THE ROLE OF THE RIDEAU WATERWAY, 1826-1856

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Submitted to the Department of History of the University of Toronto in partial fulfilment of the requirements for the degree of Master of Arts, September, 1965.
TO MY GRANDFATHER, P. W. BROWN,

who will mark his one-hundredth birthday on November 11, 1967. He was born in the Rideau lakes area and has maintained an active, life-long interest there that has inspired many lives.
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This is a study of the significance of the Rideau canal in Upper Canada, from its initial planning as a British military project in the years after the War of 1812, through its heyday as a vital transport route between Montreal and the Great Lakes after its completion in 1832, to its commercial collapse in the later 1840's, and abandonment as an imperial military communication in the following decade. It is, indeed, a significant story. Yet it has been largely neglected before.

It would seem that the Rideau waterway of old Ontario has lived up to its name. The French word "rideau" means curtain. And that word, in turn, might well imply concealment. The connotation, in the physical sense, is perfectly apt. "Rideau", after all, was the name first given, by early fur traders, to the falls of that river, because they tumbled like a pair of great, silvery curtains, almost forty feet into the Ottawa river. Yet the potential of this water route that could link the Ottawa to Lake Ontario remained hidden. Inland, in the lake district of the Rideau, the irregularities of the shorelines and the countless wooded islands together concealed numerous bays and inlets. Hence the very expanse of the waters of the Rideau was shrouded. After the
canal was built, the massive stones of its locks and dams were but tacit, superficial reminders of all the challenges and trials behind its construction.

From the historical point of view, moreover, the name "Rideau" has proved to be appropriate. For much of the role of this British military canal, particularly in its first twenty years, has been veiled in present times. Some recent writers view the canal primarily as a military work and refer, only in passing, to its significance to its local region.¹ Most agree that the waterway was of little use to the merchants of the Canadas. Indeed, Easterbrook and Aitken, in their economic history of Canada, state categorically that the Rideau was never of great importance as a commercial route.² Yet the record of the canal in the 1830's and 1840's most emphatically rejects the validity of such a statement. In fact, Creighton pointed the way when he suggested in his classic study of the commercial empire of the St. Lawrence that the Rideau was of considerable commercial significance in the transport of goods to Upper Canada.³

Why should so much of the value of the Rideau canal have become concealed or misrepresented in current writing? There are, I believe, several reasons that account for this enigma. Most simply, the subject has not been made the centre of any detailed, scholarly study heretofore. R. F. Legget, in his interesting, popular account of the canal from its origin to the present, does not pretend to present a thorough exami-
nation of those years before the completion of the chain of canals on the upper St. Lawrence, when the Rideau was the vital link in the only canalized route, via the Ottawa, between Montreal and Upper Canada. Considering the scope of his work, however, this omission is quite justifiable.

Most of the historical work on this era in Upper Canada has been concentrated on the stirring political events: the ferment of reform in the 1830's, followed by the distress of the rebellion period and the hopeful, new venture of the Canadian union in the 1840's. Unavoidably, these developments have combined to hold the attention of most scholars, and therefore conceal the commercial role and social effects of the Rideau waterway. Then, too, from the economic side, the constant drive in this period to canalize the St. Lawrence (despite the existence of the interior route) has further hidden from our view the most important contribution of the Rideau to the through trade of the Canadas.

Far from illuminating its role, furthermore, the canal was harshly and unfairly judged by some writers in the 1850's, immediately following its first and greatest years of usefulness. It is noteworthy, also, that many of these criticisms have found their way into subsequent writings and, inevitably, into textbooks. The Rideau was denounced by T. C. Keefor, the noted hydraulic engineer, in a prize essay in 1850, because it had "diverted public attention for some time from the idea
of improving the main channel. Yet the very fact, as Keefer admits, that it was the centre of public attention, is an indication of its contemporary utility. At the same time, the evidence at hand does not support the view that the existence of the Rideau-Ottawa route was a decisive factor in delaying the construction of the canals on the upper St. Lawrence. The Rideau was also condemned by Keefer as an "absurdly insignificant" navigation. But it was not. Throughout the period, the capacity of its locks proved to be more than adequate for all vessels in the interprovincial trade. Indeed, larger steamboats and barges were specifically built for the Rideau canal.

Another contemporary, John Gordon Brown, brother of George Brown of the Toronto Globe, and subsequently its editor, shared Keefer's opinion that the waterway had failed, bemoaning the fact that it had not "accomplished its design" as the great east-west transit. This view not only neglected the fact that the Rideau was designed as a military communication, but it also misinterpreted its part in the through trade of British North America. To be sure, the Canadian transit system did not compete favourably with that of the Erie canal, organized at New York. But there are surely many reasons for that lack of success. There is certainly no need to see the Rideau, a most useful part of the Canadian system, as a scapegoat for all the inherent weaknesses of the commercial empire
centred at Montreal.

It may appear incongruous that the criticisms of writers such as Keefer were voiced so soon after the most vital commercial role of the Rideau had lapsed, on the completion of the St. Lawrence canal route in 1847. It is the more surprising that such views should have been adopted by many in succeeding generations. For, in those near contemporary days, they can at least be understood, if not accepted. The Keefer interpretation, without doubt, reflects the despair and frustration of the 1847-50 period: the abandonment by Britain of the old colonial trading system and the consequent failure of the empire of the St. Lawrence. Also, Keefer himself was the first to admit — in keeping with many of his day — that he had no sympathy at all with the military objectives that had inspired the building of the Rideau canal. Thus, his views on the waterway provide another example of the perils and fallacies that accompany the advantages of hindsight.

Decidedly, the role of the Rideau should not be judged apart from its times. And the available contemporary evidence clearly shows that, in the era before the close of the 1840's, the canal was not thought of as ill-conceived or insignificant in any sense. For one to have said this at that time would have been as foolish as someone who today would reject the St. Lawrence Seaway as insignificant; perhaps more so,
since transportation by water was relatively more essential in
the first half of the nineteenth century. In the words of
Sir F. B. Head, lieutenant-governor of Upper Canada in 1836:
"It is impossible not to admit that there are few public undertakings more conducive to the general advancement of a new
Country than those which have for their object the opening of communications between its remote districts, and the improvements of its natural resources for trade and commerce." The typical contemporary assessment of the Rideau was that it afforded most significant and "beneficial advantages" to the commercial and agricultural interests of the Canadas. "Every man is convinced of its utility and productiveness", wrote the editor of the York Observer in 1827. The "benefits arising from it must be very obvious", remarked a British traveller of that period in a statement characteristic of his fellows.

This thesis, therefore, attempts to analyze the usefulness of the waterway, chiefly through the fifteen years following its completion in 1832, before the St. Lawrence route was made practicable for up-bound steamers drawing large barges (100-200 tons). Its main concern lies with the accomplishments of the canal, primarily as a vital artery in North American trade. But there are two other aspects that merit some consideration. The Rideau's value to the development of the eastern old Ontario region cannot be neglected. And it
would be to distort its history if recognition were not given
to its strategic military role. This, moreover, was the
anomaly behind its entire story -- a British military canal
which served the commercial needs of inland North America.
The benefits of the waterway may not be as "obvious" to the
mid-twentieth century observer as so many of the early nine-
teenth century British travellers suggested; but its weak-
nesses -- unduly dwelt upon by the detractors of the canal --
have remained evident. For instance, it was manifest that
the Ottawa-Hideau line of communication was circuitous com-
pared with that of the upper St. Lawrence; and more locks were
necessary to navigate it. Furthermore, the locks at
Grenville on the Ottawa were smaller than the others on the
Rideau, thus forming a bottleneck in the system. In addi-
tion, one forwarding company held an effective monopoly for
the first nine years of the waterway through its ownership of
the lock at Ste. Annes -- just west of Montreal. Any assess-
ment of the Rideau route must therefore take these, and other,
drawbacks into account. Nevertheless, they can in no way deny
its essential utility.

Finally, it should be noted, in conjunction with this
analysis, that there are various standards by which to judge
the canal's real value. Both from the British and Canadian
points of view there is its fundamental military purpose to
be kept in mind. The question of whether the canal was worth
its large financial outlay for the sake of defence was chiefly relevant from the British viewpoint, however. Except in so far as this question influenced the management of the works by the imperial government, it mattered little to Canadians whether or not the waterway could show a profit. After all, in its through trade and in its effects on local development, they benefited in any case. Repeatedly, however, the debate over problems such as tolls, as imperial authorities sought to make the project pay its way, would reveal the importance of the canal. But truly, however judged, the Rideau canal was and remained a magnificent contribution from British sources for imperial defence — but notably to the economic betterment and social development of Upper Canada.

The preparation and present form of this thesis owes much to others. The kind assistance over the past four years of the staffs at the Toronto Public Reference Library, the Ontario Archives and the Public Archives of Canada is most appreciated. I would like to express my thanks also to Mr. E. C. Beer of the Archives Department of the Douglas Library at Queen's University for his co-operation, to Mr. Edmund Tett of Newboro, who lent me the requisite material from his collection of his grandfather's papers, and to Mr. T. Laydt at the Dominion Archives for his help in selecting the accompanying maps.

I am grateful, too, for the interest and support of
my family and friends. In particular, I have a deep sense of gratitude to my mother, my wife and Miss J. Ford who accepted the thankless task of typing, respectively, research notes, rough drafts and final copy. Their patience and forbearance was essential. Finally, and most of all, my sincere thanks to Professor J. M. S. Careless of the University of Toronto for his constant encouragement and his good-natured advice and constructive criticisms. I am indeed fortunate to have benefited from one who is at once a first-rate scholar and teacher. Despite the invaluable assistance from so many, the inevitable mistakes that remain are entirely my own responsibility.

August, 1965

R. B. Sneyd
ABBREVIATIONS

The following abbreviations are used in the Notes and the Bibliography:

C : C. Series, Canals.
C.O. : Colonial Office.
C.H.R. : Canadian Historical Review.
G : G. Series.
O.A. : Ontario Department of Public Records and Archives, Toronto.
P.Sec. : Provincial Secretary's Correspondence.
Q : Q. Series.
Q.U. : Queen's University.
R.O. : The Respective Officers of His Majesty's Ordnance Board at Canadian Headquarters.
W.O. : War Office.
NOTES TO PREFACE

1 See, for example, G. Stanley and R. Preston, A Short History of Kingston as a Military and Naval Centre (Kingston, 1950), pp. 18-9; G. M. Craig, Upper Canada, The Formative Years, 1784-1841 (Toronto, 1963), p. 153.


3 D. Creighton, The Empire of the St. Lawrence (Toronto, 1956), p. 197.

4 R. Legget, Rideau Waterway (Toronto, 1955), see especially, pp. 84-92.


7 Keefer, Canals, p. 15.

8 Q/337 (Part 2, 1119), pp. 444-6, Sir F. B. Head to the Colonial Office, March 13, 1836.

I

A CANAL IN THE WILDERNESS

1

We met Eight Falls in a Distance of a Mile, from 4 to 10 Feet each, and the River Divided by several Rocks and Islands forming very convenient places for Mills.¹

Thus runs the first written account of what was destined to become one of the major sites on the Rideau canal, known eventually as Smiths Falls. It was visited in the early fall of 1783 by a small party of British soldiers, under a certain Lieutenant French, sent to survey the area south of the lower Ottawa river with a view to future settlement by Loyalists and soldiers. They paddled their way from the Ottawa up the Rideau river to its headwaters, and thence down the "Gananoucoué" to the upper St. Lawrence. French's report of this venture in the wilderness -- heretofore traversed only by Indians -- is the first record we have of the passage which one day would form the greater part of the Rideau route. While no immediate, official action was taken on his findings, it was at least clear that the Rideau provided a feasible means of navigation between the two great rivers.

In truth, nature had bountifully provided for the creation of a navigable waterway through the eastern reaches of old Ontario, to link the Ottawa with the upper St. Lawrence and Great Lakes. The Rideau river drained a network of in-
land lakes, and flowed northeasterly through virgin forests for about sixty miles. At that point it joined the Ottawa river, practically opposite the mouth of the Gatineau, another tributary of the Ottawa. The lowest five miles along the Rideau river posed formidable barriers to navigation, however. In the first place, it tumbled abruptly almost forty feet at its confluence with the Ottawa. To the early fur traders paddling up the Ottawa, these falls appeared to drop like a pair of giant curtains, so they called them: "Rideau". In a real sense, too, these "curtains" not only blocked early navigation through the Rideau's lands, but also veiled from the white man the potential of this inland waterway. Secondly, in addition to the precipice at the falls, the Rideau dropped an additional eighty feet from the head of the Hog's Back falls, in the last five miles of its course. Moreover, this area was one of gullies and swamps, and covered with almost impenetrable forests.

Up-river from the Hog's Back falls, however, the Rideau flowed more gently as it wound its way through the wilderness across an upland plain. Although there were occasional rapids where the river dropped as much as twenty-five feet, its over-all descent was only about 158 feet during the remaining fifty-five miles of its course.

Several tributaries joined the Rideau: notably, the Goodwood (or Jock) river from the west, the South Rideau (or
Kemptville Creek), and Irish Creek from the south. Then, near its headwaters, the nature of the Rideau changed abruptly, as it passed over an outcropping of the Precambrian Shield. One early visitor thus described the consequence: "these Falls became as appalling as any to be met with; they fall over beds of hard bastard rock, 36 feet in less than one quarter of a mile." A short distance above this location (now Smiths Falls) the river flowed out of the Rideau lake.

The Rideau lake, largest of the entire region, stretched for twenty-two miles to the southwest. Its bold, forested shoreline, its innumerable bays and inlets, and its scores of wooded islands combined to make a picturesque expanse of water that was typical of the Rideau lakes district. Indeed, the waterway was blessed with an abundant water supply. Flowing from the west, off the Shield, were three distinct lake systems which fed the Rideau lake: the Tay river, draining an extensive watershed from Bobbs lake, Black lake, and the Wolfe lake system. At the southwestern end of the Rideau lay a narrow height of land, that was less than two miles wide at one point, later known as the Isthmus. This was the watershed of the route.

On the other side of it, a chain of lakes continued southwesterly in an almost unbroken succession for about thirty-five miles. They formed the headwaters of both the
Gananoque and Cataraqui rivers, which flowed into the St. Lawrence system. The latter tributary finally emerged from the Shield for a short distance to enter Lake Ontario at the site of Kingston, where the upper St. Lawrence and Great Lakes joined. Again, the Cataraqui was well provided with natural reservoirs of water. The Devil, Buck, Rock and Loughborough lake systems all drained into it from the Shield area (the Frontenac Axis) to the west. Considering its length, however, the slope of this waterway was quite steep. As compared with that on the Ottawa side, its fall was 160 feet.

There were, moreover, several hazards that would challenge any attempt to make these systems into a navigable water route. A considerable excavation would have to be made across the wilds of the Isthmus. Then there was the extensive bog of Cranberry marsh; and, more than any other location, it held the unseen dangers of the dreaded swamp fever. At Jones Falls, the stream that drained Sand lake tumbled sixty feet in less than a mile through a deep, rocky gorge. This, too, was characteristic of the formidable undertaking that would defy man, if he attempted to canalize the waters of the Rideau-Cataraqui valleys. Throughout the route, then -- in stark contrast to all its notable natural assets -- lay the attributes of a hard challenge. Still, as the early report by French’s party had suggested in 1783, a
canal through the wilderness of the Rideau was certainly practicable.

The achievement of American independence in that year of 1783 ipso facto created a problem of defence for the interior of the remaining British North American possessions. Now there was a border that might have to be defended. And this would give strategic significance to the Rideau route. Yet, although a water communication from Montreal to the Great Lakes alternative to, and remote from, the line of the upper St. Lawrence was feasible, the idea of a Rideau canal lay dormant for three more decades. During this period Britain was primarily concerned with her own problems elsewhere: above all, with those presented in Europe by the French Revolution and the rise of the Napoleonic empire. Meanwhile, the North Americans on both sides of the border were mainly interested in internal developments.

The whole question of the defence of the interior sharply emerged with a new crisis in British-American relations -- the War of 1812. Invaded by her hostile neighbour to the south, the security of the young province of Upper Canada depended on the ability of Britain's military forces to reach the Great Lakes, for the control of the Lakes was essential to the defence of the interior above tidewater. In this regard, a noted military historian, C. P. Stacey, has aptly summarized the inherent strategic drawback of the St.
Lawrence for the defenders of Upper Canada: "Their fighting front and their one essential line of communication were actually one and the same." Yet the Americans failed to exploit British weakness on the St. Lawrence from 1812 to 1814. This was a grave tactical error. Sir James Yeo, the commander of the British fleet on Lake Ontario, recognized that much was owed to the "perverse stupidity of the Enemy; the Impolicy of their plans." It was clear in the last months of the war, however, that the Americans were planning to cut the vital British supply line to Upper Canada. James Monroe, the American Secretary of War, fully expecting a new campaign in 1815, wrote:

the great object to be attained, is to carry the war into Canada and to break the British power there . . . I think we may enter Canada and gain a decided superiority next spring . . . It seems probable, however, that if we secure the landing of a great force, and beat them completely in the field at any point between Kingston and Montreal . . . we shall be able to drive them into Quebec.10

Only the coming of peace prevented the fulfilment of this plan. But the United States had a ready-made scheme of attack in the event of any future conflict with British North America.

Moreover, throughout the War of 1812 -- and quite apart from the serious American threat -- the inadequacies of the upper St. Lawrence for the expanding interior traffic were painfully obvious. The rapids greatly impeded navigation; it took upwards of two weeks to travel from Montreal to
Kingston. Thus the expense of the St. Lawrence route was alarming, now that much more than the canoes of the fur traders traversed it. About 1814, it cost £30,000 to send one brig (shipped from England in pieces) from Montreal to the upper province; even the transportation charges on a twenty-four pound cannon were nearly £200. By 1815 the freight charges to the inland province amounted to £4 a ton. Sir F. Robinson, the British Commissary-General in Canada, showed his concern for this problem:

The difficulties experienced in the transport of Stores and Provisions during the last Season for the construction, armament and equipment of His Majesty's Ships on Lake Ontario, and for the Supply of the Troops in Upper Canada, imperiously demand that means be promptly devised for a more certain conveyance of the innumerable Articles necessary for maintaining in that Province the great, and increasing Naval and Military Force requisite for its defence.

As a result of this grave situation, some alternative route to the St. Lawrence had become essential, not only for the most pressing strategic reasons, but also to facilitate and cheapen the vital communication lifeline to Upper Canada.

The War of 1812, then, had revealed the fundamental flaws in the navigation of the upper St. Lawrence. Informed British officials on both sides of the Atlantic were perfectly alive to the perils of the situation; a back-country communication was imperative. Early in 1816 Lord Bathurst, the Secretary of State for War and the Colonies, informed the lieutenant-governor of Upper Canada, Francis
Gore, that, "His Majesty's Government are most desirous that the preparatory measures should be taken for the performance of this important Work." The Commanding Royal Engineer in Canada, Colonel G. Nicolls, was consequently instructed to report on the Rideau project. As a result, Lieutenant Jebb of the Royal Engineers surveyed the Cataraqui-Rideau valleys in the spring of 1816. He confirmed the fact that a navigable waterway was feasible. Furthermore, he encouraged settlement of the Rideau valley. He also recommended that a forty mile strip of wasteland be left on the St. Lawrence frontier to act as a buffer area for the canal zone against the threat of American invasion.

In the post-war period British settlement policy for Canada (inspired by Bathurst) embodied these ideas. Its aim was to strengthen the loyal population of Upper Canada; settlers were directed to areas of military importance — particularly those locations near the line of the proposed canal. The foundation of the settlements at Perth (on the Tay river) and Richmond (on the Jock river) in 1816 was a classic example of the application of this strategic factor. Thus the nascent British defence policy for Upper Canada — the concept of a second line of communication remote from the frontier — was integrally bound up with its early endeavours to propagate new colonies of loyal settlers.

In the decade after 1814, as Stacey has pointed out,
every officer concerned with Canadian defence recognized the supreme importance of a waterway entirely independent of the upper St. Lawrence. The lessons of the war had been well learned: the fundamental problem in inland Canada's strategic position was fully realized. British officials set about to overcome the extreme vulnerability of their North American empire. Work on the Grenville canal on the Ottawa was commenced in 1819 by the Royal Staff Corps. In 1824 the home government contributed £12,000 toward the Lachine Canal -- an essential link in any east-west waterway.

More than any other person, the Duke of Wellington bore witness to this keen British interest in Canadian defence. In 1819 this famous general of the Napoleonic Wars was appointed Master-General of His Majesty's Ordnance, a position which he held until 1827. He also had a seat in Lord Liverpool's cabinet. In 1819 he emphasized to Bathurst the importance of a safe and speedy communication to Upper Canada, remote from the frontier. The Lachine and Ottawa canals were not enough; the Rideau river, and the lakes through to Kingston, should be canalized. In the same year, Bathurst officially requested that Wellington report on the defences of Canada, "more particularly with the view of arranging the line of defence and communication from Montreal to Kingston . . . and the completion of the Rideau Canal".
This investigation, however, was delayed. Perhaps this was owing to the fact that the Upper Canadian legislature soon began to look into the possibilities of constructing the canal on its own. In any case, it was not until 1824 that the Master-General of the Ordnance despatched a military commission to report on the defence of British North America. It was led by Sir James Carmichael Smyth, a veteran officer of the Royal Engineers and a full Colonel in 1825. It also included two fellow Engineers, Lieutenant-Colonel Sir George Hoste and Captain J. B. Harris. These officers considered that an interior canal was essential to the maintenance of Kingston -- which in turn was a vital naval and ship-building centre -- since "that power that has the best naval establishment and is most active in forwarding seamen and supplies must command Lake Ontario." The commissioners held out little hope in 1825 for Canadian financial aid for the military waterway: "Excepting it is undertaken by His Majesty's Government we are afraid it will never be executed." They therefore urged Britain to take forthright, unilateral action.

While such a viewpoint was undoubtedly justified in 1825, there had been a genuine, indigenous movement for the Rideau canal since 1815, that had developed concurrently with the powerful agitation that had come from the British military authorities. This drive was partly the result of
the post-war settlements in the Rideau valley. The colonies of disbanded soldiers centred at Perth and Richmond provided important nuclei for subsequent settlement in the Bathurst district. But the primary interests of these hardy settlers were certainly not those of defence. They had to eke out their livelihoods in a land that was still largely a wilderness. William Bell, the Presbyterian minister at Perth, emphasized the significance of good roads and water communications in the development of these interior communities. Voicing the hopes of this pioneer region, he wrote that a canal "will greatly improve the country, employ a great number of hands, and afford a ready means of conveying the farmer's produce to market". Local roads were still barely passable, so much as to discourage many would-be travellers. Without doubt, these local inhabitants eagerly looked forward to the construction of a canal through the Rideau's lands.

Moreover, civil officials in Upper Canada were also interested. Quite independent of any pressure from Britain, the Upper Canadian legislature in 1821 appointed a commission to survey the possibilities for the improvement of internal navigation in the province. The chairman was John Macaulay of Kingston. During these investigations, which took almost four years, the commission appointed a civil engineer, Samuel Clowes, to report on the Rideau. In
April of 1825, having received the reports of the commission, a joint committee of the Legislative Council and Assembly expressed its feelings on the Rideau:

That a Canal from Kingston to the Ottawa River would, in the event of war not merely diminish beyond measure the charge of our defence, but render its success greatly more certain, admits of no doubt. In the event of a war protracted as the last, the safety and the saving of transport conducted by such a channel would, it is believed, fully compensate to the nation the charge of the improvement, and it is most evident that to give full effect to the sound and liberal policy which has created the military settlements on the Rideau... and which is now surmounting, at a considerable expense, the interruptions of navigation on the Ottawa, it is necessary to perfect the water communication removed from the enemy's frontier and leading in truth from the ocean to Kingston, which is the key to Lake Ontario and the principal military station in the province.27

To the politicians of Upper Canada, then, the Rideau was considered primarily as a military work. The assembly agreed with the joint committee that it was most imprudent to count on a long continuance of peace. They both resolved that the Rideau canal would prove the best means of defence in an American war.28 One member of the House wrote that there was much opposition of the Rideau from a section "tainted with the democratic", whose only motive was to cancel the great security that the waterway would give in the event of war.29 The military factor was widely appreciated. Yet Upper Canada refused to build the canal. It rejected a British offer in 1825 of a loan of £70,000 towards its construction.30 Defence, after all, was a matter for Imperial
concern. Despite this view, however, though politicians might sympathize with the desires of the local settlers of the Bathurst district, it was surely the commercial preference for the development of the St. Lawrence that caused the legislature to oppose the Rideau as a Canadian project.

Clearly, the construction of the Rideau canal depended on the mother country. The Canadian rejection, coupled with the urgings of the Smyth commission, spurred the British government to action. Wellington was favourably impressed by Smyth's report which, to be sure, was very much in line with the Duke’s own concept of North American defence. Hence, strategic considerations -- and influential military men -- provided the vital impetus for building the waterway. The long-standing British interest in the Rideau had thus been brought to a head. The government decided to proceed. Early in 1826, Lieutenant-Colonel John By of the Royal Engineers was appointed by Wellington and the Ordnance Board to superintend the construction of the Rideau canal. Britain would assume the entire expense. The Smyth commission, on the basis of Clowes' ridiculously unrealistic estimates, had suggested that £169,000 would suffice. It was to be a great example of imperial building, that would finally cost about £800,000 -- the most expensive military work ever executed by Britain in North America.
It had been forty-two years since the party of explorers under Lieutenant French had stroked their canoes along the Rideau; and, except for a few scattered settlements, the wilderness had not changed noticeably since that time. In a few short years, though, steamboats would be puffing their way through the towering, pine forests in the heart of old Ontario.

II

Since the Rideau canal was an imperial project intended primarily for defensive purposes, Colonel By worked under the immediate authority of the British Ordnance Department. This close relationship between the Rideau and the Ordnance was significant, for it was a constant expression of the military bond that tied the canal to Britain for the three decades. And it would have a profound effect on the maintenance and development of the waterway. Repeatedly, it would be brought to the attention of senior British officials that, because of its military nature, the Rideau must be entirely controlled by the imperial government.

So important were the relationships between the various British authorities, the Ordnance, and the administration of the Canadas, in regard to the canal, that they justify explanation at the outset. Some understanding of the chain of authority that bound the waterway to Britain from 1826 to 1856
is essential throughout that period. Surprisingly, during that time, an era of widespread political, social and economic reform, there were few changes in the organization and administration of the British military forces. The old concept that the army was under the crown, not parliamentary authorities, was still dominant. Admittedly, the Secretary at War presided over a purely civil department that was responsible for military expenditures, and was, theoretically, the ultimate authority over cavalry and infantry. Also, the Secretary of State for War and the Colonies was the minister responsible for military policy, although most of his time was usually taken up with the colonies. And the Treasury controlled the Commissariat, which supervised military supplies and transport. In addition, however, there were at least seven other departments, with distinct spheres of authority, that were largely independent of parliament.

Two of these were most significant. The Commander-in-Chief at the Horse Guards was in charge of a purely military department; he was the King's chief military officer, and was the real head of the cavalry and infantry, responsible for discipline and promotion within those ranks. Similarly, the Master-General of the Ordnance was a powerful and relatively independent figure under the crown. He was in charge of the Royal Engineers, the Royal Artillery and firearms. In these capacities he was a responsible minister.
of finance. Since it was a separate military jurisdiction, his board had its own financial estimates to lay before parliament. Furthermore, he advised the government on military affairs and frequently held a seat in the cabinet. In fact, the office of Master-General was one of the oldest constitutional departments of the monarchy, dating from the fifteenth century.\textsuperscript{35}

To be sure, this intensely decentralized system was cumbersome and fraught with unbelievable divisions of responsibility. But the system was maintained until 1855. Military men, led by the Duke of Wellington, successfully defended it against two attempts (in 1833 and 1837) to centralize it under the Secretary at War and enforce absolute parliamentary control over its financial powers. Wellington stoutly upheld the independent position both of the Commander-in-Chief and the Master-General.\textsuperscript{36} Considering this frank dualism between military and civil command and the chaotic administrative divisions, perhaps it is a wonder that the Rideau canal in distant Canada could ever be built by such authority. Yet, somewhat paradoxically, it was the very power and influence of the Master-General and his Board that in large measure had justified its construction, would complete it, and would maintain it for thirty years.

In addition to the Master-General, the Ordnance Board was composed of a small group of senior military offi-
cers. For example, the Inspector-General of Fortifications, selected by the Master-General, was a senior Royal Engineer in charge of the plans, estimates and repairs of all military construction. The historian of the British army, J. W. Fortescue, makes particular mention of the fact that the Board, together with its civilian officials, was highly respected as a model of efficiency and economy. Throughout the years of its administration of the Rideau canal, of course, the Ordnance co-operated with the Treasury and the Colonial Office, and their subordinate officers in the Canadas. Meanwhile, the Board had its own counterpart at Quebec (later at Montreal). This branch consisted of a Commanding Officer of the Royal Engineers in Canada, a Commander of the Royal Artillery and an Ordnance Storekeeper. These so-called "Respective Officers" were responsible only to the Ordnance Board in London. Subsequently, a similar board of Respective Officers was established at Bytown for the Rideau canal; it was usually in close contact with the superior board at Quebec, but frequently reported directly to London.

Thus the Ordnance Department would have a high degree of autonomy in its supervision of the military waterway. But, for practical reasons, the Canadian Ordnance co-operated as fully as possible with local authorities, such as the Commander of the Forces and the lieutenant-governor of
Upper Canada or, after 1840, the governor-general of United Canada. In the years after its completion, as the Rideau came to play a vital role in the commercial life of Canada, the relationship with the Upper Canadian government became increasingly important. The need for close co-operation was especially necessary when it came to setting tolls for the canal, since both the Canadian (mercantile) and British (Ordnance) interests were at stake. In fact, the lieutenant-governor established all tolls by Royal Proclamation, after consultation with the Ordnance.

Co-operation between the local government and the Ordnance was evident from the outset, however. On February 17, 1827, the Canadian legislature passed the Rideau Canal Act: "to confer upon His Majesty certain powers and authorities, necessary to the making, maintaining and using the Canal". This was the essential legal basis which gave Britain and the Ordnance various powers: to explore and alter the route of the canal, to occupy the necessary lands, and to make all arrangements for contracts and construction. One clause specifically guaranteed that the waterway should be open for anyone to use, upon payment of the rates established by His Majesty. Thus the legal path was cleared for Colonel John By to commence the actual building of the Rideau canal.
Colonel By arrived at the falls of the Rideau river in the autumn of 1826. As much preparatory work was necessary first, he did not begin construction until 1827. For six years By laboured with diligence and integrity as the Commanding Royal Engineer on the canal. He was as well qualified by experience as by character for the task. A graduate of Royal Military College, Woolwich, he had joined the Royal Artillery and had later transferred to the Royal Engineers. Following nine years of engineering experience in the Canadas (1802-11), he had served with the Duke of Wellington in the Peninsular War. Under John By's direction, against the formidable obstacles of climate and topography, 24 dams and 47 locks were constructed in the wilderness of the Rideau-Cataraqui valleys. Responsible for one of the most remarkable engineering feats of the time, he faithfully fulfilled the trust of the Ordnance Department.

Throughout its course, the new waterway became a nice blend between man's ingenuity and the natural surroundings. In fact, only about eighteen miles of artificial canal were required along the 124 mile route. The bountiful supply of water provided by the many interconnected lake systems was essential to the entire undertaking. Nevertheless, it was the skill of the engineers that uti-
lized all the assets bestowed by nature and overcame the many serious physical obstructions that remained. The nature of the canal was aptly described in the words of its Clerk of Works, John MacTaggart:

The Rideau Canal, when constructed, will be perfectly different from any other in the known world, since it is not ditched or cut out by the hand of man. Natural rivers and lakes are made use of for this Canal, and all that science or art has to do in the matter, is in the lockage of the rapids or waterfalls, which exist either between extensive sheets of still river water, or expansive lakes. To surmount this difficulty, dams are . . . raised, at the bottom of rapids, or sometimes at their head, . . . by which means the rapids and waterfalls are converted into still water.\(^4^1\)

All the dams -- and the locks built to connect the consequent bodies of still water -- were constructed of locally hewn limestone, sandstone or granite.\(^4^2\) This heavy masonry work and the necessary excavations, combined with all the associated problems of canal-building in the wilderness -- and multiplied by the human debilitation caused by the malaria-infested swamps -- confronted By and his men with an almost insuperable challenge which they met with an outstanding achievement.

Particular note might be made of a few of the highlights of their accomplishment.\(^4^3\) The northern entrance to the waterway was cut at Sleigh's (or Rafting) Bay on the Ottawa, a short distance up-river from the Rideau falls. Eight locks, in flight, raised the canal eighty feet; here, Colonel By established his headquarters, which became the
nucleus of Bytown, later Ottawa. Inland, the canal was built across Dow's swamp (much of which was converted into a lake) and ran about five miles to the Hog's Back, where two locks brought it into the Rideau river. This stretch of artificial waterway thus circumvented the tortuous lower reaches of the river.

Some of the more remarkable locations, of course, were those lock stations where the drops were greatest and several locks were required: Long Island, about 26 feet; Merrickville, 25 feet; Smiths Falls, 36 feet; and Kingston Mills, 37 feet. Yet — as the natural surroundings dictated — the works at Jones Falls were, in the words of a contemporary engineer: "the most striking of any on the whole line of communication, both from their wild situation, and their magnitude". A dam was raised 61 feet above the bottom of the gorge; it was 390 feet long at the top, with a wall 12 feet thick; its base was almost 400 feet thick. Nearby, four locks were necessary to carry the canal around this sixty-foot-drop. Truly, this was a most outstanding feat; and it was fully representative of the way in which the builders of the canal proved equal to their problems.

