the other locks.<sup>163</sup> In 1902, the masonry waste weir in the stone dam, which had developed leaks in the walls, was

reconstructed, at a cost of \$3,000.<sup>164</sup> Again in 1914, the circular wall along the south bank of the turning basin was rebuilt in concrete;<sup>165</sup> perhaps about the same time that the dry dock was dismantled and the basin as a whole made smaller. A study of the various annual reports to the canal department would undoubtedly disclose more examples of canal repairs at Kingston Mills.

Besides the periodic problems of major reconstructions, there was the annual business of general maintenance work, usually performed by the lockmaster and various labourers assigned to him. On 21 April 1855, for example, lockmaster Brady sent a memo to his superior, Captain Chaytor, that the upper sill of lock No. 44 had been grouted and painted, along with the greater part of lock No. 45 the previous week. Brady continued that he also intended to paint the inside of the locks before the advent of the navigating season. The cement, he added, was setting slowly, and furthermore, the embankment east of the basin had been leaking the previous year. The lockmaster proposed to puddle the embankment with clay, as soon as the frost was out of the ground; he had workmen available, but he reported spades and shovels were lacking.<sup>166</sup> (On the 26th, the superintending engineer instructed him to pick up the required tools in Kingston.)<sup>167</sup>

Other problems are alluded to in the lockmasters' journals; on 25 August 1858, Superintendent Slater mentions new gate timbers at Kingston Mills being supplied by the shipbuilding firm of Calvin & Breck of Garden Island<sup>168</sup> - which seems to have had some affiliation with Colonel Angus Cameron, owner of the local sawmill at Kingston Mills; perhaps the timbers were cut at the sawmill. Again, in the annual report to the department in 1862, we hear of new lock gates being installed at Kingston Mills; the same report mentions that the stone retaining dam was starting to bulge outwards, and called for 500 (cubic?) yards of gravel

to be dumped in front of it (as opposed to the more expensive and businesslike method of repairing the dam). The trouble was blamed on the foundations of the structure, which were alleged to be insufficient for it.<sup>169</sup>

Besides the dam, weir, dykes and locks, canal maintenance also extended to the waters above and below the lockstation. Occasionally the problem was too much water (more often there was not enough!). On 4 May 1857, for example, lockmaster William Robinson notified his superiors that driftwood had become jammed between the logs of the waste weir, despite the precaution of a boom slung across the entrance; he was, he added, trying to plug the opening with bundles of hemlock boughs and sawdust before it could drain the system.<sup>170</sup>

The following season posed much worse problems for the lockmen: heavy rains in July had raised the waters to an all time high, eroding part of the dykes and the canal staffs were spending many a wet and weary day and night around the waste weir. Robinson considered removing all the stop-logs, but one of his assistants, John Sargent, warned him that they would never be able to put the logs back if they tried it.<sup>171</sup> More debris again got swept into the weir, complicating problems further; however, on 18 August 1858 the lockmaster was able to report that the situation was now under control.<sup>172</sup>

One of the worst problem areas on the entire waterway has always been the lower Cataraqui River below Kingston Mills, which has frequently required dredging in places to prevent it from silting up. We have noted elsewhere how Lockmasters Brady, and later Robinson, often received complaints from boatmen during the 1850's that the channel shortly below the locks was sometimes too shallow for steamboats to pass. The source of the problem at that time was the sawmill, which was dumping rubbish and sawdust into the river. The canal superintendents usually ordered the

lockmasters to warn the mill owners to desist (the Rideau Canal Act, by which the mill men had promised to abide, expressly prohibited dumping), and to have them remove the offending debris; at least twice, in 1855 and 1857 respectively, the mill owners did some dredging with a scraper, below the locks at Kingston Mills, or went through the motions of doing so,<sup>173</sup> since they knew the canal authorities had the right to cancel the lease to the mill site anytime they chose to do so. That problem soon solved itself, as the lumber trade wrought its own extinction in the area, and the sawmill, by 1860, was obliged to shut down.

Silting below Kingston Mills remained a problem, however. By the end of the century, for example, Captain Daniel Noonan, of the Rideau Lakes Navigation Company, was threatening to remove his steamship, the James Swift, from the Portland to Kingston run unless the channel was cleared. (This threat apparently carried some weight, since the Swift was then the only passenger steamer on the lower Rideau.)<sup>174</sup> In 1895-96 the channel was deepened by 18 to 24 inches, and during the 20th century the Rideau, a government dredge, was periodically brought to Kingston Mills (sometimes in tow of the tug Loretta) to remove more silt from the Cataraqui.<sup>175</sup> Sometimes the Loretta herself went aground in the river.<sup>176</sup>

Another problem that plagued the canal during the later 19th century was providing enough water reserves for the entire navigating season. As lands around the waterway were cleared, the spring run offs came faster, and were over sooner. If (in contrast to 1858!), the rainfall also proved unusually low, an acute problem might result. Compounding the problem, again, were the local mills - which were quite numerous between Newboro and Kingston. The mills actually located at the canal stations stood on leased lands, of course, and the terms of the leases gave the millers only



the surplus waters.<sup>177</sup> The mill owners interpreted this to mean any waters above and beyond what was needed for navigation; the canal authorities, however, restricted surplus waters to those high levels normally to be had only in the spring and summertime.<sup>178</sup> The mill men, as a rule, were prone to drain off all the water they needed, or wanted; oftentimes they also built dams on the adjacent lakes and rivers of Frontenac County to float out logs or power small mills, and if navigation on the canal suffered as a result, that was just too bad!<sup>179</sup> Of course, the mills standing on leased lands could sometimes be coerced into cooperating, but many mills were not located on canal lands. The millers on the Gananoque River, for example, wanted more water drained off from the Rideau at the White Fish dam near Morton to increase the flow of the Gananoque, and were much irritated to find the interests of the various Rideau mills getting first priority, since they were paying rents to the government.<sup>180</sup> In case of violations by the mill owners, the lockmasters and canal personnel were supposed to provide testimony in court, and sometimes did so, but convictions proved hard to secure.<sup>181</sup> As milling declined towards the end of the century, complaints about damming, draining and dumping declined as well, yet for years assorted rubbish had to be weeded out of the locks and weir at Kingston Mills.

#### Threats to the Kingston Mills Locks

Over the years, and even in very recent times, the locks at Kingston Mills have been threatened, wholly or in part, with destruction; not by the forces of nature, but by the hand of man. As early as 1836-37 the Kingston newspapers were actively discussing the idea of building a dam across the Cataraqui River above the Cataraqui bridge, and raising the water levels upstream by about ten feet; a lock would be

built in the centre of the proposed dam for navigation. (The object of the scheme was to develop power.)<sup>182</sup> Such a plan, if implemented, would have eliminated the bottom lock at Kingston Mills, but as it happened, the idea was dropped for reasons of cost,<sup>183</sup> and Kingston industries began utilizing steam-power instead.

A more serious - and acrimonious - threat to the Kingston Mills installations was first raised officially in 1884, and dragged on for at least seven years. By the late 19th century there were many who regarded the Rideau Canal as an outmoded system (which in some respects was true), and they questioned the validity of maintaining the waterway - especially if they felt themselves in any way inconvenienced by it. (Defenders of the canal - who included the Kingston Board of Trade - built up a strong case in rebuttal, pointing out that the waterway was still important to the communities, merchants and manufacturers along it, that it nurtured a growing tourist traffic, and that it probably helped to keep rail rates down.<sup>184</sup> But still the grumblings continued.)

Along with the mill owners, the main objectors were local farmers, who often complained that their fields near the canal were becoming water logged - naturally, because the canal waters were being kept too high. They also complained that the canal sometimes cut them off from their neighbours.<sup>185</sup> Most of all, though, they became resentful that so much land had been submerged artificially by the waterway, and began appealing to have at least part of those lands reclaimed. Many of those appeals focused on the reach from Washburn (Lower Brewer's Mills) to Kingston Mills.<sup>186</sup>

The first formal petition for a survey to reclaim some of the drowned lands reached the Department of Railways and Canals during the season of 1884.<sup>187</sup> A second appeal, from the Townships of Pittsburgh and Storrington, Frontenac County, was presented in June 1885; this petition was more

specific than the first, and proposed building a new lock at the foot of the cut leading to Washburn, and demolishing the uppermost lock at Kingston Mills.<sup>188</sup> The Canal Superintendent, Frederick A. Wise, argued that the expense of a survey would outweigh the benefits, that any such changes would cost far more than they were worth, and that the drowned lands had legally belonged to the Ordnance Board, which had been quite within its rights to submerge them in the first place.<sup>189</sup> Nevertheless, the pressure for land reclamation was so strong that in 1886 Wise was ordered to conduct a preliminary survey to find out how much land could be reclaimed by lowering the waters by 11 feet or more (as some petitions advocated). In a report submitted 11 May 1886, Wise estimated that such a scheme would cost about \$200,000; to be spent on a new lock and waste weir at Washburn, and excavations of about 500,000 cubic yards of rock and muck so as to leave a navigable channel to Kingston Mills. Little land would be reclaimed, he added, and a large area would be left covered by just one to six feet of water. The results, he said, would be marshy swamps, increased evaporation, and perilous navigation. To lower the waters 18 feet, remove two locks at Kingston Mills, and excavate a new channel, he conjectured further, would cost about \$700,000. For good measure, Wise observed that the shorelines of the reach were rocky in many places, and suggested that the reclaimed lands probably wouldn't be much good for farming anyway.<sup>190</sup>

If Wise thought that his report would end the controversy, he was doomed to disappointment. The agitations continued. Minutes from the Pittsburgh Township council meetings were punctuated with grievances against the canal: fluctuations in water levels were damaging roads and bridges, and hence raising expenditures; small streams were being made larger, requiring the construction of bridges instead of culverts; and finally, the township was losing money on the drowned

lands, which of course could not be taxed.<sup>191</sup> Presently George Kirkpatrick, the Liberal-Conservative M.P. for Frontenac, took up the cause of his Pittsburgh constituents and started pressuring the Prime Minister, Sir John A. Macdonald (who was M.P. for Kingston) for action. In 1890 Kirkpatrick reported that the local residents would be satisfied with nothing less than a complete survey of the drowned lands above Kingston Mills; preferably not to be carried out by the canal authorities, who were (rightly) believed to be hostile to any changes.<sup>192</sup>

Finally the local residents had their way. In 1890 Parliament voted \$1,500 for a general survey of the Kingston Mills-Washburn reach.<sup>193</sup> Soon afterwards, Wise had a discussion with Kirkpatrick, and it was agreed to ascertain in detail how much land could be recovered if the water levels were lowered by 11 feet.<sup>194</sup> Work began in September. A civil engineer from Kingston, Robert Rowan, surveyed the west side, while Arthur Phillips of the canal staff - soon to be superintendent himself - charted the east side. Soundings were taken at seven feet, and markers driven in; then, when the river froze over, a survey was conducted. Allowing two feet for drainage, a contour line at a depth of five feet could be drawn.<sup>195</sup>

The ensuing report was ready by 1891. It concluded that the project would require a new lock with a ten foot lift, plus a new dam and waste weir below Washburn (cost: \$47,000); excavations of about 12,000 cubic yards to provide an approach to the new lock (cost: \$3,000); dredging of about 500,000 cubic yards for a new channel at least 80 feet wide through the reclaimed lands (cost: \$125,000); excavations for a new lockpit at Washburn (cost: \$2,000); and the removal of a granite ridge at the entrance to the locks at Kingston Mills, amounting to about 1,000 cubic yards (cost: \$2,500). In addition, most of the upper lock

at Kingston Mills would have to be rebuilt (cost: \$10,000). The total package came to \$189,500, which, with added 10 percent for contingencies (such as having to blast part of the new channel through solid rock, as indicated by the shorelines), brought the projected total to \$208,450. In return for all this outlay, about 1,420 acres (or 2.2 square miles) could be reclaimed, land that would be covered with stumps both difficult and costly to remove, and land which (judging from the stakes) would consist largely of heavy blue clay, almost useless for agriculture. Finally, draining all that area would result in swamps producing a major health hazard.<sup>196</sup> Not surprisingly, the final statement of the report was not enthusiastic about the proposed changes. It read:

The undersigned is therefore of the opinion, that the lowering of the water as proposed, would be of a very doubtful benefit either to the people along the borders of the Drowned lands or to navigation, and its ultimate cost out of all proportion to the value of the lands to be reclaimed, and other results expected from it.<sup>197</sup>

Though this verdict apparently silenced the demand for draining the drowned lands, some of the local people continued to gripe about the canal. Petitions poured in, alleging that once dry lands were being flooded by the canal authorities, and naturally, the owners demanded compensation. (Much of the acrimony was directed at Lockmaster Joseph Deane, who stoutly defended the navigating interests and none too politely told his neighbours to mind their own business. Despite demands for his dismissal, the superintendent refused to remove him).<sup>198</sup> To charges that the canal levels were being unreasonably raised, Superintendent Wise protested that the water levels at the Kingston Mills lock sill were still being maintained at six feet

eight to six feet ten inches, as they had been for decades; he even checked some of the archival records to prove that Colonel By had always intended the depth to be seven feet.<sup>199</sup> Wise also contended that some of the borderlands were being flooded because the farmers were clearing the lands, and also cutting up driftwood which formerly acted as breakwaters; as a result, shorelines were becoming exposed to the winds, which tended to pile up the waters on the shores.<sup>200</sup> Therefore, Wise concluded that the farmers' claims were exaggerated, and that the causes of the trouble were beyond the control of the department.<sup>201</sup> Despite all this, a government arbitrator, A. F. Wood by name, granted some settlements for damages along the east side of the canal in Frontenac County. Wise considered this folly, and predicted there would never be an end to all the claims presented. In fact, the paying of compensations continued into the 1890's.<sup>202</sup>

The most recent threat to the survival of the Kingston Mills locks became official in February 1966, when the Department of Transport - which then had custody of the canal - announced that \$50,000 had been set aside to study "bottlenecks" in the Rideau Canal, which were slowing down the daily passage of speedboats along the waterway. One of these centres of inconvenience was Kingston Mills.<sup>203</sup> On 16 February 1966, the Kingston Whig-Standard voiced speculations that the existing four locks built by Colonel By's men were to be replaced with one or two efficient, mechanized modern locks; a fate that had recently befallen the works at Newboro.<sup>204</sup> For some reason, though, the Kingston Mills locks were not touched. Perhaps the costs appeared too high. Or perhaps - conceivably - there was some public outcry or protest against it. The quaint, archaic appearance of the canal installations is said to be one of the main reasons for its popularity with pleasure boaters, and indeed the present lockmaster at Kingston Mills once remarked

offhandedly to this writer that he personally enjoys the work of cranking the lock gates open and closed by hand, in that it gives him something to do and is much more interesting than directing the scene from an electronic control panel. Besides, he added, the tourists seem to like watching the old fashioned installations at work. It is to be hoped that the essential character of the Rideau Waterway will not be altered in future unless where absolutely necessary.

### Shipping

Shipping by scow and steamboat over the years at Kingston Mills seems to have reflected commerce along the entire canal throughout much of the nineteenth century; in more recent times, as the waterway reverted more and more to purely local importance, the station began to handle mostly local traffic, much of which no longer extended as far as Ottawa. In short, practically all the commerce funnelled through the canal at one time passed through Kingston Mills; later this ceased to be the case, as some cargoes began heading for Ottawa from points midway on the canal, without passing Kingston Mills.

