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OVERLAND TRANSPORT IN THE
RIDEAU REGION, 1800-1930

by

Edward Forbes Bush

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OVERLAND TRANSPORT IN THE
RIDEAU REGION, 1800-1930

Parks Canada Manuscript Report 424

by Edward Forbes Bush

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Mary Ann Stienberg of the Rideau Canal Office of Parks Canada was instrumental in obtaining Parks Canada permission for Friends of the Rideau to make this digital document available to the general public. Thanks to Ellen Manchee of Parks Canada for making the original copy of this report available to Ken Watson for high quality image scanning.

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Shortly after Parks Canada took over the administration of the Rideau Canal in 1972 (previously under the jurisdiction of the Department of Transport) they tasked several of their high quality researchers and historians with detailing various historical/heritage aspects of the Rideau Canal. This resulted in a series of research reports on the Rideau Canal, produced from the mid-1970s through to the mid-1980s.

Intended mostly for internal use, these reports were produced in limited numbers with only a few receiving broader distribution through the History and Archaeology series of books published by the Ministry of Environment (National Historic Parks and Sites Branch of Parks Canada).

A few copies of the manuscript reports were also distributed to “various public repositories in Canada for use by interested individuals” – but today can generally only be found in the local Rideau region libraries of Parks Canada.



General Map of the Rideau Canal Waterway

Map by Ken W. Watson, 2011

**Overland Transport in the Rideau Region
1800-1930**

by Edward Forbes Bush

1979

The Manuscript Report Series is printed in a limited number of copies and is intended for internal use by Environment Canada. Copies of each issue are distributed to various public repositories in Canada for use by interested individuals.

Many of these reports will be published in *Canadian Historic Sites* or *History and Archaeology* and may be altered during the publishing process by editing or by further research.

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Abstract

This study traces the history of land transportation within the Rideau region. The first chapter covers road development from early pioneer wagon-tracks to the inception of the provincial highway system in the mid-1890s. The second takes up the narrative from the coming of the railways in the 1850s. Three regional railways, two diagonal trunk lines, along with a half-dozen abortive projects are dealt with. With the absorption of the three regional lines and their subsequent relegation to branch line status by two of the nation-wide systems, the third section of the study follows, being the account of the building of the provincial highway network with particular reference to the Rideau region. Thus is depicted in microcosm the story of land transportation throughout Canada. Insofar as a paucity of concurrent statistics allows, comparison is made between the passenger and freight traffic of the three regional railways and the Rideau Canal.

ROADS IN THE RIDEAU REGION: WAGON-TRACK TO TURNPIKE, 1793-1890

The yet to be designated Province of Upper Canada (1791), lying to the west of the Ottawa River, was still a forested wilderness inhabited by Indians on the arrival of the first white settlers at the time of the American Revolution. One of the earliest settlements was along the banks of the upper St. Lawrence in the Rideau region, as broadly defined for the purposes of this study. This region comprises the counties of Frontenac, Leeds, Grenville, Lanark and Carleton, although Carleton's outlying townships on the east and the north-west corner may properly be associated with the Ottawa rather than the Rideau rivers, as indeed may the third tier of townships (Lavant, Darling and Pakenham) in Lanark County. Nonetheless in the interests of simplicity these admittedly arbitrary limits have been set as defining the Rideau region, whose land transportation - pioneer roads, three railways and finally the rudiments of the modern highway network, - is the subject of this paper.

Two distinct themes will be treated in this chapter on the pioneer roads, the through or trunk roads linking the larger towns between the St. Lawrence and the Ottawa rivers (Kingston-Brockville-Perth-Bytown), and the market access roads, by which the farmer and lumberman got their products to market or sawmill. It is noteworthy that water transportation, with which the region was amply endowed by the chain of rivers and lakes crossing the low divide

between Kingston and Bytown, was where readily available preferred during the summer months to the crude roads in the pioneer period, but as shall be seen with a description of the early settlement pattern, a road network was forthcoming with the spread of settlement.