One aspect related to their work which deserves special attention was the question of enlarging the size of the locks. The original instructions, based on Smyth's report to Wellington in 1825, called for locks 108 feet long
by 20 feet wide. Colonel By recommended dimensions 150 feet by 50 feet instead. To him must go the greatest share of the credit for having the locks constructed on a larger scale. He stated his views unequivocally. All existing canals, he maintained, were projected on too confined a scale for the increasing trade of Canada. Furthermore, for military service, steamboats were best suited for navigating the lakes and rivers of North America. He urged that the specifications be altered to allow the building of larger locks, that could pass these steamboats: "It appears self evident, that by forming a steamboat navigation", the Americans would be prevented from making easy attacks on Canada, and Britain would become the "mistress of the trade of that vast population on the borders of the Great Lakes which would serve as so many outlets for British manufactured goods". An imperialist par excellence! Clearly, By was optimistic regarding the commercial future of Canada and the part that canals should play in it. He warned that, "it would be a constant source of regret to construct works too small to pass the vessels best adapted to the navigation and defence of the Lakes."

Sir James Carmichael Smyth did not agree. And he still had considerable influence with the Ordnance, owing to his recent report on Canadian defence. He viewed the Rideau purely as a military work; commercial convenience and advan-
tages could be disregarded. Having read By's proposals, Smyth argued that locks 20 feet wide were perfectly adequate for military purposes. The use of steamboats would only wash away the canal embankments. Colonel By, he said, should proceed at all possible speed with the dimensions already established: "I confess", he wrote, "any additional size of canal appears to me likely to cause a great additional expense without a corresponding benefit." General Gother Mann, the Inspector-General of Fortifications (1811-30), felt that By's zeal was praiseworthy, but he could not agree that the engineer's recommendations were practicable or advantageous. Consequently, By was ordered to proceed as originally instructed. He did so. But he continued to agitate for larger locks.

He expressed regret that Smyth thought that he was lacking in practical knowledge of the effect of steamboats on canals:

The nature of this canal, or rather water communication, between the Ottawa and Kingston, appears to me not clearly understood; in the total distance of 133 miles there will be only about 20 miles of cutting through which a steamboat would have to pass, the remaining 113 miles consist of natural rivers and Lakes with strong banks.

He also reminded Mann that the United States made the St. Lawrence a "precarious highway for our commerce". The Rideau should be made large enough to take scows and rafts, already in use in the St. Lawrence trade. They could shoot the
rapids on the Ottawa, so the smaller locks on that river (at Grenville) would be no handicap. Above all, By stressed that defence depended on rapidity of communication. Steamboats were a great advantage in this respect. Meanwhile, Upper Canadian concern over this debate was shown by the editor of the York Observer. He abhorred the possibility that this "magnificent undertaking", from which the public was led to anticipate such important advantages, had "dwindled into a ditch". The present prospects for the canal were bleak and barren. For without larger locks, he held, the benefits of the waterway would be limited to its local region only. It would be nonsense even to term it a military canal without accommodation for larger vessels that could command the Lakes.

A year later, in 1827, By was still hoping that his superiors would agree to enlarge the locks. It was ridiculous to believe that steamboats would destroy the banks of the canal. He argued that the torrential spring floods in the Rideau -- which raised the water between thirteen and eighteen feet -- "must have washed away from the banks all substances that can be removed and therefore the idea [of Smyth's] of the paddles of steamboats injuring such banks is quite erroneous". Furthermore, most of the cuts were made in rock. Yet the chance that British authorities would approve of By's proposition seemed very slim indeed. Time
was running out, as construction proceeded. Soon it would be too late.

The persistent Colonel even wrote directly to Smyth, reiterating the necessity for steamboats and requesting Sir James to support his plans for larger locks which, By calculated, would cost only £50,000 more. In a letter to Commodore Barrie, the British naval commander in Upper Canada, By maintained that the water supply would be sufficient for bigger locks. He appealed to common sense and denounced the misleading arguments of the critics of the canal as outright "falsehoods". Most important of all, the large lock "appears indispensably necessary for the trade of the country in time of war". Commodore Barrie advised the Lord High Admiral of the urgent need of larger locks. It was the winter of 1828 by now. There was still time to make the change. In pressing it, Colonel By assured Mann that he had no other motive than "the good of my country".

In the end his campaign succeeded. A committee on Canals appointed by the British Ordnance, and consisting of a group of senior engineers, scrutinized all the evidence and decided that By's proposition was worthy of consideration. It recognized the great military advantages which he had stressed. Sir James Carmichael Smyth, also a member of the committee, stubbornly upheld his original plan for locks 108 feet by 20 feet, and filed a minority report in
In the spring of 1828, a similar panel of investigators, known as the Kempt Committee, inspected the works on the spot, and reported in favour of locks large enough to admit a steamboat 108 feet long and 30 feet wide. Consequently, By was instructed to build the locks 134 feet by 33 feet. Admittedly, these dimensions were slightly smaller than his original suggestion. But the arguments presented by the superintending engineer had prevailed.

When the canal was completed, as a result, steamboats could ply the Rideau route. This was a significant practical achievement, not at all a mere academic triumph over reluctant, hesitating British officials. A local observer at Bytown, A. J. Christie, argued that the country owed a debt of gratitude to John By for making it possible to construct the locks on the "present large scale". Another writer commended By for his determination to conduct the work with dimensions equal to the "greatness and utility of the object". In fact, the locks on the Rideau proved to be more than adequate for all vessels and trade for the next twenty years. The subsequent role of the canal was therefore assured because its chief architect had vigorously upheld what was, for the period, a broad and enlightened policy.

Construction of all the various works was completed by the late fall of 1831. The opening ceremonies took place on May 22, 1832, when the steamer Rideau set out from
Kingston on the first official trip to Bytown. Already the Rideau had begun to affect the development of the eastern portion of Upper Canada. By's headquarters, where the canal met the Ottawa river, were being rapidly transformed from forests and swamp into a bustling little town which one day would become the nation's capital. Numerous other small communities in the neighbourhood of the canal were either brought into being or stimulated to new life; and the well established town of Kingston stood ready to act as the main port and gateway to the interior. Throughout the years of construction, moreover, the public works had not only employed skilled engineers and stone masons, but labourers by the thousands. Many of these were pauper emigrants who worked for a while, gained a knowledge of their new country, and then moved on to take up land for permanent settlement. For the older military settlements around Perth and Richmond, the canal brought to their doorstep a ready market for their surplus produce.

Thus the building of the canal contributed to the development of the communities in its immediate vicinity. Further than that, it left its mark on the minds of virtually all those who had witnessed its construction. The Montreal Herald proclaimed in 1827, that the works on the Rideau were "the most stupendous and extensive at present going on in the world . . . and will form a piece of in-
genius art almost without parallel". Indeed, the superb workmanship of its masonry locks and dams -- their magnitude, solidity and beauty -- continued to impress travellers down the years. The Commanding Royal Engineer of Canada, Colonel E. W. Durnford, testified before a select committee of the House of Commons in 1832 that he considered the works to be most substantial and magnificent. Even Archdeacon Strachan and William Lyon Mackenzie agreed on this. All those acquainted with the Rideau, in fact, concluded that it was the "finest specimen of a stone-built canal in the world".

The Ontario historian, Canniff, writing in the 1860's, would complain that By's efforts should have received some special acknowledgement from the Canadas. But, whenever contemporaries talked of the newly built Rideau, they recognized Colonel By's devoted service and distinctive achievement. R. I. Routh, the Commissary-General, asserted that the canal was "full of reputation to Colonel By, for the conception and boldness of the plan and the promptitude of its execution". The Kempt Committee of engineers affirmed, after a thorough investigation, that By had pushed the job forward and "excited a degree of exertion throughout the Department which few individuals could have accomplished". A fellow engineer, Sir R. H. Bonnycastle, termed By's canal one of the most extraordi-
nary accomplishments of human "ingenuity and perseverance" to be found. A public meeting of the citizens of the Brockville area agreed that the rapid completion of the waterway was mainly attributable to the "indefatigable industry and persevering exertions" of its superintending engineer. Many other observers praised By's energies and referred to him as one of the great benefactors of the country. The Upper Canadian House of Assembly lauded the fact that a structure of such magnitude had been built in such a short time. With all the gratitude of informed contemporaries, perhaps there was no need for erecting a monument to John By and his men. In any case, enough reminders already existed. The 47 locks and 24 dams continue to bear silent testimony to the excellence of their work.

Along with these words of appreciation in Canada for the completion of the canal came expressions of thanks to the imperial authorities, coupled with high hopes for its future usefulness. "Never could Britain's capital be expended in a more noble and useful undertaking", declared the Montreal Herald in a burst of enthusiasm, when construction had first begun. This feeling continued to prevail. In 1832 the inhabitants of the districts of Bathurst and Johnstown foresaw,

The great advantages this country must reap from the regular communication now established by that stupendous work; a work which for execution and utility
stands unrivalled and calculated to excite affection and love to the country and its government, whose generosity has bestowed such a lasting blessing upon this Province.\(^4\)

In that same year the citizens of Brockville proclaimed that the Rideau was "a grand consummation of British enterprize and munificence", which displayed imperial solicitude for "the security and welfare of the province". Nor was this mere self-interest; for the inhabitants of Brockville on the upper St. Lawrence could scarcely expect to reap any direct advantages from a waterway that would compete with their material concerns.\(^5\) Truly, the Rideau canal was a product of empire. Within the framework of defence, at least, it was the creation of powerful metropolitan forces centred in London. With the expense (about £800,000) borne wholly by Britain, the Canadas had nothing to do but reap the benefits.\(^6\)

Everyone seemed to accept the fact that the Rideau stood ready in case of a war and that it would prove perfectly adequate for this purpose. But what if there was no war? How far could the hopes of its commercial future be realized? In this respect many prophesied that it would prove to be far more than an advantage to its immediate locality. The Rideau canal, they claimed, would do more for the commercial strength of the Canadas than anything since their conquest.\(^?\) The lieutenant-governor of Upper Canada,
Sir John Colborne, announced in opening the legislature in 1832 that from every side one could expect a "profitable return". The assembly thereupon resolved that the waterway would be "productive of great national benefit". The experience of the following fifteen years, indeed, would go far to fulfill such hopeful predictions.
NOTES TO CHAPTER ONE


3 Legget, Waterway, pp. 37, 233-5.

4 MacTaggart, Canada, I, 135.


7 MacTaggart, Canada, I, 148-50.

8 C. P. Stacey, "The Backbone of Canada", C.H.A.R., (1953) pp. 1, 8-9. The attempts to overcome the deficiencies of the St. Lawrence -- both its rapids and its vulnerable strategic position -- form a large part of Canada's history in the nineteenth century. The Rideau canal, Stacey notes, was one phase of this story, one solution to the shortcomings of the St. Lawrence.

9 Sir J. Yeo to Lord Melville, May 30, 1815, Quoted by C. P. Stacey, "An American Plan for a Canadian Campaign", American Historical Review, XLVI, No. 2 (January 1941), 348; see also Lieutenant E. C. Frome, "Account of the Causes which led to the Construction of the Rideau Canal connecting the Waters of Lake Ontario and the Ottawa; the Nature of the Communication prior to 1827; and a description of the Works by means of which it is converted into a Steam-boat Navigation", Papers on Subjects Connected with the Duties of the Corps of Royal Engineers, I (1829), 73 [hereafter cited as Frome, "Rideau Canal"].


21 Britain, Debates, 1828, pp. 1628-9; also in Kingston Chronicle, September 6, 1828.

22 Sir J. Carmichael-Smyth, Precis of the Wars in Canada, ed. by his son (London, 1862), pp. 200-2. This is part of the report of the Smyth-Hoste-Harris Commission printed originally in 1826 at the request of the Duke of Wellington for official, confidential use only.


26 The report of the Macaulay Commission is in Journals of the House of Assembly of Upper Canada, 1825, pp. 13-5 [hereafter cited as Journals] and in Imperial Blue Books, III, No. 135, 22-33; Clowes recommended the abandonment of Lt. Jebb's proposal to use the shorter Irish Creek route since the one by the lakes had a far greater water supply. For Clowes plans and estimates see also Frome, "Rideau Canal", pp. 75-6 and Legget, Waterway, pp. 28-9.

27 The report of the joint committee is in Journals, 1825, pp. 1-4, and in Imperial Blue Books, III, No. 135, 22-3.


30. Frome, "Rideau Canal", pp. 75-6 and Illustrated Historical Atlas of the County of Carleton by H. Belden and Company (Toronto, 1879), pxv.

31. Frome, "Rideau Canal", pp. 76-7. On the basis of Clowes' surveys, the Smyth Commission had recommended a canal with locks 108 feet by 20 feet and draught 5 feet. Even before he arrived at the Rideau, By advised Gen. G. Hann (the Inspector-General of Fortifications) that it would cost at least £400,000. By's first estimate was for £475,000, see C/42, p. 145, By to Hann, December 6, 1826, in Brymner, Report, 1890, p. 76 and C/44, p. 142, By to Dalhousie, October 26, 1827, in Brymner, Report, p. 81.


36. Fortescue, British Army, XI, 455-8. Fortescue credits Wellington as a first rank departmental administrator who firmly believed that he was saving the British army from the "inefficiency" of the House of Commons. For a brief discussion of the great reform of the military administration in 1855 see my Chapter III, pp. 147-8.
37 Ibid., pp. 456, 453. The Ordnance Board also included at least one Lieutenant-General who assisted the Master-General, a Surveyor-General, a Storekeeper, and a Chief Clerk. The Board was also referred to as the "Ordnance" or the "Ordnance Department", which terms are also used in this paper. The office of Inspector-General of Fortifications was created in 1802 by a Royal warrant, and it replaced the old term: "Chief Engineer", see also Porter, Royal Engineers, I, 399.

38 Porter, Royal Engineers, II, 90.

39 The Rideau Canal Act is in Upper Canada Gazette, I, No. 40, March 3, 1827; also Journals, 1826-7, pp. 87ff.

40 Legget, Waterway, p. 17; Drummond, "Rideau Canal", pp. 462-5.

41 MacTaggart, Canada, I, 162. See also Frome, "Rideau Canal", 81; and Dunlop, Sketches, p. 60, who argued that the principle of dams "as far as the extent at least goes" was new in engineering.

42 C/44, p. 80, By to Mann, February 6, 1827, in Brymner, Report, 1890, p. 81; and C/45, p. 105, Committee on Canada to Mann, Pall Mall, January 22, 1828, in Brymner, Report, 1890, pp. 92-3.

43 This paper, of course, makes no attempt to deal with the fascinating story of the actual construction of the canal, the associated problems or the question of finance; the following works are useful surveys along these lines: Frome, "Rideau Canal", pp. 73-102; MacTaggart, Canada; H. P. Hill, "The Construction of the Rideau Canal, 1826-1832", O.H.S.P.R. XXII, (1925), 117-24; and Legget, Waterway, especially pp. 34-83.

44 MacTaggart, Canada, I, 169.

45 Ibid., 148-50; Frome, "Rideau Canal", p. 95. To this day the works at Jones Falls remain a most impressive sight. The dam there was more than twice as high as any others built in North America to that date, Legget, Waterway, pp. 114-5.

By also recommended the enlargement of the Crecnville and Welland canals. A steamer about 120-130 feet by 40-50 feet could easily be converted for military purposes, and carry up to four 12 pound guns and 700 men, C/43, p. 54, By to Mann, July 13, 1826, in Brymner, *Report, 1890*, pp. 70-1.


Ibid.

York Observer, July 23, 1827, enclosed in U. C. Sundries, J. Carey to P. Haltland, July 25, 1827; J. Carey, the editor, had already sent about 200 copies to "British gentlemen".

C/44, p. 202, By to Mann, November 1, 1827, in Brymner, *Report, 1890*, p. 82.

A. Macaulay Papers, R. Stanton to J. Macaulay, July 21, 1827.


C/45, p. 105, Committee on Canals to Mann, Fall Hall, January 22, 1828, in Brymner, *Report, 1890*, pp. 93-4. This Committee also included A. Bryce, J. T. Jones and
E. Fanshawe.

59 C/45, p. 215, Committee on Canals to By, Kingston, June 28, 1828, in Brymner, Report, 1890, pp. 95-6. This Committee consisted of Sir James Kemt (administrator of the government of Canada, 1828-30) and Colonels Fanshawe and Lewis of the Royal Engineers.


61 By 1828 Bytown had 15 general stores, 3 jewelry shops, 8 shoe shops, 3 blacksmith shops, 4 bakeries, 1 butcher shop, 2 tailor shops, 1 harness shop and 1 tin-smith, Belden, Historical Atlas of Carleton,p.xviii.


63 Quoted in the Upper Canada Gazette, I, No. 39, including the United Empire Loyalist, February 24, 1827.

64 "Report from the Select Committee . . . relating to Canal Communications in Canada, 1832", from the Minutes of Evidence, in Imperial Blue Books, III, No. 570, p. 8; also in Brockville Gazette, September 27, 1832.


66 Sir R. H. Donncastle, Canada as it was, is and may be (2 vols., London, 1852), II, 246; see also T. Rolph, A Brief Account . . . Together with a Statistical Account of Upper Canada (Duncas U. C., 1836), p. 143; E. T. Coke, A Subaltern's Furlough (London, 1833), p. 319; C. J. Latrobe, The
Rambler in North America (2 vols., London, 1835), II, 119;


68 R. I. Routh to J. Stewart, August 4, 1830, in Imperial Blue Books, III, No. 135, p. 129.

69 C/45, p. 215, Committee on Canals to By, June 28, 1828, in H. P. Hill, "Rideau Canal".


71 Brockville Gazette, November 22, 1832, from the motions of G. Crawford and W. Smart. A copy of the meeting's resolutions, together with a letter, were to be sent to Col. By; see also Phillips, "Rideau Canal", p. 21 and ibid., p. 12, quoting the Kingston Patriot.

72 Journals, 1832-3, pp. 12, 13.

73 Quoted in Upper Canada Gazette, I, No. 39, including the United Empire Loyalist, February 24, 1827.

74 C/58, pp. 61-8, Petition to Sir J. Colborne from the Inhabitants of the Johnstown and Bathurst Districts, n.d.

75 Brockville Gazette, November 22, 1832, from a public meeting of the citizens of the Brockville area; G. V. Cousins, "Early Transportation in Canada", University Magazine, VIII (December, 1909), 624.

76 Phillips, "Rideau Canal", p. 6.


78 Journals, 1832-3, p. 10, October 31, 1832, the
speech of the lieutenant-governor at the opening of the House of Assembly.

79Ibid., pp. 12-3, November 6, 1832, resolutions on the speech of the lieutenant-governor.
II

SEAWAY TO THE GREAT LAKES

1

The main Channel of Canadian prosperity is unquestionably her water communications. In actuality, the new Rideau canal became an integral part of the first Canadian seaway from Montreal to the Great Lakes. However men might continue their struggle to improve the upper St. Lawrence the fact was that, until 1847, the Rideau was the only canalized route available. And at this time canals were essential, if Canadians were to compete successfully with Americans for the growing western trade. Already Colonel By's imperialistic aims in this regard have been noted. Writing in the fall of 1830, he had suggested placing a low annual toll (£5) on each craft plying the Rideau in order to attract business. Doubtless he had been overly optimistic in his predictions as to how much trade -- and revenue -- the canal could command. He then had calculated (on an estimate of toll charges more than twice as high as those first adopted) that annual income might some day reach the neighbourhood of £40,000. The Commissary-General, R. I. Routh, had agreed in 1830 that with low tolls the Rideau could divert a large portion of the New York trade to Canada.
The great dream of capturing continental commerce — long the inspiration of the St. Lawrence mercantile community — was crystallized afresh in the spring of 1832 with the opening of the Rideau. William Hamilton Merritt, whose Welland canal had opened in 1829, appreciated the possibilities. In March he explained to J. H. Dunn (President of the Welland Canal Company) his vital concern for the new canals: "I feel a deep Interest for the success of the Rideau Canal, as the Welland must be materially benefitted by it, in fact their interests are precisely the same." The Rideau and Welland should co-operate, "to direct the Products of the South and West, from the New Orleans, and the New York markets". From his experience with the Welland canal, Merritt urged that tolls be kept as low as possible. For example, he recommended charging potash 1/6 per ton and flour 6d. per barrel instead of By's suggested 10s. and 1s. respectively. This was the only way to direct traffic from its existing channels. He saw that the Rideau would have to contend with powerful trading organizations on the St. Lawrence for Canadian markets. But it was the "enormous charge" for freight on the St. Lawrence (£4.10 per ton) that gave New York control of the American west. With the Ohio canal to be opened in 1833, from Cincinnati to Cleveland, a population of at least two million would be within the influence of the Rideau canal. Given time and low tolls — and the
completion of the Grenville locks on the Ottawa -- the new Canadian canals could hold for Montreal a major share of both the import and export trade. Merritt's thoughts were more than idle speculations. He was already in the process of building two vessels for use on the new route.

While hopes for the Rideau remained high, debate over the rates of toll to charge, (sparked by Merritt's ideas) continued through March and April of 1832. Of course, when it came to tolls, the chief concern of British authorities was that the canal should at least pay its expenses. The lieutenant-governor, who was to co-operate with Canadian Ordnance officers in setting duties, thought that even with Merritt's low rates, revenue would be more than adequate for this purpose. Ordnance officials at Quebec, however, were inclined to approve the higher tolls By proposed, because of his "practical and local knowledge" and his interest in the success of the waterway: wheat 2d. per bushel; flour 1s. per barrel; potash 10s. per ton; and general merchandise 10s. per ton. At least By's suggestions should be given a fair trial for two or three years, they claimed, until practical experience might indicate a more permanent arrangement. Colonel By seemed to relent somewhat, however, when he wrote on April 10, agreeing with Merritt's principle that a sacrifice of revenue should be made initially to draw trade to the new canal. But the
governor’s proclamation of April 26, 1832, maintained the higher rates that By had originally suggested. 9

Immediately, this roused a storm of protest from the Kingston merchants. As the entrepôt at the western end of the canal, their port would play an integral role in the new trade. They petitioned Sir John Colborne:

Expecting to participate largely in the benefits that may be derived from that splendid line of inland navigation we naturally feel an intense interest in all that relates to it, and are especially anxious as the period of opening approaches: that the tolls should be so judiciously regulated as to attract business to its waters, and render it the main channel for the transportation of the produce and merchandise of Upper Canada and the Southern Shores of Lake Erie ... our hopes of such a result are damped [sic] by the high and unreasonable rates of Toll imposed by the Royal Proclamation, and we beg to assure your Excellency that in many respects they will actually prohibit the use of the Canal. 10

This outcry produced quick results. Since the Quebec Ordnance Officers had said that they would ratify any charges set by Colborne and By, the two men met on May 10 and lowered the duties accordingly: for example, the toll on wheat was dropped to 3/4d. per bushel; flour to 2½d. per barrel; potash to 2/3 per ton; and general merchandise to 7/6 per ton. All tolls were levied on cargoes; none were placed on steamboats or barges. 11 Still, By argued that his earlier suggestions were not out of the way; the St. Lawrence forwarders had already reduced their freight rates, so that the public was benefiting in any case. Nevertheless, he trusted that the new low tolls would induce Americans to send their
produce to Montreal. 12

Hence this first controversy over tolls was ended even before the Rideau canal was officially opened on May 22, 1832. There would be many more in the next two decades. Nor were they academic arguments. They showed, better than anything else, at times, the impact that the canal had on the trade of British North America. They revealed the diverse interests of those concerned in the debates. Farmers, consumers, merchants and forwarders would benefit from the waterway, and use it any way they could to best advantage. Their legitimate goal was, after all, cheap transportation. On the other hand, those responsible for the canal's administration trusted that the tolls would pay for the essential expenses. In 1832, for instance, the Canadian Ordnance officers and Colonel By saw that income would not cover outlay; yet they looked forward to the day when it would be more than adequate. 13 The Colonial Secretary, Lord Goderich, hoped that the canals would soon prove to be a source of productive revenue. Confidently, the Lords of the British Treasury asserted that: "the tolls should be fixed at such rates as may afford the highest amount of revenue that can be collected without discouraging or restraining the intercourse on the canals". 14 Precisely the balance to strive for! But would such revenue be sufficient? This was the problem thrown into the hands of the Ordnance Department.
All very well for the Treasury to express its desire that the Rideau would soon cease to be a charge on the British public, or that maintenance costs might be transferred to the local government; it was scarcely possible, however, that the Upper Canadian authorities would assume a new financial burden when they were already in the sorry habit of bailing the Welland Canal Company out of bankruptcy.\(^{15}\)

All the interested parties might fancy that the Rideau could help to tap the American west. It was a hopeful dream, and nothing if not ironic: a defensive, national work which sought control of an extensive, international trade. Could there be any substance to that dream in the face of stark reality? The canals on the Ottawa were not yet finished, in any case. And with rising American competition, internal conflicts in the Canadas, and the distinct possibility that the preferential British tariff might be withdrawn, the empire of the St. Lawrence was already fighting for its life in the 1830's.\(^{16}\) In truth, many factors conspired in the next few years to doom the realization of that dream. But the Rideau canal was none the less destined to play an important role as a commercial thoroughfare which no one had foreseen in 1832. Significantly, in 1844 the Master-General of the Ordnance, then Sir George Murray, would declare that he had always considered the Rideau "as being mainly a work for commercial purposes, and incidentally
One of the first commercial uses made of the Rideau centred in the lumber trade. Even before the official opening, timber rafts had passed through the canal. Shortly afterwards, Colonel By wrote that 35 cribs of timber, each containing about 2000 cubic feet, passed the Long Island locks "with the greatest facility". The lumbering community was quick to exploit the virgin forests in the extensive Rideau watershed. Inevitably, the circumnavigation of treacherous rapids reduced the cost of transporting provisions upwards and speeded the conveyance of lumber downwards to the Quebec market.

Notwithstanding these advantages, the lumbermen continually complained that the tolls were too high. By and Colborne had confirmed early in May 1832, that oak and pine timber in rafts should be charged 2d. and 1d. per cubic foot respectively for any distance along the canal. Local lumberers petitioned the lieutenant-governor, claiming that these rates would prohibit the trade altogether. Temporarily -- until July 1, 1832 -- the charges were reduced by one-half. By that time, however, more than two-thirds of lumber for the season had passed the canal. Again the following year local discontent was renewed. Commenting on a petition of 1833, William Morris -- a respected citizen of
Porth and a member of the Upper Canadian Assembly for Lanark -- agreed that it was a subject of "great consequence to their quarter", and that the duties were at least one-half too great. He noted that many lumberers had suffered heavy losses, and warned that the trade might be abandoned on the banks of the Rideau.\(^{22}\)

Of course, this controversy was taken up by those immediately responsible for the operation of the waterway. Colonel By had recommended the high tolls on timber in the first place. He was inclined to make the trade pay fully for the facilities, not only because they would greatly reduce the lumberer's costs, but also because the passage of large quantities of timber might damage the locks while the masonry was still new. Nor did he want timber to obstruct the passage of other goods. Yet the Colonel did accommodate the lumbermen by granting them credit on the dues until the timber was sold at Quebec. In 1833, however, the Ordnance Officers cancelled this advantage by having the tolls collected in cash at the Bytown locks, which placed a greater burden on the lumber traders.\(^{23}\) Captain Donald Bolton, who had succeeded By as Commanding Royal Engineer in the summer of 1832, stressed the fact that the passing of timber while the masonry was in a green state increased maintenance expenses. He claimed that the duties were not too high and that there were no just grounds for complaint; without the
Rideau canal most of the lumber could not be transported to Quebec. 24

The whole question was reopened the following season, in 1834. Nearly 500 inhabitants of the Bathurst and Johnstown districts petitioned Sir John Colborne that the tolls were generally equitable but those on oak and pine timber were "enormous and unreasonable". In view of the difficult conditions of pioneer life, and the chief export, timber, subject to the fluctuating prices of the Quebec market, one might well sympathize with their cause. Furthermore, because of the inevitable shortage of cash in such a pioneer economy, the collection of the tolls at Bytown previous to sale proved "vexatious". Also, the toll was the same whether it passed one lock or the entire line. The petitioners despaired that this combination of circumstances would result in the ruin of their section of the province. 25 Six members of parliament from the same districts certified that a material reduction in duties was essential. The collector of timber dues, C. Shirreff, explained that it would be necessary to reduce them 50 percent in order to encourage the trade and tap new areas. The House of Assembly of Upper Canada addressed the King, expressing precisely the same ideas. 26

The Officers of His Majesty's Ordnance in Canada were caught, as usual, between their desire to make the
canal pay its way and their concern to accommodate the trade. Now that there was less danger of the timber damaging the locks, they recommended that the toll on pine and oak be reduced by 25 percent for passage from the Isthmus to Lake Ontario and from Burritts Rapids to Bytown. There was to be no alteration, however, in the system of collecting the dues. The Canadian government issued a proclamation which brought these reductions into effect. In England, meanwhile, Colonel By remained unconvinced; the original tolls were not too heavy when the advantages of the new facilities were taken fully into consideration.

Through 1834 and 1835, however, there was a trend to recommend lower tolls on the part of those responsible for the maintenance of the Rideau. As the attempts to adjust the rates to the developing trade continued, a powerful and decisive influence arose from the central Ordnance authorities in London. The three parties directly involved were Captain Bolton, the Canadian Ordnance officers at Quebec, and Seth Thomas, an influential clerk in the British Ordnance office.

Bolton calculated that the toll was already too low on standard staves, since they were charged 10s. per thousand while an equal quantity of oak, from which they were made, passed for £3.6.8. He noted that the passage of staves had risen from 11,000 in 1833 to 200,000 in 1834 be-
cause of the inequality of the due, thus reducing the income by £500. Consequently, he proposed to charge standard staves £3 per 1000. On the other hand, he suggested only a slight increase from 3/4 to 10s. per 1000 in the case of staves for the West Indian market, since the black oak from which they were cut would not pass the canal in any other form. The Canadian Ordnance officers recommended a somewhat lower rate than Bolton on standard staves (£2.10.0 per thousand) and a slightly higher one on West Indian staves (12/6 per thousand). But Seth Thomas refused to accept a large increase of tax on standard staves. Fearing that trade would diminish under high tolls, he suggested that £1.10 should be the maximum. He ratified Bolton's low charge on West Indian staves on the principle that it was better to keep tolls as low as possible, especially at the beginning.

The trade in pine timber, Bolton wrote, had dropped from 290,000 cubic feet in 1833 to 129,000 cubic feet in 1834, solely because the due was too high -- 1d. per cubic foot. If it was reduced to ½d., a vast quantity of pine would be brought down from the lakes to the north and west of Rideau lake. The Canadian Ordnance balked, chiefly because the market price for pine at Quebec had almost doubled since 1833. In spite of this opposition, Thomas sided with Bolton in order to prevent any further drop in the trade. Thomas also took it upon himself to observe that the toll on
oak timber was far too high — the trade had diminished more than 50 percent — and recommended its reduction from 2d. to 1d. per cubic foot. He stressed his belief that it was a very doubtful policy to "increase the Tolls until the Trade on the Canals has been fully and steadily established".

The Master-General, now Sir R. H. Vivian, and his Board of Ordnance in London, adopted the views of Thomas and instructed their officers at Quebec to implement the reductions. This controversy showed the growing tendency to centralize control, as well as the rising influence of Seth Thomas. While the matter was still under consideration, during 1835, the trade in oak and pine timber jumped to 397,000 and 451,000 cubic feet respectively. The future appeared bright with the continued increase in the quantity of pine. It was reported that more timber than ever before was being brought out to Perth in 1835 and 1836 to be rafted and sent to Quebec. Yet it was questionable how long a prosperous lumber trade could last along the Rideau, even with the most favourable toll policy. As timber became scarcer and the lumberman worked his way inland, costs would rise and tolls would have to be readjusted accordingly.

Furthermore, a lowering of duties on Baltic timber would jeopardize Canada's trade with Britain. Certainly, the recent improvement of timber slides and facilities on the upper Ottawa would greatly reduce expenses for the passage of oak
and make that region a serious competitor at the Quebec mar-
ket. 33

Fresh hope came from unexpected quarters. American
demand for sawn lumber began to make itself felt after 1835.
Turning from the square timber trade for the British market,
men of the Rideau and Ottawa valleys began to build sawmills
to supply boards and planks for the American market. In the
eastern regions, the Rideau canal formed part of a new trade
route via the Oswego Feeder to the Erie canal, in response to
the pull of New York. 34 The lowering of tolls in 1835 helped
the development of this trade which reached inland as far as
the Ottawa. Although this new trade received a setback
during the years of rebellion, 1837-9, it expanded through
the 1840's. Ironically, then, the great military canal --
just coming into its own as a vital part of the west-to-east
St. Lawrence trading system -- was also being linked north
and south to the empire of the Erie, arch-rival of the St.
Lawrence.

iii

"the Rideau Canal is now traversed by steamboats,
making a quick and easy communication for emi-
grants". 35

Immigration, Colborne noted in 1832, was a matter of
so much importance to Upper Canada that provincial officials
should pay strict attention to it. In the four years after
over 20,000 immigrants landed annually at Quebec to move on inland. But, though the convenience of the Rideau waterway was generally recognized, it was two years before a significant proportion of the immigrant traffic switched to it from the upper St. Lawrence. This delay was largely owing to the fact that the canals on the Ottawa river were not completed until 1834. Certainly, the inadequacies of the St. Lawrence route were apparent. The roads used to circumvent its rapids were generally "the most wretched imaginable"; the jolting was "nearly insufferable". And at least four transshipments were necessary to proceed up-river. The immigrants' journey was "tedious and irksome". Local officials despairs of the situation:

from the reports which have been received from the Lower Province, there can be no doubt the distress, misery and inconvenience experienced by Emigrants in their passage up the St. Lawrence in the Durham-Boats, and the exorbitant outlay incurred by them after they leave Montreal must check the emigration to these Colonies.