At first commercial traffic along the canal developed slowly. Robert Drummond was one of the first to exploit the waterway for this purpose, sending his crude little steamboat, the Rideau, back and forth, sometimes towing Durham boats full of passengers or freight. By 1834 Drummond had also built a second "puffer" called the Margaret, to share the Rideau route, while Edward J. Barker of the British Whig was commenting that there were now four steamers on the canal; all of which - except the Thomas McKay - were quite small.<sup>205</sup> As noted elsewhere, the boats were occasionally discomfited by a sandbar called the Shallows below the Kingston Mills locks and forced to unload at Kingston Mills,



and in 1836 we find the Royal Engineers' office at Bytown inviting tenders for excavations along the channel between Brewer's Lower Mills and Kingston Mills. Payments were to be made as the work progressed (to the satisfaction of the Senior Royal Engineer). Applications could be made to Thomas Burrowes, Clerk of Works, at Kingston Mills.<sup>206</sup>

Canal commerce received a big boost when the Ottawa River canals were completed in 1834, and from this time until the 1850's numerous forwarding companies dominated the scene. Some of these included Macpherson & Crane, H. & S. Jones, Y. Clemo & Company, P. McQuaig, S. Ferland & Company, H. P. Holton and others.<sup>207</sup> Most of these firms or individuals were based in Montreal, and for about seventeen years or more the bulk of the traffic entering Upper Canada from Montreal came by way of Bytown and the Rideau Waterway; on the return trips the boats usually went downstream along the St. Lawrence River.<sup>208</sup> The cargoes were usually carried in scows in tow of a steamer. One steamboat, the Hunter, is said to have towed as many as 24 scows at a time during the 1830's, but ten or fewer was the norm.<sup>209</sup> The main items carried were bulk cargoes such as potash, sawn lumber, cordwood, tanbark, shingles, and some wheat, waggons and merchandise - not forgetting timber rafts; also, some of the steamers carried a few passengers.<sup>210</sup> By about 1845, there are said to have been 30 steamboats and a much larger number of scows on the Montreal-Bytown-Kingston-Montreal route - not to mention sailboats as well.<sup>211</sup> (It was well that the Rideau, which lacked towing paths along the shores, was built large enough for steamboats, since it is difficult to imagine loaded scows being taken efficiently through the waterway by any other means.)

The commercial viability of the Rideau depended, of course, on its remaining the most convenient route of entry from Montreal to Kingston. If ever the St. Lawrence were to

be improved and canalized, there was no prospect that the Rideau, with its roundabout route and countless locks, would be able to compete with it. A sign of the times came in 1842, when the steamer Highlander managed to run directly up the St. Lawrence into Kingston for the first time, despite the rapids.<sup>212</sup> In 1851 the first canal past the rapids between Cardinal and Iroquois was opened,<sup>213</sup> and soon afterwards most of the forwarding companies deserted the Rideau for good.

During the later nineteenth century, the commodities carried through the canal changed somewhat. In 1870, for example, the "down" cargoes consisted mostly of horses, cheese, furniture, wheat, firewood, lumber, ties, shingles, barrels, iron-ore and the like, whereas the "up" cargoes were mostly salt, flour, pork, iron castings, apples, furniture, whiskey, waggons, cheese, beer and merchandise.<sup>214</sup> Coal from the eastern United States became a major commodity on the canal in the 1880's, when the C.P.R. opened a railway division point at Smith's Falls. Coal scows continued to use the Rideau until 1920, when trucks and railway hopper-cars managed to usurp the entire business.<sup>215</sup> From 1858 to 1880 Newboro was exporting iron-ore, and from 1876 to 1890 phosphates as well. Timber rafts, a common sight since 1860, continued to use the waterway as late as 1933, when the last major shipment left Portland.<sup>216</sup>

When did canal shipping reach its zenith? Annual figures of vessel tonnages are available only from 1873 onwards, and these show a number of ups and downs over the years until 1935, when commercial shipping finally petered out for good. In 1875 the tonnage of steam vessels on the Rideau reached 50,000, along with 136,500 for scows. This was followed by a decline (perhaps reflecting the depression of the 1870's), but by 1883 the registered tonnages of steamboats rose to a new high of 63,500. Meanwhile barge tonnage was dropping. Again there was a decline, followed by a revival which

peaked at 71,000 tons for the steamboat fleet and 114,000 for scows in 1888. After some more fluctuations, the steamer tonnages rose to 169,750 in 1894, only to fall to 106,000 in 1896. Then, during the Laurier era, ship tonnages aggregated 142,000 in 1900 and 167,500 in 1906, the highest totals ever.

After 1910, however, shipping on the waterway began to decline steadily (except for a partial recovery late in the First World War), and after 1919 the decline was rapid. There were slight revivals in 1925 and 1927 and a feeble revival in the early 1930's, but 1935 proved the final season for commercial vessels.<sup>217</sup> We might add that the last excursion steamer to ply on the southern portion of the canal, the Rideau Queen (196 tons) of the Rideau Lakes Navigation Company sailed for the last time through Kingston Mills in 1919<sup>218</sup> and though another cruise ship, the Ottawan, remained in service as late as 1935, she plied only between the City of Ottawa and Smith's Falls<sup>219</sup> until the relentless advance of paved roads rendered further efforts futile. Precisely what role was played by the excursion steamers with respect to picnics and recreation at Kingston Mills, this writer has not been able to determine.

During the period when the Rideau Waterway was carrying a considerable aggregate of shipping, there arises the question of the inter-relationship between all the shipping and the lockstation at Kingston Mills. Did the community of Kingston Mills import or export very much by way of the Rideau? Or was the place merely a witness to large quantities of cargo passing through daily, but bound for other points? In view of the fact that the village, since 1832, seems never to have had any industries except an unprofitable sawmill, followed by a second in 1848, and this in turn by a none too prosperous gristmill around 1862, and a small local cheese factory (as discussed elsewhere), we should hardly expect the community to have had very much

to export. A hasty, random search through some of the lockmasters' journals in such years as 1848 (the oldest on record) and 1850, confirms this impression. In 1848, for example, we find one scowload of cargo (probably lumber) leaving Kingston Mills for Kingston in September, and two locks full of sawn lumber leaving the station in October.<sup>220</sup> On 20 November 1848, Angus Cameron ran 676 sawlogs over the waste weir at Kingston Mills. Also, on 1 August 1848, a single scow, owned by one H. Watson, left Kingston Mills for Chaffeys.<sup>221</sup> Only four cargoes out of 634 were either bound for, or despatched from, Kingston Mills over a period of four months. During most of 1850, there is no mention of any cargoes leaving Kingston Mills or arriving there as a final destination. Most commodities were then bound for Kingston, or Brewer's Mills and beyond. On 24 August 1850, we find that one J. Asseltine paid the sum of £1/0/0 to ship one lock full of timber to Kingston from Kingston Mills, but this shipment is the only one of its kind listed for that year.<sup>222</sup> Though the picture may have been different in other years, it does not appear that Kingston Mills contributed very much to canal commerce on the Rideau around the middle of the last century.

A quick perusal of the records for 1867 indicates that Kingston Mills - which by then had developed some life of its own - was, in fact, shipping a number of cargoes to Kingston, but almost all of these consisted of firewood (though a few "light" cargoes are also listed). Similarly, we find a few "light" shipments being sent to Kingston Mills from the city by way of the canal in that year.<sup>223</sup> A really thorough study of the lockmasters' and customs collectors' journals might reveal a wealth of interesting new information about the commercial interplay between the Rideau Canal and one of its most important stations.

### Navigation Around Kingston Mills

The subject of canal navigation around Kingston Mills has already been touched upon at numerous points in this study (notably under the headings of commerce, shipping and maintenance), and hence we shall confine ourselves here to a few observations about the channels over the years since 1832.

At first there was little problem for boatmen trying to wend their way through the drowned lands north of Kingston Mills. The channel was clearly demarcated by dead trees. By the late nineteenth century, however, the trees had rotted away, leaving only submerged stumps, and furthermore, recreationists in small steam vessels (later gas boats) were starting to discover the canal as a new avenue for exploration and adventure. By 1888, the authorities had installed fifteen markers along the reach between Kingston Mills and Washburn, in the so called "River Styx". These markers were solid buoys driven into the river bottom.<sup>224</sup> Unfortunately, the winter ice often tore them up and played havoc with them, thus making them unreliable, and on 1 June 1894 Superintendent Wise ordered Lockmaster Glenn of Washburn to remove the displaced buoys, lest boat captains claim they were misled by them.<sup>225</sup> The department later resorted to cedar bushes, wired to poles driven into the mud. These were cheap and easy to replace.<sup>226</sup>

Starting in 1907, the Department of Marine and Fisheries began using red and black buoys on alternate sides of the waterway; and Superintendent Phillips stated his belief that the Kingston Mills-Washburn area had been buoyed in the summer of 1908.<sup>227</sup> Phillips also suggested that the Department of Railways and Canals try attaching some small painted boards to the bush markers, using white for "safe" and black for shoals, but conceded that this idea might not work too well, since with all the meanders in the channels boaters might well become confused.<sup>228</sup>

Pilots on the Rideau were becoming scarce by this time,<sup>229</sup> and it was not always possible for pleasure boaters to follow Captain Noonan's steamboats, the Rideau King and Rideau Queen, on their way up or down the waterway. The answer was clearly a greater number of buoys. Some were laid by the Department of Marine and Fisheries around special hazards, while others were placed along the channels by private entrepreneurs acting under contract with the Department of Railways and Canals.<sup>230</sup> Also, by 1911 charts of the waterway were being printed and sold for the benefit of boaters.<sup>231</sup>

#### The Grand Trunk Railway (1856-1890)

Aside from modern highways, the last transport system to affect Kingston Mills was the Grand Trunk Railway Company - now part of the Canadian National Railways. Once again, a hasty search by this writer has disclosed very little direct information on the inter-relationship between the railway and the lockstation. Even the station at Kingston Mills remains tantalizingly elusive, to say nothing of the effects the depot, the community and the lockstation may have had on one another. Despite a great number of glaring uncertainties, the basic picture is as follows:

The Grand Trunk Railway - which had already absorbed a number of other lines (or their charters), was underway in midsummer of 1853. It was, of course, an English company, intended to serve as a "trunk" line along the backbone of Upper and Lower Canada (i.e. the St. Lawrence and Great Lakes waterways), linking up the few extant railway lines in the colony, and accomplishing what the Welland and St. Lawrence canals had already failed to do: recapture some of the lucrative trade of the central Great Lakes region from the Erie Canal and New York City, by funneling commodities

through Toronto, Kingston and Montreal.<sup>232</sup> The innumerable problems which afflicted and almost killed the G.T.R. in its infancy - including greed, chicanery, blunderings, misrepresentations and double-dealings, by shareholders, speculators, politicians, contractors and directors alike - are history, and cannot be dealt with in detail in this report. Neither can the other woes of finance and construction, such as the severity of the winters, the general scarcity of labourers (who consequently demanded higher wages), the shortage of necessary materials, the unruliness of Canadian workmen (who resented authority and timetables), the collapse of the London money markets during the Crimean War, the need for a very expensive railway bridge at Montreal (which ultimately cost over £1,400,000), plus inflation and generally unrealistic expectations.<sup>233</sup> Indeed, given all the teething troubles of the new line, it is rather amazing that the great venture did not break down completely at its inception. By 1855 the railway, still unfinished, had spent £3,000,000 and was deeply in the red.<sup>234</sup> In the end government loans, plus better management during the 1860's and a general unwillingness to see a total collapse, ultimately saved the G.T.R.<sup>235</sup>

By 16 August 1855, the G.T.R. was completed from Montreal to Brockville, though not officially opened until 1856.<sup>236</sup> During the latter year the remainder of the line, past Kingston (and Kingston Mills!) to Toronto, was at last finished. The official opening took place on 27 October 1856, when a train consisting of one woodburning locomotive and seven yellow coaches, lurching along at speeds of about 30 miles per hour, began its triumphal trial trip from Montreal.<sup>237</sup> It halted some sixty-four times along the way (perhaps once at Cornwall, Prescott, Brockville, Kingston, Belleville, Cobourg and Toronto.<sup>238</sup> By November 1859 the line was also opened to Sarnia.<sup>239</sup>



Except for the portion west of Toronto, the G.T.R. was rather poorly built, though it was supposed to match the highest standards of the English railways of the day. Shoddy construction, steep grades, brittle rails that often broke in the wintertime, and poorly ballasted road-beds at first were standard fare.<sup>240</sup> The reasons were obvious: contractors, watching the railway's stock (some of which was their own) plummet in value, and under pressure to finish their work as quickly as possible while wondering if they were going to get paid, understandably skimmed and cut corners wherever they could.<sup>241</sup> Parts of the line were badly surveyed (that notorious "S" curve at the approach to Kingston being a classic example), and provided poor access to the ports along the route.<sup>242</sup> On the other hand, most of the bridges on the line were well designed and engineered, usually using iron and masonry.<sup>243</sup> The bridge over the Cataragui at Kingston Mills, which had double width footing for its piers, was a fine example of G.T.R. bridge building. We may remark in passing that the original railway bridge at Kingston Mills was a high level, fixed structure of three spans, crossing the uppermost of the three combined locks. The superstructure was of iron plate tube some 310 feet long, with the rails (for a single track) on top of the tube. The sidewalks were cantilevered along the outside of the structure, while the substructure was built of dressed stone piers and abutments, providing a clearance of 22 feet 8 inches over the water level of the lock below.<sup>244</sup> C. W. Cooper, in his essay of 1856, describes the bridge admirably, as follows:

The bridge at Kingston Mills is a very handsome iron tubular bridge, spanning the chasm formed by the river just above the locks. It is much admired by scientific men as a good specimen of such structures.<sup>245</sup>

The coming of the railway, which of course reinforced the predominance of the St. Lawrence River route, probably did not bolster business along the Rideau very much. Precisely what effect it had upon the community and lockstation at Kingston Mills is also uncertain. That it both quickened the pace of life at the village and caused some disruptions during the period of construction is clear from comments in the lockmasters' journals. The line was surveyed through Kingston Mills sometime in 1852,<sup>246</sup> and a temporary wooden trestle apparently built across the chasm before the tubular bridge was installed.<sup>247</sup> Also (as has been discussed previously), various canal sheds, barns and houses on the ridge west of the locks evidently got in the way of the railway and had to be removed. Similarly, the railway contractors built a number of shanties for their crews; in February of 1858 we hear of them being sold and prepared for removal.<sup>248</sup> During rail construction - as during canal construction about a quarter of a century earlier - we also find a store being opened, in one of the canal buildings called "Mahoney's House" (q.v.). The lessee, a lockman named John Wafer, was busy selling things to the railroad navvies, and in April 1855 - as mentioned elsewhere - we find him appealing to have his rents reduced since there was no longer any railway work being done and business was at a standstill. By 1856 Wafer had vacated the store and house, leaving his rents in arrears.<sup>249</sup>

In at least one respect, the Rideau helped ease construction of the railway. In July 1855 we find Lockmaster Brady writing to Lieutenant-Colonel Chaytor, the District Commanding Royal Engineer, that

...Mr. Evans one of the Railway overseers wanted to get liberty for Several Contractors for railway ties etc. to have their Rafts brought into the Bason [sic] and the ties drawn out in the Dry Dock next the

Smith's Shop [q.v.], as they would but up the planks [?] with the horses & oxen employed drawing them out...there is plenty of place to draw them out on the main rout in rear of the office as their floating timber would be troublesome in the Bason by night when passing Boats.<sup>250</sup>

In reply, Colonel Chaytor agreed with the proposed route, and instructed that ties "must not be allowed into the Dry Dock".<sup>251</sup> In 1858 we hear of flattened hemlock ties being stockpiled at the rear of the store (Mahoney's house?).<sup>252</sup>

Another disruption caused by the railway was noted by Lockmaster William Robinson in a letter to J. S. Killaly, then canal superintending engineer, on 10 February 1858. Robinson reported that the railwaymen had partly destroyed the board and log fences erected to keep cattle, hogs and other livestock away from the locks, on the understanding that the fences would be replaced in due course. The lockmaster went on to say that the canal basin to the lower locks was still exposed, and that hogs were ravaging the site. Robinson also learned from one of his lockmen, John Sargent, that the previous lockmaster, John Brady, had measured the sections of destroyed fence and had reported both to the railway office and to Ottawa.<sup>253</sup> What action was taken on the matter is not certain.