Early Settlement in the Rideau Region

Kingston was founded in 1783 near the site of the old French Fort Cataraqui, where the river of that name debouches into Lake Ontario. Some good agricultural land was found in the township of the same name, which formed the town's immediate hinterland. Actually earlier settlements were made on the banks of the upper St. Lawrence, specifically in Edwardsburgh township (1775), followed by the township of Elizabethtown further upstream in 1779. Good agricultural land was found in Edwardsburgh but for some swampy areas in the north, and excellent soil in Elizabethtown. The township of Escott was settled in 1780. Arable land was found here too, improving back from the St. Lawrence. The townships of Leeds and Lansdowne (front, or bordering the St. Lawrence) were first settled in 1787, and the back township of Wolford, bordering the Rideau River, in 1789. In 1790 the front of Yonge was opened for settlement, and Bastard and Augusta townships in 1795-96. It can thus be seen that the trend of the earliest settlement was along the north bank of the St. Lawrence River, and back toward the Rideau. Montague township in Lanark County was the first to be settled about the year 1790 north of the Rideau River. Thus Leeds and Grenville counties, lying between the St. Lawrence River and the Rideau system or waterway, were in process of settlement before 1800.¹ Two mill sites were established on the Rideau River in this same period - Burritt's Rapids in 1793 and Merrickville the following year.

It is noteworthy that most of this area first settled, with the exception of Leeds township and the front of Lansdowne, proved arable and hence developed as an agricultural region. All of these early settled townships had access either to the St. Lawrence or the Rideau waterway. The townships of Elizabethtown and Yonge, well back from the St. Lawrence, possessed the most fertile land, as did the township of Augusta.

At the turn of the century Oxford township in the north of Grenville county, bounded on the north by the Rideau River, was settled, and proved highly fertile. Simultaneously settlement began in Loughborough township, Frontenac county, to the north of Kingston township; this region proved fair agricultural land and mineral deposits were later located within its bounds. Adjacent Storrington township, a rocky area with the intrusion of the Shield was first settled in 1804, and here presumably lumbering was the principal industry in the early years. Meanwhile in neighbouring Leeds county the rear of Leeds and Lansdowne townships were first settled in 1805, the latter of which was suitable for agriculture. In 1808 settlement pushed into South Crosby, a rocky area which remained for most part wooded, in which lay the scenic Rideau Lakes; this region later was found to contain mineral deposits.

South Gower township, the last township to be settled in Grenville county, was being settled by 1802. In 1812 the principal town in the county, Prescott, was founded. The remainder of Leeds county, with the opening of South Burgess and Elmsley townships, was under settlement by 1815; the town of Brockville was founded in 1802, and Gananoque, midway to Kingston, in 1824.

It will be recalled that the settlement of Lanark began in Montague township, bounded on the south by the Rideau River, as early as 1790. This was followed by the settling

of North Elmsley, bounded on the south by Rideau Lake, in 1810, and by the township of Drummond directly back of North Elmsley, in 1815. Settlement in Lanark county gradually extended back from the front townships already mentioned on the Rideau, until the fourth tier (Lavant, Darling and Pakenham) saw their first settlers in the 1820s, remaining sparsely populated as late as 1880.

Moving north to Carleton county, embracing the scenic mouth of the Rideau River, settlement came somewhat later than about Kingston, the shores of the St. Lawrence and upper Rideau rivers, as hitherto cited. Nepean along the left bank of the Rideau River received its first settlers in 1810, and was the first township to do so in this county, closely followed by Gloucester on the opposite bank of the Rideau in 1812. Richmond on the Goodwood River (subsequently the Jock) was founded in 1815, but Bytown, the principal entrepôt for the region, came into existence only in 1826, with the commencement of the work on the Rideau Canal. The townships of Goulbourn and North Gower, contiguous to Nepean, were settled somewhat later, in 1818 and 1824 respectively.² It remains to mention that two of the principal towns to develop in the Rideau region, Perth and Smiths Falls, 12 miles apart, were founded in 1816 and 1823 respectively.

The civil secretary's correspondence contains a description by Captain Adiel Sherwood³ of early settlement along the Rideau itself, dated July 1815. The description covers the townships adjoining both banks of the Rideau from South Crosby in eastern Leeds county to the mouth of the Rideau at the site of the future Bytown. Commencing at the Rideau's mouth, and proceeding up the west bank, Nepean township is described as mostly unsurveyed, with a mill under construction at the mouth of the Rideau. North Gower in 1815 was uninhabited, and was to remain so

until the 1820s. The next township on the west or left bank of the Rideau, Marlborough, was settled along the river, and presumably not for any distance back from it. Elmsley, the next township adjoining the left bank, was described by Sherwood as uninhabited, although the Ontario Agricultural Commission many years later (1881) cited the first settlement in this township as 1810. In any case Elmsley, lying between the future settlements of Smiths Falls and Perth, was noted as fertile. Sherwood described the next township of Burgess as uninhabited, although again the later evidence of the Ontario Agricultural Commission recorded that settlement began here in 1815. North Crosby township located in the north-west corner of Leeds county was uninhabited when Sherwood surveyed the scene, and remained so until 1828. North Crosby was credited by Sherwood with excellent land, although W.H. Smith, writing 35 years later, described the township as rocky and uneven, but with fertile intervening stretches of arable land.