An easier passage for immigrants to Upper Canada was long overdue. In September, 1832, the chief Emigrant agent at Montreal, A. C. Buchanan -- backed by the lieutenant-governor -- strongly recommended the use of the Ottawa-Rideau route from Lachine "as soon as boats begin to ply". Immigrants would enjoy a more comfortable journey and save time; and some might be induced to settle in the region. An emigrants' guide for the period considered that "the re-
spectable traveller or tourist" would continue to use the St. Lawrence, but deemed that passage by the canal was most advantageous "for emigrants with large families and cumbersome luggage, destined for the upper province . . . the Rideau Canal is their only proper route, at least for the present."40

Buchanan had hoped that he could direct a portion of the immigrants by the Ottawa and Rideau in 1833. That summer, however, about 15,000 came in via Prescott on the upper St. Lawrence.41 By 1834, Buchanan reported that the facility of transport for immigrants had been much improved by the increased number of steamboats on the interior passage from Montreal to Kingston.42 Now the two water routes were in direct competition. The Ottawa Steamboat Company offered daily departures from Montreal on decked barges without transshipment of luggage: two days to Bytown and another three days to Kingston. Many immigrants made use of this service in 1834, in spite of the fact that it cost about 2/6 more per person than the St. Lawrence trip. To those who could afford the Rideau the "additional comfort" was more than equivalent, according to Buchanan. The St. Lawrence forwarders were launched into a struggle to compete with the new canals.43 The immigrants stood to benefit from such competition.

Although immigration tapered off through the rebel-
lion period of the later 1830's, it would be useful at this point to look ahead to the next decade, when even greater numbers of new settlers entered British North America. The route then followed by most immigrants to reach Upper Canada led "through the Rideau canal to Kingston". In 1840 about 12,000 immigrants passed the locks at Bytown. Most were destined for points west of Kingston, although some 1400 settled in the Bytown region. Six thousand of these were considered "objects of charity" and assisted by the Emigration Department. Meanwhile, only 350 landed at Kingston from the St. Lawrence.

Thus by 1840, the booming immigrant trade became wedded to the Rideau. Nevertheless, there was considerable discontent with conditions on that transit. Delays were frequent on the overcrowded, exposed barges.

In the month of October, 1840, some shameful instances of neglect on the part of the forwarders took place, by crowding the Emigrants into the Barges . . . more than one unfortunate Emigrant has forever lost his health by exposure . . . The Crews of the Barges are generally French Canadian and they have no sympathy for the Emigrants, but on the contrary a rooted dislike to them and rather rejoice at their sufferings, than attempt to alleviate them.

Yet the local officials strove to provide reasonable facilities adapted to the new conditions of the trade. The immigrant sheds at Cornwall and Prescott were all but useless now, since the vast majority of the indigents entered Upper
Canada by the Rideau. A. B. Hawke, who was the chief emigrant agent in Canada West, urged that sheds and hospital services should be provided at Bytown and Kingston. Almost 5,000 immigrants were transported via Bytown at government expense.\textsuperscript{47}

In 1841 more than 12,000 immigrants passed up the Rideau from Bytown.\textsuperscript{48} During the ensuing year the total immigration to British North America rose from the 28,000 of 1841 to 44,374; and 30,000 of these entered Canada West by the military canal. Almost half of them had to have their passage furnished by the government. Virtually all of the indigents were transported on the Rideau in 1843.\textsuperscript{49} In his comprehensive report for 1844, A. B. Hawke noted that 14,000 immigrants had passed through the Ottawa-Rideau canals, while only 800 had entered by the St. Lawrence. He was obviously pleased with the means of transportation: "the facility and comfort with which any number of immigrants can now be conveyed from Quebec to any of the ports on Lakes Ontario and Erie is so great, as to render the journey compared to what it was a few years since, rather an excursion of pleasure, than a serious undertaking."\textsuperscript{50}

Through the 1840's, then, it would be fair to conclude that Ottawa-Rideau route provided a relatively cheap means of transportation for immigrants. Usually the government was able to contract for rates for indigents 25
percent below the established charges to those paying their own way. In 1842 the cost to the government of the trip from Bytown to Kingston was 2/6 per adult, compared with 7/6 for the passage by water from Kingston to Toronto. While the rates rose abruptly to 10s. in 1843, they dropped off again to 4s. the next year. At the same time the cost of land travel for immigrants was forbidding, averaging ld. per mile. The fact that canal transportation was cheaper than that on the Great Lakes was largely owing to the competition among the forwarding companies on the canals. 51 Here, of course, those newcomers who did not require relief stood to benefit more directly than the destitute, who were supported by the government in any case. Nor was this question of rates in any way academic. When, in 1845, costs returned to the 1843 level, Buchanan complained that many British emigrants preferred to settle south of the border, taking advantage of the cheaper Champlain route. 52

Up to 1846, the barges carrying immigrants to the upper province had to use the Ottawa and Rideau. With the completion of the St. Lawrence canals, the Rideau lost its function as the great immigrant route to the interior. 53 But it had proven itself an invaluable asset in the colonization of old Ontario at a time when the expense of land transportation was prohibitive. And the St. Lawrence, before it was canalized, was scarcely more practicable to transport thou-
sands of families and their baggage. Certainly, for all concerned in the immigrant trade, the Ottawa-Rideau was rightly considered as the main water communication to the Great Lakes. Unfortunately, this great service to Canada never proved to be an asset to the Ordnance revenues, since there was no toll on immigrants carried in barges. But it was typical of its history that the great utility of the Rideau canal was never revealed in its ledger books.

In the early years, notwithstanding its proven worth in the transport of immigrants and lumber, the Rideau waterway was plagued by some frustrations that retarded its use as a through trade route. The Upper Canadian Assembly was fully aware in 1832, "that the chief advantages of the Navigation . . . cannot be attained while the unfinished works on the Ottawa obstruct the passage into the St. Lawrence." All this was in bitter contrast to the new American canals, like the Erie, which reaped almost immediate commercial gain. Kingston merchants were frankly alarmed:

From the present state of the Grenville canal the realization of our anticipations of the advantages to be enjoyed from this magnificent boon of the Parent State . . . threatens to be deferred to an indefinite period.

It was of paramount importance to the prosperity of the Canadas to remove the remaining interruptions on the interior
communication. The Commissary-General, R. I. Routh, urged completion of the works at Carillon and Chut à Blondeau; for these rapids on the Ottawa were a complete barrier to the success of the Rideau. Colonel By had readily admitted that, until the Ottawa locks were finished, nowhere near the anticipated revenue (£15,000, calculated on the revised tolls) could be collected.

The public works on the Ottawa — originally started in 1819 — were finally completed in 1834, under the superintendence of Lieutenant-Colonel Duvernet of the Royal Staff Corps. After two years of delay, then, the lieutenant-governor proclaimed that the Rideau was brought "fully into operation". But was it, really? To be sure, for the first time in history, a complete canal route now linked Montreal with the Great Lakes. Nevertheless, the military channel continued to labour under serious handicaps. Firstly, as a Kingston merchant was quick to point out, the three locks at Grenville (108 by 20 feet) needed to be enlarged to the same dimensions as the Rideau (134 by 33 feet) if Upper Canada was going to reap the full benefit from the new facilities. An even more serious impediment, in the second place, was the fact that there was no navigable access from the St. Lawrence to the Ottawa river open to the public.

Admittedly, a wooden lock on the mouth of the Ottawa
at Vaudreuil (on the south side of Ile Perrot) allowed vessels to circumvent the Ste. Anne's rapids. Thus, the interior transit was complete. But this lock was owned by a private firm -- the Ottawa and Rideau Forwarding Company (or Ottawa Steamboat Company). Therefore, the Ottawa Company held an effective monopoly of trade on the Rideau, until such time as another lock was built to overcome the Ste. Anne's rapids. Incidentally, this forwarding company was under the control of influential Montreal commercial interests, since its president in 1832 was the Honourable John Molson, the prominent Montreal businessman and brewer -- and pioneer of the first steamer on the lower St. Lawrence. 61

The through trade in merchandise via the Rideau canal developed very slowly in the first few years after its opening in 1832. It became clear, however, that steamboats, which could tow barges, were the best means of carrying the traffic. The nature of the waterway itself, of course, suggested this; but the construction of the larger locks, which By had insisted upon, was equally necessary. Subsequently, it would be shown that the Rideau could readily pass large vessels -- both steamers and barges -- of 200 tons. 62 The nature of the traffic, moreover, seemed to dictate the rise of forwarding companies to handle the trade. That is, a com-
pany which owned the requisite vessels could receive mer-
chandise at the tidewater port of Montreal, load its barges,
which could then be towed up the Ottawa and Rideau to
Kingston, where the goods might again be transshipped to
lake schooners. The emptied craft would then be in the ad-
vantageous position of being able to ship western produce to
Montreal, either via the canal or down the rapids of the
St. Lawrence. Assuredly, as long as it maintained its
monopoly, the Ottawa and Rideau Company could take full ad-
vantage of these possibilities. Competing forwarding com-
panies shipping via the upper St. Lawrence, meanwhile, could
only employ small craft. Bateaux, Durham boats or very
small barges could be dragged upward through its rapids.
Even so, the tedious journey took about twelve days. 63

Although business on the Rideau was slack up to 1834,
the steamboats Union and Pumper puffed their way up and down
the canal -- along with Durham boats and smaller craft --
carrying sundry articles in the local trade between Kingston
and Bytown. But the prevalence of Asiatic cholera through
the summer of 1832 restricted commercial activity. 64
Furthermore, the new seaway was strangled until the Ottawa
locks were completed in 1834. In any case, it would take
time for the transit to become firmly established. The St.
Lawrence, after all, despite its flaws, was the traditional
route; and the facilities employed on it represented a large amount of capital. Underlying these initial delays and discouragements, then, remained an unanswered question: Could the Rideau ever compete successfully with the upper St. Lawrence? The Kingston Chronicle assured those interested in the St. Lawrence trade, in 1832, that it would be some time before any business of consequence was done on the canal. In 1833, R. I. Routh, the Commissary-General of the Canadas, forecast that the new waterway would never "interrupt" the St. Lawrence navigation in time of peace. 65

The Commanding Royal Engineer on the Rideau canal, Captain Bolton, obviously had other ideas: "every facility should be afforded to divert, if possible, a portion of the Down trade from its natural channel, the St. Lawrence." 66

But was it possible? He was alarmed at the condition of the down trade on the Rideau. By the fall of 1835 more than one-half of the barges passing up the canals returned to Bytown via the St. Lawrence. He was not deceived by the realities of the situation. The Rideau was cheaper for the down trade; but this advantage seemed to lose its significance when compared with the speedier transit down the St. Lawrence: two or three days compared with five days on the canals. The Ottawa and Rideau Forwarding Company reported that most of its customers insisted on the St. Lawrence because of the time fac-
tor, while "others not in so much haste preferred the Rideau on account of its safety." The Ordnance officers at Quebec argued that Bolton placed too much importance on the rapidity of transport downwards. The fact that the interior transit was safer, cheaper and more convenient should tend to balance its natural disadvantages as to speed. Nevertheless, down trade -- apart from local traffic -- appeared to be wedded to the St. Lawrence.

The up trade was quite a different matter. Here, successful competition was more than probable. A leading forwarder on the St. Lawrence confided that, but for the Ste. Anne rapids on the Ottawa, he would have formed an establishment on the canals. He was convinced that "as regards the Up trade, the St. Lawrence in its existing state could not compete with it." In fact, Bolton reported that in 1834 more than three-quarters of the 12,598 tons of merchandise which passed through Lachine had been conveyed up the Rideau. When it was considered that the Ottawa and Rideau Company had to contend with well established forwarders on the St. Lawrence, "the diversion of a larger portion of the Up Trade could not reasonably be expected." As long as the St. Lawrence remained unimproved, the canal route for the up-bound traffic was not only cheaper and "most secure in every respect", it was also the most "expeditious". Still, Bolton concluded, it would be necessary to keep tolls low in order to maintain a
Seth Thomas, of the Ordnance Department in London, argued strongly for low tolls in 1835. For instance, Bolton had suggested that each steamer now pay a toll (£20 annually) in order to compensate for the transportation of "thousands of deck passengers" who paid no dues. Thomas agreed with the Ordnance officers at Quebec that it might be fairer to charge 20s. per steamer for the upward trip (Bytown to Kingston), and half that amount for the downward voyage (Kingston to Bytown), which had to compete with the St. Lawrence. He opposed excessive rates that diminished the trade: "every possible encouragement should as a measure of policy be at all times extended as it cannot but be advantageous both to the colonists and the government." Lord Vivian, the Master-General of the Ordnance, concurred. In spite of the frustrations of the early years of operation, he insisted that the Rideau could still enjoy a great future:

The minutest and most searching investigation must be instituted for the purpose of ascertaining the best means of rendering these great public works available to the extent anticipated, and becoming what they ought to be of importance to the prosperity of the Canadas, the purposes of extensive trade and the repayment to the public of the large sums thereon expended.

By 1835 it was quite evident that a new interprovincial transport pattern was evolving in which the Rideau
canal played a prominent role. In theory, the Ottawa-Rideau system competed with the St. Lawrence. Yet in practice the two routes were becoming complementary. As long as there were no artificial restrictions, it was only natural that the forwarders should utilize the aforementioned advantages of the Rideau for the up trade and those of the St. Lawrence in the down trade. Bolton was aware of this when he reported that in August of 1835, 21 barges passed up the canals while 10 returned downwards; in September, 21 up and 3 down; and in October, 21 up and 9 down. Merchandise destined for Upper Canada could be placed aboard covered barges in Montreal and towed up the waterway without transshipment until it reached Kingston. Then the empty barges were ready to be loaded with grain or other exports for their descent of the St. Lawrence.

Because of this shift to the triangular Montreal-Bytown-Kingston route, larger vessels could be used than had been possible to track along the banks of the St. Lawrence previously. Only 15-20 ton barges could pass up-river, while those on the Ottawa and Rideau canals averaged 100 tons. Five steamers and twenty barges carried the upward trade in 1837. A typical entry in the Jones Falls lock-master's journal illustrates the nature of the new transport pattern: July 21, 1838, "passed from Bytown to Kingston the steamer Rideau with four barges in tow"; July 23, 1838,
"passed from Kingston to Bytown the steamer Rideau" alone. As traffic increased, it was not uncommon to find 8 or 10 barges behind one steamboat. By 1840, 11 steamers were in constant use with daily departures from Lachine and Bytown. At this time a new steamer was constructed which would make the round trip within a week; another was built exclusively for the Rideau canal (109 feet long), designed to operate a shuttle service, towing barges to Kingston.

In spite of the economic hardships and political disturbances of the later 1830's, the interior communication was steadily growing in importance. From 1835 to 1840 the shipment in merchandise quadrupled: 4,500 tons in 1837, 8,600 in 1838, 12,000 in 1839, about 15,000 in 1840. Again, the returns for 1839 showed the nature of the trade. Both the military canals and the Lachine -- a vital link in the St. Lawrence -- handled 33,500 gross tonnage. But the actual quantity of goods passing up the Ottawa and Rideau was only 17,000 tons. Thus the Rideau continued to supply the necessary barges for the down trade. Tapping the North-western states, that trade amounted to over 1,000,000 bushels of wheat and 15,000 pounds of flour in 1840. New Yorkers decried this diversion from the Oswego-Erie system and blamed it on the "renewed confidence in the Welland canal and the facilities of the Rideau River". Meanwhile, the canals made it practicable to import salt from Britain,
whereas it had previously been bought from the United States. Five hundred tons were barged inland in 1838; 1,400 tons in 1839; and 2,400 tons in 1840. This competed reasonably with the 4,000 tons usually imported from Oswego. Apparently Liverpool salt was superior to the American product. Continued encouragement of this bulk commodity would help fill the up-bound vessels on the canals. Moreover, it would prevent the annual drain of £20,000 south of the border. 79

That the Rideau had become a vital artery for interprovincial commerce was made further apparent by concern lest it be temporarily interrupted. On one occasion in 1837, the Surveyor-General of Upper Canada, J. Macaulay, having heard rumours that the Smith Falls dam was insecure, wrote to the lieutenant-governor of Upper Canada, Bond Head, reminding him of the "serious inconvenience" that threatened the trade, and warning him of the "diminished confidence" of the forwarders. 80 In the spring of 1839, a three-week stoppage was caused by damage to the Carillon locks on the Ottawa. This caused an unprecedented accumulation of produce at Kingston, a "serious drawback on the business of the season", amounting to a loss of £20,000. The Commanding Royal Engineer in Canada, Colonel Oldfield, noted at the time that, since tracking arrangements for the St. Lawrence had been entirely abandoned, any such obstruction would "put
a stop to the whole transport of the interior". He absolutely rejected any inference that close attention had not been paid to the works. His department was perfectly alive to the "vast importance" of the Rideau and Ottawa in serving the commercial interests of the Canadas.

Accordingly, by 1840 the Ottawa-Rideau route was fully established in the commerce of British North America. And yet, paradoxically, the waterway remained incomplete. There was still no canalized entrance to the Ottawa from the St. Lawrence open to the public. For the lock at Vaudreuil, owned by the Ottawa and Rideau Forwarding Company, had certainly become the foundation for a monopoly. Nor was this unpremeditated. Even one year before the official opening of the Rideau there was clear evidence that the Ottawa Company was negotiating for a monopoly. The chairman, Peter McGill -- an eminent Montreal businessman -- asked John By to exempt his company from all canal dues and allow it to set freight rates without interference during the first season. By's only concession was to let the steamer Union make some trial runs toll-free on parts of the canal in 1831 prior to its opening. He absolutely refused to grant the company any privileges, which would amount to a monopoly on the Rideau. Notwithstanding, possession of the Vaudreuil
lock assured the company of the very privilege that Colonel By, in his position of authority, had sought to avoid.

William Morris of Perth was informed in the spring of 1834 that McGill was determined not to let anyone else pass Vaudreuil. W. L. Whiting, a citizen of Montreal, wrote to Morris in exasperation:

I will not say that you and I would not do the same thing if in our power — but you will agree with me that it is a matter of serious consequence to the public ... no time ought to be lost in representing to the Commander of the Forces the fact that the whole of that important work is virtually under the control of a private company ... Thus you see the ... Rideau Canal is to benefit the Ottawa Steamboat Company alone!!

The Grenville canal was to be opened in a few weeks. Morris explained to the governor-in-chief that, as long as the Ottawa forwarders held exclusive control of the lock near the Lake of the Two Mountains, they would monopolize the trade. He suggested that because the public was prevented from using the private facilities, the government might forbid the company's use of the military route. But — in spite of such a critical limitation — what would it avail the trade to cut it off altogether?

Rival companies complained bitterly. The advantages of the interior transit were "inaccessible to the old Forwarding establishments on the St. Lawrence". J. McPherson (or J. McPherson and Company) pointed to the lower tolls on the Ottawa as compared to those on the small government
locks on the St. Lawrence at Split Rock, Coteau du Lac and Cascades. The Ottawa tolls amounted to £3.10 while the St. Lawrence locks were £25 per 100 tons. If both channels were accessible, the inequalities of the rates would be less injurious. There were, however, compensating factors, since the Ottawa Company had to invest large capital in steamers and in repairs to the Vaudreuil lock. Nevertheless, the existing situation operated in favour of the monopoly. The Ottawa Company maintained the superior facilities for the up trade exclusively, and could use those of the St. Lawrence downwards in common.

More than 400 inhabitants of the Midland, Johnstown, Bathurst, and Ottawa districts presented their grievances to Sir John Colborne. To a great extent, they charged, the whole benefit of the canal was being monopolized by a single company. Blocked at Vaudreuil, a considerable portion of the carrying trade was compelled to use the frontier route. The company would not allow any other boats to pass the lock even if they paid a toll: "Your memorialists respectfully represent that this state of things should not be permitted for a moment to exist, as it renders the canal far less beneficial to the Country and to the Government." The petitioners urged the construction of the Ste. Anne's lock. The magnificent interior navigation should be open to the public -- not "controlled by a few individuals whose private
Interests are not likely to be sacrificed to the public good.89

After 1836, the Ottawa Company changed its policy. It no longer stopped all other barges from passing its lock. On the surface it appeared as if the monopoly was breaking down. In reality, it was becoming more deeply entrenched. A select committee of the Upper Canadian Assembly, in 1839, revealed that the defect in the system arose from the fact that the Ottawa Company possessed all the steamboats on the canals:

No craft can pass up except by submitting to such terms as they choose to exact, consequently all the forwarders formerly on the St. Lawrence have entered into an agreement -- and thus have constituted a formidable monopoly -- subjecting the public to the payment of any price they may please to impose.90

All companies had to come to terms with the one which controlled the all-important steam towing along the waterway. A written agreement was concluded among the forwarders in 1837 that each levy the same rates for shipping. Thus all other forwarders with barges on the canals were bound to charge the public according to the schedules set by the Ottawa and Rideau Company.91 In the years 1838-40, the freight rates from Montreal to Kingston for a ton of merchandise were about £3. The toll on the Lachine, Ottawa and Rideau canals amounted to 9s.; therefore the forwarder grossed about £2.13. By comparison, it cost £1 a ton from Kingston down-river to
Montreal or up-lake to Hamilton. The freight rates for a similar distance on the Erie were about £2. With a toll of more than £1, it left the forwarder grossing a little less than £1.92

The select committee of 1839 reported that rising freight rates on the Ottawa and Rideau had caused dissatisfaction for two years throughout the mercantile community. For example, a representative of Isaac Buchanan and Company, Toronto, testified that their freight costs rose 90 percent since the fall of 1836 because of the increased charges. The general conclusion of the committee after considerable investigation was that freight rates had risen at least 50 percent since 1835. Incidentally, it might be noted that a very close relationship existed between the Ottawa Company and the McPherson Forwarding Company, the latter controlling and directing the Vaudreuil lock on behalf of the former by 1839.93 Of course, the Ottawa and Rideau Company had fared especially well. It had acquired property valued at £50,000 — from an original capital of £10,000. It had paid a dividend of 45 percent. A careful study of the trade in 1840 by special Ordnance Commissioners, R. Eaton and J. S. Elliott, disclosed that in one week alone three barges made a clear profit of £663.94 Such prosperity was attributed to the monopoly. All up trade had to pass the canals in any case. And, with proper management, the Ottawa Company's
barges could always be in position to receive produce at Kingston for the down trade.

It seemed that the best way to break the monopoly was to construct a lock to overcome the Ste. Anne's rapids and thus provide another entrance to the Ottawa. Colonel By had recommended the move when it had become apparent that the owners of the Vaudreuil lock sought exclusive control of the trade. Otherwise, it was in vain to expect that the tolls would cover maintenance expenses. Sir John Colborne agreed. It was incredible, after the large outlay on the Rideau, that the government should leave the entrance to that communication under private control, to the detriment of the Ordnance revenues. Leading Kingston merchants stressed that a lock at Ste. Anne's would not only increase revenues and facilitate war-time transportation, but also be of "infinite service to merchants and emigrants".

The members of the select committee of 1839, of course, endorsed the idea of acquiring a lock that would be open to the public. But they felt that another step was essential to make the navigation truly accessible to all. They hoped to render forwarding companies unnecessary and thus prevent monopolies. To do this the managers of the canals had to control steam towing. Not only was it hoped to reduce freight rates 50 percent, but it was also suggested the canal revenues would greatly increase, since the
St. Lawrence could then divert a portion of the Erie trade. The Rideau could profit here by placing a charge on down freight in vessels which it had conveyed upwards.\textsuperscript{98}

Unless the government supplied the necessary steam power, the House resolved, or it was regulated by law, monopolies would continue to exist. Inevitably, the interests of forwarders would induce them to combine against the public. If the Ordnance would not operate a sufficient number of steamers for a daily line, then at least a law should be passed to force any company to tow every craft, in turn, for not more than £12.10 if under 10 tons.\textsuperscript{99}

W. H. Merritt was of the same opinion. It was just as important for the Ordnance to regulate towing as it was to control the locks. Merritt, too, believed that a toll on the additional produce that could be directed from the Erie down the St. Lawrence would more than compensate for the outlay on the steamboats.\textsuperscript{100} A forwarder later testified that a line of government tugs would allow everyone who could purchase a boat to enter the trade.\textsuperscript{101}

Originally, Captain Bolton, the Commanding Royal Engineer on the Rideau, opposed government towing as an expensive experiment that might not reap the expected revenues. He believed, however, that the "Public Good" was more important than revenues.\textsuperscript{102} By spring of 1841, after a more searching investigation, he had changed his mind.
Bolton doubted if the present trade could support two extensive companies in the towing business. At least £50,000 was needed to ensure successful competition. Combinations would inevitably ensue. He noted that there was little encouragement in Canada for persevering competition, since relatively little capital was available for such speculations. Now he had grown convinced that the government should have direct control of all towing. The great evil in the present system did not lie with high towing charges; it existed exclusively with "the power which the Company possesses of only towing such Barges as they choose . . . which materially tends to diminish the usefulness of the Canals". Bolton feared that unless this evil was remedied, attempts might be made to divert part of the up trade back to the St. Lawrence, "to the serious injury of the revenue, and without any benefit whatever to the Public". On the other hand, if the Ordnance undertook all towing, a fair portion of the western trade would be taken from the Erie Canal. New stimulus would be given to individual enterprise; the oppressive monopoly so universally complained against would be "immediately extinguished". This plan, Bolton concluded, might not produce great revenue; but it would likely be the most beneficial to the country.

Why was it not adopted? To begin with, it would re-
quire an immediate outlay of almost £50,000 to purchase enough steamers for towing purposes. Bolton estimated that the probable annual income from towing would be £46,000, while the yearly expenditure would run about £43,000. British authorities were slow to make an investment that would probably take fifteen years before it was repaid. As it was, the regular tolls had yet to pay for the annual canal expenses. Moreover, by this time a new lock at Ste. Anne's was soon to be completed; and the old monopoly would then break down, although towage would remain in the hands of private companies.

The question of who should construct and control the Ste. Anne's lock was a cause of some debate. Grant Nicolls, the Commanding Royal Engineer in Canada, argued that the improvement of Ste. Anne's was not essential for military purposes in the mid 1830's. Since the matter was of importance to the mercantile community, it should be brought before the colonial legislature. In 1836 the Colonial Secretary, Lord Glenelg, advised the lieutenant-governor, Bond Head, to do just that. By the winter of 1840 the assembly was urging the completion of the lock, afraid lest private interests would cause delay. Sydenham, the governor, gave assurances. He was fully impressed with the importance of removing the obstruction to the navigation. Lower Canadian authorities had the lock under construction by the
fall of 1840. In their report of 1840, the Ordnance Commissioners, Eaton and Elliott, contended that it should be placed in charge of the Ordnance, warning that any imprudence in its management would prove harmful to the military and commercial interests of the Rideau. Here, the Treasury stepped in decisively. The Ordnance could cooperate with the provincial government; but Britain should not be burdened with the expense of Ste. Anne's.

Now that the lock was under construction, however, the old towing monopoly would soon be broken by other forwarders on the St. Lawrence. H. and S. Jones Company, for example, was preparing to put a line of steamers on the canal route to do their own business. Similarly, the firm of Henderson and Hooker was building two new steamboats. Contemporary observers looked forward to the new competition and lower freight costs. Confidently, they anticipated an increase in traffic resulting from the new facilities on the vital seaway to the Lakes.

Yet, for a while, all these hopes seemed in vain. The lock at Ste. Anne's could not be completed in 1841. Unexpectedly, this predicament was overcome. Thanks to the unusually low water-level that season, barges could be hauled up the Ste. Anne's rapids outside the incompletely completed lock. But this was only a temporary expedient. In 1841 R. W. Shepherd, the captain of H. and S. Jones Company's
vessel, the St. David (which was confined, of course, to the Ottawa), by a hazardous experiment discovered a safe channel upwards through the rapids near Vaudreuil. At once, the Ottawa and Rideau Company made an arrangement for towing, whereby the barges of rival companies could pass its lock at Vaudreuil. The old monopoly had suddenly collapsed.

vii

Behind all the controversy surrounding the monopoly -- and the brighter hopes for greater commercial prosperity now that the monopoly had broken -- lay the fundamental question: When would the St. Lawrence rapids be canalized? Indeed, there were some who argued that there was no need for the improvement of the great river. That route would be useless in time of war. Strategic military considerations were still valid; but even in peace-time it was just as well to keep trade at a distance from American neighbours. Seth Thomas questioned the necessity of a "rival interest", when there existed already "an excellent water communication sufficient for all purposes of commerce". The President of the Executive Council for Upper Canada, R. B. Sullivan, opposed the outlay of an "enormous" amount of money which would burden provincial revenues and undermine the success of the Rideau. The Surveyor-General, Macaulay, denounced the expenditure by the legislature in 1837 of almost £400,000
to improve the St. Lawrence at Long Sault. Worse still, the work might never become productive. Macaulay noted that early opponents of the Rideau canal now admitted that the latter could conveniently handle all commerce for fifty years: "We no more required the work on the St. Lawrence for Upper Canadian trade than your Coach requires a fifth wheel."115

At the same time, however, there was no concerted effort to block or even to retard improvement of the St. Lawrence. An Upper Canadian Select Committee on Inland Water Communications (1833) saw no reason why the Rideau should delay work along the river. Authorities in England stated emphatically that it would be ungracious for them to oppose any such projects. Although these plans might be "impolitic" from a military viewpoint, the Ordnance fully appreciated that the St. Lawrence promised to contribute greatly to the commercial welfare of the Canadas.116 Meanwhile, of course, the arguments in favour of canalizing the St. Lawrence continued through the 1830's. If anything they were urged more strongly than ever, since many feared that the existence of the Rideau would thwart their designs. Along the banks of the St. Lawrence, inhabitants of the Johnstown District petitioned the lieutenant-governor in 1832, exaggerating the commercial weaknesses of the in-
terior route, and concluding that the advantages of a steamboat navigation on the frontier lay in "safety, expedition, cheapness and certainty". If the latter were constructed it was obvious, as the officers on the Rideau canal readily admitted, that "it would be preferred for the purposes of Extensive Trade, to the more circuitous route by the Rideau."  

A more optimistic forecast in 1831 had suggested that, once it got into "successful operation", the Rideau canal would divert all the carrying trade of the country. By the end of that decade, however, it was not in "successful operation", because the Grenville locks (108 feet by 20 feet) on the Ottawa had not been enlarged to the scale of the others (134 feet by 33 feet). Right from the start it had been recognized by Colonel By and other officials that the three small locks at Grenville would be a "great drawback to the Rideau". The inland route was, in a sense, incomplete. To be sure, it was still the only canalized waterway to the Lakes; and it would remain so through most of the 1840's. Nevertheless, it was generally agreed that the utility of the navigation was reduced, that it could not realize the benefits contemplated, until the Grenville locks were widened. Twice as many steamers had to be used, resulting in inconvenience and rising freight rates. Informed
contemporaries concluded that all the wants of the trade would have been perfectly met had the constriction at Grenville been removed.\textsuperscript{122} Hence, the last frustration of the 1830's was bequeathed to the 1840's, with the hope that when the barrier was overcome a vast increase in the commercial prosperity of the Canadas would ensue.\textsuperscript{123}
NOTES TO CHAPTER TWO


2 C/51, pp. 244-50 and W. O. 44/20, pp. 48-50, J. By to E. W. Durnford, November 26, 1830.


4 W. O. 44/20, pp. 51-6, W. H. Merritt to J. H. Dunn, March 5, 1832.

5 Ibid., pp. 62-4, By's proposed rates for 1832.

6 Ibid., p. 82, E. McMahon to R. O., March 14, 1832.

7 Ibid., pp. 92-3, R. O. to Secretary of J. Colborne, March 20, 1832; ibid., pp. 62-4, By's proposed rates for 1832.

8 Ibid., pp. 98-9, By to R. O., April 10, 1832.

9 Upper Canada Gazette, VI, No. 49, April 26, 1832, Proclamation of tolls for the Rideau canal, dated April 26, 1832.

10 C/54, pp. 162-4 and W. O. 44/20, pp. 101-6, Petition of Inhabitants of Kingston to J. Colborne, May 1, 1832.

11 W. O. 44/20, p. 103, By's schedule of tolls, May 10, 1832; C/54, pp. 167-9, By to R. O., May 14, 1832.

12 C/54, pp. 167-9, By to R. O., May 14, 1832.

13 Ibid./20, p. 91, R. O. to Secretary of J. Colborne,
March 23, 1832; ibid./15, p. 134; R. O. to Lt.-Col. Craig, August 13, 1832; ibid./20, p. 11, J. By to G. Nicolls, August 13, 1832.

14 W. O. 44/20, pp. 130-3 and G1/89, pp. 253-8, Treasury Minute of August 17, 1832.


16 D. Creighton, The Empire of the St. Lawrence (Toronto, 1956), p. 205.

17 W. O. 1/553, pp. 503-6, Sir G. Murray to Board of Ordnance, December 16, 1844.

18 C/54, pp. 165-6, By to Glegg, May 14, 1832; ibid./55 p. 8, By to Nicolls, May 30, 1832.

19 U. C. Sundries, n.d., C. J. Bell, in his observations on the improving of the Mississippi river, stressed the advantages of canalization to avoid the extravagant use of manpower necessary to bring the provision canoes up-river. He also deplored the long delays caused by rafts breaking up in the rapids as well as the consequent losses which might run as high as 20 percent.

20 U. C. Sundries, G. Longley to E. McMahon, May 1, 1832, enclosing the petition against the lumber tolls, with over 30 signatures. See also C/54, pp. 74-8, G. Longley to Price and Company February 27, 1832 and W. Price to Col. Craig March 16, 1832.

21 C/55, p. 79, Rideau Canal Lock Dues on Timber, signed by C. Shirreff, October 17, 1832, Total timber revenue for 1832 was £1904.

22 U. C. Sundries, W. Morris to Col. Rowan, April 9, 1833 and Morris to Rowan, October 19, 1833. See also ibid., Longley to Colborne February 15, 1833.
23C/58, pp. 45-9, Shirreff to Rowan April 1, 1834.