Why was the G.T.R. built through Kingston Mills? This writer has not been successful in digging up any contemporary commentaries on this portion of the route. Was Kingston Mills considered a place of sufficient prominence that it deserved to be on the railway? Was there any thought of inter-changing cargoes there between the canal and the railway? Or was the railway simply looking for the simplest and least expensive route across the Great Cataraqui River? On both sides of Kingston Mills, both upstream and downstream, the river canal is wide and swampy. Only at

Kingston Mills does it squeeze into a narrow chasm that could be bridged without too much difficulty. For this reason, apparently, the first through road between Kingston and Montreal was built past the Cataract Falls, rather than along the lakefront through Barriefield. Does this explain the decision of the railwaymen to build through Kingston Mills? Were any alternate routes considered? Further investigations might shed more light on this question.

It has also been suggested that the location of the Grand Trunk station at Kingston - which was built between the city and Kingston Mills - may be significant, in that it may reflect a desire by the railway to tap the commerce of both Kingston and Kingston Mills.<sup>254</sup> Are such conclusions warranted from the evidence? We have already noted that there is precious little sign of commerce or transshipping around Kingston Mills after the Rideau was built, and that the port of Kingston itself was always regarded as the true terminus of the waterway. The railway, apparently, never contemplated a spur running down to the locks at Kingston Mills. In fact, the Grand Trunk at first regarded navigation as its chief enemy and showed little desire to locate its tracks or stations anywhere near the waterways, a policy that led to disastrous economic consequences. There were no tracks running directly into the port of Kingston, or any other on the route except Toronto.<sup>255</sup> However, by 1860, after complex negotiations (spurred on partly by Kingstonians appalled to find their city almost bypassed), the G.T.R. managed to build a spur into downtown Kingston, where it could connect with canal and lake traffic, and also provide better service to the city.<sup>256</sup> The location of the main G.T.R. station on the outskirts of Kingston probably signifies nothing more than that this was the closest the railway main line ever came to Kingston - and that the station therefore had to be located there; right

on a sharp curve which hardly made the setting ideal. (A passenger train is said to have jumped the rails there one winter during the 1940's.)

#### The Original Rideau Station

One final hint as to the railway's interest in Kingston Mills might be obtained by observing when the first station was built there. Was Kingston Mills deemed worthy of having a station in 1856, or not? Again, unfortunately, direct evidence is lacking, but seemingly, the answer is no. C. W. Cooper, in 1856, mentions stations at Kingston, Collin's Bay, Linksville and Napanee, but says nothing about any station at Kingston Mills.<sup>257</sup> None of the local directories describing Kingston Mills during the 1860's and 1870's mentions any station or station agent there until 1883-84, when we find one John Henderson (perhaps of Willetsholme, Pittsburgh Township), listed as a G.T.R. foreman at Kingston Mills.<sup>258</sup> Thus it would seem that the Grand Trunk did not take much notice of the lock village for quite some time.

When was a station actually built at Kingston Mills? According to an Ottawa railway enthusiast who collects old timetables, one publication, the A.B.C. Pathfinder Railway Guide, in its edition of July 1876, lists a station called "Kingston Mills" on the G.T.R., between Kingston and Gananoque. In fact, this is the only station indicated between the other two centres.<sup>259</sup> Strangely enough, though there are three trains listed as going each way at the time, none are indicated as stopping at Kingston Mills<sup>260</sup> - which may simply mean a printer's oversight, or that the station was a flag-stop. A second railway guidebook, issued in September 1876, lists two stations between Kingston and Gananoque, as of 18 July 1876. The two were "Rideau" and "Ballantyne's". Of the six daily trains, one eastbound and

two westbound are listed as making stops.<sup>261</sup> Henceforth the station at Kingston Mills is always called "Rideau". The reason for the change of name is obvious: "Kingston Mills" sounded too much like "Kingston", and probably led to confusion. This, incidentally, is a good indication that the station was newly opened in 1876. No doubt the ambiguity of the name was not allowed to continue very long.

Not very much has hitherto come to light about the original Rideau Station. Old-timers agree that it stood on the north side of the tracks, just east of the lockstation, where the modern Station Road crosses the railway, and that it was a small frame building with a frame two storey red section-house and a toolhouse close by, on the same side.<sup>262</sup> A G.T.R. timetable, dated 9 August 1882, places the station 169 miles from Montreal, (seven from Ballantyne's), and just three miles from Kingston.<sup>263</sup> The setting is probably significant, in that the depot was built as close as possible geographically to the lockstation, where a rather scattered but growing little village was emerging. In a schedule of March 1884, one (mixed) train each way was stopping regularly at Rideau; the other five daily trains were not. (At that time the Montreal-Toronto trains were spending the night at Kingston.)<sup>264</sup> Again, in a G.T.R. timetable dated 19 October 1902, Rideau Station is listed as a flag-stop only, and a calling place for one train westbound from Montreal, and a second from Brockville; in addition, three eastbound trains (including one from Belleville) would stop daily upon signal.<sup>265</sup>

How did the station relate to the lockstation? Old-timers like Mr. Earl Doyle agree that it was a local embarkation point, as were the stations at Ballantyne's (later called "Findlay") and Willetsholme.<sup>266</sup> Unfortunately, the depot was about five to ten minutes' walk from the locks (just far enough to be a nuisance to picnickers), and not

very convenient for shippers along the canal, who undoubtedly found it simpler to transfer cargoes to and from the railway at Kingston. Neither Mr. Doyle nor anyone else recalls picnickers or other excursionists coming to Kingston Mills by train. Apparently the little station was used essentially by local people, including farmers who might have cattle or hogs to ship out, or consignments of baled hay to pick up. Mr. Doyle has suggested further that some of the lockmen may have commuted to and from Kingston via the railway. He also recalls that section man Jack Honeysett lived at the station, before serving overseas during the First World War.<sup>267</sup>

Exactly what happened to the old Rideau Station is not clear; however, local tradition agrees that it accidentally burned down, perhaps around 1918. Mr. Doyle affirms that it was gone before he became lockmaster in 1923. The section-house, however, survived, and remained standing until about 1971 or 1972, when it was torn down.<sup>268</sup>

#### The Railway (1890- )

Around Kingston Mills, meanwhile, there were a few other significant developments in railroading. One of these was the decision (authorized in the spring of 1887) to double track the line from Toronto to Montreal.<sup>269</sup> The task was completed in 1892, at a cost of over £1,000,000.<sup>270</sup> The work at Kingston Mills was undertaken in 1890, and (naturally) involved rebuilding the railway bridge. The second bridge was built on the same alignment as its predecessor, and the original piers and abutments widened with dressed stone. The new superstructure consisted of three double track spans made up of a through steel Warren truss span over the canal locks, and two deck truss spans over the river. (The new track meanwhile ran south of the original, while the clearance over the locks remained



unchanged.)<sup>271</sup> In 1929, the bridge was again rebuilt in that the Warren truss span over the locks was replaced with the present through plate-girder span, while the river pier was replaced by one of concrete. The abutments were also reinforced with concrete.<sup>272</sup>

Besides the double tracking, a lengthy 50 car siding south of the main tracks was laid between the modern Station Road and Highway 15, sometime after 1890. The siding was still in existence in the 1940's,<sup>273</sup> though today it has disappeared. Old-timers still recall long lines of boxcars parked there in the summertimes.

#### The Second Rideau Station

After the original station burned (around 1918?), it was soon replaced by a new building, which, however, was located about half a mile east of the original, near the crossing of Highway 15, and might better be thought of as "Cunningham's Corners station" rather than "Kingston Mills station". The new location (immediately behind the present "Code's Corner Store")<sup>274</sup> reflected the growing importance of Cunningham's (Code's) Corners, as a new local service centre partially supplanting Kingston Mills. The new station, of course, was still called "Rideau". A C.N.R. fire insurance schedule, dated 1929 affirms that the (new) Rideau Station was a frame, class "one" station, insured for \$2,500.<sup>275</sup> (The section house near the old site is described as a class "six" type, and was insured for \$1,500.)<sup>276</sup> The second station seems to have been somewhat larger than the original, with a ground level wooden platform, a gabled roof, a waiting room, and quarters for the section man, consisting of a small kitchen and a bedroom or two.<sup>277</sup> Each half of the building had a stove with pipes, while outside there was a well and an outhouse.<sup>278</sup>

The second station was a convenient unloading point for the local farmers, who frequently collected feed, bran, salt etc. from the boxcars with their wagons.<sup>279</sup> It was also fairly handy for the canal maintenance crews, who sometimes ordered consignments of cement from Montreal by way of the railway. Occasionally, however, problems arose, since the C.N.R. also happened to have another station called "Rideau Junction" in Carleton County. On 7 January 1926, canal superintendent Arthur L. Phillips sent the following letter to the Chief Engineer of the Department of Railways and Canals. The letter states:

Sir,

On the 28th of December, ultimo, we ordered a carload of Portland Cement from the Canada Cement Company to be delivered at Rideau Station, Frontenac County, on the main line of the old Grand Trunk Railway, (now the Canadian National), for use in the repairs now in progress at Kingston Mills Lock Station on this [Rideau] Canal, and which is a small flag station situated about three quarters of a mile from the locks.

This carload of cement was shipped from Montreal on the 31st of December, but has not yet arrived, and on tracing the same I find that it was, by mistake, sent to another station bearing the same name, Rideau Junction, situated about ten miles outside the city of Ottawa.

I am assured that the carload will be forwarded from Ottawa to-day, and will reach the former station by to-morrow morning, but in the meantime we have run out of cement, and will have to stop the work until the car arrives.

This is not the first car that has been delivered for this work this winter, as former

consignments have been sent to the right station, but it is not the first occasion on which a similar mistake has been made, on account of the similarity of the two names.

I would, therefore, respectfully suggest that the Department lay the matter before the Management of the Canadian National Railway System with a view to having one or the other of these stations re-named, in order to prevent similar mistakes arising in the future.

As the time for carrying out our winter repair work is limited on account of the season, it is of vital importance to us to have materials delivered as promptly as possible, and, if there was no possibility of materials being sent to a wrong station, one of the causes for delay would be removed.

I trust I may not be considered to be interfering in such matters, but I am quite sure that, if the name of one of these stations was changed, it would benefit our own work, and in all probability be the means of preventing mistakes with the public also.

Your obedient servant,

A. L. Phillips

Suptg. Engineer.<sup>280</sup>

The chief engineer, Colonel A. E. Dubuc, decided that the management of the C.N.R. should be approached on the matter, but, predictably, things proceeded slowly. On 1 February 1926, Phillips wrote a second letter to Dubuc, in the following vein:

Sir,

Referring to my letter of the 7th ultimo, suggesting the changing of the name of one of the

two stations known as "Rideau" (Frontenac County, and near Kingston) and "Rideau Junction" (near Ottawa), I beg to state that the same mistake has occurred this week with regard to a car of cement which was ordered from Montreal to be shipped to Rideau Station near Kingston Mills, and which was sent by the Canadian National Railways to Ottawa to be forwarded to Rideau Junction.

The mistake, of course, has been rectified and the car has gone forward to its proper destination, but it is merely another instance of the confusion that is constantly arising from the fact that these two stations bear the same name.

Your obedient servant,  
A. L. Phillips  
Suptg. Engineer.<sup>281</sup>

This letter finally led to results. On 23 March 1926, L. V. Hummel, Assistant to the President of the Canadian National, wrote the following letter to Major G. A. Bell, Deputy-Minister of Railways and Canals, in Ottawa:

I am returning herewith papers which you handed me with regard to changing the name of Rideau or Rideau Junction.

After careful consideration it has been decided to change the name of the station at Rideau Junction, and after consulting with the Post Office Department and the Geodetic Board, the name of "Federal" has been chosen and will be included in the next issue of the time table.

Yours faithfully,  
L. V. Hummel<sup>282</sup>

(On 26 March 1926, Dubuc telephoned this information to Phillips.)<sup>283</sup>

The last occupants of Rideau Station were section man

Raymond Murphy and his wife Nora, who moved in during 1928.<sup>284</sup> By then only two local trains each consisting of a baggage car and one or two coaches, were ever known to stop at the depot each day, on a flag signal. A C.N.R. Employees' Timetable, dated 24 June 1928, noted that there was no telegraph service from Rideau at that time.<sup>285</sup> The end of the station came in December 1933, when the building suddenly caught fire and burned like tinder. The Murphys escaped but were unable to save anything.<sup>286</sup> The fire was attributed to a hot stove-pipe and no blame was attached to the Murphys by the C.N.R., which apparently did not consider the loss a very serious one. The family meanwhile moved into the section house down the track;<sup>287</sup> years later Raymond Murphy was killed on a hand car at Kingston. The station was not rebuilt this time, though Rideau continued to be listed on C.N.R. timetables as late as 1949.<sup>288</sup>

#### The Kingston Mills Road after 1850

Road building and renovations received a renewed impetus around Kingston during the 1840's, and continued into the 1850's. Several new roads were built around this time and numerous old ones improved and macadamized, mostly by companies of Kingston capitalists anxious to provide better access to their city at a time when business and commerce through Kingston harbour were starting to decline with the advent of steamships and railways. In an effort to offset some of its losses, Kingston turned to its hinterland by improving the local roads. The companies doing the work in turn erected toll gates at various points to cover costs. (One such toll gate stood at Cunningham's Corners until about 1908.)<sup>289</sup>

The first road around Kingston to be macadamized was the Kingston and Napanee Road, around 1848.<sup>290</sup> By 1856,

around 160 miles had been gravelled or slated for the same, including the Storrington Road (a new extension to the Montreal Road, north of Kingston), the Portland (Perth?) Road, and the Kingston, Pittsburgh and Gananoque Road, which had two branches and whose promoters owned the Cataragui Bridge between Kingston and Barriefield.<sup>291</sup>

It would appear that the Kingston Mills road section was first tackled in 1857, on the initiative of the township councils of Kingston and Pittsburgh. Noting that, with the coming of the railway in 1856, there were now two hazardous railway crossings (one just west of Kingston Mills) on the meandering old road from Kingston, the Kingston Township council voted to abandon most of this route and build a new road, directly east from Tuttle's Hill to the lockstation.<sup>292</sup> This scheme involved using ordnance land, and on 25 August 1857, Lockmaster William Robinson wrote the following letter to the land ordnance agent in Ottawa:

Sir,

I beg leave to report for your information that the Reeve and Counsel of the Township of Kingston have issued a notice that they intend this fall to straighten and macadamize the Road from Tuttle's Hill to the Locks, so as to avoid crossing the Railway there being two crossings between Tuttle's Hill and the Locks also the Council of the Township of Pittsburgh have issued a similar notice that they will straighten & macadamize the Road from the Bridge over the Locks to Cunninghams Corners in the first instance the projected Road will pass through the Ordnance Land reserved for the Locks at about 200 or 300 yards from the Bridge near Mahonys House thereby leaving a corner say of about 1/2 an acre to the left of the road. The road from the Bridge to Cunninghams Corners will only take a very small

part of the Ordnance Land near Mr. Blessings Tavern a deputation consisting of the President of the Road Committee and the Reeve and 2 of the Councilmen of Pittsburgh waited on me on Saturday last and stated that all fencing required would be made good by the Council and Directors of the Road - this Road has been in contemplation upwards of 2 years but was stopped by parties owning Land through which it passed through some legal informality. I am informed that the Directors of the road received permission from the Ordnance authorities granting them the right of way. I may remark that this Road when completed will materially increase the value of the Ordnance Land here - as at the present in spring and fall the old road is all but impassable.

W. Robinson

Lock Master<sup>293</sup>

Evidently the ordnance land offices had no objection to the proposed new road realignments, since the road was apparently built and gravelled as planned that same autumn by a firm called the Kingston and Kingston Mills Road Company, which was soon amalgamated with the Storrington Road Company.<sup>294</sup> However, this did not solve all problems smoothly. On 6 October 1857, Robinson reported to the land ordnance agent that the road company was apparently not planning to rebuild the fences along the new road. All it would do, said the lockmaster, was move about 350 yards of old fencing used to protect the west embankment. This, continued Robinson, would leave part of the ordnance lands (on which the lockmaster himself was paying rents) as a commons.<sup>295</sup> Robinson felt that the road company had no authority to tamper with ordnance fencing, and added that, unless something were done about it, either the government would have to pay for a new fence, or the lands would go



unfenced and be left as a commons.<sup>296</sup> (Who eventually paid for a new fence has not yet been determined.)

Thus, apparently since 1857, the road through Kingston Mills has followed essentially the route it takes today. No trace of the abandoned road along the Cataragui can be discerned nowadays. Mr. Allan C. Burr, who has lived on the old Burrowes farm directly south-west of the lockstation for over twenty years, has told this writer that he was completely unaware that the original military road had once crossed his property, nor has he ever noticed anything that might be construed as an ancient road-bed.<sup>297</sup>

Around 1852, as noted elsewhere, the Point Road from Barriefield, which originally came out just east of Kingston Mills (on the route of the modern Station Road), was given a new branch through a limestone quarry at Lot 40, Concession IV, Kingston (now Pittsburgh) Township, and extended north-east to join the Kingston Mills Road at Cunningham's Corners (Code's) Corner). Here it found its natural continuation in the Perth Road.<sup>298</sup> (Both are now part of Highway 15.) As we have observed elsewhere, this new route gradually had the effect of funnelling road traffic from Barriefield away from Kingston Mills, and, early in the twentieth century, when road traffic was becoming extensive, a rival crossroads centre emerged at Cunningham's Corners, largely eclipsing the older village at the locks.

Sometime before the 1950's the road through Kingston Mills was paved with asphalt,<sup>299</sup> and around 1973 it was extensively rebuilt, on both sides of the lockstation. A new rock cutting was blasted through the granite ridge west of the locks, and the road level up to the locks raised by about four feet.<sup>300</sup> The old bridge across the river, with its two dangerous approaches, still remains intact, however, since the question of straightening the road past the blockhouse has yet to be resolved to everyone's satisfaction.

Most recently still, of course, the great four lane turnpike called the Macdonald-Cartier Freeway, or Highway 401, was built during the 1960's, neatly bypassing Kingston Mills about a mile to the southward, and relieving all the local roads of the immense swarms of heavy through traffic, endlessly whizzing back and forth.

#### The Third Cataragui Bridge (1876-1909)

The present old bridge spanning the run off channel at Kingston Mills was a successor to the third bridge built in 1876. This third bridge was similar to the previously discussed second bridge, but smaller; even so, it was 215 feet in length by 20 feet in beam, and consisted of a continuous span structure with nine spans of varying lengths.<sup>301</sup> Six of these were over the west bank, two more stretched over the river, and the last lay over the east bank. The substructure consisted of six timber bents and four masonry walls of varying heights (on account of the bridge slope). The four walls of the two abutments, as well as the piers flanking the channel, were built of stone, topped by a 12 inch square timber sill. The timber bents in turn were built of one foot square timbers consisting of a sill 26 feet in length on rubble footings, with four vertical posts on top. The two at the ends were braced on the outside by struts and a transverse cap beam some 21 feet long. Five of the bents were located on the west bank; the sixth stood in the river, with its sill resting on a rock filled timber crib built in midstream.<sup>302</sup>

The superstructure of the bridge consisted of six by fourteen inch stringers of various lengths, resting on short lateral supplementary beams each one foot square, placed over the bents. The decking was of three inch planking. The bridge had heavy timber handrails with four and a half

foot long posts, and a top rail of four by six inch timbers. There were also two horizontal middle boards, each one and a half inches thick.<sup>303</sup>

By 1909 the third bridge was becoming dilapidated and dangerous, and in that year it was replaced by the present fixed steel span on concrete piers.<sup>304</sup>

#### The Present Canal Bridge (1910- )

The present waste weir bridge at Kingston Mills is a fixed steel through truss structure of one span which was erected by the Hamilton Bridge Company in 1909-1910, at a cost of about \$7,500.<sup>305</sup> At that time the Department of Railways and Canals decided that the length of the bridge crossing could be drastically reduced and the substructure simplified. To this end, concrete abutments, 52 feet 10 inches apart, were built on either side of the river; and the remainder of the former bridge length, back of the abutments, was filled in solid. The abutments, however, were built to the same deck elevation and slope as the previous timber bridge, and on the same alignment.<sup>306</sup>

The superstructure is 56 feet long centre to centre bearings and eighteen feet, two inches wide centre to centre trusses with a sixteen foot clear road width. The main trusses are joined at the bottom chords by means of four truss panels composed of 20 inch I 65# transverse beams and double diagonals of two and a half inches by two and a half inches by five-sixteenth angles. The deck of the bridge is of timber plank spiked to two by twelve inch longitudinal joists which rest upon the transverse beams. The wooden railing along the inside of the trusses originally had four by six inch posts with horizontal members consisting of a four by six inch top rail, a six by six inch wheel, or felloe, guard bolted to the deck of the bridge, and a five

inch by three inch hub guard midway between the other two.<sup>307</sup> This bridge still carries the vehicular traffic on the Kingston Mills Road.

#### The First Canal Bridge (1832-1850)

Lastly, we must briefly discuss the various bridges that have spanned the upper, detached lock at Kingston Mills.

The completion of the Rideau Canal in 1832, of course, made an extra new bridge over the canal channel necessary, and furthermore, such a bridge had to be capable of allowing canal traffic to pass. The first attempt was a balance or lift bridge, or what might be called a double leaf drawbridge, built in 1832. This device consisted of two identical lift spans meeting over the middle of the canal lock. Each leaf turned vertically on a horizontal pivot set into a timber frame fixed to the coping of the canal wall. The two leaves were each lifted by means of chains attached to two horizontal lift or balance arms pivoting on an axle or shaft held fast some 25 feet above the deck of the bridge by a fixed wooden frame.<sup>308</sup>

Each of the two leaves was made up of two main stringers or ribs each twenty inches by seven, and tapering sharply towards the toe. The two leaves together formed an arch when they met over the lock. In size the leaves were each about eighteen feet by ten and a half (inside the railings), while the railings consisted of four inch square posts with a two by four inch top rail, and double diagonals set into each panel. The decks in turn were made up of three inch planks nailed across the stringers, and strengthened by two sets of cross beams, one transverse beam and meeting plates, all framed with mortise and tenon joints. One supplementary strut was bolted to the underside of each of the main stringers to form the hypotenuse of a triangle, with the

apex at the meeting point of the two leaves, for further reinforcing. The leaves pivoted vertically on axles anchored in the foot of the fixed timber frame and passing through the heel of the lift span.<sup>309</sup>

The timber frame abutments, meanwhile, were each composed of two vertical main posts each fifteen inches square and thirty feet in length. They were set twelve feet six inches apart and joined by a seven foot truss set fifteen feet over the roadway. Two supplementary vertical posts each twelve inches by nine and 23 feet six inches in length were used to strengthen the frame, and set about three feet centre to centre from the main posts and perpendicular to the face of the truss; they were joined to the main post by a horizontal timber strut and bolt. The two main posts at the top supported a horizontal shaft, upon which axis the two parallel lift arms of the bridge pivoted.<sup>310</sup>

The lift mechanism for each leaf consisted essentially of the two balance arms, each of which was 38 feet long with chains hanging from the ends. The chains of the slightly shorter part of the arm (which projected over the lock chamber) were attached to the toe of the lift span, while the chains on the longer heel part of the arm were fixed to a longitudinal tail beam which stretched back from the pivot frame equidistant with the lift arm overhead. The two lift arms were counterbalanced and stiffened with four or more counterpoise logs bolted across the top of their tail sections.<sup>311</sup>

This drawbridge at Kingston Mills lasted until 1851, when it was deemed necessary to replace it; on 22 November, 1850, Lockmaster Brady noted that about 400 cubic feet of the adjacent timber bridge were being sold, along with some lock gate timbers and other stores.<sup>312</sup> The new bridge that replaced the double lift bridge was a swing bridge, since the authorities considered this type to be steadier,

and with the added advantage of leaving a level road-bed, a great advantage for wheeled vehicles.<sup>313</sup>

#### The First and Second Canal Swing Bridge (1851-1903)

The swing bridge constructed at Kingston Mills in 1851 in place of the drawbridge was similar in design to some of the horizontal swing bridges built for such provincial canals as the Welland, at an earlier date. It was an unequal arm, King post truss structure of one span, and was supported and swung upon a pivot pier located on the west wall of the lock chamber.<sup>314</sup> Bridges of this type were usually about 66 feet long and eleven feet wide overall; and constructed of heavy oak timbers with cast iron working parts.<sup>315</sup>

The frame of the swing bridge superstructure was composed of two main stringers or chords and transverse beams consisting of seventeen by fifteen inch timbers with the former being tapered over two-thirds of their length to reduce them to twelve inches by seven at the toe of the long arm of the bridge. Longitudinal stringers eight inches by four were notched into this frame and three inch pine planks spiked across them to form the deck of the bridge. The superstructure was strengthened by means of a King Post truss centred on each of the two main stringers. These trusses each consisted of a vertical main post, fifteen feet six inches high, from which were suspended three chains, one of which was affixed to the heel of the bridge frame and one to the toe, and another joined to the frame midway between the transverse toe beam and the main post. The two trusses were connected across the top of the vertical main posts by a transverse cam beam, pipe or bar. A handrailing, built of five by four inch posts and top rail with a four by four inch guardrail, ran along the length of both sides of the

swing bridge.<sup>316</sup>

This early type of swing bridge was swung about an iron pivot shaft which passed through the center of the bridge roadway, about one-third distant from the heel beam, and into the center of a masonry support pier. The bridge was a rim-bearing structure with its weight being carried on a concentric circle of cast iron roller wheels, affixed to the pivot pier. These rollers ran on an iron track circle of about 10 feet in diameter set into the underside of a timber turntable wheel built into the bridge frame. The bridge was swung by hand with the aid of a capstan and chains. In 1868, the Kingston Mills swing bridge was replaced by another swing bridge of an improved design.<sup>317</sup>

About the year 1865, several significant changes were made in the structure of the swing bridges being erected on the Rideau Canal to make them less unwieldy. Consequently, swing bridges built on the canal system after that date, such as the one at Kingston Mills in 1868, differed significantly from their predecessors in the size of their timbers, weight distribution, and their support and suspension systems as well as in many minor ways not readily apparent.<sup>318</sup>

With respect to the superstructure, the weight of the toe of the bridge was reduced and that of the heel increased with the size of the two tapered main stringers being reduced to eighteen by twelve inch beams tapering to nine inches by six at the toe and the addition of a one foot square supplementary beam running the whole length of the heel section of the bridge along and beneath the two main stringers. The transverse beams and the intermediate stringers in the toe section were reduced to twelve inches by six and nine inches by four, respectively. The plank decking or sheeting on the bridge remained the same as before; but the handrailings were reduced in size and weight. They now consisted of two, two inch by twelve horizontal



planks with a three by six inch top rail.<sup>319</sup>

To further make for increased ease of operation, the former rim-bearing support system of the swing bridge was altered to make it a centre-bearing swing structure. This was done through placing a supplementary transverse beam, eighteen inches by nine, directly beneath the transverse beam of the frame which passed directly over the center pivot. That change enabled the full weight of the bridge to be supported on the center pivot which now consisted of a cast iron cone, of approximately seven and a half inches in diameter, turning upon a concave iron plate set into the pivot pier. The concentric circle of roller wheels was retained in the new model to help stabilize the bridge; but they now were affixed to the underside of the bridge frame and ran on a cast iron track circle set into the masonry of the pivot pier. Roller wheels were added also to the underside of the toe and heel beams to facilitate the opening and closing of the bridge. These changes in design were required to keep the swing bridges from becoming even more unwieldy because at the same time the overall width of the bridges was increased from eleven to thirteen feet.

In keeping with the increased size of the swing bridges and the changes made in the support system, the suspension system was also strengthened and improved. The main posts and transverse cap beam were increased in size and strengthened by the addition of knees and struts, and the two main posts were moved close to the heel of the bridge. The latter had formerly been placed on the main stringers directly over the arc of the roller wheel circle closest to the canal lock, but were now set back in line with the center pivot. The three suspension chains of the earlier model were replaced by iron rods which could be adjusted by means of turnbuckles.<sup>320</sup>

The 1868 swing bridge at Kingston Mills was replaced by

another timber swing bridge in 1882, and apparently renewed again in 1890. These latter swing bridges, however, were similar in structure to the 1868 bridge, and all of them were built in accord with the 1865 swing bridge design which became and remained (with minor modifications) the standard for timber swing bridges on the Rideau Canal system. Facsimilies of this type of timber swing bridge can be seen today over the locks at Washburn, Jones Falls, Kilmarnock, and Nicholsons Locks, and as part of a continuous span structure at Brass Point.<sup>321</sup>

#### The Third Canal Swing Bridge (1903-1956)

In 1903, the timber swing span at Kingston Mills was replaced by a rivetted steel swing bridge. This was a through truss, center-bearing structure of the unequal arm, or bobtail, type which the Department of Railways and Canals was using to replace the timber swing bridges along the Rideau Canal. The removal of the timber swing span was in keeping with the decision taken by the Department in 1887 to replace all such structures on the Rideau Canal with steel swing bridges. As it happened, that policy was never completely carried out.<sup>322</sup>

The Kingston Mills steel through truss swing bridge was built and erected by the Hamilton Bridge Works Company of Hamilton, Ontario. It had trusses seven feet deep of an irregular design with the vertical posts and inclined endposts forming seven panels in which three had double diagonals and four, including the end panels, had but one diagonal. The chords, trellised posts and diagonals of the two trusses were constructed of angles of various sizes, four inches by three, three and a half inches by three, and two and a half inches by two and a half inches of five-sixteenth or one-quarter inch thickness with the heaviest members in the panel straddling the center pivot.

The eight transverse beams, with the exception of a twenty inch I 65# set on either side of the pivot, were of twelve inch I 31 1/2#, and were rivetted beneath the bottom chord. Each panel so formed was strengthened with double diagonals of seven-eighth inch diameter rods. The deck of the bridge consisted of three inch planking spiked to pine joists, twelve inch by three, set upon the transverse beams. Two horizontal wooden railings, or hub guards, of three inch by five inch plank were bolted along the inside of the trusses, and a wheel guard, six inches by four, was affixed to the deck. The bridge was 72 feet two inches long and twelve feet nine inches wide centre to centre trusses with an eleven foot six inch road width between the wheel guards.<sup>323</sup>

The bridge superstructure was supported on the two twenty inch 65#, which were strengthened further by the insertion of four longitudinal connecting beams, fifteen inch I 50# which sat on the bottom flange of the two heavier beams. The full weight of the bridge (as with the timber swing structure it replaced), rested upon the pivot with the four roller wheels serving only to stabilize the structure. The latter were affixed to the I beams of the bridge, and ran on a concentric track circle of ten foot diameter set into the pivot pier. Roller wheels were also located at the toe and the heel of the bridge. The bridge had a carrying capacity of seven tons, and was manually operated by means of a turning lever, inserted into the deck of the bridge, which operated a rack and pinion gearing system.<sup>324</sup>

This steel swing bridge remained in use until 1956, when road traffic apparently demanded a more massive device.