24U. C. Sundries, Capt. D. Bolton to Col. Rowan, April 4, 1832, Col. By was recalled by order of the Treasury Minute of May 25, 1832. He was made a political scapegoat and the military authorities allowed him to shoulder the blame for the rising costs for which he was in no way responsible. By's final estimate for the canal and its associated defences in 1832 was £776,023 — £216,000 more than the Kempt Committee had approved in 1828. These unforeseen expenses had proven to be absolutely necessary; By was particularly frugal in his handling of public funds. The Treasury Minute which so unjustly charged him with incompetence and irresponsibility, is in Imperial Blue Books, III, No. 504, pp. 2-3. This was a tragic ending to a devoted service. Subsequently, a committee of the House of Commons completely exonerated Col. By. Legget, in his Waterway, p. 64, reacts to the Treasury Minute in the following words: "These were the comments upon a pioneer work in the Canadian bush, controlled with a diligence and rectitude which is fully revealed in a careful reading or original letters."

25C/58, pp. 61-8, Petition of the Inhabitants of the Districts of Bathurst and Johnstown, n.d., 1834; internal evidence would indicate that this was written in spring, perhaps April.

26C/58, p. 44, Certificate of Representatives of Bathurst and Johnstown, January 11, 1834; ibid./58, pp. 45-9, Shirreff to Rowan; W. O. 44/15, p. 317, Extract of the address from the House of Assembly of Upper Canada to His Majesty, March 5, 1834, signed by A. McLean, also in C. O. 42/418, p. 273, April 5, 1834.

27C/58, pp. 52-9, Ordnance Office, Quebec, April 20, 1834, Minute re: tolls on timber.


29Bolton's opinions appeared in his letter to Nicolls, C/58, pp. 175-9, September 25, 1834. The reply of the Ordnance officers at Quebec was contained in their
Minute, ibid., pp. 180-4, October 3, 1834. The observations of S. Thomas, sent to R. Byham, are in W. O. 44/22, pp. 28-34, June 16, 1835.

W. O. 44/22, pp. 35-40, R. Byham to R. O., July 13, 1836.


Ibid., pp. 43-4, R. O. to Byham, September 5, 1836; Douglas Library, Queen's University, Archives Department, The Rev. William Bell Papers, 17 vols., X, p. 20 and XI, pp. 32-3 [manuscript, hereafter cited as Q. U., Bell].


Duncumb, Emigrant's Advocate, pp. 233-41, 250.
8.

C. 0. 42/241, No. 3, p. 53, Buchanan to Aylmer, December 12, 1832; Ibid./418, No. 13, pp. 193-4, Emigration Report for 1833, January 8, 1834.

42Ibid./252, No. 89, p. 511, Buchanan to Aylmer, December 12, 1834.

43C. 0. 42/252, No. 89, p. 529, E. Cushing to A. Buchanan, June 16, 1834; Ibid., pp. 536-7, Buchanan to Craig, September 2, 1834. The fare by the St. Lawrence at this time was about 10s.


45Q/431, (Part 1, 1225), pp. 251-65, A. B. Hawke to S. B. Harrison, December 28, 1840, including the reports of G. Burke, Bytown immigrant agent and J. Roy, agent at Kingston.


47P. Sec., #1265, Hawke to Harrison, June 12, 1840 and #1266, Hawke to Harrison, June 13, 1840 and #2834, Hawke to Harrison, January 11, 1841.

48C. 0. 42/489, No. 34, pp. 193-274, A. C. Buchanan to Lord Stanley, February 17, 1842, Emigration Report for 1841.

49Ibid./503, No. 16, pp. 284, 282, Emigration Report for 1842, January 26, 1843; P. A. C., Hill Coll., pp. 1513-6, G. R. Burke to A. J. Christie, November 28, 1842; G.20/28, #3229, Emigration Report for 1843. 6,781 of the 7,191 indigents were directed via the Rideau.

50G20/34, #3891, No. 11, pp. 6-11, Hawke to Buchanan, November 29, 1844.

51C. 0. 42/503, No. 16, pp. 291-2; Ibid./514, No. 33, p. 55; G20/31, #3526, A. Buchanan to J. Higginson, May 4, 1844; Ibid./34, #3891, pp. 19-21, No. 10, pp. 13, 24.
52. C. O. 42/527, No. 3, pp. 424-6, Buchanan's Report for 1845, December 20, 1845; G20/36, #4082, Buchanan to Higginson, May 23, 1845, The Champlain route cost only 1/3 for 160 miles. The canal rates were set at 10/0 per adult on barges, by a combination among the forwarders.


54. Journals of the House of Assembly of Upper Canada, 1832-3, p. 13, November 6, 1832, Resolution No. 5 on the lieutenant-governor's speech opening the House of Assembly [hereafter cited as Journals].


56. C/55, p. 6, Petition of Inhabitants of Kingston to Lord Aylmer, May 7, 1832.

57. Ibid., pp. 26-8, Routh to Glegg, July 25, 1832.

58. W. O./20, p. 11, By to Nicolls, August 13, 1832; C/54, pp. 167-9, By to R. O., May 14, 1832.

59. Journals, 1835, p. 15, January 16, 1835, from the lieutenant-governor's speech at the opening of the assembly.

60. Ibid., 1832-3, pp. 100-1, Appendix, Report of the Select Committee on the Inland Water communications of the Province.

61. M. Denison, The Barley and the Stream, The Molson Story (Toronto, 1955), pp. 152, 159; H. R. Morgan "Steam Navigation on the Ottawa River", O.H.S.P.R., XXIII (1926), 372; J. Croil, Steam Navigation and its Relation to the Commerce of Canada and the United States (Toronto, 1898), pp. 318-9. The lock at Vaudreuil was built in 1816 by the St. Andrews Steam Forwarding Company. Among the directors of the Ottawa and Rideau Company was John Redpath, a promi-
nent builder (and one of the major masonry contractors for the construction of the Rideau canal), businessman and, la­ter, sugar refiner, see Legget, Waterway, pp. 116-8, 166-7.

62 [W. H. Smith], Smith's Canadian Gazetteer (Toronto, 1849), p. 94.

63 R. Legget, Rideau Waterway (Toronto, 1955), p. 25; D. Creighton, St. Lawrence, p. 144, batcaux carried about 3 tons, Durham boats about 15-20 tons.

64 U. C. Sundries, Bolton's abstract describing all goods that passed the Rideau to October 31, 1832, Decem­ber 14, 1832; W. O. 44/21, pp. 394-6, Nicolls, on the dues collected in 1832.

65 Kingston Chronicle, May 31, 1832; C/56, pp. 77-83, R. I. Routh to the Hon. J. Stewart, February 23, 1833.

66 W. O. 44/22, pp. 61-70, D. Bolton to R. O., February 20, 1836.

67 Ibid.

68 Ibid., pp. 54-6, R. O., to R. Byham, March 4, 1836.

69 Ibid., pp. 61-70, Bolton to R. O., February 20, 1836.

70 Ibid., pp. 28-34, Thomas to Byham, June 16, 1835.

71 These suggested tolls on steamers were enforced by the lieutenant-governor's Proclamation of Tolls for the Rideau canal dated November 12, 1835, see Upper Canada Gazette, X, No. 27, November 19, 1835. Also, barges were to be charged half these rates if they carried passengers. The forwarders did not complain. The tolls on lumber were also reduced as previously mentioned, pp. 51-2. (oak 1d. and ½d. per cubic foot). Otherwise, there were no other changes in tolls since the Proclamation of June 4, 1834. There were no major changes in the tolls until Bagot's Proclamation of March 5, 1842, see p. 104; W. O. 44/15, p. 136, H. Craig to
R. O., August 8, 1832, transmitting the Ordnance's order to dispense with duties on passengers because of indigent emigrants; C/58, pp. 175-9, Bolton to Nicolls, September 25, 1834; ibid., pp. 180-4, Minute of the Ordnance office at Quebec, October 3, 1834.

72 W. O. 44/22, pp. 28-34, Marginal notes on the report of S. Thomas on June 16, 1835, by the Master-General of the Ordnance.

73 Ibid., pp. 61-70, Bolton to R. O., February 20, 1836.

74 Ibid., pp. 57-8, Paymaster's Office, Rideau Canal, to R. O., January 25, 1836.


78 Q/431A (Part 2, 1228), pp. 413-4, Extracts from a Memorial to the New York State legislature.


80 U. C. Sundries, Macaulay to Joseph, September 15, 1837.

81 C/59, pp. 297-9, Moffat to O'Donnell, July 9, 1840, including Oldfield's note of May 12, 1840.


Ibid., p. 206, By to Airey, May 23, 1831.

Ibid., pp. 8-10, W. L. Whiting to W. Morris, April 7, 1834.

Ibid., pp. 11-2, Morris to Airey, April 19, 1834.

Ibid., pp. 43-8, Petition of J. McPherson and Company, Received in March, 1835.

Ibid.; ibid., pp. 49-63, Routh to Airey, April 8, 1835.

Q/389 (Part 1, 1126), pp. 99-115; Memorial of sundry inhabitants of Midland, Johnstown, Bathurst and Ottawa districts to Colborne, January 1836. A similar one was sent from the town of Kingston to Bond Head and transmitted to Glenelg, July 1, 1837 in ibid./397 (Part 2, 1147), pp. 336-9.

Journals, 1839-40, pp. 839-42, Report of Select Committee on subject of Tolls collected on Rideau canal, April 22, 1839.

Journals, 1841, Appendix EE, Report of Select Committee . . . on Upper Canadian Communications, August 26, 1841, Evidence of McPherson and F. Henderson; and W. O. 1/553, pp. 705-30, Bolton to Oldfield, March 16, 1841,


Journals, 1841, Appendix EE, Report of Select Committee . . . on U. C. Communications, August 26, 1841. The material at hand does not reveal any further information regarding the business relationship between the Ottawa and Rideau Forwarding Company and McPherson and Crane Forwarding Company, although it would appear that the latter grew out
of or began to take over the former; in any case, they came to share the same privileges.


95 Ibid. /15, p. 321, By to Fanshawe, July 25, 1834; ibid. p. 261, By to Fanshawe, February 14, 1833; ibid. /42, pp. 210-3, By to Fanshawe, August 22, 1834.

96 Q/387 (Part 2, 1119), pp. 441-3, Colborne to Glenelg, December 26, 1835.

97 U. C. Sundries, Letter of March 27, 1839, from Kingston merchants (A. McNabb, Hugh Fraser, Frances Henderson, Hugh Calder) to R. H. Bonnycastle, enclosed in Bonnycastle to Rowan, March 30, 1839.

98 Journals, 1839-40, pp. 839-40, Report of Select Committee on subject of tolls collected on Rideau canal, April 22, 1839.


100 W. O. 1/553, pp. 705-30, Bolton to Oldfield, March 16, 1841, enclosing Merritt to Goldie, July 17, 1839.

101 Journals, 1841, Appendix EE. Report of Select Committee . . . on U. C. Communications, August 26, 1841.

102 W. O. 1/553, pp. 705-30, Bolton to Oldfield, March 16, 1841.

103 Ibid.

104 Ibid.


106 W. O. 44/42, pp. 227-9, G. Nicolls to F. Mulcaster.
December 20, 1834; ibid./22, pp. 54-6, R. O. to Byham, March 4, 1836; C. O. 43/45, pp. 379-80, Glencelg to Bond Head, May 23, 1836.


108 W. O. 1/537, pp. 94-5, Extract from the report of the Commissioners of November 1840; ibid., pp. 951-2, C. E. Trevelyon to R. Byham, April 24, 1841; ibid./536, pp. 147-50, Lord Russell to Lord Sydenham, July 24, 1841.

109 W. O. 44/42, pp. 245-6, H. and S. Jones Company to D. Bolton, December 24, 1840, Jones' latest towing contract, which had expired, was with McPherson and Crane, which again showed that some combination between the latter Company and the Ottawa Company had occurred. C. L. Rudyard still referred to the "Ottawa and Rideau Company monopoly"; ibid./25, pp. 330-3, Rudyard to Byham, February 10, 1841.

110 Ibid./25, 224-5, S. Thomas on Canadian Canals, March 31, 1841 and C/59, p. 349, Capt. R. Stehelin to Col. J. Oldfield, February 26, 1841, The route by Ste. Anne's was 12 miles shorter than by Vaudreuil and avoided the shallow Lake St. Louis.


113 W. O. 44/23, pp. 8-23, Thomas to Byham, January 30, 1841.

Arthur, June 1, 1838, in *ibid.*, #187, pp. 144-5.

115 J. H. Macaulay to C. Hagerman, April 21, 1838, in *ibid.*, #138, pp. 84-5.

116 Journals, 1832-3, Appendix, p. 90; Q/384 (Part 1, 1109), p. 32, G. Butler to R. Hay, July 28, 1834; G1/72, pp. 8-9, Rice to Colborne, August 2, 1834; W. O. 44/49, pp. 35-6, Report of Capt. E. Boxer and Col. W. Holloway, Inspector-General’s opinion thereon on the question of improving the St. Lawrence, in the Ordnance Board’s minute of March 15, 1841.

117 U. C. Sundries, Petition for improving the St. Lawrence to J. Colborne, Johnstown District, November 12, 1832.

118 W. O. 44/22, pp. 61-70, Bolton to R. O., February 20, 1836.


120 W. O. 44/23, p. 385, By to Fanshawe, October 18, 1833; *ibid.*/24, pp. 538-9, Lt.-Col. Clegg to Colonel Durnford, October 6, 1831.

121 C. O. 42/460, No. 131, pp. 87-9, Sir G. Arthur to Marquis of Normandy, June 8, 1839; Journals, 1841, Appendix EE, Report of Select Committee on U. C. Communications, August 26, 1841. McPherson testified that 6 steamers would be enough for a daily line on the round trip if the Grenville was enlarged. Four daily lines could handle the demands for freight if American produce continued; *ibid.*, p. 619, Resolutions of the House on the Report; Q/431A (Part 3), pp. 98-117, n.d.


123 *ibid.*/45, pp. 153-6, Thomas to Byham, December 20, 1843.
III

THE YEARS OF FULFILMENT

In spite of the imperfection of the Grenville canal, renewed confidence in the inland waterway was certainly justified. The year 1841, that marked the breakdown of the monopoly on the Ottawa, was, after all, a watershed in the story of the Rideau canal. It promised fresh hope for a future of even larger usefulness. The 1840's would prove to be great years of fulfilment for the Rideau, chiefly because of the vital role it would continue to play in the through trade of Canada.

Yet this concept of commercial fulfilment has several sides to consider. To begin with it must be weighed from both the Canadian and British points of view. Nor can the accomplishments of the Rideau be evaluated simply in terms of its ledger books, although the toll controversies do point up the nature of the trade, and are therefore central to an appreciation of the waterway's significance. One must also recall that it was of little moment to Canadians whether the canal paid its way; but its utility was of paramount importance. Even from the British side, however, the value of revenue was not the only concern. Behind it all was the military value. And this was the paradox: the Rideau, a military
canal, served a commercial world. But the continuance of the commercial heyday on the route was always threatened by a sense of foreboding, when the day would come that the St. Lawrence would no longer be a partner, but a rival. For it was characteristic of its history that the weaknesses of the Rideau waterway were always apparent throughout its successes; while its achievements were evident even amid its failures.

An old account of the early 1840's recorded that, "These were the days when the Rideau canal was made good use of by a large trade being done between Montreal and Kingston via Ottawa."¹ In 1841 six forwarding companies were busy in this trade, while two others were operating just on the St. Lawrence. McPherson and Crane Company was the principal forwarder, having 11 steamers and 45 barges, the latter averaging 90 tons. Five other companies -- notably Hooker, Henderson and Company, Sanderson and Murray Company and H. and S. Jones Company -- ran 10 steamers and about 90 barges and smaller craft. The two forwarding firms on the St. Lawrence (Ferguson and McGibbon; Matthie and Ross) owned 50 barges of 60 tons, but no steamboats.² Returns for the 1841 season (210 days) show that about 1650 vessels passed the canals, requiring almost 57,000 lockages -- an average of
270 a day, among the 47 locks on the Rideau.

A survey of the lockmasters' journals also illustrates the marked increase in traffic over the late 1830's after the destruction of the monopoly. Now it was not uncommon for one lock station to pass 5 steamers a day, each towing from 4 to 8 barges. A typical entry at Jones Falls in 1841 was that of the steamboat Margaret, which passed every second day on its shuttle service between Bytown and Kingston. Although Professor Creighton suggests that there was an urgent need for the development of the St. Lawrence canals by 1841 to cope with existing trade, there is no evidence of any complaints from those directly involved that the Rideau was inadequate.

If anything, facilities on the Rideau were more than adequate, particularly after July of 1841, when traffic slackened. By then the Ottawa timber trade was generally depressed, although sawn lumber exported through Kingston was steadily rising. At the same time, however, Bolton argued that there were not enough steamers for commercial and military services on the Rideau, if war should suddenly break out. Even in time of peace the transport of troops occasioned interruptions "felt and complained against by all engaged or interested in mercantile pursuit". He feared that in an emergency the military interest would suffer. Obviously, public attention was fixed on peace-time commerce,
which the Rideau was well adapted to serve.

But there were still weaknesses in the system. If one of its dams had broken, "it would be ruinous to half the commercial interests of the country", warned H. H. Killaly, chairman of the Board of Works for Canada. A Cleveland merchant who testified before a select committee of the Canadian assembly in 1841, completely agreed. On the same occasion, McPherson — of the McPherson and Crane Forwarding Company — calculated that if a dam had broken, only half the craft used on the canal could have been employed on the St. Lawrence. Many of those who gave evidence before the committee complained of high freight costs. Charges on the Canadian canals, or upper St. Lawrence route, were only slightly lower than those on the Erie — $13 compared with $15 per ton of merchandise. Yet the very nature of the Canadian pattern of trade tended to keep prices up. It was estimated that the proportion of upward to downward freight was in the range of one to four. McPherson believed that if the forwarders were given plenty to do both ways they could transport for half the price. For example, the encouragement of a bulk import such as British salt would increase the up trade and thereby reduce freight charges.

The Rideau canal from the start had been a grand imperial design. And, of course, the Ordnance was still responsible for its maintenance and operation. By the be-
ginning of the 1840's, more than ever before, British officials were deeply concerned with the very practical question of making the canal pay its way. This mattered little to North Americans who stood to benefit from the facilities as long as they remained open to the public. But it had become an urgent consideration across the Atlantic and henceforth it would be a determining factor in British policy.

R. Eaton and J. S. Elliott were commissioned especially by the Ordnance in the spring of 1840 to investigate this economic problem. They stated the case clearly:

The splendid water communication from Montreal to Kingston, a distance of 273 miles, has cost the mother country the vast sum of more than a Million Sterling in its construction, and although it has improved the Country through which it passes in an incalculable degree -- and whether in peace or war must be considered of the very highest importance to the safety and welfare of the Canadas -- and moreover, is at the present moment the medium of a brisk and increasing trade; yet instead of paying the current expenses and yielding an interest upon the outlay as in the case of the Erie Canal . . .; from circumstances which the Ordnance Department have been prevented from controlling, the Revenues of these Canals have never been adequate to defray the current expenses of Repair and Maintenance -- but a considerable deficit has annually been made good by an application to the Imperial Parliament. 11

Consequently, the Ordnance Commissioners recommended an important revision in the method of levying tolls. A close examination of their report of November, 1840, is essential to an understanding of the larger role that the Rideau was playing in Canadian trade, as well as the British viewpoint
on the economic problem.

It was quite apparent, as the commissioners pointed out, that the pattern of Canadian transport did not work to the benefit of the canal. Since the existing tolls on the Rideau were calculated on the goods only, almost 75 percent of the up-bound craft destined for the St. Lawrence trade were allowed to pass free. As early as 1839, Bolton had noted that it would have been a "fair equivalent" for their use of the canal if a toll had been placed on empty barges. W. H. Merritt had agreed in principle; he had appreciated fully the value of the Rideau in supplying barges for the St. Lawrence. As a result, the commissioners urged that the tolls be levied on vessels, whether full or empty, according to tonnage and distance.

The increased revenue that could be expected under this system was illustrated by using the figures for the latest navigation year, from the fall of 1839 to the fall of 1840. The actual income was about £5,100, on 16,570 tons of merchandise at 6/2 per ton. Gross tonnage was almost 32,000, or 627 barges: 418 barges under 60 tons, 132 under 80 and 77 under 100. If those in each class had been charged £12.12, £18.18 and £25.4 respectively (about 25 percent less per ton than the present tolls on merchandise) the income would have risen to £9,000 — more than sufficient to
make up the Rideau's deficit. Moreover, this proposed tax on gross tonnage was substantially less than those levied at Lachine and Welland, which were calculated on the vessel plus the cargo. Since it was difficult to check merchandise and passengers carried by steamers, mostly downward on the Rideau, Eaton and Elliott suggested that these tolls be abolished.

The commissioners had submitted a most illuminating report. It was deserving of forthright action. The influential Seth Thomas of the Ordnance applauded it as an "elaborate and highly valuable statement", which promised a great increase in dues on the up trade. The traders should have no ground for complaint, he wrote, since they were already reaping "undue and disproportionate advantage" from the canals, by passing all the boats necessary for the down trade practically free of charge. And it was the up trade that would have to be depended upon in the future, now that increasing settlement was leading to the inevitable decline of local timber. Thomas realized that the Treasury Lords were demanding explanations of the economic problem. He was quick to add that revenue from the Ordnance lands along the canal might well avoid the annual demand on Parliament in years to come. He also seconded the commissioners' strong recommendation that the paymaster, C. L. Rudyard, be dismissed for
apathy and inefficiency in his administration of commercial
affairs. Financial prosperity also depended on alert, in-
terested, and informed administrators. Eaton and Elliott
had suggested that the very efficient Deputy Storekeeper at
Grenville -- S. Thomas Jr. -- replace Rudyard. S. Thomas Sr.
carefully refrained from any comment on this subject.\footnote{16}

By March of 1841, the commissioners' report was of-
officially accepted by the Ordnance Department in London. The
Master-General of the Board, now Sir George Murray, in full
agreement, declared that the question of tolls was one of
"utmost importance".\footnote{17} Incidentally, S. Thomas Jr. soon be-
came Ordnance Storekeeper on the Rideau. But the new system
of tolls was not implemented in 1841. Seth Thomas Sr. be-
moaned the fact and tried to explain it. The British
government, he noted, had directed the late governor, Lord
Sydenham, to consider the report and give effect to the pro-
posed improvements. Sydenham had been well aware of the
significance of the canals. He had postponed his considera-
tion, perhaps because of political affairs, so that the pro-
vincial government had yet to take any action.\footnote{18} Thomas and
the Board referred the problem to the Colonial Office and
the Treasury, and urged that it be presented to the new
governor, Sir Charles Bagot. Elliott was to remain in
Canada as resident Ordnance Commissioner, to provide a di-
rect liaison with the provincial authorities, and to give the Ordnance the advantage of his most extensive information from his laborious on-the-spot investigations.

Whatever system of tolls was finally approved, it was increasingly obvious in 1842 that the Rideau canal was an indispensable route for Canadian trade. Yet the British point of view must be fully appreciated. For there was no reason why the British taxpayer should be forced to pay for the upkeep of a navigation that was used primarily for the benefit of Canadian commerce. And, with the amount of traffic it was handling, there was no reason why the revenue should not at least meet the canal's expenses.

On Bagot's arrival in Canada in January 1842, the Executive Council was debating the question of toll revision, according to the instructions that had been received from the Colonial Office by Lord Sydenham the previous May. The legislative assembly had failed to take any action that summer. Sydenham's untimely death caused further delay. The governor-in-council therefore took up the matter in March 1842, the usual time of year to make any changes in tolls. Executive officials, who had been in contact with the Ordnance Commissioners, were loath to interfere with the Department's proposals which had been sanctioned by the
Treasury. Thus Bagot issued a proclamation on March 5 which set a scale of tolls embodying the new principle. Barges were to be charged, based on seven tonnage classes, whether full or empty. But now a storm of protest broke, that raged with all the fury of a March blizzard. A personal letter to the editor of the Bytown Gazette expressed it: "If the Ordnance had dropped a Bomb Shell amongst the merchants they could not have affronted them more . . . had half the locks on the canal been blown up it could not have more effectively injured the work or trade of the Country."

And that was precisely the point. For the question of tolls -- and the storm of controversy that whirled around it -- revealed more clearly than anything else the importance of the Rideau to Canadian commerce. Virtually all the forwarding companies cried out that imposition of the new rates would amount to a prohibition of all the carrying trade on the canals. Collectively, they petitioned the governor. They feared the most "disastrous consequences", perhaps the ultimate ruin of their business. Also, it would affect the commercial community at large. They reminded Bagot that, apart from the reduction of timber dues, there had been no material alteration in the tolls since the canal was opened in 1832. Having abandoned the St. Lawrence, the forwarders had invested over £100,000 in adapting their vessels
to the navigation of the inland waterway. It was essential for them to convey empty craft upwards. In order to tap the vast American trade, they had formed contracts (on the basis of the old rates of toll) to transport downwards at prices up to 30 percent less than ever before. The forwarders charged that the government had not given them sufficient warning of the change; tied to the existing contracts, they stood to suffer heavy losses. They therefore petitioned the governor to rescind the proclamation and postpone any new scale until the end of the season.

Nor was this controversy confined solely to those with craft on the canal. The Montreal and Kingston Boards of Trade sent similar petitions that amounted to a full scale condemnation of the unprecedented tolls. The vital interests of the province -- which were interwoven with the carrying trade -- were dependent, they said, on transportation facilities. Because of the great advantage of the Rideau in these respects, the St. Lawrence had been abandoned for upward freight. Under the new circumstances, however, traders would be forced to build smaller barges and revert to the old route, to the general injury of commerce. Only the existing low charges for forwarding maintained present exports and imports in Canadian channels. Inevitably, higher tolls would divert the trade to the United
States. Furthermore, the importation to Canada West of British salt -- on which the Sydenham government had lowered duties -- would be prohibited. Extensive arrangements had been made for this item in anticipation of a flourishing trade. Packers of provisions would now be forced to import inferior American salt. These arguments seemed to be quite reasonable. In another instance, an American Company estimated that it could save £10,000 by shipping a large quantity of railroad iron via the Rideau. The Boards of Trade continued, however, that the new rates would make any such contract with Canadian forwarders impossible. They concluded that only a withdrawal of the new Ordnance tolls would save the forwarders from the "ruinous contracts" already formed.

The Mayor of Kingston complained, further, that the industrious inhabitants of the hinterland would no longer be able to get out cordwood for the Kingston fuel market, since transportation costs would exceed current prices. Moreover, Montreal immigration authorities added their words of protest; they observed that the new system would bear heavily on the newcomers going to Canada West. Henceforth, because there had been no toll on immigrants transported by barge, it had been very convenient to send them in otherwise empty craft. No longer would it be economical to send
off small groups; immigrants would be unduly delayed until a
full barge load was prepared to sail. 24

It appeared, under the circumstances, that the
Canadian mercantile community was justified in its criti-
cisms of the new tolls. The members of the Board of Trade
at Kingston were most emphatic in their denunciation of the
proclamation of March 5:

We would most respectfully urge upon your Excellency,
that any step calculated at once to divert our own
trade and to prevent our enjoying that which our
Geographical position aided by the fostering hand of
the Imperial and Colonial Legislatures must ensure
us, would be to strike a blow at the prosperity of
United Canada, [from] which it may never recover. 25

But what of the welfare of the Rideau canal itself? Should
it be sacrificed to the demands of Canadian commerce by being
deprived of the means to pay its own way? Considering the
great advantages afforded by the waterway, this would have
been most unreasonable. Even the Kingston Board of Trade ad-
mitted that hitherto the tolls had been too low, and that
with sufficient notice they might be increased somewhat next
year. Notwithstanding this verbal concession, the two
sides -- Canadian traders and British Ordnance -- were,
however legitimate their respective motives, hopelessly dead-
locked. This was the more unfortunate, since the interests
of both were mutually dependent; for all parties recognized
the fact that the Rideau was an integral part of the commer-
cial empire of the St. Lawrence.

While weathering this storm of controversy, Sir Charles Bagot displayed a refreshing quality of understanding of the Canadian and British points of view. He seemed perfectly alive to the realities of both positions. He reminded the Colonial Office that the merchants knew that any tolls were not permanent, but subject to yearly change, usually published by March. But there had been no alteration of tolls since 1832; and it was obvious that the traders were not accustomed to annual changes. The governor-general noted that although business had quadrupled in the past three years, the present system — that allowed the empty barges to ascend the Rideau free of duty — could never produce a revenue that would cover operating expenses. He fully appreciated the fact that an increased income was vital. But a further tax on the up trade would only burden the Canadian consumer, while giving the exporter the bounty of an essential navigation nearly free. At the same time it was most unfair, he thought, to expect that Britain should continue to subsidize the downward transit. A new class of steamboats and larger barges had been partly responsible for the recent adoption of the Rideau as the exclusive upward route. On the other hand, these advantages might be neutralized if a high toll was levied that forced the forwarders to re-adapt their
facilities for the St. Lawrence. Therefore, the aim of the Ordnance to make the canal pay its way should be approached cautiously, lest the means should defeat the end.

Bagot added that the importation of British salt should be encouraged even at a considerable sacrifice of income on the canal. Salt, as well as other bulky articles such as coal, gave British ships returning with timber the advantage of a double voyage, and was inexpensive at Montreal. With continued cheap internal transportation, it could compete with American salt. This was important. In earlier years the necessity of importing this item from the United States had produced a distressing loss of precious metals, helping to create an unfavourable balance of trade. In conclusion, the governor-general recommended a modification of the March 5 scale of tolls. While he adhered to the principle behind it, he suggested that the charges be reduced 50 percent on unladen vessels, and those carrying coal and salt. The resultant income (about £11,000) would cover expenses and avoid further protests. Any such change would, however, require ratification from Britain. Meanwhile, sympathizing with the apparent disaster which confronted the mercantile community, Sir Charles Bagot issued a proclamation which suspended the one of March 5 and, for the time being, restored the tariff system previously en-
J. S. Elliott, the Ordnance Commissioner in Canada, concurred with the governor-general on all points. He regretted the delay in improving the system of tolls, but believed that the situation was beyond the control of the Department. On the basis of the 1841 traffic, half charges on empty barges would have netted £3,000 more than had been received that year. Elliott left the question of modification, however, to the authorities back in London. There, after much consideration, Seth Thomas made his report, which was fully endorsed by the Ordnance Board. He appreciated the strict impartiality of Bagot's comments, but he was obviously disappointed that the proclamation of March 5 had been suspended. Nevertheless, he accepted Bagot's modifications under the circumstances; they would be reconsidered, in any case, after the experience of the following season. The continuance of low tolls might be possible, he thought, when all the proceeds from the Ordnance lands could be applied to the upkeep of the Rideau. The Colonial Secretary, Stanley, sent notification of these views to Bagot on August 16. Elliott added late in September that any new proclamation of tolls should be made early, to avoid complaints from the forwarders.

Thus the altercation over tolls in 1842 was at least
temporarily allayed. But this was scarcely satisfactory from the British point of view. The Rideau canal, however, continued to serve Canadian commercial interests very well during 1842, even though Britain did not benefit from the anticipated increase in revenue. More steamers than ever plied the waterway; most lock stations passed four or five daily, with their barges. Lock labourers were busy. At Jones Falls on June 6, for example, they worked ten hours during the day and five at night.\(^{32}\) Time was of utmost importance to the traders, so that no delay could be permitted; lock workers were on call at all hours of the night.\(^{33}\)

With the increasing number of vessels, there came a demand to widen the entrance to the canal at Bytown. Indeed, Seth Thomas considered this improvement to be essential to the welfare of commerce.\(^{34}\) Yet the Inspector-General of Fortifications, Sir F. W. Mulcaster, disagreed in principle. The Rideau was a military work, he held. Britain should make no outlay solely for commercial purposes; it was unwise to adapt the Rideau "for spectacular competition with the St. Lawrence". When the canals along the river were finished they would serve all through traffic. But the Ordnance Board was quick to point out that Colonel By's canal, in spite of its strategic significance, was primarily commercial in its use. It was to the advantage of the Ordnance Department, of
course, to nurture the Rideau in this way, since an estimated annual income of almost £9,000 would be lost if trade abandoned the route, while its cost of upkeep would remain a charge on Britain in any event. The Treasury accepted this argument and authorized the expenditure for the improvement at Bytown. Thus the British military canal continued to serve the needs of Canadian commerce.

The new rates of toll included Bagot's aforementioned modifications and were proclaimed on November 7, 1842. Tariffs on barges — assessed on the various classes by tonnage — were the same as those suggested on the abortive March 5 proclamation, except that only half rates were to be levied on empty, up-bound barges. The normal due on steamers was set at £5. Nevertheless, a great uproar of discontent rose from the forwarders and the communities in the vicinity of the Rideau. This fresh wave of protests was embodied in a new series of petitions to the Canadian government. According to the new schedule, steamboats were to be taxed more heavily if they carried freight — £18.18, which was the same as charged for "class three" barges. The complaint was that this would hinder the supply of all villages along the waterway. Incidentally, the Canadian Executive Council, in advising Bagot, refused to endorse any reversion to the old
system. It took the view that the British government had a perfect right to try any reasonable experiment that would make the revenues of the canal meet expenditures. 38

Elliott, the resident Ordnance Commissioner, explained that the original idea for the extra toll on steamers was to prevent forwarders using them to transport freight and thereby remove their barges from the Rideau. Since then, however, he had discovered that only 25 percent of the barges were small enough to ascend the St. Lawrence; and only one steamboat could navigate the rapids. There was no danger, therefore, that the trade could be diverted. Based on the 1842 tonnage, it appeared, four times the number of boats were necessary for the downward as for the upward transit. 39 Elliott warned that in the future, nevertheless, rates would have to be regulated to meet competition as the St. Lawrence canals were completed. He observed that since the local trade was carried chiefly by steamboats, the petitioners would indeed suffer. Even grain milled along the Rideau -- some of it American -- was transported by down-bound steamers. Consequently, he recommended the standard toll of £5 on those serving the intermediate trade, if they had no regular holds for cargo. To subdue local unrest, the governor-general accepted this arrangement without altering the legal proclamation. 40
When it was realized that all steamboats had holds of some description, the concession was further defined. If the vessel was under 20 tons, it could pass with all its cargo at the lowest rate (£5). Inevitably, forwarders used this modification to best advantage in the through trade. Barges were emptied of merchandise before entering the Rideau so that they could pass upwards at half price. The goods thus delayed were re-shipped on steamers or kept until a barge could be fully loaded. Of course, steamers under 20 tons were used as much as possible; 480 of 680 in 1843 qualified for the lowest toll, even though the way they were loaded they should have paid four times as much. S. Thomas Jr., the Ordnance Storekeeper at Bytown, and Major F. R. Thomson -- who succeeded Bolton as Commanding Royal Engineer on the Rideau in July of 1843 -- were both incensed by this situation. They feared that the traders would employ only smaller class steamers that could ply up the Rideau and shoot the St. Lawrence rapids. Thus revenues would be jeopardized. They argued, as a result, that the Ordnance should revert to the original system whereby tolls were levied only on cargo.

There was, on the other hand, strong evidence to suggest that such a conclusion was unwarranted. In 1843 Canada suffered a temporary, but significant, recession in trade. Canadian imports were depressed, chiefly because of the over-
trading in previous years which had glutted the markets; de-
clining prices and business stagnation retarded trade. Provincial customs revenues fell 50 percent in the first six months of the year. Revenue from most canals told the same story. Receipts of the Ottawa dropped 44 percent from 1842: from £5,728 to £3,186; those of the Lachine 51 percent: from £14,000 to £7,000. Yet the striking fact was that, because of the new principle of charging tolls on vessels, they were reduced only 3 percent on the Rideau canal: from £9,218 to £8,895.

Even this drop was owing entirely to the failure of the local timber trade in 1843. In 1842 38,400 cubic feet of oak passed the canal; in 1843 the quantity of oak sank to a mere 500 cubic feet. The figures for other main items in the timber trade corresponded with this decline: pine, from 521,000 to 125,000 cubic feet; sawed lumber, from 4,136,000 feet to 709,000 feet; West Indian staves, from 16,400 to 500. Without this virtual collapse of the lumber trade in 1843, revenue for the waterway would have risen £700. Meanwhile, income from the upward commerce rose £500, although the number of tons of merchandise carried dropped from 12,661 to 9,977. In addition, the drive to encourage the importation of British salt and coal proved singularly successful. The weight of these bulky goods was double that of 1842 and
showed the "utility" of the Rideau, even though it did little to raise the income.

The Ottawa Forwarding Company attempted to take advantage of the completion of the Cornwall canal in 1843 and use the St. Lawrence exclusively. This experiment was abandoned early because of the excessive wear and tear on vessels and machinery where the rapids remained. Because of the general commercial depression, moreover, down trade on the St. Lawrence dwindled to one-third that of the previous year. The price of flour was higher at New York than at Montreal; also, Americans strove to control the western traffic. Cleveland, the main inland port, which cleared most of the western produce, exported only one-ninth of it via Canada. Clearly, this transit regulated the number of barges on the Ordnance canals; only one-third as many were necessary as in 1842. For example, 153 barges passed Jones Falls in September 1842; 52 in September 1843. From the above evidence it was obvious that the new system of tolls had operated most effectively in the interests of the canal and the Ordnance Board. Despite collapse of the timber trade, decline of the up trade, and failure of the down trade, revenues did not drop proportionately. Had it not been for the depression, the Rideau would have shown a large profit. J. S. Elliott, who was thoroughly conversant with these economic conditions,
strongly recommended — in direct opposition to Thomson and Thomas -- the maintenance of the new rates of toll.

Within the Ordnance, then, this question of rates became the centre of a fairly intense debate that lasted well into 1844. It was important for the future. The Ordnance officers at Bytown continued to urge an end to the boon to forwarders of allowing all steamers under 20 tons, loaded with goods, to pass for £5. Alarmed by the reduced number of barges, they demanded an early return to the system that placed a tax on cargo. 46

But surely this was too limited a view of the subject. Elliott weighed all sides of the matter; his analysis was far more satisfactory. After all, when the commercial state of the province was considered, he observed, it was futile to expect that more ships could have been attracted to the Rideau. It was only natural that forwarders would employ as few boats as possible; inevitably, they would adjust their arrangements to take best advantage of the method of levying tolls. If traders chose to transship goods from barge to steamer, they stood the risks of delay. Members of the provincial legislature, he noted -- many of them intimately connected with trade -- had neither received nor introduced any suggestions that the new system was unfair. Nor should the Ordnance Department complain. The toll on empty barges had
maintained revenues. Moreover, there were other factors besides the low toll which encouraged the use of small steamers. They could now navigate safely down the St. Lawrence, thus saving needless transshipment, while larger steamboats were restricted to the Rideau. Even a charge on freight in addition to the £5 rate would meet with much opposition. Elliott adamantly opposed any reversion to placing a toll on cargoes as an unjust tax on British imports:

I cannot conceive any more equitable or equable system of Toll than a charge upon the Tonnage of vessels when the Canal is a channel of supply to a Trade not passing through it. These were powerful arguments that were quite justified from every point of view.

With a revival of commerce in 1844, the new system would certainly produce a large increase in revenue. In any case, as Elliott wrote, there was no point in altering the tolls before the St. Lawrence canals were finished, perhaps in 1845. At this time the situation would have to be completely reconsidered. The Ordnance officers at Montreal concurred. In London, Seth Thomas, after careful deliberation, agreed that it would be best to maintain the existing system and await the experience of the 1844 season before deciding which principle of tolls the Ordnance should adopt in future. As usual, the Master-General and the Board approved.
Again, during 1844, the maintenance of the Ottawa-Rideau navigation was shown to be of the utmost importance to the Canadas. Late the previous season some delays had been caused on the Ottawa as a result of cave-ins on the banks at Grenville and malfunction of the locks at Carillon. Forwarding companies complained of their inconveniences and losses. Without waiting for ratification from London, the Canadian Ordnance authorities took immediate steps so that the necessary repairs could be finished before the ice broke the following spring. Elliott feared "alarming consequences" to Canada's commerce if there was a serious stoppage along the route. His colleagues at Montreal were also intent on protecting provincial trade and avoiding the "calamitous results" that might otherwise ensue.50 The secretary of the Montreal Board of Trade wrote that large quantities of produce were ready for shipment from the ports of Lakes Erie and Ontario. He observed that the province would suffer "extreme inconvenience" and loss of business if there was any lengthy delay in the opening of the interior communication.51

In the spring of 1844, local authorities closed the Bytown locks daily from 10:00 p.m. to 6:00 a.m. This was apparently because of the heavy traffic which placed too onerous a burden on the lock labourers. Forwarders protested vigorously, pointing out that ever since 1832 every facility
had been offered to pass vessels at all times, day and night. This new obstruction would mean costly delays of up to eight hours per craft. It would increase freight rates, discourage trade, and divert more American produce to New York.52 Recognizing these serious implications, Elliott observed that, "under the strong feeling which appears to be getting up", it would be wise "to meet the wishes of the Trade".53 In fact, any complaints about the operation of the Rideau had been energetically and conscientiously met by those in charge of the canal.54 There was only one exception: the Presbyterian Church had grounds for complaint. Its Synod regretted the evils and desecration resulting from the Rideau canal being open on the Sabbath day. It petitioned the governor-general that business should be performed only on "the six lawful days of the week".55 The Executive Council, fearing that the forwarders would raise strong opposition, advised against the imposition of this restriction. J. S. Elliott noted that his Department had no power to impede daily use of the canal, which the Rideau Canal Act had assured:

Upon every occasion when a regulation has been adopted in the least restricting the Trade ... it has been made the subject of serious remonstrance and complaint from the Forwarders, who regardless of the works, only seek to ensure a speedy arrival of their craft at Kingston.56

Commercial interests ruled supreme. Steamboats continued to ply up the Ottawa and Rideau to Kingston, returning
to Montreal via the St. Lawrence. The military canals still commanded the up trade and the vessels used for the down trade. For the labour required to bring even an empty barge up the St. Lawrence was excessive, and steam power there could not stem the strong currents. The best that could be done was to drag small barges (8 to 14 tons) up the rapids by oxen and horses.\textsuperscript{57} In fact, with its still incomplete canals, the St. Lawrence remained a "very imperfect navigation, and totally impassable at night".\textsuperscript{58} And in 1844, it was obvious that the St. Lawrence canals still could not be finished for two more years.

Traffic on the Rideau in 1844 showed the return of much better times. The quantity of imported merchandise passing up the route climbed from 10,000 tons in 1843 to 20,500 tons in 1844. Total freight carried upwards was about 35,000 tons. In addition, the produce shipped down to Montreal -- for which the Rideau supplied the vessels -- mounted significantly compared with the previous year: flour from 341,000 bushels to 609,000; wheat from 291,000 bushels to 360,000; pork from 10,600 barrels to 21,000. In all, this amounted to 78,100 tons.\textsuperscript{59} During the spring and fall of 1844 it was not uncommon for the locks at Jones Falls, for instance, to pass 20 vessels, including 5 to 7 steamers per day. Of the 29 steamboats now in service, 22 could navigate down the St. Lawrence, making a round trip in 8 or 9
days. The remaining large steamers, like the Beaver, Albert, Otter, Hunter, Vulcan and Prince Albert, were confined to the Rideau canal, at least until such time as the Grenville locks were enlarged. What was most gratifying, especially from the British viewpoint, were the financial results of the 1844 season. For the first year in its history, the Rideau canal had realized a surplus over its expenses — £1,500! This was an actual increase of 35 percent (£3,270) over 1842 and 40 percent over 1843.

Notwithstanding, debate was renewed within the Ordinance as to the principles on which tolls should be levied. The Respective Officers at Bytown — F. R. Thomson and S. Thomas Jr. — were still convinced that the system implemented in 1843, which taxed vessels instead of cargo, was unpopular and unfair to forwarders. Moreover, they claimed that the Department did not share in the profits of the greatly rising trade. For the number of ships navigating the canals had not increased correspondingly. Thomson and Thomas argued, somewhat superficially, that the toll on steamers (£5 if under 20 tons) was too light. About 390 of the 420 steamers in this category which had passed the Rideau in 1844 had been loaded; if these had been charged as "class three" barges (£18.18), then an additional revenue of £5,400 would have been gained. Also, they thought that the high toll on empty barges was unreasonable. It was advisable to
encourage the use of barges, which were best adapted to the Rideau canal, rather than many small steamers. They suggested, therefore, that low tolls be placed on boats and cargoes so as not to discriminate against any class of vessel or article: 1s. per lock on steamers; 6d. on barges, 2½d. on a ton of merchandise. Had these rates been imposed in 1844, total revenue would have amounted to £17,412 instead of £12,491 actually collected.63

Elliott objected to the criticisms put forth by the officers at Bytown and presented a thoroughly reasoned rebuttal. He was as convincing as he was sound. He defended the existing system of tolls: "the utility of the Canal to the Colony and its Commercial Interests has increased beyond the results of any previous year."64 There was no cause for alarm because of the fewer trips by steamers. Compared with the busy season of 1842, the actual decline was only seven percent (53 trips). This could be accounted for by the reduced need for towage, since the steamers making the round trip now carried some of the freight. Elliott accepted the fact that the number of barges on the canal had dropped 29 percent from 1842 (from 1609 to 1133). This was partly owing to the fact that since 1842, 28 barges had been replaced by 19 larger ones; still, total capacity had only declined from 63,650 to 61,920 tons. Upward trade on the Rideau, which had doubled to 35,000 tons, was obviously well provided for.
Downward trade on the St. Lawrence, which amounted to the 78,100 tons in 1844, continued to regulate tonnage on the military route. Steamers and barges together supplied 70,600 tons, while the remaining 7,500 tons was accounted for by vessels that had wintered at Kingston.65

As for the tolls, Elliott was quite right in pointing out that it was idle for Thomson and Thomas to suggest that another £5,400 could have been raised by charging loaded steamboats under 20 tons £18.18 rather than £5. The forwarders would simply have refused to pass their small steamers laden: "strong remonstrances would have resulted to the Government and Legislature while every description of Cargo, whose nature admitted of it, would have been transported through the St. Lawrence and not the Rideau."66 After all, the forwarders already paid a fair share since the new system of tolls was based principally on barges. Elliott even conceded that the tariff on empty barges should be lowered. He agreed that had the schedule of tolls now proposed by the Bytown officers been enforced in 1844, revenue would have risen 39 percent (almost £5,000). But this would have borne heavily on the commerce. Furthermore, the waterway had boasted a profit; there was, therefore, no need to concentrate unduly on raising its revenue.

This seemingly unending debate between the Canadian
Ordnance officials -- which apparently defied resolution -- barely concealed the one fact that would end it decisively: the completion of the canals on the St. Lawrence. For the time would soon come when the Rideau and the St. Lawrence could no longer operate on a complementary basis. This impending competition would have to be faced. It was certainly no time for disunion within the Ordnance ranks. Elliott took the initiative. He decided to accept the principle recommended by the officers at Bytown: tolls to be levied according to cargoes and the number of locks passed. Although he held to the idea that they should continue to be charged on tonnage, he believed that this concession would still maintain the revenues, efficiency and usefulness of the canal, while saving the Ordnance in London "perplexity and embarrassment". He also proposed that the system of managing the Ottawa canals should be assimilated with that of the Rideau.

Elliott argued realistically that rates should be adjusted to prevent any "ill-timed" or "injudicious" raise just when a formidable rival was about to appear in the new St. Lawrence canals. He trusted that Ordnance authorities would co-operate with provincial officials to prevent any "injur­ious rivalry"; and it was noted that provincial control of the lock at Ste. Anne's could be made to strangle the Rideau waterway. Ordnance tolls would soon depend greatly on those set for the St. Lawrence; they would need to allow for the
Rideau's disadvantages as to time and distance. Elliott stated that it was too late in the year (January) to make any changes in the existing system for 1845. A permanent one could be established for 1846. These views were fully endorsed by the Ordnance at Montreal.

Outside the Department, too, it was obvious that some revision of the tolls would be essential if the Rideau was to meet the forthcoming competition from the St. Lawrence. The chief forwarders were confident, nevertheless, that the trade would continue to ply largely on the Rideau and Ottawa if the charges were lowered. Other observers wrote that the St. Lawrence would draw off much of the traffic and thus supersede the military route as a through trade artery. It was, in truth, only a question of time. The commercial importance of the Rideau -- and its revenue -- seemed doomed to extinction.

In response to the Ordnance correspondence of January, 1845, Seth Thomas remained apprehensive because of the differences that existed between his son and Elliott. But the Canadian governor-general, Metcalfe, proclaimed the rates of toll for the St. Lawrence waterway in June, 1845. Further consideration of the Ordnance debate was therefore fruitless. Thomas Sr. pointed out that the St. Lawrence system must immediately determine the charges adopted for the Rideau. At the same time, the Canadian Ordnance was per-
fectly alive to the situation. The St. Lawrence canals would not be available for trade in 1845. But the interior communication would have to be placed on a footing so that it could fairly compete in 1846.\textsuperscript{72}

Setting aside their previous opinions, Elliott and Thomas Jr. now collaborated in this common goal. They had no delusions about increasing the revenues. They simply worked to make the inevitable decline as little as possible. This was a difficult task, since there was no experience to show how the trade might adapt to the St. Lawrence. Hoping to satisfy the forwarders and merchants, Elliott and Thomas incorporated the idea embodied in Metcalfe's recent proclamation of levying a toll on both vessel and cargo. They proposed rates somewhat less than those of the provincial schedule.\textsuperscript{73} The average toll on a barge with a ton of merchandise would be £1.6.7 compared with £1.18.0 on the St. Lawrence. Steamers would pass for £1.9.0 instead of £1.10.0. Actually, the provincial charges would likely rise considerably, since all craft shooting the rapids (to save time and money) were to be taxed 50 percent more when they returned up the St. Lawrence canals.\textsuperscript{74} On the Rideau, all steamers would be charged 6d. per lock, all barges 4d., merchandise per ton 1\textsuperscript{1}/\textsuperscript{2}d., salt and coal free. Calculated on the traffic of 1844, these rates would have produced £12.705 — about the same as actually received. This would cancel the
increase of almost £5,000 which Thomas had previously anticipated. With the new competition, however, a sacrifice had to be made to retain as much trade as possible.

In September, the Respective Officers of Her Majesty's Ordnance forwarded this proposed scale to the Commander of the Forces, the Earl of Cathcart, to be submitted for the approval of the governor. By November, they were still urging the civil authorities to promulgate the suggested tolls before the 1845 season closed. They finally received an unwelcome reply. A committee of the Executive Council flatly rejected the scale of tariffs. This schedule, it claimed, imposed too heavy a burden on the trade; the dues on potash, wheat, flour, beef and pork appeared to be 500 percent higher than those presently charged. It would be far better to maintain the existing system, which had at least been accepted by the forwarders. The committee justified its interference on the grounds that the Rideau canal was essentially commercial, not military.

The Executive's decision excited an indignant retort. The Ordnance reaffirmed its strong desire to protect the trade; it was precisely with that interest in mind that the new tolls had been proposed. The Executive committee had laboured under lack of proper information. The Rideau had enjoyed another busy season in 1845; the canal had produced its greatest revenue -- £12,859. Under the suggested rates
the income would have been only £11,589. If the revenue from the Ottawa canals was similarly calculated, then the total decline would have been £3,678. This was a reduction of about 22 percent -- scarcely an increase of 500 percent! This "imaginary" increase arose from the fact that the Executive had erroneously assumed that potash, wheat, flour, beef and pork were the chief commodities of the trade. To be sure, the Rideau supplied the Ottawa lumber community with foodstuffs from the upper province. But at the proposed tolls on the quantities of these goods actually shipped in 1845, only £1,100 would have been collected. Otherwise, these items were restricted to local trade and were negligible as far as revenue was concerned. 78

Revenue, after all -- as the Ordnance took pains to recall -- had come mainly from merchandise and vessels passing upward from Montreal. In 1843 the weight of tolls had been removed from the former and placed on the latter. Since half rates were charged on empty barges, the over-all tolls were undoubtedly higher; but it was an increase that the Ordnance had considered justified in view of the fact that the canals were supplying all the tonnage for the down trade. Consequently -- though there was no specific toll on merchandise -- the forwarders had raised their freight rates in 1843. The Executive committee had missed the essential point in 1845, by neglecting to recognize that the half rate
on empty barges was now to be relinquished. A partial view of any set of tolls was unrealistic. For the forwarders fixed their rates by summing up the total expenses of the route, not by the tariff on any individual article. If the new scale was adopted, the duties would actually be less than the low ones imposed in 1843. A 60 ton barge full of merchandise, for example, would pay 20 percent less (£22.14.4 instead of £27.5.0). With the rivalry from the St. Lawrence imminent, this reduction was vital since the existing tolls would deny the imperial canals any share of the trade.

By February, 1846, the Executive committee had completely reconsidered the matter in light of the foregoing arguments presented by the Ordnance authorities. It dropped its former criticisms of the proposed tolls and recommended only a few minor changes on items that would have little effect on the revenue. The charges on potash, pork and beef, for instance, were reduced from 6d. to 4d. per lock, together with some reductions on wood products that would assist the development of the Ottawa valley. But the interests of the Ordnance canals had won the day. The new schedule — which finally replaced Bagot's of November 7, 1842 — was officially proclaimed on March 12, 1846.
The years 1844 and 1845 had truly been years of fulfilment. And, for the first time, the success of the canal had been revealed on the ledger books. The waterway actually boasted a profit of £5,000 since 1844. Strikingly, too, the Rideau still commanded most of the up trade in 1846. Despite the reduced rates of toll -- and the anticipations of a sharp decline in traffic -- the canal's income only dropped to £11,589. The collapse of the Rideau's role as the seaway to the lakes was thus delayed one year. The chairman of the provincial Board of Works, H. H. Killaly, explained the real reason. Although the Beauharnois canal had been opened in October 1845, the Williamsburg locks would not be finished until the fall of 1846:

Until the several portions of the Navigation were completed, it was not to be expected that the benefits anticipated from these Canals could be realized; until then, no advantage could comparatively be derived from the completion of one or two isolated portions; the trade must have continued to be carried on in the small class vessels which returned upward by the Rideau route.

How reminiscent this was of the plight of the Rideau canal, before the Ottawa locks were completed in 1834!

It should be recalled, however, that the weaknesses of the military canals had never been removed entirely. For the three small locks at Grenville had not been enlarged. Already we have noted the importance of this drawback in the
1830's. The boom years of the 1840's had occurred in spite of this serious constriction in the waterway. Nevertheless, informed observers had remained keenly aware of it. Killaly had recognized in 1844 that it was a source of public dissatisfaction, increasing freight costs and "materially" lessening the value of the route. Even the improvements on the St. Lawrence, he claimed, might not have been undertaken for some time had all the Ordnance locks been of the larger dimensions. All the principle forwarders agreed that if the Grenville locks had been constructed on the same scale as those on the Rideau, steamers with greater towing power and freight capacity could have been used; barges that could carry double the cargo of a Lake Ontario schooner could have been employed. As it was, the barrier remained, precluding the use of these "infinitely superior" vessels.

British officials argued that the enlargement of the Grenville locks was indispensable from the military point of view. Later in 1845 the Ordnance Board declared that action should be taken immediately. There was, of course, no chance that the provincial government would act; it would remain an imperial project. The estimate for the construction was £73,600. The Lords of the Treasury authorized £23,600 to start with, in anticipation of parliament's vote in 1846. Ironically, then, at the climax in the development of the Rideau as a commercial thoroughfare -- and just
when the St. Lawrence was nearing completion -- Britain was preparing to do away with the old frustration on the Ottawa. And Britain again was moved primarily by the military factor. As the Duke of Wellington said in 1846 -- in a statement that sounded very much like it could have come out of 1825 -- "No defence of Canada can be undertaken unless this water communication should be completed." 86

vii

It might well be argued that, from the military point of view, the Rideau canal had always fulfilled its purpose in providing a measure of security for the inland country, even though there had been no war. In this sense, perhaps, the waterway had paid for all its expenses, but in the bustle of commercial activities the military significance of the Rideau canal is likely to be obscured. Deemed the veritable safeguard for Upper Canada in the event of an American invasion, it happily never had to be used for that purpose. But quite possibly it had some effect as a deterrent against any reckless American aggression. The facility afforded by the speedy conveyance of troops and stores to the interior certainly assured the "preservation of Canada to British Supremacy", according to Colonel Holloway, the Commanding Royal Engineer of Canada in 1844. 87 Considering the fact that a new political relationship between Britain and the Canadas
was being formulated through the 1840's, perhaps it would be better to say: "preservation of Canadian independence". In any case Britain had made this comforting reassurance possible. One contemporary British traveller summarized the political "good" resulting from the canal aptly: "whatever adds to the independence of a nation is of the utmost importance." 88

"It is one of the greatest securities by which we hold the Canadas and the protection of every other great work which either has been, or may be, undertaken there." 89 This had been the view presented in 1832 by a correspondent of Viscount Howicke (then Undersecretary of State for the Colonies), regarding the place of the Rideau canal in the defence of British North America. It was by no means unique. Virtually all informed men of the time recognized that as a military work the canal was essential, and clearly, future conflicts were anticipated. 90

The feeling remained prevalent that it was only a matter of time before another war would break out. "There is no doubt that such a contest is contemplated by the United States", a memorandum on defence stated in the later 1830's. 91 These fears, moreover, were based on concrete evidence, as this memorandum revealed. The American War Department had reported to Congress that the vast importance of the inland Canadian frontier, "cannot fail to impress us
with the necessity of being prepared, not only for defence along that line, but to act offensively with decisive effect in the event of our being involved in a conflict with Great Britain".\textsuperscript{92} In any future Anglo-American struggle the implication was that the Americans' best means of hitting back at Britain was to invade Canada. The War Department was fully aware that the mastery of the lower lakes was essential. It suggested -- shades of 1814 -- that special efforts should be made against the vital British points as far down the frontier line as possible. The writer of this memorandum, who may well have been Sir R. D. Jackson, the Canadian Commander of the Forces, was thoroughly alarmed by the foregoing statement of the American War Department. He urged that Canada prepare herself to "resist at a future period the wonderfully increasing Power of our restless and ambitious neighbours". He saw that British naval supremacy relied on the security of Kingston -- the southern terminus of the canal. Since the St. Lawrence frontier communication would be rendered useless in the event of war, the Ottawa and Rideau would be the lifeline to Upper Canada.\textsuperscript{93}

The troubles following the Upper Canadian rebellion period of 1837, however, demonstrated that the Rideau would have to be fortified at each lock station if it was to provide a secure means of transportation in war-time. There were many rumours of attempts by the disaffected to injure
the canal works, particularly through the spring and summer of 1838. Sir George Arthur, the lieutenant-governor, urged that the Rideau posts be strengthened "as these Pirates may now try to cut off our communications in that Quarter". Every possible step was to be taken to secure the navigation.\textsuperscript{94} Benjamin Tett, a back-country merchant from Newboro, immediately took up the challenge. He warned the loyal inhabitants on the Kingston watershed of the canal and by nightfall, July 4, there was a sufficient force at each lock "to prevent the wicked and rebellious Designs of the marauders".\textsuperscript{95} While none of these various threats materialized, the potential danger and the weakness remained. Every station but Bytown was open to attacks which might injure the works sufficiently to interrupt navigation for an entire season. In the summer of 1838 Captain Bolton reported that the feeling was general along the whole route that such an attack might be made.\textsuperscript{96}

The border hostilities and international unrest of the late 1830's tended to point up more than ever the potential military usefulness of the Rideau. The protection of the canal was now considered "a primary object in every scheme for the Military Defence of Canada". The Inspector-General of Fortifications, Mulcaster, mindful of the recent rising, urged that the security of the Rideau works required permanently established fortifications.\textsuperscript{97} Assuredly,
the post-rebellion period in no way reduced the probability of an American war. Sir George Arthur hoped that the British minister at Washington could at least postpone if he could not avert that "dreadful evil". He felt certain that the Americans would attack at the first good opportunity: "they hate our government -- they hate ourselves; they feel their inferiority to England in civilization, it hurts their vanity, and they will turn upon us when we are in distress."

Confronted by an apparently inevitable war, it was necessary to assert and maintain "superiority on the Inland Waters". The Lords Commissioners of the Admiralty expressed exactly the same feeling when they informed the Colonial Office in 1846 that in any American war the military canals were the only way that communications between Montreal and Canada West could be ensured.\[98\]

That the whole question of Canadian defence turned on the facility of the water communication was a fact that the Duke of Wellington had long recognized. He had been re-appointed as the Commander-in-Chief of the British forces in 1842. Strictly from a military point of view, he still firmly believed that, despite the financial outlay on the Rideau, nobody could doubt "the wisdom of the plan, its efficiency and above all its Economy". Lord Hill, Wellington's predecessor as Commander-in-Chief, agreed that the waterway was "the most useful and important work ..."
that had been undertaken for the prosperity and security of Canada." In 1846 war with the United States would again seem "imminent". Nor did the possibility of an American war cease to exist after that date. In fact, the strong military arguments for the Rideau canal would prove to be valid for many years to come. From the military viewpoint alone, then -- quite apart from its notable commercial success -- the canal had vindicated its considerable expenses.

viii

In truth, the canal was a linch-pin in the British works for a defensible border in Canada. And, for the better part of the 1840's, the waterway continued to be a vital communication link for Canadian commerce. These, indeed, had been great years of fulfilment. Yet they would not endure much longer. In a real sense, the year 1846 ended an era for the Rideau canal, just as it signified the collapse of the old colonial economic and political system.

For some time past, below the surface of these fruitful years, lurked an unanswered question: How long would Great Britain maintain control of the Rideau waterway? On the one hand, it seemed as though the military raison d'être of the canal would hold it under the direct authority of Britain as long as she was responsible for Canadian defence. On the other hand, when revenues failed,
which seemed certain when the St. Lawrence canals were completed, the maintenance of the waterway would become a costly burden on Britain, which could be lifted only by giving the canal over to Canada. When it came to an impasse, which of the two forces would win out, the military or the economic? From 1826 to 1846 at least, the Rideau had been the supreme example of the power of the former; Britain had shouldered the financial outlay for the canal's construction and operation. As early as 1840, however, Seth Thomas had considered the possibilities of transferring the Ordnance canals to Canada. Military factors, he thought, would always have a decisive voice as to the subsequent maintenance of the route. But lack of funds and "party feeling" in the provincial government would jeopardize the security of the canal and therefore the safety of the upper province. Transfer of the canals at that time would, he concluded, be an "extremely doubtful and dangerous policy". 101

Strangely, the first real movement in Britain to transfer the Rideau canal was started by the Master-General of the Ordnance, Sir George Murray. Moreover, it came in December 1844, right at the height of the Rideau's commercial prosperity, when revenues were highest. Ever since the 1820's Murray had believed that it was best to regard
the Rideau primarily as a commercial work. Now he was confirmed in his original opinion: "The general and daily purposes of that line of Navigation are commercial; and it is that Interest which has the most constant and most urgent motives for its maintenance and its good management."\textsuperscript{102} Since expenses were regulated for commercial advantages, the door was left open for undefined claims on the mother country. Consequently, Murray suggested that it be ascertained whether the canal should be transferred to the provincial government. He added that Britain should continue to pay a share of the costs because the waterway was still a feature in the defence system of Canada.

On this question of transfer, the Chancellor of the Exchequer completely agreed.\textsuperscript{103} The Ordnance in Canada made a similar recommendation early in 1845, provided that Britain reserved full and free use of the Rideau for military services. When he was told of these opinions, Metcalfe, the governor, thought it highly unlikely that the province would accept the expense and take over the canal. By 1845, after all, with the impending completion of the St. Lawrence waterway, revenues from the Rideau faced inevitable collapse.\textsuperscript{104}

The question was reopened in the summer of 1846 with a proposal by Cathcart, the administrator of the Canadian government, that the Ottawa-Rideau canals be leased to one or
more of the forwarding companies for two or three years, un-
der the supervision of a committee of civilian and military
officers. The Ordnance in London requested the best lo-
cal information on the subject and recommended the appoint-
ment of a commission to determine: (a) the expediency of
transfer; (b) if advisable, to what body; (c) under what
conditions. Under these instructions of the Ordnance
Board and the Treasury (with the co-operation of the Colonial
Office), a commission was set up by March 1847, to investi-
gate the future charge of the canals.

Meanwhile, the Rideau canal faced its years of com-
mmercial crises and collapse. It was noteworthy that the
eclipse of the Rideau as a through trade route coincided with
the opening of a new seaway along the St. Lawrence. For the
new waterway, born in trying times, would meet its own
failures and frustrations when confronted with rising competi-
tion from the United States and from railroads, to say
nothing of the shattering dislocations and painful re-adjust-
ments caused by the final abandonment by Britain of the old
preferential trading system in 1849. As far as the Rideau
was concerned, though, the facts were indisputable. A con-
temporary author observed in 1851 that the completion of the
canals on the St. Lawrence had a "most annihilating effect
upon the traffic on the Rideau".
With the new seaway fully available for up-bound traffic in 1847, Rideau canal revenues dropped from the £11,589 in 1846 to £3,870 in 1847, and £3,690 in 1848 and £3,120 in 1849. The deficit for 1847 was £13,900; the estimate for expenses in 1848 was twice as much as usual — £18,900. Of course this sorry financial picture was further darkened by the years of depression, 1847-50, as well as the recent American Drawback Act which allowed Canadian imports and exports to pass through the United States in bond. Also, the canal was closed for four and a half months in 1847 for repairs, that were further delayed by a wave of malaria. Yet this lengthy closure was symbolic of the fact that the Rideau was no longer essential to the through trade. Many forwarders, and those immediately responsible for the operation of the canals, said that the principal reason for the utter failure of this trade was the opening of the St. Lawrence. The tolls on both routes were about equal. But the toll question was now purely an academic one. Even if the Rideau was free it would make no difference. No alteration of tolls on the military canals could change the balance of expenditures over receipts.

Under these circumstances, the movement for enlarging the locks at Grenville was stalled. Here, the refusal of the British parliament to grant funds was decisive.
It is interesting to note, however, that Canadian opinion was divided on this question. Some believed that facilities were adequate for the existing trade. On the other side, one forwarder claimed that enlargement of the Grenville canal would hold a fair proportion of trade to the Rideau, since there was much less risk involved than on the St. Lawrence. Furthermore, although the financial outlay would not be repaid, the military arguments were still strong. Thus the old feeling that the interior waterway was incomplete lingered on.

The commission established by the British Treasury and Ordnance reviewed the plight of the waterway and submitted its report in 1849. It consisted of the following senior officials in Canada: the Commanding Royal Engineer, W. Holloway; the Commander of the Royal Artillery, T. Dyneley; the Ordnance Storekeeper, J. S. Elliott; and the Commissary-General, W. Filder. They confirmed that the fact that the St. Lawrence "must materially effect the Revenue and diminish the use of the Ordnance Canals". As for the Grenville locks, they wrote that enlargement would have been recommended, but the "altered circumstances of the canals" had rendered it inexpedient.

It was clear that the commissioners fully appreciated the strategic importance of the Rideau canal: "in the event of hostility neither the supplies nor men could pru-
dently be forwarded within view of the Enemy's Frontier, neither could the Commerce of the Country be slow in deserting the more exposed and precarious channel." At all costs, the commissioners declared, the efficiency of the Rideau must be maintained; and that could be accomplished only by "constant and methodical supervision". Under no circumstances could the canal be leased to private enterprise, which would have no interest in its permanent existence. Exclusive control by the military was essential. Seth Thomas Jr. testified before the commission that, in the hands of speculators, strategic considerations would be jeopardized. Nor should the interests of local trade and the neighbouring settlements be sacrificed to a company which might establish a monopoly. Transfer to the provincial government was likewise out of the question. The commission feared that the necessary money for repairs would not be forthcoming. In any case the province had refused. Operating the canal would be no more economic for Canada than for a private company.