### The Present Canal Swing Bridge (1956- )

In 1956, the old through truss steel swing bridge over the detached lock at Kingston Mills was replaced by a steel through plate girder structure on a slightly altered alignment. At that time the west end of the bridge was moved to the south its own width to permit the roadway to be straightened out somewhat.<sup>325</sup>

The present canal swing bridge at Kingston Mills in 1956, is (like its predecessor) an unequal arm, or bobtail, center-bearing type of structure, supported on a center pivot and stabilized by means of a concentric circle of roller wheels. The superstructure consists of two plate girders five feet four and a half inches deep joined by 24 WF transverse beams, and strengthened with double diagonal rods in each of the six floor panels. The deck of the bridge is supported on longitudinal stringers, twelve inch I beams, set inside the heavier transverse beams, and consists of reinforced concrete on the short arm and steel grating on the long arm. The bridge is 87 feet two inches long; has a 24 foot clear road width (26 feet nine inches centre to centre main girders), and is built on a skew. It has a fifteen ton carrying capacity. There is also a five foot wide sidewalk on the north side of the bridge cantilevered on the outside of the main girder. A two and a half inch diameter pipe railing about four inches high runs along the top of the two main girders, and a similar pipe railing three feet six inches high, infilled with vertical rods spaced at five foot intervals is located on the outside edge of the sidewalk.<sup>326</sup> The bridge was built and erected by the Canadian Bridge Company of Walkerville, Ontario. It is electrically operated by means of a two H.P. motor, reducer, and rack and pinion movement, and is equipped with a turning lever for manual operation if required. The bridge abutments and the pivot pad are of reinforced concrete.<sup>327</sup>

### Summary

In conclusion, all we can safely say on the general theme of transportation as pertains to Kingston Mills, is that the little hamlet has always been exceptionally well supplied with transport facilities. At the very onset of British colonization in Upper Canada (1783), a road was built to Kingston Mills. By 1801, apparently, Kingston Mills was also linked to Montreal by a road. In 1832 came the Rideau Canal, and by 1856 - right at the very beginning of the railway era in Canada - the Grand Trunk Railway's main line from Montreal to Toronto was also built through Kingston Mills. Shortly afterwards, the Kingston Mills road was straightened and macadamized. In short, stages, steamboats and trains have long been part of the local scene, as are automobiles and pleasure boats today. Now, of course, the community is served (and bypassed) by modern asphalt surfaced highways.

It would appear, however, that, with the exception of the original pioneer road from Kingston, and the present county road through the lockstation, none of the various transport systems went through the hamlet for any reason other than geographic convenience. In addition to becoming a mill site and canal station, Kingston Mills happened to be by far the easiest place of portage across the Great Cataragui River, and for that reason (and apparently no other), all of the early east-west transport routes - both road and rail - chose to pass through it.

The community's reaction to all these benefits so providentially bestowed upon it was (to put it mildly) sluggish. So far as we can tell, nothing resembling a village developed there after the falls were harnessed for grist and sawmills in 1784. The opening of the road to Montreal seems to have made little difference. The coming of the Rideau put Kingston Mills directly along the main route of shipping from Montreal during the period of 1834 to 1851,

and created a small village there, but Kingston Mills seems to have been little more than a mere spectator to all the activity going on, contributing little to the annual canal traffic, other than a few consignments of cordwood, lumber, and perhaps flour. Further research might throw more light on the subject. (Perhaps the Rideau acted as a deterrent, rather than a stimulus, to the growth of a village at Kingston Mills, since so many of the best available lands were in the hands of the Ordnance Department, which would sometimes lease, but seldom sell, its property.) The arrival of the railway offered renewed possibilities, but there is little sign that the G.T.R. saw much potential at Kingston Mills, and apparently it was not until 1877 or thereabouts that the community was considered important enough to warrant a station. Interaction between the railway station and the lockstation is very obscure and seems to have been minimal, though the canal provided ties and timber for the railway and the railway sometimes brought in building supplies for the canal. Around 1918 the railway depot was moved east about half a mile to Cunningham's Corners, until it burned in 1933.

Kingston Mills has also seen many bridges, including three railway viaducts, four canal swing bridges, four waste weir bridges, and one canal lift bridge (not to mention a number of nearby culverts).

Though all of the original transport facilities are still represented at Kingston Mills today, by far the most important of these on the local scene is still the Rideau Waterway, which for half the year continues to carry thousands of boats (now pleasure craft), from places as far distant as Florida and the Mississippi, every summer.

## Natural History

### Surficial Geology

The actual site and vicinity of Kingston Mills are extremely interesting from a geological standpoint, in that the local rock formations and strata represent portions of four distinct geological periods in the earth's past. The effects are still evident in the highly diversified topography of the area today, and consequently, the region has been much studied by geologists.

Kingston Mills stands directly at the (surficial) border of the Napanee Limestone Plain and the Precambrian Shield,<sup>1</sup> and in fact represents the closest intrusion of the Shield to the city of Kingston itself. The lockstation itself fronts the entrance to a deep gorge, flanked on both sides by awesome Precambrian cliffs up to 60 feet in height,<sup>2</sup> between which the Great Cataraqui River runs on an almost straight course down towards Kingston. The gorge (and the Rideau Canal) bisect a rolling, hummocky granite ridge or "knob" which constitutes a spur of a formation called the Frontenac Axis.<sup>3</sup> The ridge runs in an east north-easterly direction, starting a few hundred yards west of the canal. The Frontenac Axis in turn is an arch of Precambrian rock, averaging about 25 miles in width, linking the Shield rocks of Madawaska and Algonquin Park to the north-west with the Adirondacks of New York State to the south-east. The Axis separates the limestone plains of central Ontario from the St. Lawrence Lowlands, which extend to Brockville and the vicinity of Smith's Falls.<sup>4</sup> The presence of the Frontenac



Axis added considerably to the difficulties of building those sections of the Rideau Canal between Rideau Ferry and Kingston Mills.

The granitic ridge running through, and bisected by, the Rideau Canal at Kingston Mills, contrasts sharply with the lands west, south, and even east, of the lockstation. Here the country becomes a low-lying, almost level series of clay flats (many of which are cleared and used as farm lands) or swampy peat bogs. The valley of the Great Cataraqui, however, is comparatively narrow, and barely a mile west of Kingston Mills rises an abrupt limestone escarpment called Tuttle's Hill, which stands about sixty feet above the valley below. Indeed, the setting of the river and the lockstation have a somewhat unreal effect, since at first glance one should expect to find the Cataraqui taking the apparently easier course through the alluvial plain to the west, instead of the tortuous channel through the chasm. Had it done so, the river would have formed a series of rapids, rather than a waterfall, the Kingston Mills settlement would have developed just below Tuttle's Hill, and the canal locks would have been spaced widely apart. The setting would have been infinitely less grand, but lock construction would probably have been much easier, and less expensive.

According to our friends the geologists, there are seven distinct types of rocks to be seen in the immediate vicinity of Kingston Mills, with additional formations a short distance north along the canal. The oldest of these rocks is a fine grained granular paragneiss in a dark green to dark gray band, which can be found in the lower portions of the gorge and running parallel to it.<sup>5</sup> These rocks belong to the Grenville Series (a part of the Precambrian) and represent metamorphosed sandy shales.<sup>6</sup> Next oldest are granites and syenites which constitute about 60 percent of the entire knob and flank the gorge on both sides. These

rocks are, in general, medium to coarse grained, holocrystalline, and equigranular, buff to salmon pink in colour, consisting mostly of feldspar, with about 25 percent hornblende and various other minerals in small quantities.<sup>7</sup> (The granite differs from the syenite only in that it contains considerable quantities of quartz, usually of a smokey-white colour.)<sup>8</sup> Here and there, especially east of the canal, we find intrusions of aplite, a sugar-like texture, fine grained, brownish to salmon-pink igneous rock forming long, narrow, dyke-like ridges<sup>9</sup> up to 1,000 feet in length, and running roughly parallel to the river gorge.

Somewhat more recent in date is an interesting zone of mylonite gneiss, which cuts across the syenite at the foot of the falls, near the modern electric powerhouse. This rock is a narrow zone, about 70 feet wide, striking about 35 degrees east of north in line with the gorge.<sup>10</sup> The zone consists of bands up to a foot in width, dark red to salmon pink or creamy-white in colour, and bordered on the east side with a two inch band of breccia.<sup>11</sup> Furthermore, there are a few small exposures of pigeonite diabase, which take the form of intrusive dykes in the syenite. They are less than a foot wide and twenty feet in length, and are characteristically black and fine grained, with surfaces weathered to dark gray or rusty brown.<sup>12</sup> These diabase dykes are the youngest of the Precambrian rocks at Kingston Mills.<sup>13</sup>

In general, the outcroppings around Kingston Mills are well rounded, thanks to glacial action, and some of the rock even appears polished. Striation marks indicate that the most recent glaciations moved 65 degrees west of south.<sup>14</sup> The rocks have been little weathered since the ice-ages, and chemical decomposition is so slight that it seldom extends more than a fraction of an inch in depth.<sup>15</sup> On the other hand, frost action has effected noticeable changes, especially along the scarps, and the river shores in the

gorge are now strewn with large angular talus blocks wedged off the cliffs. Other scarps which may have started as joints have also been enlarged by frost action.<sup>16</sup>

As mentioned earlier, the lands south and west of the ridge and the lockstation consist of limestone plains, on which stand the city of Kingston itself. Limestone outcroppings can be found in many places around the city and the canal, including Tuttle's Hill and the west side of Fort Henry hill, and indeed so many of Kingston's older buildings - to say nothing of her fortifications and the locks at Kingston Mills - are built of this rock that Kingston has, with justification, been nicknamed the "Limestone City". Around Kingston Mills proper, however, only a few small limestone outcroppings can be found. One of these is a small, apparently isolated patch on top of the bluffs east of the gorge. It is a fine grained, chalky gray, calcareous rock, very pure, and underlain by a few feet of limestone conglomerate with a silty calcareous matrix.<sup>17</sup> Another small deposit can be seen at the railway cutting immediately west of the gorge, lying directly on the granite bedrock and imbedding a number of granite boulders, quartz pebbles and shale sections in the lower layers.<sup>18</sup> Fossils have been found in the uppermost layer of this patch.<sup>19</sup> Two other small beds of limestone have been reported nearby.<sup>20</sup> Presumably these patches represent the remnants of former layers of limestone which once covered the entire ridge, but which have since been eroded away.

All of the limestone around the Kingston area appears to be of a type called Black River limestone (named for a site in New York State).<sup>21</sup> It is fine textured, dove-gray in colour, Ordovician in age, and makes a very fine building stone.<sup>22</sup> Fort Henry, the locks at Kingston Mills, and the older building complex at Queen's University, are all constructed of this rock.

Within five miles of Kingston Mills, to the north, lie some small areas of red to buff or white sandstone - called Potsdam sandstone. Of Cambrian (or perhaps Lower Ordovician) age, these rocks are characteristically a silica conglomerate composed of well rounded quartz grains cemented with hematite, quartz or calcite and rich in ferric oxide.<sup>23</sup> Included in some of these strata are famous concretion-like cylindrical formations, variously nicknamed "fossil tree trunks" or "fossil telegraph poles". They vary from 14 inches to 21 feet in diameter, consist of concentric rings like tree trunks, and are composed of exactly the same materials as the adjacent sandstone.<sup>24</sup> Since there were no advanced forms of life in the Cambrian Period, these cylindrical columns cannot be fossils. Undoubtedly they developed along with the adjacent bedrock,<sup>25</sup> but exactly how they were formed remains a mystery.

These Potsdam sandstones are roughly equivalent to the "Nepean" sandstones found at Ottawa and vicinity.<sup>26</sup> Those near Kingston have sometimes been called "Rideau sandstone".<sup>27</sup> The beds north of Kingston Mills are located close to the Rideau Canal, and this no doubt was one factor leading to the opening of Blake's quarry near Joyceville during the latter half of the nineteenth century. A number of handsome buildings have been constructed of this Potsdam sandstone, including the attractive Roman Catholic church at Cunningham's (Code's) Corners, discussed in another portion of this report. The red of the sandstone in the church is pleasingly offset with a little Black River limestone decor.<sup>28</sup>

Before discussing further the economic enterprises relating to the geology of the region, let us pause to consider the geological history, or geochronological sequences, at Kingston Mills.

### Geochronological Sequences

In all localities, the process of piecing together geological history is a never ending detective investigation, searching for clues in soils and rocks which in many cases have been unrecognizably metamorphosed, or even totally eradicated, with the passing of time. Thus, interpretations may vary, conclusions must often be tentative, and obviously the entire story will never be known. Nonetheless, profiting from the labours of a good many patient geologists, we are in a position to summarize the prehistory of Kingston Mills as follows:

The oldest known rocks on the face of the planet are, of course, Precambrian, and some of them date back about 3,500,000,000 years.<sup>29</sup> The Precambrian rocks of the Kingston area are, however, much younger than that, and are said to be only about 1,000,000,000 years old.<sup>30</sup> These rocks lie within what is called the Grenville province of the Canadian Shield, which covers most of central Ontario and Quebec to the coast of Labrador, and which takes its name from the rock formations at Grenville, Quebec.<sup>31</sup>

Around 1,000,000,000 to 950,000,000 years ago, the site of Kingston Mills was covered by an immense marine sea. Sediments were steadily deposited and built up by this sea, probably to a very great thickness, and gradually the lower layers were compressed into limestones, sandstones and shales.<sup>32</sup> As these strata became more and more deeply buried, heat and pressure built up to an immense degree. The ancient sedimentary rocks became semi-molten, and were crushed and partly melted into metamorphic rock, chiefly marbles, quartzites and gneisses.<sup>33</sup> The early sandy shales in turn were metamorphosed into meta-sedimentary paragneisses, some of which can now be seen in parts of the gorge at Kingston Mills.<sup>34</sup>

These new metamorphic rocks, in turn, were distorted

even further by infusions of purely igneous magmatic rock, such as granite and syenite, which began pushing upwards through the metamorphics at weak points, forming intrusions called plutons.<sup>35</sup> Thus, starting around 950,000,000 years ago during an era within the Precambrian known as the Helikian, the folding and heaving caused by tremendous tectonic forces within the earth pushed the rocks upward towards the surface, which rose above sea level. Meanwhile, as the plutons gradually cooled, various veins and dykes of diabase and apatite intruded through both the igneous and meta-sedimentary rocks.<sup>36</sup>

As the land heaved ever upwards, erosion inevitably set in, and gradually the overlying beds were carried away by wind and water. But the folding and heaving process continued, eventually building vast mountain ranges in what is termed the Grenville Orogeny. Between 800,000,000 and 600,000,000 years ago mountains reaching elevations of over 20,000 feet probably filled much of eastern Canada.<sup>37</sup> Kingston Mills was not at the edge of this system, since Precambrian rocks are known to underlie most of the continent of North America.

At some point during this period of mountain building, a fault developed, probably several miles in length. The immense pressure pulverized the rock at the borders of the fault without, however, breaking the molecular bonds amongst the rock particles or shattering the cohesion of the rock. This produced a zone of augen mylonite gneiss, a tough, durable band of microbreccia.<sup>38</sup> Nonetheless, the fault formed a weak spot in the granite, which would subsequently be eroded and eventually provide a channel for the Great Cataraqui River.<sup>39</sup>

Around 750,000,000 years ago, the Grenville Mountains at last reached their apogee. However, during a new era called the Hadrynian, wind and water erosion, unrestrained

by any type of covering vegetation, continued their never ending assaults, and gradually the great mountains were reduced to rolling, hummocky hills with broad, shallow valleys between them.<sup>40</sup> The marble bearing rocks, being softer, crumbled away faster, leaving ridges or knobs of harder, more resistant granite, including the one through Kingston Mills. All of these knobs show much the same relief, and all run in parallel rows from the north-east to the south-west, a pattern characteristic of the entire Grenville province today,<sup>41</sup> and a factor that was to work very much to the advantage of Colonel By and the builders of the Rideau Canal. The whole area, in short, became a vast peneplain, and nothing remained of the Grenville Mountains except their roots, which form (amongst other things) the islands in the St. Lawrence River, and the adjacent hills and knobs of the Frontenac Axis.<sup>42</sup> In short, the basic topography of the region today remains essentially unchanged since the end of the Precambrian.

The intense erosion of the Hadrynian era must have produced a very thick regolith of sands and clays. Some natural agency, such as wind (and perhaps glaciation?) evidently swept away most of the clays and deposited them elsewhere,<sup>43</sup> leaving mostly sands rich in ferric oxide - another indication that there was still no vegetation present to reduce the iron and stabilize the soil mantle.<sup>44</sup>

Around about 500,000,000 years ago, during the Upper Cambrian era, either the ocean levels rose or the land subsided, and the sea again encroached upon the barren plains.<sup>45</sup> Parts of the Cataraqui Valley were submerged. This Cambrian sea was, however, shallow, and appears not to have covered all of the ridges and monadnocks of the Kingston Mills area.<sup>46</sup> Indeed, it may not have submerged the Frontenac Axis as a whole. The sea now supported life, but only simple, primitive, soft bodied organisms. The waters also



worked on the sandy regolith, depositing it in successive new layers which would again be progressively buried under new sediments and compressed into the Potsdam-Nepean (Rideau) sandstones of today.<sup>47</sup> Ripple marks, laminations and cross-bedding have been observed in these strata, thus confirming the shallow water depositional theory.<sup>48</sup> Burrowing creatures called conodonts have left traces of their tunnels in these sandstones.<sup>49</sup>

The Cambrian era ended around 450,000,000 years ago, and about that time the sea receded for an interval of 5,000,000 to 10,000,000 years, as is indicated by signs of renewed erosion, and by oxidized sediments, such as chlorites, which are found deposited on top of the Cambrian strata.<sup>50</sup> Then, during the Ordovician Period the seas returned.

The Ordovician seas were comparatively warm and shallow; nonetheless, they were evidently more extensive than the Cambrian, and left their sediments at higher levels (including the top of the granitic ridge through Kingston Mills, which was completely submerged at this time). Indeed, the entire Frontenac Axis was then under water.<sup>51</sup> Some of the Potsdam-Nepean sandstones have been attributed to the Lower Ordovician, rather than the Cambrian era,<sup>52</sup> and of course, all of the famous limestone beds around Kingston are Ordovician in date.<sup>53</sup> Interestingly enough, though, the successive layers of strata at Kingston do not conform exactly to those east of the Frontenac Axis. Layers such as Beekmantown dolomite and Chazy limestones (to use their American names) are found here underlying the Black River formations, whereas at Kingston the Beekmantown and Chazy strata cannot be found.<sup>54</sup> This indicates either that the Kingston area became uplifted for a time, so that erosion could eradicate those layers, or that the Ordovician seas did not reach Kingston until a considerably later date than they did Montreal. Perhaps the Frontenac Axis proved a

temporary barrier.

The Black River limestones of Kingston are assigned to the Middle Ordovician (whereas the Beekmantown and Chazy formations are considered Lower Ordovician).<sup>55</sup> Evidence from other sites suggests that the limestone and dolomite deposits reached a thickness of nearly 500 feet at one time, plus another 625 feet of shale.<sup>56</sup> The entire topography of the Kingston Mills region was radically transformed, but only temporarily. Today almost all the overlying limestone has been eroded from the site.<sup>57</sup>

Unlike the Cambrian period, the Ordovician seas supported a rich array of marine life, including trilobites, brachiopods and gastropods. Numerous specimens of a small cephalopod called Nanno kingstonensis have been obtained from the small limestone outcropping at the railway cutting at Kingston Mills.<sup>58</sup>

In the Kingston area little is known of the interval between the Ordovician and the Pleistocene Period, which began about one million years ago. In some places Kingston proper retains as much as 180 feet of limestone (as compared with about 500 feet at Toronto).<sup>59</sup> All of the Palaeozoic strata which undoubtedly once overlay the Kingston area have been completely eroded away. Circumstantial evidence suggests that the region generally remained submerged during the following Silurian and Devonian Periods. Devonian breccia has been discovered at St. Helen's Island, Montreal, and this can be correlated with other Devonian strata in western Ontario and New York State.<sup>60</sup> After about 350,000,000 years ago, however, the region of the Frontenac Axis became dry land again, and though land vegetation was becoming abundant, differential erosion again resumed its attacks.<sup>61</sup> There may have been some glaciation during the Permian.<sup>62</sup> Apparently erosion continued all through the Mesozoic and Cenozoic eras, though another shallow sea may have covered

the region during the Cretaceous Period.<sup>63</sup> Gradually, the Palaeozoic sedimentary rocks were washed or swept away, until the ancient face of the Frontenac Axis was close to the surface again, under a thick regolith of soil. Or, as one commentator put it, the ancient paleo-peneplain was exhumed,<sup>64</sup> though limestone continues to underlie the plains of the St. Lawrence Lowland and the rolling hills of central Ontario.

Meanwhile, the earth's climate was subtly getting cooler. The reasons for this phenomenon are not fully understood. The extent of continental seas and mountain ranges, dust conditions in the atmosphere, and the relative positions of the continents must have been factors (around the end of the dinosaur age, for example, Kingston Mills was near the latitude of modern day Jacksonville, Florida, and thus unlikely to experience ice-age conditions).<sup>65</sup> Whatever the causes, it appears certain that between 2,000,000 and 400,000,000 years ago, during the Pleistocene Period, the first of several continental ice sheets began to march down from the north across much of the earth's northern hemisphere.<sup>66</sup> Geologists have documented evidence of four such advances in North America, with intervening retreats.<sup>67</sup> The first of these glacial stages is called the Nebraskan, of which little is known, since most traces of it have been eradicated by subsequent ice-ages.<sup>68</sup> The Nebraskan was followed (after an interval) by the Kansan glaciations, and this in turn by the Illinoian, which may have been the severest of all. It is believed that over 10,000 feet of ice covered the Kingston Mills region at that time.<sup>69</sup> The Illinoian glaciation, which spread deep into the United States, was followed by a warming period known as the Sangamonian Interglacial State, during which the climate of the Kingston Mills region became warmer than it is today, approximating that of Virginia.<sup>70</sup> Then, around 70,000 years ago, renewed cyclic cooling resulted in the fourth and

latest glaciation, the Wisconsin, which crept down in a south-easterly direction from Labrador and central Quebec, following the lie of the land as contoured by the Precambrian Shield.<sup>71</sup> The glaciers left striation marks in the granite, and are reckoned to have deepened the valleys and scraped away between 20 and 40 feet of soil (depositing most of this as till in the United States).<sup>72</sup> The wrinkled Precambrian rocks of the Frontenac Axis were exposed to the surface again.<sup>73</sup> Nonetheless, except for depositing moraines and glacial till and disrupting the water run offs, the ice-ages seem to have had, on the whole, a rather modest impact on the modern topography of the area, which remains essentially unchanged since the Precambrian.<sup>74</sup>

Apparently the Great Lakes did not exist before the Pleistocene. This region was originally a system of broad, shallow valleys interlaced with rivers.<sup>75</sup> On the other hand, it seems that the Great Cataraqui River has been in existence for quite some time. This writer has been unable to find a precise estimate as to the age of the river; however, prototypes of the Cataraqui probably flowed between each interval of glaciation, and at least one source reports that the river once flowed west of its present course, past the foot of Tuttle's Hill, rather than through the chasm at Kingston Mills.<sup>76</sup> (It is possible that glacial debris may have partially blocked the chasm at various times.) There was also at least one proto Lake Ontario, called "Lake Scarborough", which filled the scoured basin of Lake Ontario around 80,000 to 70,000 years ago, before the readvance of the Wisconsin ice-fields.<sup>77</sup>

The modern layout of the Great Lakes began to take form with the gradual retreat of the Wisconsin ice sheets, starting around 15,000 years ago.<sup>78</sup> By 12,600 B.P. (before present, i.e. before 1950), ice still filled most of southern Ontario, though a small meltwater lake called

"Lake Dana", was forming between the retreating ice sheets and the Mohawk escarpment of northern New York State. Lake Dana seems to have drained into an immensely enlarged version of Lake Erie, and perhaps later into the Hudson-Mohawk system.<sup>79</sup>

By about 12,400 B.P. the ice had partly withdrawn from the Lake Ontario basin, and a new lake, known as "Lake Iroquois", had replaced Lake Dana, though at a lower level.<sup>80</sup> Lake Iroquois was fed by the melting ice and the proto Niagara River, and since the St. Lawrence Valley was still blocked by ice, Lake Iroquois itself drained by way of the Hudson-Mohawk from an exit opening near Rome, New York.<sup>81</sup> Another large meltwater lake, known as "Lake Algonquin", filled the lower basins of Lake Huron and Georgian Bay. Kingston Mills was still covered with ice at this time.<sup>82</sup>

Within another century, however, the scene had changed. The ice withdrew to a line about fifty miles north of Kingston Mills, which was now submerged by the expanding waters of Lake Iroquois. Ice still filled central Ontario, and Lake Algonquin was then emptying directly into Lake Iroquois by way of the Trent River system.<sup>83</sup> Meanwhile, as the glaciers receded, the levels of the sea rose, by about 400 feet, and apparently flooded the St. Lawrence Lowlands, creating the "Champlain Sea", which extended as far inland as the Frontenac Axis.<sup>84</sup>

By about 12,000 B.P. the ice had fallen back sufficiently to open the St. Lawrence Valley.<sup>85</sup> The land, partly relieved of the immense weight of the ice, began rising, isostatically, much faster around the eastern end of Lake Ontario than the west.<sup>86</sup> The Rome outlet ceased to function, and Lake Iroquois began draining rapidly by way of the St. Lawrence, until it was reduced to a small remnant of its former self.<sup>87</sup> Once more Kingston Mills was exposed as dry land, some distance from Lake Iroquois, in a sub-Arctic

environment with tundra vegetation.<sup>88</sup> Caribou, wolves, grizzly bears, and perhaps the woolly mammoth were then native to the region.

Then the picture changed again. For a few centuries the climate again turned colder, and the glaciers readvanced to line about twenty miles north of Kingston Mills. This advance, known as the Two Riveran or Valders Advance, also reoccupied the St. Lawrence Valley, extending as far as Covey Hill in the Adirondacks, and apparently displacing the Champlain Sea.<sup>89</sup> With its exit again blocked, the Lake Ontario basin filled up again, producing a new meltwater lake known as Lake Frontenac, which seems to have reached almost the same levels as Lake Iroquois.\*<sup>90</sup> The Advance also sealed off the Trent system, forcing Lake Algonquin to empty south into Lake Erie by way of the St. Clair River route.<sup>92</sup> Kingston Mills was again submerged, and what little soil and till remained on the knobs of the Frontenac Axis were now washed away by wave action.<sup>93</sup> Meanwhile, these post-glacial lakes were depositing layers of calcareous clay in the valleys<sup>94</sup> (including the flats near Kingston Mills), thus laying the basis for agricultural possibilities at a future date.

The Two Riveran Ice Advance reached its height around 11,800 B.P., then began to fall back again.<sup>95</sup> Once more Lake Algonquin - still a good deal larger than its modern successor, Lake Huron - poured directly into Lake Frontenac.<sup>96</sup> At this time the lower St. Lawrence was still blocked by ice,

\* A major shore feature left by one of these meltwater lakes can be seen quite clearly at Glenburnie, about two miles north-west of Kingston Mills. It consists of a large double bar and a curved spit, extending over half a mile to the north-east, near the old Glenburnie school, west of Hemlock Park. Its present altitude is 474 feet above sea-level, and it may represent part of the shoreline of "Lake Belleville", one of the (hypothetical) short lived successors to Lake Frontenac.<sup>91</sup>

and a large, fresh water lake briefly filled the entire valley, evidently extending directly into the Lake Ontario basin, and draining down the Hudson.<sup>97</sup>

This state of affairs did not last long. Around 11,500 B.P. the ice sheets withdrew beyond Quebec City, and the St. Lawrence lake gave way to a renewal of the Champlain Sea.<sup>98</sup> Beluga whales swam in this sea; one specimen has been found near Smith's Falls.<sup>99</sup> Lake Frontenac or its successor, now at a higher level than the Champlain Sea (which again extended as far as Brockville), rapidly drained away, leaving a very small remnant known as "Admiralty Lake", which was only about one-quarter as large as the modern Lake Ontario.<sup>100</sup> The Thousand Islands were now dry land, as was Kingston harbour - except for the Cataraqui River and an extension of the Trent, which flowed from the (modern) Bay of Quinte eastward between Kingston and Wolfe Island, where it met the proto St. Lawrence.<sup>101</sup>

Around 11,000 B.P. there was another minor readvance of the ice sheets and a cooling of the climate, but by 10,700 B.P. the ice had withdrawn from the Ottawa Valley.<sup>102</sup> The outflow of the Trent River started to slow down, as Lake Algonquin found a new exit by way of the Ottawa River.<sup>103</sup> As the land continued its isostatic rebound and rose in elevation, the Champlain Sea started to shrink, leaving behind the varved clays of the St. Lawrence Lowlands, which constitute some of the best soils in Ontario and have made possible the extensive dairy farming in the region today.<sup>104</sup>

Since the Frontenac Axis has been rising about ten times faster than Niagara, Admiralty Lake began to rebound and grow larger, mostly to the west, and found a new sill at the Admiralty Islands near Gananoque.<sup>105</sup> Since then Lake Ontario has gradually built up to its present level, and the Cataraqui River has found its present course through the chasm at Kingston Mills - which developed as a result of



erosion along the ancient Precambrian fault.

As the climate warmed up, the tundra gave way to fast travelling trees, such as spruces, larches, birches, poplars and willows, which still crowd the tree line today.<sup>106</sup> Later came pines, maples, and basswoods, which have less transportable seeds and are less adaptable to cold climates.<sup>107</sup> Gradually, the boreal forests also migrated north, and heavy seeded trees of the modern rain forests, such as oaks, hickories, walnuts and butternuts, became established in some localities.<sup>108</sup> As the soils weathered, nutrients changed, and moisture levels fluctuated, different types of trees flourished or withered in the Kingston Mills region. Similarly, animal life has responded to these changes, as sub-arctic animals either became extinct or moved northwards, and such modern species as beaver, muskrat, cottontail rabbits, skunks, woodchucks, squirrels, chipmunks, foxes, and even a few bears, wolves, and white-tailed deer, have found ecological niches in the area.<sup>109</sup> Bird life, either seasonal or permanent, has included owls, hawks, geese, ducks, herons, warblers, thrushes, cuckoos, orioles, tanagers, woodpeckers, sparrows and ruffed grouse.<sup>110</sup> Around 10,000 years ago, another newcomer, man, the forerunner of the modern Indians and Inuits, also made his first appearance in the lower Great Lakes region.<sup>111</sup> Until recently, however, man's ecological impact on the region seems to have been minimal.