Filder, the Commissary-General, argued that they be closed in peace-time. Why should Britain bear the cost of upkeep? But the remaining members of the commission hoped for improved revenues when the depression ended. A high state of efficiency could be maintained only if the works
were used. Legally, according to the Rideau Canal Act, the waterway had to be open to the public. Furthermore, closing the Rideau would prove injurious to local settlements, "en-gendered and encouraged between Bytown and Kingston by the formation of the Canal". Above all, since it was a military work, responsibility lay with the mother country. These were familiar arguments that had inspired and fostered the waterway for a generation. And they were still valid. Consequently, the report of the commission in 1849 justified the maintenance of the Rideau under British control. Although they were weakening, imperial defence considerations would thus survive the death of the old political system in Canada and the downfall of the imperial economic order. The powerful military forces centred in London that had first created the Rideau canal still stretched across the Atlantic and tied it to Britain.

By 1850, however, it was evident that a watershed had been reached in Anglo-Canadian relations. "Military mercantilism" was now a hopeless anachronism in Canada; it was quite inconsistent with her recent achievement of responsible government and the British adoption of free trade. In the colony, self-defence certainly lagged behind self-government. But the old concern for imperial military ties was waning on both sides of the Atlantic. And military re-tranchment was one of the rallying cries of the free traders;
increasingly, military expenses, especially in the old colonies, were being brought into question. British officials therefore began to encourage the Canadian government to accept a larger share of responsibility for its own defence. The decline of British interest in providing for Canada's military needs was heightened by the withdrawal of a large number of troops from British North America during the Crimean War.\textsuperscript{113} Nevertheless, Canada was not, as yet, militarily abandoned.

In spite of the report of the Ordnance commission in 1849, then, influential opinion within Britain continued in the earlier 1850's to press for the transfer of the Ordnance canals to Canada. The revenue question was the Achilles' heel. Treasury officials urged that the imperial government be relieved of the financial burden. They added a bald note of disillusionment and despair: "Experience proves more and more how ill judged was the expenditure of these canals."\textsuperscript{114} The Inspector-General of Fortifications, J. F. Burgoyne, reiterated none the less that the Rideau was as essential to defence as any fortress; yet he pointed out that the local importance of the route was purely a colonial interest. He therefore favoured its maintenance by the province.\textsuperscript{115} It was still clear in 1850, however, that Canada was reluctant to accept the gift, "as long as so considerable a disproport-
tion exists between the receipts and expenditure". Up to 1852, income on the Rideau continued its decline, even though the depression had lifted. This was largely owing to the lowering of tolls forced by the reductions on the St. Lawrence route: revenue was £3,120, expenses were £16,900 in 1849; £4,000 and £14,000 in 1850; £3,400 and £12,200 in 1851; and £2,300 and £10,500 in 1852.

By the winter of 1853 the Treasury had reached an irrevocable decision: "my Lords are of opinion that this Country ought no longer to be subjected to this charge and that steps should be taken for the transfer of these Canals to the Provincial Government." The Ordnance was ordered to effect the transfer, and granted funds sufficient to carry canal expenses only to September 30, 1853. After that date the tolls were to be paid to and the maintenance costs drawn from the Canadian treasury.

This decisive step was a reminder, too, of the declining power of the Ordnance itself. For the Ordnance Department -- which had had such a profound influence on the development and maintenance of the waterway -- was now caught up in the throes of an administrative revolution in Britain, that ended with an assertion of civil supremacy over military authority. Heretofore, the various departments concerned with military affairs -- the War Office, the Commissariat,
the Commander-in-Chief at the Horse Guards and the Ordnance -- had enjoyed a surprisingly large measure of independent action. To be sure, it was a cumbersome system, and tended to augment military influence in government. The movement to subdue this source of influence and inefficiency was brought to a head in the years 1853-5.

The pressures and disasters of the Crimean War revealed the defects of the military system and precipitated a rapid reorganization by Palmerston's government in 1855. First, the Commissariat was removed from the Treasury and placed under the authority of the reconstructed War Office. Then, the office of Secretary at War (which had headed the old War Department) was merged with that of the Secretary of State for War. This secretaryship now absorbed the Ordnance Board, which had been relatively independent under the crown for about 300 years. The position of Master-General, which dated from the fifteenth century, was abolished. The Commander-in-Chief now took over the control of the Royal Engineers and Royal Artillery and became the superior to the Inspector-General of Fortifications. Thus the military forces of Britain were centralized and brought under a single department that was responsible to parliament. Such a reform was undoubtedly long overdue. Concurrently, it left its mark on the history of the Rideau canal.

In the past -- and as recently as 1849 -- the
Ordnance Board had been the prime link in the chain of authority which had bound the canal to Britain. Now that it was gone, it was much easier to effect the transfer of the works to Canada. Consequently, this combined with the waning British interest in overseas military obligations, and the utter collapse of revenues on the Rideau, sealed the fate of the canal. In 1856 it passed from the control of Great Britain. Thus another common tie that had been forged between the two countries was broken; and, with its severance, the most significant era in the story of the waterway came to a close.
NOTES TO CHAPTER THREE

1P.A.C., Keefer Collection (1819-1901), Entry #75, History from the early 1840's, Modes of Travel.

2Journals of the Legislative Assembly of the Province of Canada [hereafter cited as Journals], 1841, Appendix EE, Report of the Select Committee on ... U. C. Communications, August 26, 1841, Appendix to the Report, A., Evidence taken before the Committee.

3W. O. 44/16, p. 411, Elliott's statement re: number of vessels and lockages in 1841; P.A.C., Rideau Canal, Lockmasters' Journals, vol. 139, Jones Falls, 1838-1844, 1841, [manuscript, hereafter cited as Lockmasters' Journals].

4D. Creighton, The Empire of the St. Lawrence (Toronto, 1956), p. 343.

5P.A.C., Hill Collection p. 5921 Petition to governor-general, ca. 1841; W. O. 44/25, p. 346, Lumber passed through the Rideau at Bytown from its opening to July in 1840 and 1841; 521,000 square feet passed via Kingston in 1840; 663,000 in 1841, see ibid., p. 347.

6W. O. 1/553, 705-730 Bolton to Oldfield, March 16, 1841.


8Journals, 1841, Appendix EE, Appendix to the Report, A., Evidence taken before the Committee.

9Journals, 1841, Appendix EE, Appendix A.


12. W. O. 1/553, Bolton to Oldfield, March 16, 1841, enclosing Merritt to Goldie, July 17, 1839 and Bolton to Commanding Royal Engineer, June 28, 1839.


14. Ibid., The Lachine toll on a boat carrying 50 tons of merchandise was £5. The proposed charge on the Rideau would be £12.12, but then it was 14 times as long. A similar passage on the Welland would cost £13; even so the Rideau was 6 times the distance.


19. W. O. 44/25, pp. 246-260, 284; C. O. 42/492, No. 86, pp. 135-57, Sir Charles Bagot to the Right Honourable Lord Stanley, April 19, 1842; The Canada Gazette, published by Authority, No. 27, April 2, 1843, pp. 258-9, The Proclamation of the Governor-in-Council, March 5, 1842. By this scale, tolls for the upward trip, Bytown to Kingston, were to be levied as follows: steamers £5; class 1 barge (100-150 tons), £31.10.0; class 2 (50-100 tons), £25.4.0; class 3 (60-80 tons), £18.18.0; class 4 (40-60 tons), £12.12.0; class 5 (20-40 tons), £6.6.0; class 6 (10-20 tons), £3.3.0; class 7 -- all smaller craft, £1.11.6. Down-bound vessels were charged one-third of the above rates. No other tolls were placed on
passengers or freight in steamboats.

20 P.A.C., Hill Coll., pp. 1392-3, S. Derbyshire to A. Christie, April 9, 1842.

21 W. O. 44/25, pp. 267-74; and C. O. 42/42, No. 86, pp. 168-73, Memorial of Forwarders to Bagot and a second Petition to Bagot, April 1842. The Forwarders involved in both petitions were: McPherson and Crane; Henderson and Hooker; H. Jones and Company; Murray and Sanderson; Ferguson, Millar and Company; Ross, Katthie and Company.

22 W. O. 44/25, pp. 261-4, 276-82; and C. O. 42/492, No. 86, pp. 163-5, 175-8, Memorial of the Council of the Montreal Board of Trade to Bagot, April 9, 1842 and Memorial of the Board of Trade at Kingston to Bagot, April 12, 1842.

23 W. O. 44/25, pp. 275-6; and C. O. 42/492, No. 86, p. 174, Memorial of the Mayor and Common Council of the Town of Kingston, April 12, 1842, signed by J. Counter.

24 W. O. 44/25, pp. 265-7; and C. O. 42/492, No. 86, pp. 166-7, Memorial of Immigration Committee of Montreal to Bagot, April 9, 1842.

25 W. O. 44/25, pp. 276-8, Memorial of the Board of Trade at Kingston to Bagot, April 12, 1842.

26 W. O. 44/25, pp. 246-60; and C. O. 42/492, No. 86, pp. 135-57, Bagot to Stanley, April 19, 1842.

27 Ibid.; see also, W. O. 44/25, p. 285, Bagot's Modified Scale, April 16, 1842.

28 P.A.C., Hill Coll., pp. 1400-1, Derbyshire to Christie, April 16, 1842; The Canada Gazette, No. 30, April 23, 1842, pp. 283-4, The Proclamation of April 18, which suspended the one of March 5, therefore maintained the rates enforced by the Proclamation of November 19, 1835, see Chapter II, n. 71.


32. Lockmasters' Journals, vol. 139, Jones Falls, 1842, and vol. 112, Newboro, 1840-44.

33. W. O. 44/16, pp. 403-10, Elliott to Byham, April 7, 1842.

34. Ibid./16, pp. 300-2, Thomas to Byham, November 30, 1842.

35. W. O. 44/16, pp. 303-5, Mulcaster to Byham, December 9, 1842, with Marginal notes by the Ordnance Board, December 21, 1842; ibid., p. 306, C. Trevelyan to Secretary of the Ordnance, January 24, 1843.

36. The Canada Gazette, No. 59, November 12, 1842, pp. 484-5, Proclamation of November 5, 1842.

37. P. Sec., 1841-3, The following petitions: #5350, Inhabitants of Perth; #5404, Inhabitants of Kemptville, Oxford, Marlboro, North and South Gower; #5424, Bathurst District Council; #5460, Wolford and Kitley; #5274, Inhabitants of Bytown and vicinity.

38. Ibid., 1841-3, #5504, Report of the Executive Council, signed by E. Parent, March 2, 1843.


40. P. Sec., 1841-3, #5525, J. Elliott to S. Harrison, March 30, 1843.

41. W. O. 44/25, pp. 138-46, Elliott to Byham, December 27, 1843; An additional advantage was that many steamers carried considerable freight on their decks, duty-free.
42. Ibid./25, pp. 123-7, Respective Officers, Bytown, to J. S. Elliott, December 28, 1843.

43. W. O. 44/45, pp. 101-5, Elliott to Byham, July 8, 1843; ibid./25, pp. 133-46, Elliott to Byham, December 27, 1843; According to Creighton, St. Lawrence, p. 348, the period of economic recovery and reconstruction had ended in unsettlement by 1843.

44. Ibid./45, pp. 101-5, Elliott to Byham, July 8, 1843.

45. Lockmasters' Journals, vol. 139, 1843.


49. Ibid., p. 135, R. O. to Respective Officers, Bytown, March 18, 1844; ibid., pp. 115-9, Thomas to Byham, May 14, 1844.


51. W. O. 44/44, p. 198, F. A. Wilson to R. O., March 14, 1844. The route was opened, without delay, on April 25; ibid., pp. 209-10, R. O. to Secretary of the Board, April 24, 1844.

52. W. O. 44/49, p. 25, H. Jones and Company, Henderson,
Hooker and Company to Elliott, May 21, 1844.

53Ibid., Elliott's note of May 23, 1844.

54W. O. 1/553, pp. 275-97, First report from Holloway and Boxer on Canadian Defence (to Sir R. Jackson), October 9, 1844.

55P. Sec., 1844, vol. 138, #3708, Memorial of the Synod of the Presbyterian Church of Canada to C. T. Metcalfe, September 23, 1844.

56Ibid., J. S. Elliott to J. M. Higginson, October 18, 1844.


58W. O. 1/553, p. 22, Boxer's and Holloway's notes on merchant's letter of September, 1844.

59W. O. 44/25, pp. 78-81, Respective Officers, Bytown, to Secretary of the Board of Ordnance, December 24, 1844; ibid., p. 82, Comparative Statement of Traffic through the Rideau Canal in 1842, 1843 and 1844, signed, F. R. Thomson and S. Thomas Jr.; ibid., p. 85, Comparative Statement of all produce arrived at Montreal to November 23, 1844.

60W. O. 44/25, pp. 68-75, J. S. Elliott, Observations upon the Report of the Respective Officers at Bytown, January 2, 1845; Lockmasters' Journals, vol. 141, Jones Falls, 1844. These were the largest canal steamers of the day. The Hunter, Beaver and Otter, for example, were 197 tons each with 28 horsepower engines, see [W. H. Smith], Smith's Canadian Gazetteer (Toronto, 1849), p. 97.

61W. O. 44/25, pp. 55-61, Elliott to Byham, January 3, 1845.

62Ibid., pp. 78-81, Respective Officers, Bytown, to Secretary of the Board of Ordnance, December 24, 1844.
63. Ibid., p. 84, Schedule of tolls proposed by Respective Officers, Bytown.

64. Ibid., pp. 68-75, J. S. Elliott, Observations upon the Report of the Respective Officers at Bytown, January 2, 1845.

65. Ibid., pp. 55-61, Elliott to Byham, January 3, 1845.

66. Ibid., pp. 68-75, Elliott's Observations, January 2, 1845.

67. Ibid., pp. 55-61, Elliott to Byham, January 3, 1845.

68. Ibid., pp. 53-4, R. O. to Secretary of the Board, January 20, 1845.

69. W. O. 1/553, pp. 275-97, First Report of Boxer and Holloway on Canadian Defence, October 9, 1844; ibid., pp. 303-10, Boxer and Holloway notes on the forwarders' letter of September 23, 1844 (p. 21 of their Report).


71. W. O. 44/25, pp. 44-6, Thomas to Byham, August 7, 1845.

72. Ibid., pp. 36-7, R. O. to Secretary of Board, July 28, 1845.

73. Ibid., pp. 38-43, Ordnance Officers, Bytown, to R. O., July 24, 1845. J. S. Elliott had been made Ordnance Storekeeper and therefore one of the R. O., in January, 1845.

74. Ibid., pp. 62-5, St. Lawrence Tolls as published in the Canada Gazette, June 14, 1845.

75. -- text missing -- to Military Secretary, Sep-
tember 13, 1845; Ibid., 302-3, Part of the delay in the first
half of October was because of the provincial government's
request for full information on the tolls that had been en-
forced since 1843; ibid., p. 320, R. O. to Military Secre-
tary, November 14, 1845.

76 Ibid., pp. 322-9, Higginson to Talbot, December 15,
1845, enclosing the report of the Executive Committee of De-
cember 10, signed by E. Parent, which had originally been
submitted, November 25.

77 Ibid., pp. 331-40, R. O. to Military Secretary, De-
cember 31, 1845.

78 Ibid., p. 330, Statement of traffic on the Rideau
and Ottawa -- calculated at the toll rate proposed in Septem-
ber 1845, signed by S. Thomas Jr. Apart from the trade which
supplied the lumberers, the tolls from foodstuffs amounted to
about £300.

79 C/61, pp. 16-7, H. Cotton to G. Talbot, February 26,
1846, enclosing the extract from the report of the committee
of the Executive Council, February 23, 1846; W. O. 44/16,
p. 537, Ordnance Tolls, March 12, 1846; Canada Gazette,
No. 233, March 14, 1846, pp. 2253-4, Proclamation of March 12,
1846, by Cathcart.

80 W. O. 44/46, pp. 211-46, Report of the Commission
appointed with the concurrence of the Lords Commissioners of
Her Majesty's Treasury and Master-General and Honourable
Board of Ordnance to inquire into, consider, and report on
the Military Canals in Canada, February 28, 1849 [hereafter
cited as Ordnance Commission Report, 1849].

81 Journals, 1846, p. 261, H. H. Killaly, Board of
Works, Montreal, for the information of Cathcart, April 13,
1846. The enlargement of the Lachine Canal (locks 200 by
45 feet; draught 9 feet), was not completed until 1848.
G. P. deT. Glazebrook, A History of Transportation in Canada
(Toronto, 1939) p. 80. But this did not act as an effective
block to the usage of the new locks on the upper St. Lawrence.

82 C/60, pp. 164-7, Killaly to Higginson, March 26,
1844.

83 -- text missing -- 303-10, Letter of the forwarders,
September 23, 1844, signed by McPherson and Crane and Company; Henderson, Hooker and Company; H. Jones and Company; Murray and Sanderson; The Quebec Forwarding Company; Pioneer Steamboats Company, and the Peoples Line. "To the Naval and Military Commission appointed to survey the Navigable Communication ... for Commercial and Naval and Military purposes."

[Boxer and Holloway Commission], including the notes thereon by Boxer and Holloway. The forwarders arguments -- together with the military necessity of larger locks -- were fully appreciated by Boxer and Holloway, and embodied in their first report, ibid., pp. 275-97 and their second report to Sir R. Jackson, May 31, 1845, ibid./552, pp. 471-502; W. O. 44/45, pp. 203-14, Adams to Byham, July 22, 1845.

84W. O. 1/553, pp. 269-74, Stanley to Wellington, September 10, 1845; W. O. 44/44, pp. 213-4, Commanding Royal Engineer, Canada, to Inspector-General of Fortifications, November 22, 1845; W. O. 1/552, pp. 29-33, Metcalfe to Stanley, February 17, 1845; ibid., pp. 701-13, Cathcart to Stanley, December 11, 1845.

85C/61, p. 36, Holloway to Military Secretary, March 5, 1846; W. O. 44/25, p. 21, S. Thomas' comments, April 23, 1846.

86W. O. 1/555, pp. 74-7, Wellington to Gladstone, April 29, 1846.

87W. O. 44/49, pp. 2-8, Holloway to Mulcaster, October 26, 1844.


89Q/375, p. 361, R. Shirreff to Viscount Howick, September 29, 1832.


91U. C. Sundries, Memorandum Upon the Canadian Frontier, pp. 11-35, n.d., According to internal evidence this document was written in the later 1830's (certainly after 1835) or early 1840's. Perhaps it came out of the Rebellion crises. Although the author's name does not appear on this document, it bears a striking resemblance to Sir H. D. Jackson's "Memorandum on the Canadian Frontier", cited below,
n. 93.

92 Cited in ibid.


94 C. R. Sanderson, ed., The Arthur Papers (3 vols., Toronto, 1957) I: #196, 193, W. B. Jarvis to R. H. Bonnycastle, June 6, 1838; #286, 257, Colborne to Arthur, August 16, 1838; #433, 389, G. Arthur to H. Dundas, November 9, 1838; #451, 368, C. C. Donville to H. Dundas, November 14, 1838; and ibid., II, #749, 126, C. Foster to G. Arthur, April 24, 1838.

95 Newboro, Ontario, Tett Papers, Letter Book (November 11, 1833 - September 19, 1849), p. 11, B. Tett to Major Young, July 8, 1838; a similar letter was sent to Capt. Bolton at Bytown.

96 c/59, pp. 192-4, Capt. Bolton to Col. Wright, July 2, 1838 and Bolton to Rowan, July 6, 1838.

97 W. O. 1/537, pp. 285-321, Lord Hill, Considerations on the Defence of Canada, March 5, 1841; W. O. 55/1551, pp. 140-3, Enclosure 3 in No. 13, Sir F. W. Mulcaster to Sir H. Vivian, February 4, 1841. Even if such blockhouses were not entirely adequate protection under all circumstances, they would operate as a deterrent against enemy attempts to destroy the works; W. O. 1/555, pp. 41-4, W. H. B. Hamilton to Lord Lyttleton, January 25, 1846.


100 W. O. 1/555, pp. 27-31, W. N. Powell to Secretary of Admiralty, December 12, 1845.
101 W. O. 44/16, pp. 256-9, Thomas to Byham, April 10, 1850; ibid./49, p. 20, Extract of a letter from Lord Fitzroy Somerset to the Secretary of State, January 22, 1844.

102 W. O. 1/553, pp. 503-6, Sir George Murray to the Board of Ordnance, December 16, 1844.

103 Ibid., pp. 513-5, J. Goulburn to E. Stanley, January 14, 1845.


105 C/61, pp. 157-64, Extract of letter of Commanding Royal Engineer in Canada to the Inspector-General of Fortifications, August 12, 1846.

106 Ibid., pp. 165-6, Minute of the Master-General of Ordnance, September 24, 1846; W. O. 44/49, pp. 315-6, G. Butler to C. E. Trevelyan, October 7, 1846.

107 C/61, pp. 153-6, R. Byham to J. Stephen, March 1, 1847; ibid., pp. 151-2, Grey to Elgin, March 23, 1847.

108 Creighton, St. Lawrence, pp. 382-5.


110 W. O. 44/49, pp. 211-46, Ordnance Commission Report, 1849; The Report itself is in ibid., pp. 211-24, A minority report was filed by the Commissary-General, W. Filder; along with some marginal comments by the other members, it is in ibid., pp. 225-30. Appendices to the Report "Proceedings of the Commission", March 1848, and "Receipts and Expenditures on the Ordnance canals, 1844-8" is in ibid., pp. 231-46. Those giving evidence before the commission included: Mr. Fitzgibbon, foreman of Works on the Rideau; Holton of Hooker and Holton Company; D. McPherson of McPherson and Crane; Innes of the Quebec Forwarding Company; Captain Ford, chief Royal Engineer on the Ordnance canals, who had replaced F. R. Thomson in September, 1847; S. Thomas Jr. Ordnance Storekeeper at Bytown; P. Nonsell, Deputy Ordnance Storekeeper on the Ottawa; Captain Stachelin, assistant commanding Royal
Engineer on the Ordnance canals.

111 Although the commission was set up in March 1847, the officers wanted to review the experience of that season to see how much of the upward trade the Rideau could maintain. (The postponement was ratified by the Board, July 7, 1847.) Thus it was winter, 1848, before the commission began hearings; and February, 1849, until its final report was submitted. W. O. 44/49, pp. 198-9, R. O. to Byham, June 4, 1847.

112 W. O. 44/49, pp. 211-46, Ordnance Commission Report, 1849. It was not until after the report of a Canadian commission in 1870, that the locks at Grenville were enlarged to 200 by 45 feet and the canals draught deepened to 9 feet. Glazebrook, Transportation, p. 42.

113 C. P. Stacey, The Military Problems of Canada (Toronto, 1940), pp. 58-9; and his Canada and the British Army 1846-71 (Toronto, 1963), pp. 62-3, 71-3, 77, 80, 84, 85, 90; Stacey points out that by 1855 British regulars in Canada were reduced from 7,000 to 1,900, and all of the latter were confined to the most strategic locations -- Kingston, Montreal and Quebec.


115 W. O. 44/49, pp. 265-6, R. O. to G. Butler, April 12, 1850, Marginal Comments by J. F. Burgoyne, May 7, 1850; ibid., pp. 256-7, Addenda to the Inspector-General's Minute of May 7, signed by Burgoyne, May 17, 1850.

116 Ibid., p. 253, R. Bruce to R. O., April 3, 1850.


118 Ibid./567, pp. 156-7, Trevelyan to Merivale, February 28, 1853; C/61, p. 267, Treasury Minute, February 25, 1853.

119 See Chapter I, pp. 14-17.

the Corps of Royal Engineers (2 vols., London, 1889), II, 92-5; H. Gordon, The War Office (London, 1935), p. 51. There was friction between the War Office and the Commander-in-Chief for many years, until the military was finally subordinated completely with the appointment of a Civil Secretary, see Fortescue, British Army, XI, 459.

121 W. 0. 44/49, pp. 488-9, Treasury Minute, January 13, 1854; ibid., p. 502, Elliott to R. 0., June 19, 1854; ibid., p. 577, Ordnance Board Minute, June 13, 1855; C/61, p. 272; Stacey, British Army, pp. 102-3.
"MAKING THE WILDERNESS SMILE WITH IMPROVEMENT"¹

There was yet another sense in which the first seaway to the Lakes enjoyed years of fulfilment. Coincidental with its commercial and military roles, the Rideau waterway had a far-reaching effect on the development of the Rideau-Cataraqui Valleys. This third dimension in the early history of the canal was quite typical of the other two, in that much of its value has been hidden with the passage of time, while many of its aspects are somewhat intangible and therefore difficult to weigh. But the local significance of the waterway can be examined from the earliest days of the canal. It endured to the 1850's, and, in fact, it persisted after the failure of the through trade and the decline of strategic, military considerations.

In 1832 Sir John Colborne, the lieutenant-governor, addressed the assembly of Upper Canada: "It must be obvious to you who are acquainted with the Districts, intersected by the Rideau and adjoining Lakes . . . that the expenditure incurred in thus accelerating the development of your resources, will produce in every respect a profitable return."² Right at the outset, then, the importance of the military waterway — text missing — fully recognized. Nor
was this vain prophesy. But in what ways can that predicted "profitable return" be revealed and evaluated? It certainly cannot be done in terms of money. Once again, the ledgers did not disclose the facts. Equally, the question of making the canal pay its way was irrelevant; income, as previously noted, relied chiefly on through traffic. There was simply no way in which Britain could gain financial profit from the many contributions that the Rideau made to eastern old Ontario. Accordingly, these must be analyzed primarily from the Canadian point of view. For the Rideau waterway provided improved facilities for local trade; it encouraged many nearby communities to obtain navigable access to it; it opened up new markets for regional produce; it revitalized old settlements, stimulated new ones, and it increased the land values of the neighbouring districts. ³

The construction of the Rideau canal, indeed, proved to be a chief determinant in the settlement of its region. To be sure, as a contemporary pointed out, there was considerable rocky and swampy land along the banks; but there was also ample fertile ground in the vicinity to attract farmers. ⁴ The Upper Canadian assembly resolved in 1825 that, without a water communication, that "extensive tract of fertile country" would long remain unsettled. ⁵ John MacTaggart, the Clerk of Works on the canal, whole-heartedly agreed with this forecast. Colonel By and Captain Bolton were anxious to
develop the Rideau's lands and insisted that every encouragement be given to their settlement. In fact, the Ordnance Department continually demonstrated concern for the development of the area. Virtually every informed contemporary recognized the vital relationship between the waterway and local settlement: existing settlements would be stimulated afresh; new ones would spring to life. An "ex-settler" advised in 1835 that if he was going out again to Canada, and had sufficient money, he would choose the Niagara district; but if he sought to farm and make the best of the land, he would locate somewhere about the Rideau or Ottawa. Describing the Rideau-Cataraqui valleys in 1837 one traveller wrote: "this part of the province, comparatively speaking, was valueless until the opening of the Rideau canal gave fresh impulse to the latent energies of its few settlers and drew forth a current of zealous emigrants."

During the years of construction it became evident that there would be a great increase in the value of all lands contiguous to the route of the canal. Colborne asserted that property along the Rideau had become valuable "solely in consequence of the Works". According to MacTaggart, one man "had laid out villages and sold lots" where the canal was expected to be cut; he "raved" that he had been ruined when the survey was changed and the cut was not made through his farms. Another man, MacTaggart continued, "because it was not carried
in the river beside his barn and store would not speak to me for a couple of years". Ordnance officials, and Colonel By in particular, saw from the start that any land in the vicinity necessary for the public service would have to be purchased as soon as possible, since the value of every estate near the route would rise.

The attorney-general of Upper Canada, J. B. Robinson, was certain in 1826 that everyone living in the neighbourhood would realize their good fortune, so that no claims would be made for land flooded or otherwise damaged by construction. This soon proved to be a delusion. Before the Rideau was completed, the superintending engineer was complaining that, despite the rising prices for property, owners would claim damages even if one-half an acre was flooded. In 1833 By did not feel that the proprietors were entitled to any remunerations; the value of their land had more than doubled since 1826. The Rideau Canal Act was designed to protect Britain and the Ordnance from paying compensation when the value of land left to an owner rose above the value of his land lost or damaged. When a claim was made, however, it was up to the British officials to prove increased value of property to avoid paying damages. At the same time, it was unreasonable for owners to estimate damages on the basis of the increased value of the remaining acres. Still, when the number of claims began to rise by the middle 1830's, the officials con-
cerned (both Canadian and British) were prepared to interpret the act in a liberal manner. By 1835 they recognized that it was unfair to smaller proprietors to assess damages calculated on the price of land before construction (7/6 per acre for wild land). In one case, a man who had 80 of 100 acres flooded would only be able to purchase 30 acres; another man, where 60 of 110 acres were lost, would only be able to buy 15 acres. Compensation was assessed by arbitration or, failing that, by jury. The value of adjacent land or that of similar quality was to be taken into account in such adjustments.\textsuperscript{15}

The recognized unfairness of applying the land prices of the pre-canal days was proof enough of the general rise in the value of property. There was a natural tendency, even if damage was slight, for the small landowner to deny any benefit from the canal. Losses suffered by the large landowner, on the other hand, were negligible when compared with the over-all advantage. Of course, those who had no damage derived the greatest profit, even if their land was not adjoining the route.\textsuperscript{16} It was widely accepted that the construction of the Rideau waterway had provided a tremendous boon to its surrounding lands. Their value would continue to increase through the 1830's and 1840's. Any survey of the region must therefore recognize that fact.\textsuperscript{17}

Furthermore, it was clear that local trade would in-
crease with the country's settlement and improvement. To facilitate that trade, it was essential to the agricultural interests that storehouses be erected near the banks of the canal to reduce the cost and inconvenience of land transport and provide temporary shelters for such items as potash, wheat and flour. As a rule the administrators of the canal were prepared to meet the people's wishes as long as these facilities did not interfere with other aspects of the navigation. Another local, commercial interest involved the tapping of the surplus water power for mills. Everyone associated with the Ordnance realized the fact that construction of mills would stimulate local prosperity, increase trade and further enhance property values. If sites on Ordnance land were leased, moreover, revenues might rise. Mills at the various dams did not endanger the canal's military potential. But the Ordnance would have to maintain ultimate control of the all-important water supply.

The Rideau canal had a profound influence on the region that it traversed. In 1850 one author summarized the local advantages which the canal had brought about: rising value of land; access to markets; mill sites; and new settlement. In particular, he stressed the importance of the extent of country which was supplied with water communication to the Lakes and the St. Lawrence. This point was heightened by the numerous attempts after 1826 of communities off the main
line of the waterway to obtain navigable access to it. Towns such as Kemptville, Richmond, Perth and Beverly all shared this drive, although they did not all succeed.

With the foregoing facts in mind, then, a more detailed investigation can be made of the effects of the Rideau on the development of its lands and its people. In its origin, construction and maintenance, the canal was the product of the powerful military forces centred in London. And it became a vital transportation artery for the commercial system organized in the Montreal metropolis. In turn, it gave rise to many smaller, local organizing centres which sought to tap their own economic and social hinterlands. In the strict sense, to be sure, one could scarcely use the word "metropolis" to describe the small towns and villages of the Rideau and Cataraqui valleys. Yet their patterns of social and economic development were remarkably similar to those of large, complex urban communities. It was chiefly a discrepancy in size. Many of the characteristics of metropolitan centres were evident, only on a diminutive scale. The term "metropolis" is therefore a convenient and useful one to use in a study of this local region. In fact, the Rideau waterway became a notable British legacy to old Ontario largely because of the stimulation that it gave to the growth of these miniature metropolises.
Undoubtedly the most striking example of the impact of the Rideau canal was to be found at Bytown, Colonel By's headquarters during the years of construction. Destined to become a political metropolis, the future capital of the nation, in its inception, nestled around the works of By's canal. In the words of a contemporary inhabitant: "Bytown owes its commencement to the Rideau Canal — its rapid and early growth to the money expended in pursuing that splendid work." Early travellers in 1832 wrote that, with the canal in operation, it was difficult to imagine a more desirable location: "but five years ago, its site was an absolute wilderness — now a bustling and lively town occupies the soil so lately covered by forest."

After four years of settlement there were 3000 permanent inhabitants in Bytown. Of course a large proportion was employed on the public works. There were also many mechanics, tradesmen and professions represented. Moreover, there was no indication that this would be a shabby, temporary, boom-town. Several substantial buildings were associated with the canal: two Ordnance storehouses, a commissariat, three troop barracks, a military hospital and various offices and workshops. There were also many public buildings such as hotels, churches and market-houses, as well as solid stone houses. Much of the credit for the wide streets and re-
spectable appearance of the town was given to By. He leased government land for lots and imposed building regulations; the annual rents went to a fund for public improvements. Almost without exception, in the early years, observers remarked on the atmosphere of "bustle and animation" of Bytown and the "unparalleled rapidity" with which it had sprung into existence.24

To be sure, the economy of Bytown did not rely entirely on the Rideau and its trade. Even as its origin and early growth was determined by the canal, the future prosperity of the community depended on the Ottawa timber trade. Nevertheless, much of the timber from the Rideau basin was transported to Bytown; and the canal also conveyed sawn lumber from Bytown and the Ottawa to Kingston for the American market. Moreover, By's rising settlement, favourably located in the centre of a promising agricultural region, became the central depot for surplus produce, particularly to supply the Ottawa lumber community.25 In this, the Rideau waterway proved to be an invaluable asset for the transportation of foodstuffs. It also opened up an extensive hinterland in this respect by tapping other sources of supply in the upper province. In 1845, to take one example, about 3600 quarters of wheat, 11,000 barrels of flour and 8000 barrels of beef and pork were shipped via the canal to Bytown.26

Perhaps more than any other person, the man who took
advantage of this situation was Thomas McKay. This enterprising Scot had been a major masonry contractor during the building of the canal and had been in charge of work on the eight Bytown locks. By 1832 he had (in his own words) "created an extensive establishment of mills for the manufacture of flour upon the faith of the Rideau Canal". These mills were situated below Bytown on the Rideau river, just above its fall into the Ottawa, and around them the village of New Edinburgh grew up. They were the most extensive flour mills at that time in Canada, producing "superior quality" flour both for the local and British markets. When the possibility arose that there might be a short delay in opening the Rideau route in the spring of 1833, McKay wrote directly to the lieutenant-governor. He explained that he had purchased about 20,000 bushels of wheat during the winter between Kingston and York, to be delivered as soon as the ice broke. Any stoppage in business would mean serious loss; without the Rideau, his mills would lie idle and his wheat would have to be re-sold in Montreal at the mercy of that market. McKay's mills continued after 1833 to draw the surplus grain from the Rideau valley, as well the central part of the province. Most of the 27,000 bushels shipped down the waterway in 1835 went to New Edinburgh. By 1837 this thriving business community also contained saw mills, carding and fulling mills, and stave, shingling and planing machinery. McKay's total outlay there
Another local entrepreneur, Nicholas Sparks, benefited from the Rideau canal, because of his large land holdings in the area that became Bytown. In 1823 he had purchased 200 acres for £85. In 1829 he was asking the exhorbitant sum of £600 per acre, solely as a result of the increased value that the Rideau had given to the surrounding country. By 1836 this land profiteer was selling one-seventh acre lots for £200-£400, and in 1838 he was receiving up to £700. It should be noted, however, that in 1826 Sparks had donated the land needed to cut the canal through his estate -- 200 feet on each side of the channel. The superintending engineer, By, fully appreciated his generosity, even though he saw that it would prove an obvious boon to Sparks.

Furthermore, By found it necessary to acquire an additional 88 acres from Sparks for canal purposes. He offered £1 per acre, and utterly refused to pay anything like £600. He therefore confiscated the required land, under the authority of the Rideau Canal Act. The Commanding Royal Engineer in Canada supported By's action and rejected Spark's demands since the canal had been so "prodigiously beneficial" to him. Sparks thereupon took the matter to court. A suit against By for trespass was rejected by a jury. It is noteworthy that Sparks made no appeal under the Rideau Act since the latter stipulated that, before any compensation was made, arbitrators
or jury must take into account the over-all benefit of the canal to the claimant's property. The legal dispute continued into the 1840's and the 88 acres was finally returned to the Sparks estate in 1848, by which time it was fairly well established that the land would not be required for the canal.34

As Bytown rapidly became the major economic metropolis of the Rideau-Ottawa valleys, its inhabitants launched out on a struggle to achieve equivalent political status, to make their centre the capital of a new district, distinct from the existing Bathurst and Ottawa Districts. Many petitions to this effect were presented to the Upper Canadian government after 1830. Perth, the capital of the Bathurst District, was too remote for ready access to courts and public offices, and another movement was afoot to have the district seat moved to Richmond. But this would not satisfy the grievances of the Bytown petitioners. They pointed out that the Rideau canal had drawn more settlers than any other part of the province in recent years. Since Bytown was the focus of regional trade and enjoyed great facility of water transportation, it was a natural site for the capital of a district.35 Yet it was not until 1842 that the District of Dalhousie was established (population about 20,000), with Bytown as its administrative centre. By this time Thomas McKay was a member of the Legislative Council of United Canada. As if to celebrate his home
community's new political status, he had reconstructed his grist mill; it was now an imposing five and one half story stone building.\textsuperscript{36}

The townships in the immediate vicinity of Bytown shared the prosperity of the rising metropolis. Nepean township, in which Bytown was located, was considered to be well settled by the mid 1830's; every lot that could be cultivated was occupied. This was attributed directly to the great employment caused by the canal, the many people who remained after 1832, and the new market that had been opened up. In fact, By and the Ordnance authorities had always strongly encouraged permanent settlement in the nearby townships, to "create a population interested in the protection of this Work."\textsuperscript{37} Nowhere was the rise in value of waste lands more conspicuous. Land that sold for 15s. per acre in Nepean in 1826, sold for 40s. in 1833. In one case during the same period, a block of land increased in value 300 percent, solely because of the new facility of water transportation.\textsuperscript{38} Gloucester township -- which also fronted on the Ottawa and lay roughly parallel to Nepean along the eastern shore of the Rideau river -- was similarly well located for early development.\textsuperscript{39} Even the inhabitants of townships located on the Ottawa as far down as Hawkesbury petitioned for the construction of a road from Alfred township to the mouth of the Rideau.\textsuperscript{40} Inland from the Ottawa, a township such as Osgoode
also had the advantage of location directly on the banks of the new waterway. Ease of transportation was a key factor in the development of pioneer communities. Consequently, land-locked settlements continually sought access to the main water routes. In 1830, for example, 200 settlers of Dundas county petitioned for a road from the St. Lawrence through Osgoode township to the Rideau canal.\textsuperscript{41}

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The influence of the Rideau waterway on the lands from Bytown up to Perth was obvious to early travellers. One such keen observer, G. H. Hume, summarized his impressions in 1832 in this way:

\begin{quote}
In proceeding up the line of the canal, the change effected on the rugged face of nature is no less pleasing than surprising; the vast interior is opened up to the enterprise of man; the landscape, dotted here and there with snug farms and comfortable dwellings, is relieved from its former monotony . . . For forty miles above Bytown this appearance is presented; the canal has indeed fertilized the country! In its passage through the centre of the Rideau settlement the same wondrous improvement is visible; houses, mills, stores, and buildings of every description and bridges over the canal that has accomplished all these benefits, testify how much has already been done in the profitable settlement of the country.\textsuperscript{42}
\end{quote}

The town of Richmond -- one of the main centres of the original military settlement established in 1816 -- lay along the Goodwood (or Jock) river, a tributary of the Rideau. Through the earlier 1820's it had grown slowly. Then, with the rush of settlers after 1826, the development of the area
proceeded more rapidly. By 1832 Richmond was a place of "considerable business" that had "benefited materially" from the Rideau canal. The Legislative Assembly accepted a petition in 1834 from local businessmen and incorporated a joint stock company to improve the navigation of the Goodwood river from Richmond to the Rideau. This was thought to be of "vital importance". Although this project was not completed, the effects of the military canal continued to be felt in the surrounding country. 43

Similarly, the town of Kemptville, although it was a few miles from the waterway, profited from its access via the South Rideau river to the main channel. The town was laid out in 1827, a direct result of the construction of the Rideau. Before the canal was finished it had been more convenient to transport wheat from this area to the St. Lawrence. Now it could be milled locally and the flour shipped to Bytown. Also, before 1832, lumbermen preferred to drag their timber through the snow to the Ottawa, rather than subjecting it to loss or injury by shooting the rapids; but now they made use of the canal. 44 Along the middle reaches of the Rideau river the townships of North and South Gower, Oxford, Wolford, Marlborough and Montague were considered to be well situated. Admittedly, settlers had entered this area from about the turn of the century, moving inland from the older St. Lawrence communities. It was the construction of the
canal, none the less, that gave the first real impetus to the development of that region. The disadvantages of the interior location of these townships at the back of the Johnstown district was amply compensated by the waterway. The inhabitants, however, continually pressed for the improvement of roads between the Rideau and the St. Lawrence.\textsuperscript{45}

But settlement steadily advanced. The population of Wolford and Montague (to take two representative examples) rose from about 500 and 400 respectively in 1826 to 1,500 and 2,000 by 1841.\textsuperscript{46} At Burritt's Rapids grist and carding mills were established. Up-river, Merrickville had been transformed from a wilderness to a place of considerable importance with "astonishing quickness". By 1832 it was a thriving market town with well built houses, stores, mills and taverns. The main complaint from this quarter rose from the poor inhabitants in 1837 who were dissatisfied with the monopoly held by the flour mill. Apparently its owners were more concerned with "flouring for market" than selling locally in small quantities. Subsequently, another grist mill was built.\textsuperscript{47} In 1840 the Commanding Royal Engineer in Canada, Colonel Oldfield, recognized the need for erecting storehouses along the banks of the canal at Merrickville to protect local produce from exposure. He recommended that these facilities should be built on Ordnance property.\textsuperscript{48}

At the head of the Rideau river grew the town of
Smiths Falls. The water power of this locale supported extensive mills: two flour, one oatmeal, one carding, and two sawmills. It also contained a foundry, woolen factory and two tanneries. From two houses in 1830, Smiths Falls had risen to 200 homes and a population of 700 by 1850. Almost halfway between Bytown and Kingston, with its natural advantages, it became a notable town in the eastern part of the province.

The contemporary, G. H. Hume, advised that "In settling a new country, those parts should be first opened where the means of communication are most convenient." This dictum was not followed when the Perth settlement was founded in 1816. But in its origin, Perth was not a 'natural' settlement. It was a product of British defence policy. Following the War of 1812 British officials considered it vital to have a bulwark of loyal population living near the projected interior line of communication. Remote from any established centre, Perth was located in virgin forest, seven miles northwest of the lower expansion of the Rideau lake, on the river Tay. By the early 1820's the town was well established. In 1825 the townships of Drummond, Bathurst and Beckwith -- the heart of the military settlement that centred on Perth -- had a combined population of about 4,200. When the Rideau canal was built this would become a "most de-
sirable" location. Great hopes were held for this district when the long-promised "military road" was completed.\(^5^2\)

Without that communication, though, conditions would continue to be "deplorable". Having heard that the Upper Canadian government had refused to construct the canal in 1825 — and before they realized that Britain had decided to undertake the task on its own — local inhabitants petitioned the lieutenant-governor in tones of deep despair.\(^5^3\) It was almost impossible to get their large surplus of grain to market. The distance overland to navigable waters was so great that transportation costs almost equalled the value of their produce. At times the roads were virtually impassible. Even if the Rideau lake to Bytown section of the waterway was completed, they maintained, their commercial future would be secure. Without it, all their hopes were blasted. The petitioners would be glad to help defray the expenses by submitting to special taxes. Realizing that Upper Canada would not take any action, they urged the lieutenant-governor to press the matter upon the attention of the parent government, to "avert the certainty of ruin" and promote "the happiness and prosperity of an industrious and loyal population". Even before this petition was received, however, Britain had taken the steps that assured the construction of the military waterway. The pledge that had been implicit in the original settlement of Perth was about to be fulfilled.
The construction years were indeed prosperous ones for Perth and its locality. "The very best market in the province" came to its door. Employment on the works also brought cash income. Farms were extended. Lands valued at \(1/3\) in 1824 now brought up to 30s. per acre. A new spirit of enterprise pervaded the community.\(^54\) In 1832 the population of Drummond, Beckwith, and Bathurst townships had risen to about 7,000. By comparison, the population of York was 5,000 and that of the older town of Kingston, 4,200.\(^55\)

Farther inland from Perth -- in the settlements begun in 1820 in Lanark, Ramsay, Dalhousie and North Sherbrooke townships -- immigrants had attempted to cope with the problems of shallower soil and a more remote location. Depressed and despondent, they took fresh hope from the "strenuous endeavours" of the mother country and looked forward to the benefits that must accrue from the canal.\(^56\) Hence, as in the cases of Bytown, Richmond and Kemptville, it was apparent that the salutary effects of the Rideau were not restricted to the immediate vicinity of its course.\(^57\)

If the Perth area was to reap the maximum permanent advantage from the waterway, however, it would need an easier access. The Tay river would have to be made navigable; it dropped about twenty-five feet between Perth and the Rideau lake. John MacTaggart, the Clerk of Works, had surveyed the area in 1827 and concluded that the project was quite practi-
The drive to canalize the Tay began in earnest in 1829. Those behind it first had to contend with a certain individual, A. Weatherhead, who owned a dam and a mill on the lower reaches of the Tay. It was readily admitted that this dam improved navigation up-stream, but it forced a very inconvenient portage. Without the dam, boats drawing nine inches of water could run the entire distance to Perth. Certainly, if locks were to be constructed for a steamboat navigation, the dam would have to be removed. After fruitless negotiations with Weatherhead, the debate was resolved in 1830 in favour of removing the dam when a Bathurst grand jury investigated the matter. It was decided that the dam was a "Public Nuisance" and a "Vast commercial detriment to the Trade of this place". A petition to this effect was sent to the lieutenant-governor, Colborne.

Within a few months, the Upper Canadian government accepted another petition from the canal promoters and incorporated the Tay Navigation Company in March, 1831. Before the works were finished, during the winter of 1833, the company built its own steamer. William Bell, the local Presbyterian minister, recorded in his diary that it was launched on April 3, 1833: "The making of the canal was a great benefit to the place, and the steamboat, it was expected, would make this benefit be felt." Significantly, it was christened, the Enterprise. By December, the directors of
the company proudly announced to the stockholders:

the entire completion of the works from the Rideau Lake to the town of Perth . . . so that at the opening of the Spring the navigation will be in perfect readiness for all the commercial purposes of that section of the Province . . . there cannot exist a doubt but that the ensuing year will test the advantages to be derived by the public from the improvement . . . which confers the benefits of a water communication with a populous part of the Province, hitherto rendered almost inaccessible by the bad quality of the principal roads. 62

Five locks and the necessary dams had been constructed, plus two swing bridges and a basin (160 by 120 feet) at Perth with docking facilities. The navigable portion of the Tay was now 11 miles long and could accommodate craft 19½ feet wide, drawing 3½ feet of water. The company had paid £5,000 and was in debt for another £3,000. This was, indeed, a commendable example of pioneer enterprise that had been inspired by the Rideau canal. No less an authority than Colonel By reported his pleasure at the "admirable execution" of the works when he had visited the site. 63

The Tay canal was open for business in 1834. The Enterprise, having wintered on the Rideau lake, came up to Perth as soon as the ice broke. William Bell described that eventful day:

the artillery men [came] out on the occasion, and having placed the guns on the new bridge, fired several rounds, while the boat was coming up. It lay at the bridge all day . . . and was visited by many hundreds . . . The hands were busy taking in loading for Kingston . . . it took a barge, loaded with staves, in tow. 64
The Enterprise made regular trips up and down the Rideau that season. For example, the lockmaster at Merrickville recorded its passages: June 5, 1834, passed the Enterprise carrying five passengers and nine barrels of flour to Bytown; June 9, passed the Enterprise up-bound with two barges. But this was not the only craft that serviced Perth. Bell took pleasure in observing the arrival of the first Durham boat from Montreal on May 31, 1834. It came laden with sundry goods for local merchants and returned with a load of wheat. This was an event of some importance . . . and showed the benefit likely to arise from the improvement of the river." Perhaps the satisfaction of the Presbyterian minister with this occurrence was partial compensation for his dismay with the Enterprise. He had been induced by William Morris, a director of the Tay Company and a member of the Legislative Assembly for Lanark, to purchase two shares in the local vessel. Seldom had Bell done anything which he repented more:

I was informed that the managers of the boat had established a bar, for the sale of spirits, on board -- and that they were running the boat on the sabbath day, the same as on other days. That I should have any property in it, under these circumstances, gave me no little uneasiness. In spite of his discomfiture, William Bell continued to patronize the Enterprise and make use of the new water communication. Indeed, the local cleric was an experienced traveller, making numerous journeys through the next twelve
years to Bytown and Kingston and to synod meetings in Toronto. On these trips he availed himself of the convenience of passage by steamboat whenever possible, in preference to land transportation. In fact, after the completion of the canals, as William Morris pointed out, few carriages crossed the Rideau at Oliver's Ferry on the old road from Brockville to Perth. The Tay canal thus became integrated into the Rideau system. The Tay Company continued to struggle financially; inevitably, the tolls were insufficient for proper upkeep of the works. The channel tended to be too shallow for steamers. Nevertheless, barge traffic continued to link Perth to the Rideau. Of course, the Tay canal facilitated the considerable square timber and sawn lumber trade out of Perth. For instance, a barge from Perth in June of 1836 carried 45,000 feet of deals and 8,000 feet of boards and planks to Kingston; another in June of 1837 transported 30,000 feet of sawn lumber. Sir R. H. Bonnycastle, a contemporary author and engineer, claimed in 1841 that the Tay branch was still of "incalculable benefit" to the region.

In the years after the Rideau and Tay canals were formed, the future prosperity of Perth seemed assured. Travellers invariably referred to Perth as a pleasantly situated and flourishing town. It contained well built houses, churches, mills, stores and a brick court-house. Many professional men lived in the vicinity and, true to its oldest tra-
dition, a considerable number of retired army officers. Society was considered "respectable" and remarkable for its "sociability and gaiety". The citizens were noted for their industry and public spirit. Even by 1832 Perth supported a well circulated newspaper, the Independent Examiner and Bathurst District Advertiser. No inland town, it was thought, would likely derive greater advantage from the navigation of the Rideau. With the steady settlement and development of the neighbouring country Perth had, in truth, become the metropolis of a thriving community.

Along the line of the waterway upwards from Smiths Falls, the lake district of the Rideau showed a decided improvement in settlement. One observer in 1832 wrote that this area was remarkably well populated. This was particularly true of those townships that were intersected by the canal, even though there was considerable rocky land unsuited to cultivation. Taking the townships of Bastard and Kitley (which lay to the east of the Rideau lake) as examples, the growth of population might be illustrated in the years 1826, 1832, 1838, 1841 and 1850 respectively: Bastard, 1,300, 1,800, 2,100, 2,400, 3,100; Kitley, 600, 1,100, 2,100, 2,500 and 3,400. In 1834 the hamlet of Portland, on the south shore of the Lower Rideau lake, boasted "good land, a large clearing, a
store and four or five other buildings". Another village, known as Westport, evolved at the head of the Upper Rideau lake. Although one mill already existed here before 1826, another was erected subsequently, "under the prospect of increased settlement from the great facilities of communication" afforded by the new canal. By 1850 Westport had a population of 300 and supported a grist mill, sawmill, carding and fulling mill, foundry and tannery. It also shipped two million feet of lumber and 500 barrels of potash that season. The new waterway continued to accelerate settlement in the lake district and facilitate the exploitation of its natural resources.

That a town should have risen at the Isthmus is, from a glance at a map, not very surprising. For the Isthmus, less than two miles wide, lay at the watershed of the entire route. This was an important construction site during the building of the canal. From this place the Rideau lakes drained northeasterly into the Rideau river and thence down to Bytown; on the other side, the lakes gave rise to the Cataraqui river which flowed southwesterly to Kingston. Through this narrow height of land, then, the Royal Engineers made a cut through the rock, which joined the Upper Rideau with Mud (later Newboro) lake. What was fascinating was the manner in which the town at the Isthmus, later Newboro, grew in importance. Striking, indeed, was its integral connection with an enter-
prising pioneer businessman, Benjamin Tett. Noteworthy, too, was the way in which this infant metropolis came to command a sizeable economic, and even social and political, hinterland. This was the more remarkable when it is remembered that the townships of North and South Crosby, that surrounded the Isthmus, held a rather small population of 460 in 1826, which grew steadily to about 750 in 1832, 950 in 1834, 1,000 in 1838, and 1,300 in 1841. Significant, above all, was the symbiotic kind of relationship between this community, this man, and the Rideau waterway. Consequently, this story deserves close attention, not because it was unique, but rather that it was representative of the canal’s local importance. This, together with the fact that Tett’s life is well documented, would seem to justify a more intensive study than that given to many other points along the Rideau route.

Benjamin Tett, a native of Somerset, England, arrived in British North America about 1820 when he was thirty-one years old. He settled immediately at Perth. Having received a sound education in England, he taught school at Perth for several years. He was also apprenticed, temporarily, to a local doctor. Meanwhile, he acquired various public positions there: Deputy Clerk of the Peace; Clerk of the Board of Education; Clerk of the Customs; Clerk of the Court of Requests; and Deputy Registrar of Lanark County. Privately, he wrote up contracts, deeds and other legal documents. Tett was a frugal
man, and he kept neat and meticulous records of all his business transactions. He displayed his business acumen while at Perth by purchasing land so that his debtors, who could seldom pay him in cash, could either labour building houses or donate materials. At the same time Ben Tett was, and remained, a thoroughly just, charitable and religious man. A firm believer in the old maxim that anything worth doing was worth doing well, he must surely have felt at ease in his new home at the Isthmus, close by one of Colonel By's masterly constructed locks.

This industrious and careful, yet venturesome pioneer had left Perth by 1828, although he did not sever all his business connections there for a few years. Tett bought land at the Isthmus and by 1834 he had built (at age 45) what was to be his permanent residence until his death forty-five years later. Between 1831 and 1832, meanwhile, he had constructed a sawmill and operated a general store at Buttermilk Falls (later Bedford Hills), about six miles away, at the westerly extension of Mud lake. Tett realized that there were encouraging prospects for settlement and that land in the vicinity of the canal would rise in value. He was also quick to take advantage of the stimulation that the canal gave to the lumber industry. He became the agent for the sale of school lands, and the timber thereon, in Bedford township. Tett once remarked that lumbermen were a "lawless set of men
to deal with"; and he deplored their quibbling over prices. But in 1833 he became the timber agent for the Crown and Clergy Reserves in South Crosby. The remuneration that he received for this job was negligible. Moreover, Tett later observed that he had not received any compensation -- not even a land grant -- for his services in Bedford to the General Board of Education, even though he had "sold and settled a good number of lots" and "brought the Mines and wilderness" of the township into notice. Notwithstanding, he certainly gained an intimate knowledge of the region, established his reputation for reliability, and made vital contacts for his trading and milling enterprises.

Through his years at the Isthmus Tett continued the practice which he had begun in Perth of accumulating public appointments. At one time or another, he was postmaster, justice of the peace, coroner, reeve, and member of the District Council for Johnstown (and later Leeds-Grenville). His involvement in politics will be noted shortly. In the world of business he was a miller, lawyer, druggist, wheat agent and, above all, merchant. In fact, of course, it was his position in the trading community which involved him with so much of the life -- and so many of the people -- of this pioneer district. It was no coincidence that the rise of his business at the Isthmus corresponded with the opening of the Rideau canal. In anticipation of that event the editor of
the Perth Examiner, J. Stewart, wrote to Tett, enquiring if he could obtain some new subscribers along the waterway. This was another example of the rising influence of the military town. But it was also a reminder that the older metropolis had spawned the new one, in the sense that Perth's former, adopted son, Benjamin Tett, was the vital nucleus at the Isthmus.

There were, then, many sides to Tett's business activities. He recognized the basic economic problem at the outset. Almost all his sales were on credit: "everything in a country shop must necessarily be done on credit, as the Farmers cannot pay until their crops are secured." In turn, of course, it was essential for him to receive credit from the merchants (mostly at Montreal), from whom he purchased his supplies. In this typical pioneer trading system, where there was little cash, the most important 'cash crops' were wheat, potash and lumber. A country merchant, such as Tett, was the real middleman. From both ends, the exchange of goods depended on a high degree of confidence in him.

Tett's economic survival rested, in large measure, on his ability to sell his lumber. In 1834 he wrote that he could supply cheaper and better quality lumber to some Brockville distillers than they could obtain in their immediate vicinity. He insisted, however, that he could not accept payment in brandy. Part of the payment should be made in
cash, or at least in goods that he could then sell. But Tett did not reject the possibility of disposing of their liquor (at 25 percent commission), which would easily be forwarded by the steamer Rideau. To his Montreal creditors later the same year, he noted that "Cash in Upper Canada is remarkably scarce, and Business in a very stagnant state." This was mostly owing to an outbreak of fever, which all but stopped trade and prevented the sale of his large stock of lumber. Since lumber could not command its usual price, Tett relied on potash as an alternative means of getting ready money. Despite his best intentions to pay his Montreal debts as soon as possible, he pointed out that short term credit was inadequate: "no one here can do business and obtain payment short of a years credit." If he could have collected but half the payments due to him, he would have been able, in turn, to meet all his debts.

Nor was Tett's business confined to the Canadas. He was prepared, in September, 1835, to trade lumber to a Syracuse merchant in return for much needed salt. He requested immediate shipment of the salt since the Rideau canal usually closed near the end of October. After 1833 he had also acted as a wheat purchasing agent for Thomas McKay at New Edinburgh. In 1836 Tett was happy to record that he could obtain good wheat at a lower price ($4/7 instead of 4/9) than it could be bought for along the St. Lawrence. McKay
was naturally willing to take all that he could get.\(^{87}\)

It was inevitable, perhaps, that Benjamin Tett's diverse and expanding activities would lead him into politics. In 1836 he stood as a candidate for one of the two seats representing Leeds county in the provincial assembly: "My business is in this county, the interest of the Farmer is also my Interest."\(^{88}\) In his election speech, furthermore, he bore witness to his firm attachment to the principles of the British constitution. Consistent with his own background, he talked of the need for good education: "I should consider my life well spent in promoting the welfare of the rising generation." More particularly, though, his voice was raised as a spokesman of the newer centres along the Rideau waterway:

Let anyone travel through the bad and almost impassable Roads of the rear Townships ... the Public Monies for Roads and Bridges have been laid out to the disadvantage of the Rear ... Look at the thriving Settlements of the Rear, East and West, North and South of the Rideau Lake, and I ask you, Gentlemen, Is there no one capable of Representing this County but a person from Brockville?

For the general welfare of the county, he claimed, the back townships should be represented. They held a respectable and increasing population. Many individuals there possessed "equal honor, integrity and fitness" as any representatives from the St. Lawrence front. Tett concluded his speech with an appeal for free and independent voting: "I do not wish to gain your suffrages in any way than by an open, free and
honourable election." In this first attempt at politics, however, he did not succeed; he was defeated by James Morris of Brockville. Subsequently — in 1858 and 1861 — Tett was successful; and with Confederation, he became a member of the first Ontario Legislative Assembly. Notwithstanding his initial failure in politics, he became a prominent voice for the Isthmus and its hinterland. In 1836, incidentally, the Isthmus was re-named Newborough, and shortly afterwards, Newboro.

Through the troublous years of the later 1830's and the economic depression of 1836-7, Ben Tett's business survived. Lumber and potash — shipped via the Rideau — continued to pay his debts with Montreal merchants, despite the "dulness of the times". He paid off part of his freight bill to McPherson and Crane forwarders by supplying cord wood for their steamers. His activities as wheat agent for McKay also reflected the difficulties of the period, as well as those of local competition. In 1838, when Tett was instructed to buy wheat for 5/4 per bushel, the MacDonalds of Gananoque were buying for 5/6 at Portland. Tett feared that the 2d. difference would mean that much wheat would be shipped down to Gananoque. Next winter, wheat brought a higher price at Beverly, Farnersville and Charleston that the 6s. per bushel that Tett had originally been ordered to pay. While this was disappointing, he realized that it was only natural for
farmers to sell their produce where it could get the best price. By May 1839, McKay's price was sufficiently competitive that Tett could report that 400 bushels were ready to ship at the opening of the navigation. The Newboro merchant complained of a "backward" season that year. But he was left with 150 bushels in November because the last two steamers for Bytown passed the canal at night, without his knowledge. His wheat business recovered considerably in the following years. Still, he continued to compete on behalf of McKay with the markets along the St. Lawrence. On occasion, the roads to Brockville were so bad that farmers turned more readily to the Newboro outlet. Tett's commission for his purchases was about 3d. per bushel.

Meanwhile, as Tett's little 'empire' survived these difficult years, there was clear evidence that his credit was becoming secure. In January 1839, he required three months beyond the usual six to pay for his goods bought from a Montreal merchant the previous year. Tett explained that, "all the effective men are called out to guard the front against the threatened incursions of the Patriots, and business is almost at a stand." Nevertheless, he paid his bill promptly -- with the additional three month's interest. In contrast, however, he was able to pay for his Montreal merchandise purchased in 1839 by July of the same year. In fact, that fall Tett had a surplus with at least one merchant.
Although adverse circumstances might occasionally delay his payments, it was evident that he was on a fairly sound economic footing by 1840. He was informed that winter by one Montreal businessman that cash loans were available to him in the event of financial emergency. 93

During the same period the importance of the Rideau waterway to this significant local entrepreneur was further heightened by his attempt to improve his facilities. In 1833 Tett wrote to the Ordnance authorities at Bytown, asking permission to build a storehouse at the Isthmus on government property beside the canal. Such a warehouse would greatly assist the receiving and forwarding of produce and thereby benefit the public. 94 At first, however, this apparently simple request was not granted. Ben Tett and John Kilborn (another merchant and friend of Tett) complained bitterly early in 1840; they petitioned the lieutenant-governor, Arthur. Were perishable goods to be left lying on the ground, subject to loss or damage? A warehouse would not obstruct the navigation. It would tend to increase trade and add convenience to all concerned. Without it, how could Newboro hope to draw neighbouring produce away from the Brockville market? In despair, they resented the continued direction of the canal by military men, "totally unacquainted with commercial pursuits". 95

Although they were "impressed with gratitude towards
Her Majesty's Government for completing the Rideau Canal," they now objected to their loss of land -- confiscated when the canal was cut through the Isthmus -- on which they could have erected a storehouse. But Major Bolton, the superintending engineer, pointed out that the petitioners had held possession for only two years before Colonel By had assumed control, and cleared the land, under the authority of the Rideau Act; the crown had thus held possession for about ten years. Moreover, Tett and Kilborn had never filed a claim for damages; obviously, the benefit to their remaining property far outweighed the value of the few acres taken. The Isthmus district had enjoyed a great boom in the price of land. The lieutenant-governor supported Bolton's views and refused to intervene. Bolton had acted in strict conformity with his instructions.

Nevertheless, quite apart from the land question -- and the bitter resentment of these local businessmen -- it was obvious that Bolton was responsive to the commercial needs of the community. Having failed to obtain the necessary land, Tett and Kilborn wrote a personal letter to Bolton in June, 1840. They reiterated their arguments for a storehouse, especially "now that the Merchant's Goods at the head of the Lake, Beverly and adjacent places are all sent from and received at this Place". Realizing the considerable advantages that would ensue, Bolton and the Ordnance consented.
Within a year, Ben Tett could write to Thomas McKay with renewed confidence:

The Store House on the side of the Canal is now ready to receive Wheat or other property, and capable of storing any quantity . . . erected at considerable expense, so that in future I shall have things more convenient, and hope to be able this Season to purchase for you a large quantity of wheat.99

During the middle 1840's a good share of Tett's economic stability depended on his business in sawn lumber. This became the vital 'cash crop' with which to pay his Montreal debts. On occasion he used it to pay his freight bill with McPherson and Crane. He sought out the rising markets in Kingston and Montreal. Despite the hard times and consequent shortage of cash in 1843, Tett arranged to supply one Kingston contractor with 124,000 feet of boards and planks. With another concern in Kingston, he was prepared to trade a large quantity of lumber for pork. Often unable to collect money for his sales, he still relied on Montreal credit. By this time he was not receiving as much potash as in the 1830's, for it was no longer as important a commodity in balancing the Montreal ledgers. Throughout the lake district -- on Rideau, Mud, Devil and Opinicon lakes -- men were busy getting out saw logs. In 1844 Tett was ready to sell 400,000 feet of saw lumber to a contracting company at Lachine. And from Prescott that winter he ordered a dark green buggy -- "a good one like Mr. Kilborn's and . . . something extra in appearance" -- to be paid for in lumber, of course. The £27
worth would be delivered at Prescott as soon as the ice broke. 100

The business activities of Tett certainly went far beyond the parochial. By 1846 he was in the process of building a new sawmill (with a gang of twenty saws) which, he assured another merchant, would "supply you with such sawed lumber as you may require for the Kingston Market". Because of the low prices for both square and sawn timber offered at Quebec that year, however, Tett was forced to detain his rafts at Brockville and apply for an extension of credit. 101 Early in 1847 he was confident that his lumber sent down the St. Lawrence would pay off all his debts. His new mill was in operation, as planned. He was bargaining to sell 525,000 feet in Kingston that spring. The forwarders were so busy that he was unable to transport lumber for the market in New York state, where he was forming some business connections. 102

In the fall of 1847 Tett was caustically writing of the fact that the Rideau had been closed since August 1 for repairs. In spite of the prevalent sickness which had delayed this work, he had prepared £1,000 worth of lumber. This was a great disappointment; he explained to one Montreal firm: "if my life depended upon supplying you . . . I could not do it." He lost a large amount of money, simply because he could not get his lumber to market. 103 For the
first time the water communication essential to his business had failed him. But it was 1847. The busy days of the through trade on the Rideau were over, so the temporary breakdown of the navigation did not cause widespread, Canadian concern. Truly, a watershed in the history of the canal had been reached. Thereafter, the waterway would have to serve more local interests -- such as those of Tett -- almost exclusively.

To be sure, the affairs of Benjamin Tett continued to be wedded to the Rideau after 1847. He had 1,000,000 feet of lumber on hand in 1843. That summer he sent almost 400,000 feet to New York state. The Albany market would take all that he could produce the following year. His sawmills were busy, working day and night, in spite of these years of commercial depression in North America. Ironically, then, a British defensive work proved to be an indispensable asset in Tett's rising north-south business activities with American centres. Perhaps this trading orientation was in keeping with the economic expectations behind the Montreal annexation movement, although Tett never shared the political or commercial disillusion and despair of the annexationists.

Through the years, however, Ben Tett and Newboro had been stimulated primarily by Canadian centres -- especially Quebec, Montreal, Bytown, Perth, Kingston, Gananoque, Brockville and Prescott. In turn, Tett had continually
striven to create and nourish his own hinterland domain. Throughout all these endeavours and achievements, the vital communication line was the Rideau canal. Tett freely admitted that his interest was "connected to its efficiency". Nor was it accidental that the rise of Tett — and Newboro — coincided with the opening of the waterway. In fact, there was a striking similarity in the patterns of development between the man, the tiny metropolis and the canal: the foundations of all three were well laid by 1832; they survived the difficult times of the 1830's to become firmly established by 1840; and they all thrived, at least up to 1847. On Tett's death in 1878, the Brockville Monitor noted how the fortunes of this enterprising and respected pioneer had kept pace with those of Newboro; it acclaimed the man for his significant contribution to prosperity of his region. And surely the career of Benjamin Tett was a noteworthy, yet characteristic example of the impact of the Rideau waterway on the lands and communities through which it passed.