### Economic Geology

Though the intensive erosion of the Precambrian Shield has exposed many valuable minerals which are now a major source of Canada's wealth, few valuable deposits have been found near Kingston, and none directly at Kingston Mills itself. Since the arrival of the British settlers in 1783-84 and

afterwards, the first resource to be exploited was the alluvial soil in some of the clay flats, which were often cleared and converted into farming lands, though as noted elsewhere, the lowlands around Kingston Mills do not seem to have been settled permanently until the 1840's, over half a century after the shorelines of Lake Ontario.<sup>112</sup>

(On the whole, the local farms seem to have specialized in dairying and beef cattle, catering largely to the market afforded by Kingston and its suburbs. At least two cheese factories once flourished east of Kingston Mills.)<sup>113</sup>

Timber, of course, was also exploited for building and ship construction, but lumbering did not become big business in Canada until markets opened in Britain and the United States during the 1840's, about which time the old naval sawmill at Kingston Mills was replaced by a large commercial mill. (The forests in the region have been cut over twice,<sup>114</sup> and during the 1860's the area was exporting mostly firewood.) The fur trade around Kingston ceased to be important as early as 1794.<sup>115</sup>

When the decision to build an ordnance canal was made in 1826, much of the task was made fairly straightforward, in that the Rideau River flows generally north-easterly towards the Ottawa over a fairly level limestone plain, a part of the St. Lawrence Lowlands. The same applies for the lower four miles of the Cataraqui, below Kingston Mills. Both rivers contained enough water for a barge or small steamboat canal, and, very fortunately, the watersheds of the two streams lie close together, in the Frontenac Axis. Here lie the Rideau lakes (in part remnants of Lakes Iroquois and Frontenac),<sup>116</sup> which were quite navigable and which act as headwaters and reservoirs for the Rideau and the Cataraqui. It was also providential that the drainage system of the Grenville province of the Precambrian Shield happens to lie in a north-east to south-west axis, and that, in keeping with

this trend, a most fortuitous fault line (apparently running from Kingston as far as Brewer's Mills) has left a rather straight and direct course for the Cataraqui, as far north as Brewer's Mills.<sup>117</sup> In fact, of the 124 miles of the Rideau Waterway, only eighteen can truly be classified as "canal".<sup>118</sup> Thus the difficulties of completing the waterway across the granite ridges of the Frontenac Axis became surmountable.

The problems of building the locks at Kingston Mills have already been discussed in some detail elsewhere in this study. As noted previously, the granites and syenites within the gorge, being very hard, proved difficult and costly to remove, and had to be blasted out with black powder. On the other hand, there was plenty of timber for the lock chambers and gates (usually white oak was used) and building stone for the dam, waste weir, and locks. The stone used was some of the local Black River limestone, which is even grained, easily worked, hardens rapidly, and is nearly impermeable to water;<sup>119</sup> in addition, some of the stone could be crushed to produce lime for mortar. Which actual quarries were used to provide the stone for the locks is not absolutely certain, but contemporary texts quoted elsewhere state that the building stone was being obtained about four miles from the lockstation, on the "Cataraqui Bay" - which sounds irresistably suggestive of the great quarries on the west side of Fort Henry hill, near Barriefield, which are easy of access to the river, and which are still being exploited today. (See "Canal Construction".) Chemical analysis might settle this matter definitely.

As the Kingston Mills region became better settled, various local quarries were opened up. One was developed by private enterprise about a mile east of the lockstation, in Pittsburgh Township during the 1840's, about where the modern Station Road intersects with Highway 15.<sup>120</sup> This quarry was probably used at times to furnish fill to

reinforce the canal dykes flanking the lockstation. It also seems to have provided the facing on the Leo Hogan house just east of Kingston Mills around 1879 to 1881. Charles Harrison, who was then owner of the house, was a stonemason by trade.<sup>121</sup> Former Lockmaster Earl Doyle adds that this quarry was used by the Gananoque Light and Power Company at the time that the powerhouse at Kingston Mills was under construction in 1913.<sup>122</sup> More recently, before the First World War, the government bought some land at the west side of Tuttle's Hill, just south of the old Keenan house (now in ruins), and opened a quarry there. This may be the government quarry alluded to in the lockmaster's journal on 31 March 1911.<sup>123</sup> It was apparently used solely for reinforcing the wing dykes of Colonel By Lake.<sup>124</sup>

As mentioned elsewhere, older residents all agree that this quarry was no longer in use by about 1914, and even the Keenan brothers, Felix and William, who sometimes contracted to provide stone for the dykes, never used the government quarry, preferring instead to draw on one of their own in the neighbourhood.<sup>125</sup> The small size of the abandoned government quarry also suggests that it was not long in use. In addition, Mr. Doyle, who assumed his duties as lockmaster in 1923, affirms positively that the old government quarry near the Keenan home had been abandoned before his time. He also reports that a second government quarry existed at the east end of the embankments, about three-quarters of a mile from the modern Code's Corner, and that it, too, was used to reinforce the dykes. Additional embankment stone, he says, sometimes came from Glenburnie and Pittsburgh Township, and was usually dragged in during the winters, on sleighs. Mr. Doyle also affirms that during his lengthy term as lockmaster, all new stone for the locks and canal installations themselves came from Barriefield.<sup>126</sup>

There appear to be no large quantities of metallic

minerals around Kingston Mills, but other geological deposits have been worked at various times. Feldspar and quartz have been mined near Verona and Bedford, north of Kingston.<sup>127</sup> An apatite mine was opened in North Burgess Township in 1868.<sup>128</sup> Galena was mined in Loughborough Township in 1870 and afterwards, and in 1871 a mica mine was opened as well.<sup>129</sup> Phosphates have also been extracted in Loughborough.<sup>130</sup> A barite mine was developed at lot 17, Concession IV, Kingston Township, but this enterprise lapsed during the 1890's.<sup>131</sup> There are peat-bogs and marl-beds along the lower Cataraqui, dating from recent, post-glacial times, but these are not considered of any commercial value.<sup>132</sup> Closer to Kingston Mills, a small gravel pit was opened on lot 41, Concession IV, Kingston (now Pittsburgh) Township, near the road about three-quarters of a mile east of the locks around 184? .<sup>133</sup> Probably this patch of till was used mostly for road-metal or railway ballast. Other local limestone quarries have served the same purpose. Finally, we might repeat again that a quarry of Potsdam sandstone near Joyceville has long furnished beautiful building stone, which (amongst other things) was used to build the handsome Roman Catholic church at Code's Corner.<sup>134</sup>

#### Climatic Influences

Kingston Mills experiences a somewhat severer climate than Kingston proper, in that the lockstation is far enough inland that it is less affected by Lake Ontario. The lake tends to cool the heat of the summer in areas near its shores, and to moderate the cold of winter.<sup>135</sup> Being five miles inland, Kingston Mills partly escapes this moderating influence, and tends to experience colder temperatures in winter than does Kingston proper<sup>136</sup> - though the differences are probably not very great. (Further inland the temperature

extremes, at least in winter, are much more pronounced, and this may be reflected in higher canal maintenance costs.)

We have already described some of the destructive effects that temperatures and precipitation have had on the canal installations at Kingston Mills over the years. At this point we may add a few climatic statistics, derived, of course, from the weather station records of Kingston, which date back to 1883. This part of Canada has been classified by Koppen as having a "cool or snow forest climate without a dry season, but with warm summers".<sup>137</sup> A look at the local records shows that Kingston received approximately 900 mm. of precipitation in 1883, and that the annual totals dropped to about 800 mm. around 1895 and 1900, rose again to 850 around 1905 and 1910, dropped again to about 810 during the early 1920's and climbed back to 870 in 1930.<sup>138</sup> There was another drop to 830 in 1935, but by 1940 it rose to 930, and in 1945 to 950. Since then the totals fell again to 925 in 1950, 900 in 1955, and 870 in 1960, but more recently they have been rising again, to 880 mm. in 1965, 925 mm. in 1970, and 950 mm. in 1975. The highest precipitation on record at Kingston was 960 mm. in 1943, and the lowest was 790 mm. in 1916.<sup>139</sup> November is usually the wettest month, averaging about 92.5 mm., closely followed by December with 84.6, August with 80.3, and May and September with about 77.5 and 77.0 respectively. The driest months of the year are usually March, with 64.0 mm., February with 64.8, June with 66.3, July with 70.6, April with 72.6, and October with 73.7. (January averages 76.0 mm.)<sup>140</sup> Snowfall averages 50 cm. or more in January, 38.4 in February, 26.7 in March, 13.7 in November, and 41.7 in December.<sup>141</sup> (No wonder British troops stationed at Kingston were given special issues of greatcoats and other extras to their uniforms during the winters.) If anything, the precipitation levels at Kingston Mills are generally a little lower than those at Kingston.<sup>142</sup>

The same applies for temperatures. At Kingston temperatures average  $-7.6^{\circ}$  Celsius in January, followed by  $-6.9^{\circ}$  in February,  $-1.3^{\circ}$  in March,  $6.3^{\circ}$  in April,  $12.2^{\circ}$  in May,  $17.9^{\circ}$  in June,  $21.1^{\circ}$  in July,  $20.3^{\circ}$  in August,  $15.9^{\circ}$  in September,  $10.1^{\circ}$  in October,  $3.4^{\circ}$  in November, and  $-4.6^{\circ}$  in December. The highest temperatures ever recorded were  $36.1^{\circ}$  on 5 August 1949 and 19 August 1953. The coldest were  $-35.6^{\circ}$  on 17 February 1896, followed by  $-34.4^{\circ}$  on 29 December 1933, and  $-33.3^{\circ}$  on 30 January 1908 and 13 January 1914.<sup>143</sup> Probably the coldest days were even colder at Kingston Mills. As a rule, Kingston Mills enjoys an average of 140 frost free days per year; at most from 27 April to 8 October, and minimally from 27 May to 11 September.<sup>144</sup> The Cataraqui River freezes by mid-December about two years out of four, and is usually clear again between 25 March and 5 April.<sup>145</sup> The navigating season usually opens at the beginning of May, and closes in mid-October.

### Summary

Geographically, the setting of Kingston Mills is dominated by a ridge or knob of Precambrian rock, an offshoot of the Frontenac Axis, bisected by the Great Cataraqui River, which (with the Rideau Canal) occupies a gorge or chasm following an ancient fault line, and emptying into a broad, rather shallow limestone valley extending down to Lake Ontario and the city of Kingston. The knob, which emerges about half a mile west of the lockstation, runs in a north-easterly direction (as do most Precambrian ridges in the area), and forms a striking contrast with the cultivated limestone flats to be found on both sides of the lockstation. About a mile to the west stands the commanding limestone escarpment of Tuttle's Hill, which forms part of a ridge stretching as far west as Georgian Bay.<sup>146</sup>



Physiographically the Kingston Mills area is very similar to the terrain of the adjacent Frontenac Axis. Geologically, its rocks are Precambrian metasediments of the Grenville series, with extensive igneous granitic intrusives, once overlain with Palaeozoic sedimentary rocks; all since modified by erosion and glaciations, and variably mantled with glacial debris and (in low-lying areas) clays deposited by recent, post-glacial meltwater lakes.

The general north-east to south-west topography of the Frontenac Axis (and the fault at Kingston Mills, both products of Precambrian folding rather than glaciations), worked greatly to the advantage of the builders of the Rideau Canal, while the white oak timber and Black River limestone of the area both provided excellent building materials for canal construction. On the other hand, the Precambrian granites posed serious problems and expense, and had to be blasted out when necessary during lock construction. The rather severe climate of the region, which averages only 140 frost free days per year, limits the navigating season to six months a year or less, and takes a severe toll on the canal installations, which, fortunately, were well constructed in the first place, with the climate in mind.

Since the arrival of the British in 1783-84, the water-power at Kingston Mills has been more or less continually tapped, first for saw and gristmills, later (once markets for lumber had opened in Britain and the United States) by a commercial sawmill, then (once there was no more timber to cut) by a local gristmill, and finally, in 1913, by the modern hydro-electric generating plant. By the 1840's the adjacent clay flats were being cleared and farmed (with varying success), while limestone and sandstone quarries have been worked extensively in the region, both for lime, road-metal, railway ballast, and building stone. Other mining activities have been conducted north of Kingston

Mills during the nineteenth century, generally on a rather unimpressive scale.

Lastly, we should pause to remember that geologists have long found the Kingston Mills region a fascinating and rewarding terrain for study, and that the general public, starting in the mid-nineteenth century, has found the gorge grounds and waterways of Kingston Mills a place of striking, rugged beauty, and have shown it by regular recreational visits by boat, carriage and motor car during the warm seasons.

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A Summary of the Village, its Buildings, Industries and  
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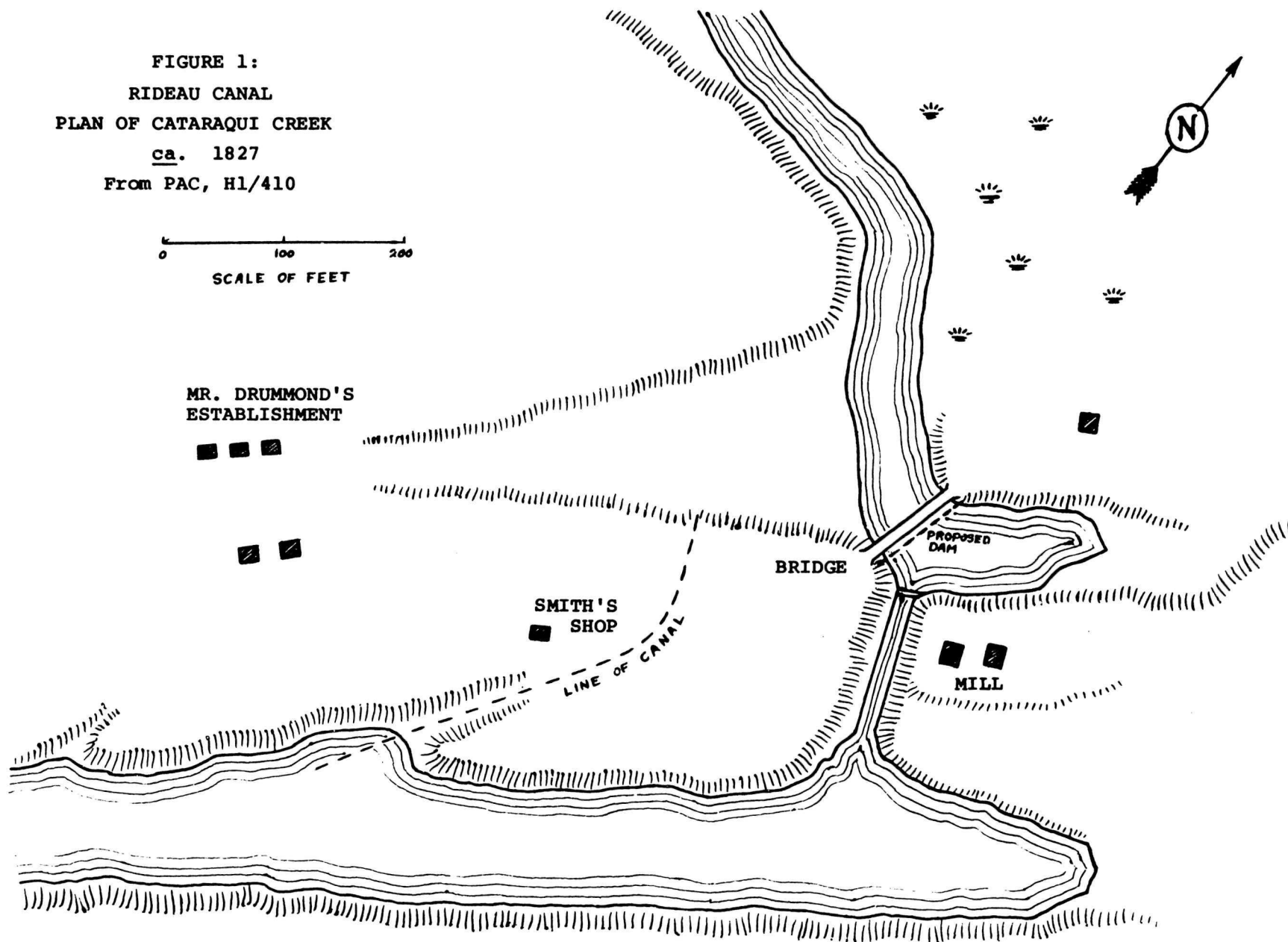
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FIGURE 1:  
 RIDEAU CANAL  
 PLAN OF CATARAQUI CREEK  
 ca. 1827  
 From PAC, H1/410