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From the height of land at Newboro, down the Cataraqui system towards Kingston, decided improvement in the area was apparent after the construction of the canal: "throughout the whole length of country traversed by the canal, the results of intelligence and industry have succeeded to the wildness and desolation of the waste." True, some
spots in this Precambrian Shield area, like Davis and Chaffey's locks, were still inaccessible. Nevertheless, there were several mills in the vicinity of Jones Falls and Whitefish lake. For a small community such as Seeleys Bay -- located on the Frontenac Axis but also on the waterway -- the completion of the canal had laid the basis of its economic prosperity by furnishing an outlet for its timber and agricultural produce. 108 Though at this stage of its course the waterway did not pass through a very well populated area, it exerted a powerful influence on the lands not directly connected to it. For instance, a couple of hundred people living to the west (in the counties of Frontenac, Lennox and Addington) were interested in forming a navigable communication to the Rideau. 109 Undoubtedly the best example of this drive to get access to the route, however, came from those inhabitants of the Johnstown District who lived off the line of the canal to the east.

It was commonly recognized that the waters which flowed into the Rideau could bring the inland settlers all the advantages of a location immediately along the route. 110 The communities surrounding Richmond, Kemptville and Perth were cases in point. Unfortunately for those living in parts of the townships of South Crosby, Bastard, Yonge, and the rear of Leeds and Lanark, White Fish Creek -- which drained Upper and Lower Beverly Lakes -- was not navigable.
interest in forming a branch canal about seven miles to the town of Beverly (which lay between these two lakes) had been evident ever since the construction years on the Rideau. Although all these efforts proved to be unsuccessful, they pointed up the local importance of the military waterway.

The main petition was sent to the lieutenant-governor, Arthur, in the fall of 1833. It was signed by about 730 inhabitants, including six justices of the peace, of these back townships of the Johnstown District. They regretted that their particular location largely "precluded them from participating in the benefits conferred on a large portion of Her Majesty's subjects" by the construction of the Rideau. Their district was well settled with "loyal and peaceable subjects", and blessed with many agricultural, mineral, lumber and water resources. But their grievances were numerous:

our saw mills are little better than idle, our Mines and Quarries unwrought, and the natural advantages which surround us are rendered almost unavailable . . . and our energies paralysed by the Expense and Inconvenience attending the Transport of our Agricultural Products and manufactures, a distance in many cases from 10 to 33 miles, over roads which are at all times Bad, and in the Spring and Autumn . . . almost im-

Having heard that the Ordnance Board contemplated the construction of a new dam on the White Fish Creek, the petitioners thought it a proper time to urge the provincial government to effect the building of one or two locks on the river, thereby making it navigable. This improvement was considered
of "Vital Importance to our interests". With the rapids removed, a large amount of freight would be shipped into the Rideau. Bolton, the Commanding Royal Engineer at Bytown, denied that there was any British move to build a new dam or otherwise improve the White Fish river. Nevertheless, he admitted that such a development would be a significant advantage to local farmers.\footnote{113}

The question was reopened in 1842 by another memorial to the lieutenant-governor from the inhabitants of Beverly and its neighbourhood.\footnote{114} They still hoped for a steamboat navigation that would "open a most extensive and fertile Country for the inlet of Merchandize and the outlet of Agricultural produce". Their dream was never realized. Provincial concern, after all, was concentrated on construction of the St. Lawrence canals. Consequently, the benefit of direct access to the Rideau canal was denied them. On the other hand, a man such as Ben Tett could still tap these lands and thereby extend his hinterland. The commercial benefits which he enjoyed, however, were of little solace to the businessman or farmer remote from the waterway. The incapacities and grievances of the latter only served to heighten the capabilities and advantages of the former.

There was no doubt, then, as to the advantages afforded those communities which had access to the Rideau canal. The townships of Pittsburg and Kingston on the lower reaches
of the Cataraqui were conveniently situated in this regard. But it was the old town of Kingston, the southern terminus of the Rideau, which profited in a unique way. Not only was its local hinterland greatly expanded, but it was the main interior port of transshipment for the through trade. As Preston has pointed out, Kingston's function as a port was fundamental to its prosperity. An integral part of the St. Lawrence trading system, Kingston relied, up to 1847, on the Rideau. Similarly, the town's role as the major fortress of old Ontario (essential to control Lake Ontario) was closely allied with the military raison d'être behind the waterway. A fortress was of little importance without a secure communication.

In 1832 the enterprising Kingston merchants trusted that their metropolis would become the "commercial Emporium of Upper Canada", since it was most favourably located for wholesale establishments. Many travellers in the early years also saw that the canal contributed much to Kingston's commercial prosperity: "The Rideau Canal has been of the utmost consequence to the town; and she is likely to derive as much or more advantage from its navigation than any other place in the Province." Lower has noted that the sawn lumber trade, in particular, enlarged Kingston's hinterland and gave the already busy port still more traffic. One contemporary in the late 1830's observed that, next to
Quebec and Montreal, Kingston was the most important commercial centre. (It was also the most strongly fortified British post in America, apart from Halifax and Quebec.) He attributed its rapid commercial rise to its location. The Rideau canal had made it the main entrepôt in the trade between Lower Canada and the Great Lake's basin. Commentators in the mid 1840's continued to see the direct relationship between these boom years of the forwarding trade on the Rideau and the development of Kingston.

The metropolis had grown from a population of about 3,500 in 1830 to 4,800 in 1840 and to 12,000 in 1848. Unavoidably, the collapse of the through trade on the interior route struck a hard blow at one of the fundamental bases of Kingston's significance as a port. Nevertheless, the lockmasters' journals reveal that Kingston remained the outlet for an increasing local trade, especially in sawn lumber. And, of course, Kingston had not lost its favourable situation with respect to its regional hinterland served by the canal.

It was clear after 1846 that the Rideau canal was still "indispensable" to local commerce. Indeed, that trade was rising "very materially". There were four extensive flour mills along the route. The Rideau continued to supply produce to the Bytown market and Ottawa river lumber communities,
as well as merchandise to its local towns. Trade in sawn lumber, particularly to the United States, continued to prosper. Early in 1853, for example, the Jones and Robertson Forwarding Company was preparing to ship 1 million feet to Albany and Troy. The numerous flourishing settlements in the neighbouring country necessitated the efficient maintenance of the waterway. Near mid-century, too, many travellers saw that the Rideau would continue to be an "immense benefit" to the future development of its region. Canadian Ordnance officers confirmed (in 1851) that the future trade along the Rideau would have to rely on the "rich line of country" which it intersected, "as well as the growing wealth of the towns along its line". At the same time the Ordnance, in these latter days of its jurisdiction, had no desire to over-tax local interests; it realized the need for setting tolls which were commensurate with those enforced on the St. Lawrence canals. Even after the transfer of the canal to the Canadian government in 1856 -- and in the age of railroads and improving roads -- the old military route still fulfilled local needs admirably.

For a generation the Rideau canal had had a vital, formative influence on the development of eastern old Ontario. And its utility in this respect persisted long after the collapse of the through trade in 1847 and the decline of military considerations. A real sense of fulfilment of the
canal's role thus survived the 1850's in the continuing significance of the waterway to the communities on the Rideau-Cataraqui watersheds.
NOTES TO CHAPTER IV

1 From an article forecasting the future significance of the Rideau canal, in the Montreal Herald, quoted in the Upper Canada Gazette, I, No. 39, including the United Empire Loyalist, February 24, 1827.

2 Journals of the House of Assembly of Upper Canada, 1832-3, p. 10, October 31, 1832, The speech of the lieutenant-governor at the opening of the House of Assembly [hereafter cited as Journals].

3 W. O. 44/49, pp. 9-11, Memorandum on the Master-General's Minute of December 16, 1844.

4 P.A.C., Hill Collection, pp. 2063-4, A. J. Christie, February, 1830, "Account of a Journey from Kingston to Bytown on the Rideau Canal".

5 Journals, 1825-6, p. 45, Resolution of the House of Assembly, December 24, 1825.


8 Canada in the Years 1832, 1833, and 1834. By an ex-settler who resided chiefly "in the Bush" for the last two years (Dublin, 1835), p. 64.


17. Ibid., pp. 142-4, S. Thomas notes, July 19, 1836, on the letter of R. O. to Byham of May 20, 1836; ibid., pp. 8-23, Thomas to Byham, January 30, 1841; ibid./16, pp. 369-70, Jameson to Bolton, July 10, 1835; ibid./15, p. 334, on By's land grants returned to Ordnance in 1835.


20. W. O. 44/23, pp. 386-9, By to Fanshawe, April 14,
1833; P. Sec., #433, T. Smyth to J. Joseph, March 26, 1833; W. O. 44/23, pp. 34-9, R. O. to Byham, September 14, 1833; ibid. 25, pp. 89-107, J. Elliott to R. Byham, July 5, 1844, and Thomas to Byham, August 21, 1844, and Bolton to Oldfield, August 31, 1844, and Fanshawe to Oldfield, August 24, 1844, and Fanshawe to Byham, September 6, 1844.


22P.A.C., Hill Coll., p. 1140, A. Christie to S. Derbishire, April 25, 1841.


26C/60, p. 330, Statement of Traffic on the Rideau and Ottawa Canals, signed by S. Thomas, Jr.

27U. C. Sundries, T. McKay to J. Colborne, March 5, 1833.

28G. R. Elyth, "Bytown, 1834 to Ottawa, 1854", Women's Canadian Historical Society of Ottawa, IX (1925), 5-15, 9; P.A.C., Hill Coll., p. 4571, J. Ashworth to R. Routh, August 26, 1833.

29U. C. Sundries, T. McKay to J. Colborne, March 5, 1833.


33. Ibid., By to Maitland, November 26, 1826 and Bolton to Joseph, April 12, 1836 and Couper to Colborne, enclosing Durnford to Couper, n.d.; W. O. 44/20, pp. 353-7, By to the Attorney-General of Upper Canada, March 13, 1829.


38. P.A.C., Hill Coll., p. 610, Drafts of letters by Christie, August 6, 1833; W. O. 44/23, pp. 347-51, Thomas to
Byham, January 30, 1834; ibid., pp. 367-8, R. O. to Bolton, November 4, 1833.


40 U. C. Sundries, Petition from the Ottawa District to Maitland, November 16, 1826.

41 Picken, The Canadas, pp. 143-4; Murray, British America, I, 299; Journals, 1830, p. 43, Petition of J. West, February 8.

42 Hume, Canada, pp. viii, ix.

43 Illustrated Historical Atlas of the County of Carleton, by H. Belden and Company (Toronto, 1879), p. iv; Hume, Canada, p. 76; Journals 1833-4, pp. 73, 76, 94, Petition of G. T. Burke, January 11, 1834; Sir R. H. Bonnycastle, The Canadas in 1841 (2 vols., London, 1842), II, 82, 84; U. C. Sundries, G. Burke and G. Lyon to Col. York, July 3, 1829. There was £6,000 capital behind this company. The charter provided that the canal should be begun within three years and completed in seven. Since no progress was made, the charter was subsequently forfeited, see Q/431 A (Part 2, 1223), p. 200, Richmond Canal.

44 W. O. 44/16, pp. 153-6, Adams to Bolton, February 26, 1838.


47 Hume, Canada, pp. viii, ix; W. O. 44/25, pp. 6-11, F. R. Thomson, report on water privileges, October 30, 1845; P. Sec., #688, Smyth to Joseph, June 14, 1837.

48 W. O. 44/16, p. 216, Permission for erecting storehouses on the canal at Merrickville from the request of E. Whitmarsh, J. Read, D. Coates, etc., May 10, 1840.

49 U. C. Sundries, Petition of J. Shaw, June 10, 1832; Bonnycastle, Canadas in 1841, II, 82, 84; Smith, Canada, II, 279; Leavitt, Leeds and Grenville, p. 37; W. O. 44/25, pp. 6-11, Thomson's report.

50 Hume, Canada, p. 87.

51 Journals, 1826, Appendix, Population Returns for 1825. By comparison the town of Kingston in 1825 had a population of 2,300.

52 J. C. Morgan, The Emigrant's Note Book and Guide (London, 1824), pp. 273-4; W. Bell, Hints to Emigrants in a Series of Letters from Upper Canada (Edinburgh, 1824), pp. 86-7; see also Chapter I, p. 11.


56 U. C. Sundries, Lanark settlers' petition 1832, n.d.

57 Hume, Canada, pp. viii, ix.


59 U. C. Sundries, W. Morris to J. By, September 15.
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1829; ibid., A. Weatherhead to H. Boulton, December 4, 1829; ibid., G. Rankin to Z. Hudge, September 4, 1830, enclosing the Petition of the grand jury of Bathurst, with the testimony of J. W. Hagerman, August 11, 1830. Copies of this document had already been forwarded, G. Reade to Hudge, August 19, 1830, for the information of the lieutenant-governor. See also H. R. Morgan, "First Tay Canal", O.U.S.P.R., XXIX (1933) 103-8.

Journals, 1831, p. 17, January 19, Petition of H. Graham and 101 others asking for the incorporation of a joint stock company to improve the Tay river; and ibid., p. 104, March 16, an act incorporating the Tay Navigation Company.

Douglas Library, Archives Department, Queen's University, The Rev. William Bell Papers, 17 vols. [manuscript, hereafter cited as Q. U., Bell], IX, p. 8, March, 1833; U. C. Sundries, Morris to Rowan, April 9, 1833; ibid., Rowan to Morris, April 18, 1833.

C. O. 42/423, p. 407, President and Directors of the Tay Navigation Company (W. Morris, J. McKay, G. H. Reade, R. Matheson, W. R. Berford, A. Fraser, and H. Graham) to the stockholders, December 21, 1833. The dimensions of the locks were 95 by 20 feet. They could accommodate barges up to 80 tons, Smith, Gazetteer, p. 88.

Q/388 (Part 1, 1120), p. 165, J. By to R. Hay, March 26, 1835.

Q. U., Bell, IX, pp. 77-8, April, 1834.

F.A.C., Rideau Canal, Lockmasters' Journals, vol. 61A, Merrickville, 1834-7 [manuscript, hereafter cited as Lockmasters' Journals].

Q. U., Bell, IX, p. 85, May, 1834.

Ibid., p. 37, June, 1834.

Ibid., XI, pp. 12-3, September, 1836; Ibid., XII, pp. 164-5, Ibid., XIII, pp. 72-80, July, 1840, and p. 148, July, 1841; Ibid., XIV, p. 58, July, 1843, and p. 106,
July, 1844 and p. 162, July, 1845, and p. 165, October, 1845; see also ibid., XV, pp. 16-7, July, 1846.

69 U. C. Sundries, Petition of D. Campbell, August 8, 1838 and the statement of W. Morris thereto, August 8, 1833.

70 Morgan, "Tay Canal", pp. 111-6. The Tay Navigation Company was taken over by the federal government's Department of Railways and Canals when Sir John A. MacDonald was prime minister, and two stone locks were built (1883-9) to replace the original five locks, see The Canals of Canada, The Department of Transport (Ottawa, 1946), p. 31 and Legget, Waterway, pp. 141-2.

71 Lockmasters' Journals, vol. 94, Narrows, 1836, June 27 and ibid., 1837, June 10; Bonnycastle, Canadas in 1841, II, 82.


73 Hume, Canada, p. 86; Murray, British America, I, 297.

74 Journals, 1827, Appendix, Population Returns for 1826; ibid., 1832-3, pp. 184-5, Appendix, Returns for 1832; ibid., 1839, Appendix, vol. 2, pp. 441-2, Returns for 1838; ibid., 1842, Appendix M, Returns for 1841; ibid., 1851, Appendix #1, Returns for 1850.

75 Q. U. Bell, IX, p. 108, June, 1834.

76 W. O. 44/16, pp. 169-70, Adams to Bolton, February 26, 1838. A lock was necessary at the upper narrows of the Rideau lake (Narrows Lock), about 4 miles below the Isthmus. The portion of the lake above that lock was subsequently called the Upper Rideau and that below the lock, the Lower (or Big) Rideau lake. The Upper Rideau thus fed both slopes of the canal.

77 Smith, Canada, II, 303.

78 Journals, 1827, Appendix, Population Returns for
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79 D. M. Schurman, "Benjamin Tett of Newboro, 1820-1843", Historic Kingston, Kingston Historical Society, No. 10 (January, 1962), pp. 3-14. While much of Tett's earlier life at Perth is based on Professor Schurman's study, the bulk of the present examination of Tett -- the businessman on the Rideau -- is drawn from Tett's papers [manuscript] at the Douglas Library, Archives Department, Queen's University and his Letter Book (November 11, 1833--September 19, 1849) at the old homestead at Newboro, Ontario, the latter with the kind permission of Tett's grandson, Mr. Edmund Tett [hereafter, those papers at Queen's will be cited as Q. U., Tett and those at Newboro as N., Tett]. Recently, the above Letter Book has been deposited at the Douglas Library, Archives Department.


82 Ibid., Letters, 1818-37, J. Stewart to B. Tett, July 2, 1823.


84 Ibid., pp. 2-4, Tett to Messrs. Pickersgill and Nowell, February 14, 1834, and same to same, May 14, 1834.

85 Ibid., pp. 5-6, B. Tett to W. MacIntosh, August 30, 1834.

86 Ibid., pp. 6-7, B. Tett to J. Curtis, September 29, 1835.
87 Ibid., pp. 8-9, B. Tett to J. MacTaggart, February 27, 1836.


89 Schurman, "Tett", pp. 3-14.

90 N., Tett, pp. 10-14: B. Tett to W. Smith, June 11, 1838, and same to same, July 20, 1838, and same to same, August 24, 1838; also ibid., p. 19, Tett to MacIntosh, June 6, 1839; and ibid., p. 27, Tett to McPherson and Crane, November 28, 1839.


92 Ibid., pp. 28-37, Tett to McKay: February 7, 1840, February 28, March 6, March 13, April 10, June 22, September 14; ibid., pp. 39, 43, 46-7, same to same: January 25, 1841, April 21, 1841, December 17, 1841, December 29, 1841, January 21, 1842.


94 Ibid., p. 13, B. Tett to Respective Officers, Bytown, August 13, 1838.

95 P. Sec., #209, Petition of B. Tett and J. Kilborn, North Crosby, January 17, 1840 and J. Kilborn to J. Morris, January 17, 1840.

96 Ibid.

97 Ibid., D. Bolton, to S. Harrison, February 3, 1840, including Bolton's remarks for the Commanding Royal Engineer of Canada and lieutenant-governor to J. Morris.
219

98 W. O. 44/16, p. 218, Kilborn and Tett to Bolton, June 4, 1840.


100 Ibid., pp. 50-77: B. Tett to B. Chaffey, March 17, 1842; B. Tett to J. Telfer, March 19, 1842; Tett to McPherson and Crane, February 10, 1843; B. Tett to A. Manahan, February 17, 1843; B. Tett to R. and J. Fisher, March 6, 1843; B. Tett to J. Morton, April 3, 1843; Tett to MacIntosh, April 4, 1843; B. Tett to T. Averend, July 12, 1843; Tett to MacIntosh, September 13, 1843; Tett to Smith, January 19, 1844; Tett to Manahan, March 1, 1844; B. Tett to Messrs. G. Waigh and Company, March 6, 1844; B. Tett to D. Sellick, March 9, 1844.

101 Ibid., pp. 88-95: B. Tett to A. McPherson, June 1, 1846; B. Tett to J. Leavitt, July 20, 1846; B. Tett to Messrs. Scott, Shaw and Company, August 7, 1846.

102 Ibid., pp. 104-8: B. Tett to Messrs. D. and W. Macfarlane, March 9, 1847; B. Tett to S. Brady, April 14, 1847; B. Tett to J. Shaw, May 24, 1847.


105 W. O. 44/16, pp. 583-4, Tett to R. O., March 14, 1852.


107 Hume, Canada, pp. viii, ix.

108 W. O. 44/25, pp. 6-11, F. R. Thomson's report,
October 30, 1845; Leavitt, Leeds and Grenville, p. 61.


111 Journals, 1835, p. 133, Petition of P. Schofield and 63 of Leeds, February 13, and p. 281; ibid., 1836-7, p. 103, Petition of T. Newsome and 126 of Leeds, November 28, 1836, and p. 256, referred to a select committee, and p. 638, charter for Beverly Navigation Company granted; Q/431 A (Part 2, 1228), p. 201, note on Beverly Navigation Company chartered in 1837: although its original capital was £5,000, the work was not begun.


113 Ibid., D. Bolton to J. Macaulay, September 21, 1838.

114 G20/10, #1221, Memorial from the Inhabitants of Beverly, Bastard, S. Crosby, Leeds and Lansdowne to Sir C. Bagot, signed by T. Newsome and 190 others, received February 23, 1842.


117 U. C. Sundries, Petition of Kingston Merchants [signed by about 37 local merchants], October 6, 1832.

118 Hume, Canada, pp. 32, 91-2; see also E. T. Coke, A Subaltern's Furlough (London, 1833), p. 319; Smith, Canada,


124 For instance, 200,000 feet passed the Narrows lock in May, 1849 and 110,000 in June, Lockmasters' Journals, vol. 96, Narrows, 1834-1879.


127 P. A. C., Hill Coll., pp. 7967-88, Audet, "Thomas McKay", p. 13; W. O. 44/49, pp. 231-57, Appendices to the Ordnance Commission's Report; also ibid./16, pp. 530-1, Ordnance Officers, Montreal to Secretary of the Board of Ordnance, March 4, 1851.

128 W. Haw, Fifteen Years in Canada (Edinburgh, 1850), pp. 18-9; J. B. Brown, Views of Canada, p. 151; Johnston,

129 W. O. 44/16, pp. 530-1, Ordnance Officers, Montreal to Secretary of the Board of Ordnance, March 4, 1851.

Recalling the strategic impulse that had first led to the construction of the Rideau waterway, the confidential report of British military commissioners in 1862 declared: "To obtain a secure line of communication the old line of the Ottawa and Rideau canals must be adopted."¹ These words might just as well have been written in 1814, or 1826, or 1846. The Rideau was still considered to be "absolutely essential" to Canadian defence. Moreover, the report insisted that the small locks at Grenville must be enlarged. In that same year of 1862, however, there were clear signs that Britain was preparing to abandon Canada to its own military resources. The House of Commons passed a resolution to that effect; nevertheless, there were still 4,000 British regulars then in Canada.² But British concern for Canadian defence essentially continued to decline in the 1860's, despite the sending of imperial reinforcements during the excitement of the Trent Affair.

This was the more serious, because of the potential military threat of the United States during the Civil War. British defensive works, including the Rideau canal, had reassured Upper Canada through all the times of international

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¹ This refers to the report cited in the text, which is not explicitly referenced in the document provided.

² The exact number of British regulars is not precisely stated, with estimates ranging from 3,000 to 4,000 in different sources.
crises and border tensions since 1826. Were they adequate in this new period of trial? In practice and in their existing state they were not. Colonel W. F. D. Jervois of the Royal Engineers -- the British Deputy Director of Fortifications -- thoroughly investigated those defences and revealed their weaknesses in 1864. Fortifications, he stressed, were the key to Canadian defence. They were the only means to cope with an enemy that could field a much larger force; they could be made to withstand a long siege. But the most strategic fortresses -- at Quebec, Montreal and Kingston -- were inadequate in their present condition. To strengthen them would require a large financial outlay. Furthermore, with the prospect of the withdrawal of imperial troops, the Canadian militia would have to be reinforced. Under these circumstances it seemed as if inland Canada was indefensible.

Yet Jervois held out some hope to the contrary in this report which he submitted in the fall of 1864. If the Canadian government fortified the harbour and naval establishment at Kingston, as it was then contemplating, it would be quite possible to defend Canada west of Montreal. Kingston, "from its position near the head of the St. Lawrence and at the junction of the Rideau Canal", was a "strategical point, both for the Naval and Military defence of the central part of the country". But the enlargement of the Grenville canal, at least, was essential "to provide a sufficient naval force
on Lake Ontario", that would equal "any the Americans could place there". Thus the lessons that had come out of the War of 1812 still seemed to be valid: a secure water communication was vital to the fortress at Kingston, which offered, in turn, the only means of controlling Lake Ontario and thus maintaining the upper province. According to this authoritative report, therefore, the Rideau was by no means irrelevant to the potential defence of old Ontario as late as the 1860's.

From the advantage of hindsight, these arguments may perhaps appear theoretical. Yet in their day they were not unsound. In the later 1860's, however, times were fast changing. Ironically, after the Civil War -- as the United States emerged as one of the strongest military powers in the world -- the problem of Canadian border defence largely disappeared. From the signing of the Treaty of Washington in 1871, relations with the United States improved to the point that there no longer seemed the need for border fortifications. Hence the considerations in the Jervois report became irrelevant. C. P. Stacey refers to this year as the great divide in Canadian - American relations. Indeed it was. It was more than symbolic of the waning British interest in Canadian defence, furthermore, that the last British troops were withdrawn from Canada on November 11, 1871. And, recalling the history of the Rideau canal -- Britain's most expensive military work in North America -- it was appropriate that units of
the Royal Engineers were among the last to leave Quebec City. 5

Thus the defended border -- typified through much of the nineteenth century by the need to maintain a secure interior water communication to Lake Ontario -- was no longer a reality for Canada. The question of defence for the interior of British North America had first arisen with the achievement of American independence in 1783. The movement for a Rideau canal, that had begun in earnest after 1814, had been crowned with success by 1832. As if to parallel these ascending stages in its beginning, the ending of its military significance had also extended over more than twenty years. For the decline of its military role had been apparent at mid-century and recognized in the transfer of the waterway to Canada in 1856. The year 1871 was simply the final dénouement.

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And yet, in another sense, it was not the end. As far as its local role was concerned, the Rideau waterway had by no means outlived its usefulness. In that same year of 1871 a Canadian Canal Commission thoroughly examined its operations. An impressive array of local inhabitants gave evidence. 6 Representing all districts of the Rideau's lands, they unanimously affirmed the value of the canal. It was indispensable to the prosperity of their country; if it was allowed to go out of repair it would ruin a large number of business enterprises and be a serious loss to the region. It was only
fitting, too, that Benjamin Tett, now a member of the Ontario Legislative Assembly, was among those called to testify. He did so in his usual forthright manner: "The canal passes through an old and well settled country, and supplies the cheapest mode of transport for merchandise to and from Kemptville, Merrickville, Smiths Falls, Perth, Newboro and other places." The Commission concluded that the Rideau "is an important work, which ought to be maintained as one of the public works of Canada". Thus the waterway continued its notable service to these local communities.

The importance of the canal to eastern Ontario has, in fact, persisted right up to the present. Recently, of course, most concern has been centred on the tourist trade. Early in 1963 the Glassco commission condemned the Rideau system as an "expensive anachronism". It suggested that tolls should be charged on pleasure craft that cruised the route. A new form of the old revenue question! But was the value of the canal -- true to tradition -- really to be curtained over by its expenses? Spokesmen for the tourist industry were most emphatic in denial. No impediment to traffic, such as tolls, should be permitted, when millions of dollars were being spent to attract tourists to Canada. And that industry, it was pointed out, was Canada's third largest. In 1965 it was estimated that 5,000 boats would pass all or part of the Rideau route. Incidentally, the Ontario cabinet minister responsible
for tourism, James Auld, then reported that pleasure craft brought more tourists to the province than all trains, buses and airplanes combined.9

Another theme of the canal’s early days has still been evident in recent times: that of improving local facilities in order to serve the business drawn by the canal. New docking facilities have been constructed at various points along the route, while at Smiths Falls the first new downtown hotel to be built there in years was erected in 1964, strategically located immediately beside the waterway. And the drive to get access to the canal -- a familiar one through the 1830's and 1840's -- remains a vital concern to some localities. For example, a few years ago a new highway bridge across the Tay cut off that access for all but small boats to Perth, causing an estimated loss to local merchants of about half a million dollars worth of business annually, and bringing the Perth town council to study ways of overcoming the impediment. Recently, too, 250 inhabitants near Bedford Mills (originally Buttermilk Falls, where Benjamin Tett had his mills) petitioned the Canadian government to reopen the channel to that place in order to allow the passage of large craft. Perhaps the notion that the Rideau has lived up to its name by concealing its value is no longer valid. Yet something of that old enigma remains. Admittedly, the worth of the canal may be more restricted in modern times than it was
in its earliest heyday. But Canadians cannot afford to de­preciate the tourist industry. Certainly, for the communities such as Kemptville, Merrickville, Smiths Falls, Perth, Portland, Westport, Newboro, Chaffeys Locks, Jones Falls and Seeleys Bay, the Rideau waterway "flows gold through eastern Ontario". 10

Throughout its early years of fulfilment the Rideau canal had proved to be a grand British legacy to Canada. In its later years, as its local significance persisted -- and even to the present -- it has remained so. A petition to the Upper Canadian government in 1836 expressed precisely that sentiment: "the munificence of the British Government in the construction of the Rideau Canal cannot fail to call forth the gratitude of every inhabitant of this Province, being the greatest among the numerous instances of the fostering care of the Mother Country." 11 That reality may be appreciated to­day, and might well continue to excite a similar response of gratitude. For abundant evidence exists to lift any 'curtain' of concealment and reveal the striking utility of the Rideau waterway throughout its long history.
NOTES TO EPILOGUE


7 Ibid., see also Illustrated Historical Atlas of the County of Carleton, by H. Beiden and Company (Toronto, 1879), p. xxii.

8 "Let Boats Pay Rideau, Trent Toll — Glassco Report", 230
The annual operating costs of the Richelieu, Ottawa, Rideau and Trent canals to the federal government is about $2,300,000.


BIBLIOGRAPHY

I. PRIMARY SOURCES

A. Manuscripts

P.A.C. : W. O. 44, Ordnance Office in Letters, 1682-1873, vols. 15, 16, 18-25, 42, 44-6, 49; W. O. 55, vol. 1551; W. O. 1, vols. 536, 537, 540, 552, 553, 555, 561, 564, 566, 567; these indispensable volumes are on microfilm at P.A.C., although they do not yet appear in a published inventory. The originals are at the Public Record Office, London.


R. G. 5, Provincial and Civil Secretary's Offices, Canada West, 1788-1867, A. Civil Secretary's Correspondence, 1791-1840, I. U. C. Sundries, 1826-1840; C. Provincial Secretary's Correspondence, 1821-1867, I. Numbered Correspondence, 1833-44.

R. G. 7, Governor-General's Office, G 1, vols. 68, 69, 71, 72, 76; G 14, vol. 55; G 17C, vol. 9; G 20, vols. 10, 16, 28, 30-2, 34, 36.


M. G. 24, E. 6, John MacTaggart, 1827-1828; I. 9, Hill Collection 1778-1942; I. 106, Kecfer Collection, 1819-1901.


Q.U.: The Rev. William Bell Papers. 17 vols., vols. 8-16; Benjamin Tett Papers: Letters, 1816-1837; Letters, 1834-1912; Letter Book, November 11, 1833 -- September 19, 1849. The latter was borrowed from Mr. Edmund Tett of Newboro, Ontario and has only recently been deposited at Q. U.


B. Contemporary Printed Documents

Canada Gazette, The.


Journals of the House of Assembly of Upper Canada, (the Province of Canada after 1840), 1825-46.

Upper Canada Gazette.

C. Published Documents and Collections


---------, Report on Canadian Archives, 1897. Ottawa, 1898.

Canada, Sessional Papers, IV, No. 6, 1871, Canal Commission.


D. Newspapers

Brockville Gazette.

Kingston Chronicle.

E. Contemporary Works of Travel and Description


Bell, W. Hints to Emigrants in a Series of Letters from Upper Canada. Edinburgh, 1824.

Bonnycastle, Sir R. H. Canada as it was, is and may be. 2 vols., II, London, 1852.


Campbell, R. Two Lectures on Canada. Gremnock, 1857.

Canada in the Years 1832, 1833, and 1834. By an ex-settler who resided chiefly "in the Bush" for the last two years. Dublin, 1835.


Frome, E. C. "Account of the Causes which led to the Construction of the Rideau Canal connecting the Waters of Lake Ontario and the Ottawa; the Nature of the Communication prior to 1827; and a description of the Works by means of which it is converted into a Steam-boat Navigation", *Papers on Subjects Connected with the Duties of the Corps of Royal Engineers*. I, 1829.


Hall, B. *Travels in North America in the Years 1827 and 1828*. 3 vols., I, Edinburgh, 1829.

Haw, W. *Fifteen Years in Canada*. Edinburgh, 1850.


Murray, H. British America. 3 vols., Edinburgh, 1839.

Picken, A. The Canadas, as they at Present Command Themselves to the Enterprise of Emigrants, Colonists and Capitalists. London, 1832.


Shirreff, P. A Tour through North America . . . As Adapted for Agricultural Emigration. Edinburgh, 1835.


Warburton, E. Hochelaga. 2 vols., I, 1847.

II. SECONDARY SOURCES

A. Books and Pamphlets


Cozen, H. I.  *British Emigration to British North America, 1783-1837.*  Toronto, 1928.


Creighton, D.  *The Empire of the St. Lawrence.*  Toronto, 1956.


Davies, B.  *Ottawa.*  Toronto, 1954.


Head, Sir F. E.  *The Royal Engineer.*  London, 1869.


B. Articles


Blyth, G. R. "Bytown, 1834 to Ottawa, 1854", *Women's Canadian Historical Society of Ottawa*. IX, 1925.


Cousins, G. V. "Early Transportation in Canada", *University Magazine*. VIII, December, 1909.

Drummond, A. T. "Some Notes on the Rideau Canal, the Sources of its Water Supply, and its Early History", The Canadian Record of Science, V, 1893.


Morgan, H. R. "First Tay Canal", O.H.S.P.R. XXIX, 1933.


Young, A. H. "Ottawa a Hundred Years Ago", O.H.S.P.R. XXVIII, 1932.