0 100 200  
 SCALE OF FEET



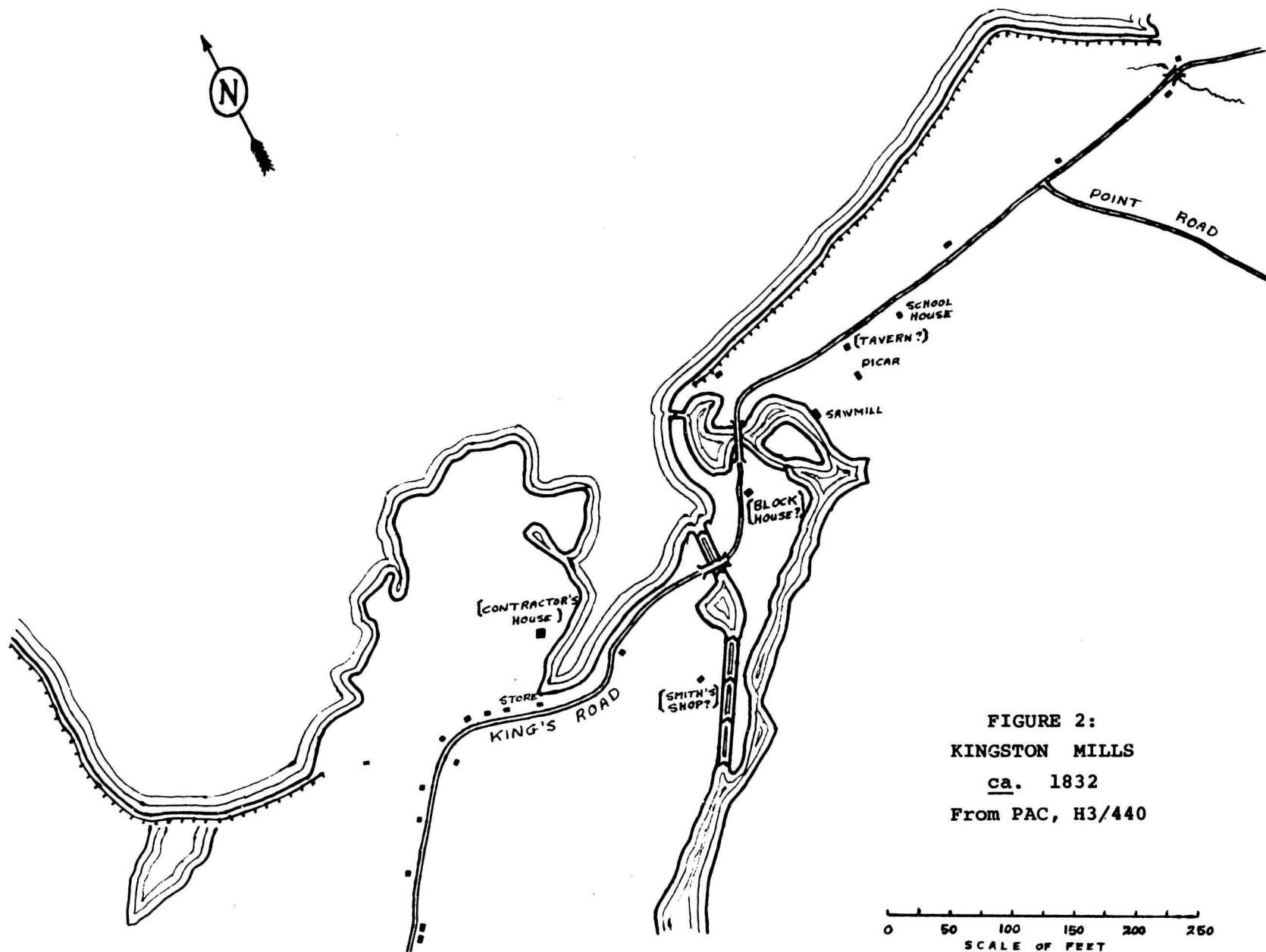


FIGURE 2:  
KINGSTON MILLS  
ca. 1832  
From PAC, H3/440

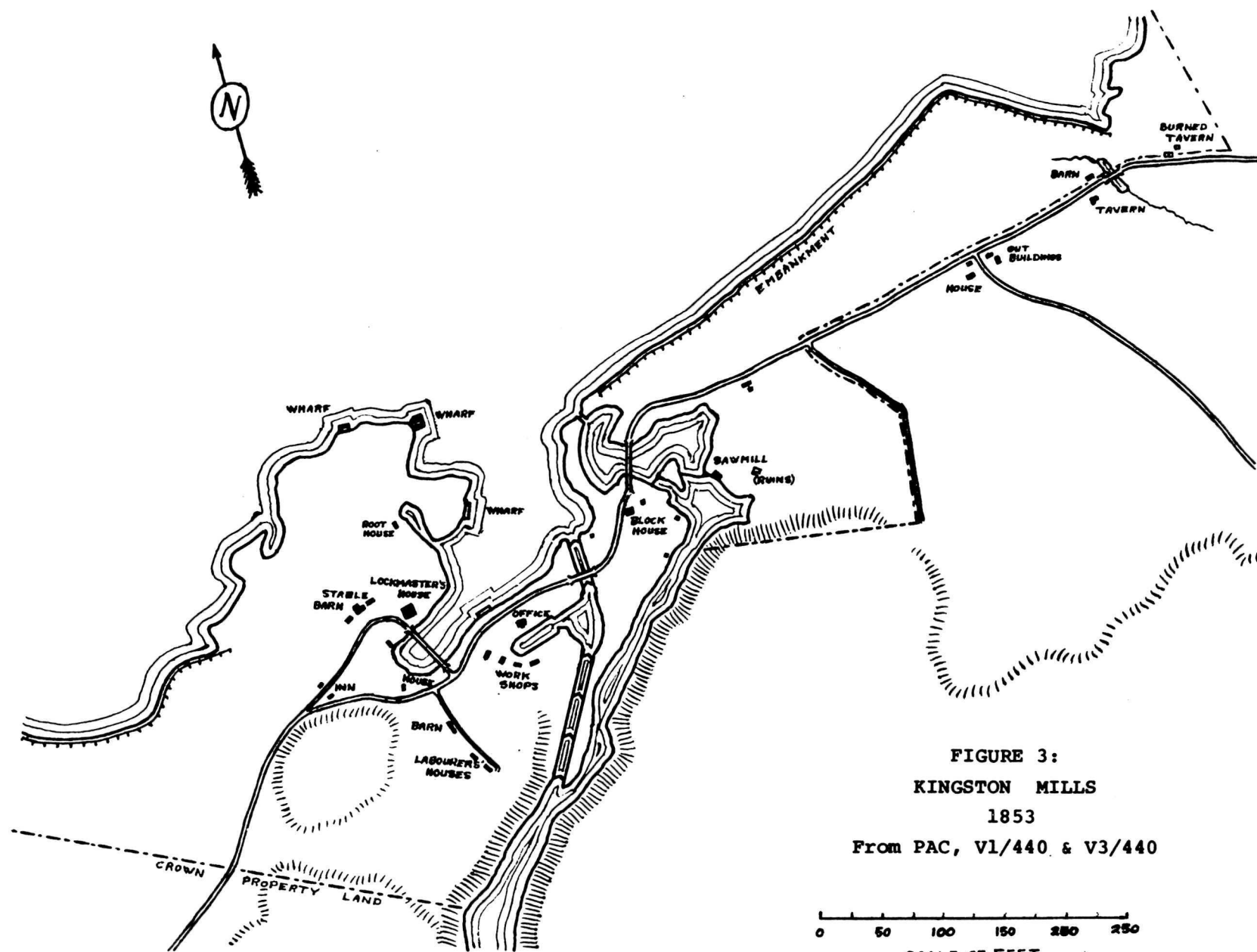
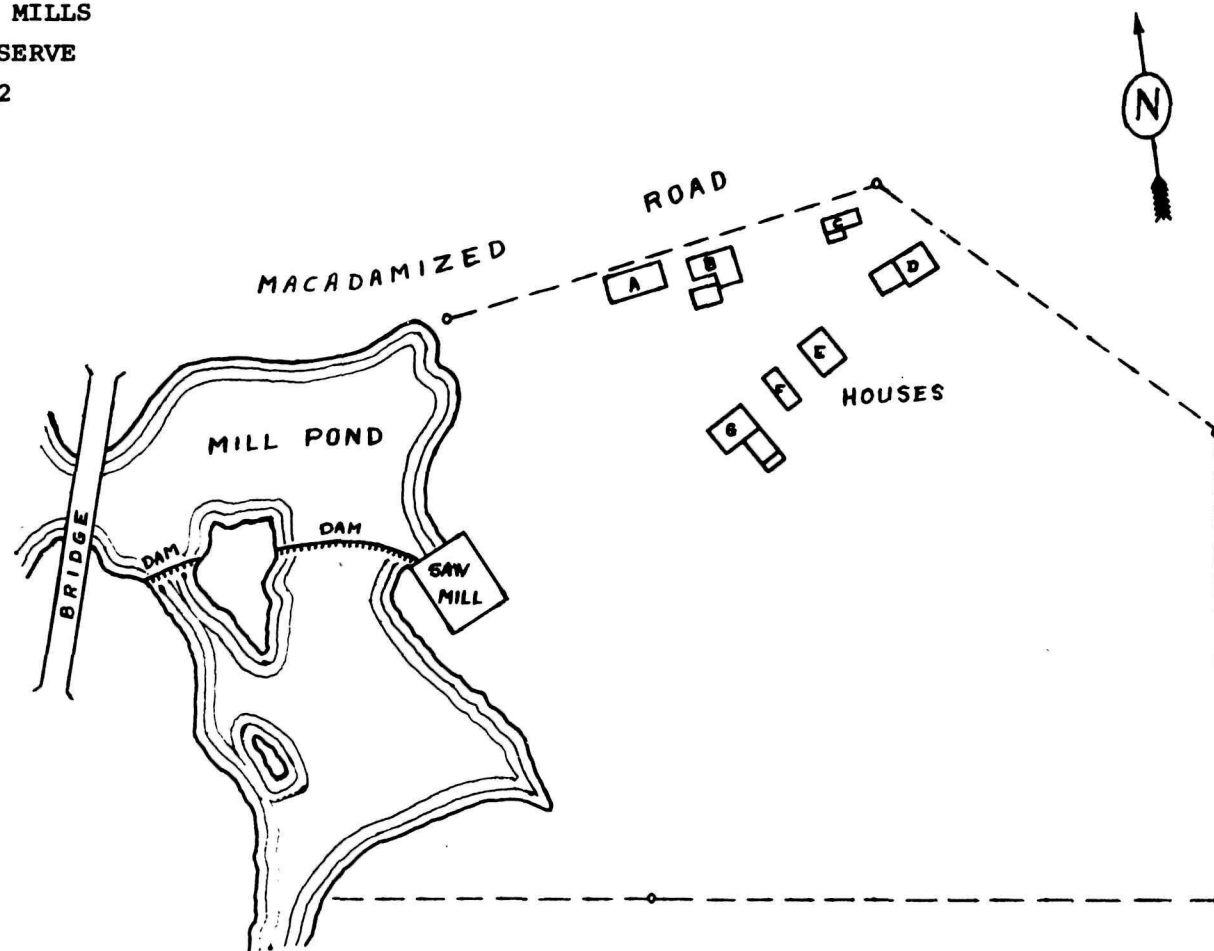


FIGURE 3:  
KINGSTON MILLS  
1853  
From PAC, V1/440 & V3/440

FIGURE 4  
KINGSTON MILLS  
MILL RESERVE  
1862



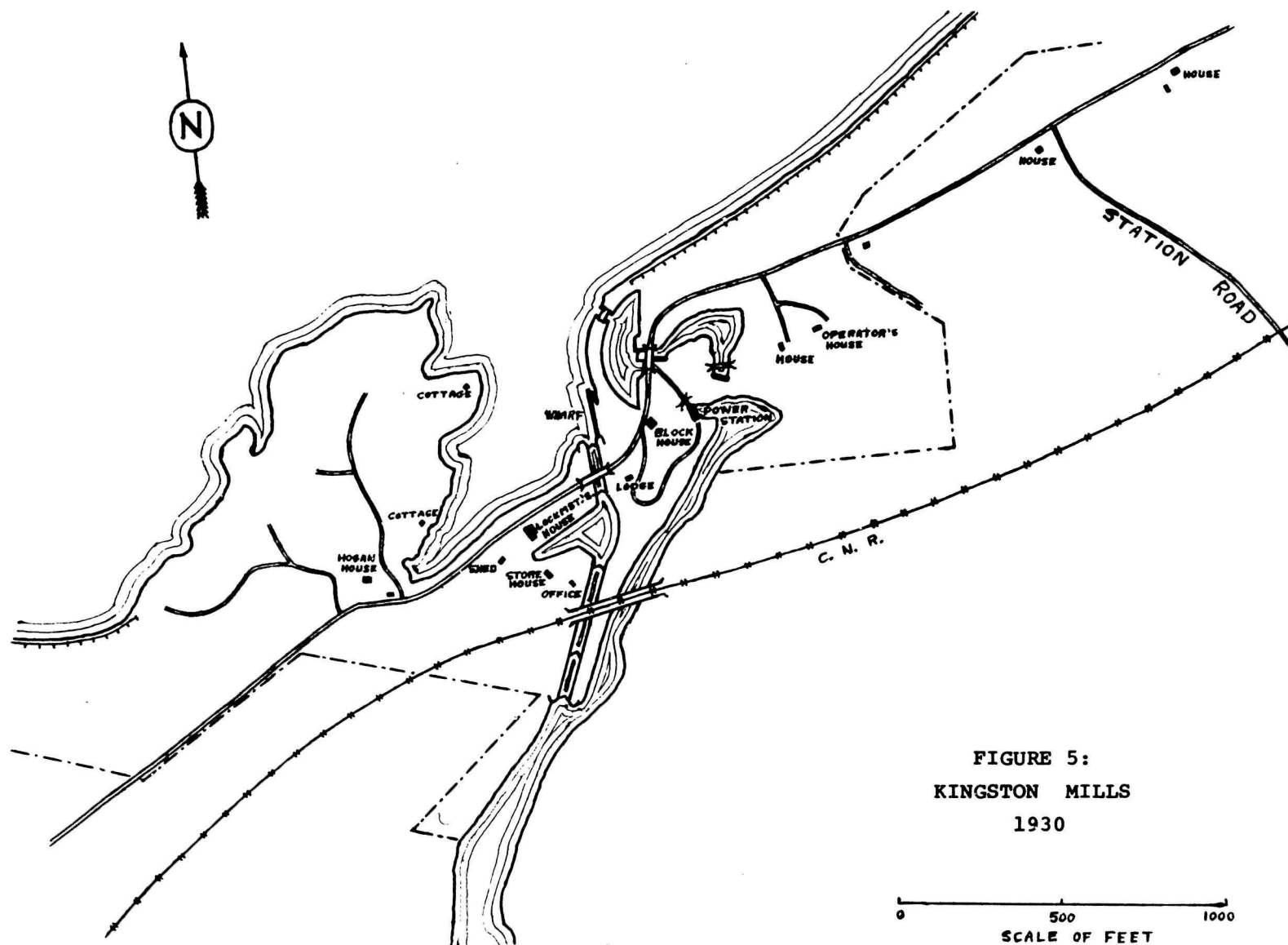


FIGURE 5:  
KINGSTON MILLS  
1930