Continuing on the right or east bank of the Rideau from its picturesque confluence with the Ottawa, Sherwood found Gloucester township not fully surveyed and from his description it seems to have been a virtual wilderness, although opened for settlement in 1812 according to the Ontario Agricultural Commission report. The neighbouring township on the right bank of the Rideau, Osgoode, was uninhabited in 1815, although the soil was described as good. Sherwood described the tiny township, South Gower, wedged into the north-east corner of Grenville county as uninhabited in 1815, although again a later authority cites the date of first settlement as 1802. The neighbouring township of Oxford, bounded on the north by the right bank of the Rideau River, was inhabited along its course in 1815, and gave promise of excellent land. Oxford township was reached by what was described as a good road from Fort

Wellington on the St. Lawrence, 18 miles to the south. The following four townships - Wolford, Kitley, Bastard and South Crosby - were described by Sherwood as well inhabited. Kitley was reached by wagon road from Brockville (founded in 1802) through the township of Elizabethtown, and South Crosby from Gananoque.⁴

Such then was the state of the rather scattered and patchy settlement which had taken place in the broadly defined Rideau region up to about 1825. The St. Lawrence River was the main means of access during this first half-century, supplemented by the Ottawa in the north.

Pioneer Road-building: Corduroy to Macadam, 1793-1848

With the establishment of a separate administration for Upper Canada, early legislative provision was made for the linking of the scattered settlements by means of what for want of a better term may be described as roads. The first legislation (33 Geo.III, cap. 4), passed in 1793, was to "regulate laying out and amending and keeping in repair public highways and roads within the province." The act established the system of statute labour, whereby the settlers were compelled to work on the roads and bridges in their vicinity for a cumulative total of 12 days per year. Overall authority was entrusted to justices of the peace within their divisions, under whom served overseers of highways elected by the inhabitants of their respective townships. These overseers were responsible for superintending the road work within their townships, summoning those liable for statute labour, keeping accounts, and for collecting commutations and fines. Roads were to be between 30 and 60 feet in width.⁵ Each settler was responsible for clearing a road across his own lot. Provision in the legislation was made for roads between concessions.

Early Land Survey Systems

The first land survey in Upper Canada at Niagara was described in a census dated 25 August 1782, but the basic principles were laid out in the Royal Instructions to James Murray, Governor of Quebec, in December 1763. The survey system was delineated by Sir Frederick Haldimand in his instructions to the surveyor-general, Samuel Holland, in 1783. The basic unit was the township, of approximately 20,000 acres, a sub-division of the county. Townships were sub-divided into concessions, which in turn were divided into lots assigned to individual settlers. Furthermore, by order-in-council dating from 1791, one lot in seven was reserved to the crown, and one lot in seven for the support of a Protestant clergy, confined exclusively to the Established Church (*viz.*, the Church of England). (See: Lord Durham's Report, Appendix A, No. 1, pp. 2-3.) The surveyor also made provision for roads and town plots.⁶

At first the land surveyors laid out base lines following navigable waterways and from these base lines townships six miles square were delineated, the township being the basic survey unit. A number of townships constituted a district, and later (1849), a county. At the outset (1783-1818), the single-front system was introduced, comprising townships six miles square and seven concessions deep, each concession being sub-divided into 25 lots, aggregating 120-200 acres each. The single-front system resulted in a single line of homesteads along concession roads or along the river front. Later (1815-29) the double-front system was introduced, with frontage on both sides of the concession roads and with the backs of lots meeting in the middle of a concession. This resulted in a double row of homesteads along the concession road. The advantages of this system were wider lots of 200 acres each, a reduction in survey work, and a reduction in the burden of

road making since there were more landowners to build and maintain the road. The single-front system was used along the St. Lawrence and Niagara rivers, the shores of Lake Ontario and part of Lake Erie; the double-front system was favoured in the interior. A still later development was the 1000-acre sectional system, with a third tier of townships inland. Finally, irregularly shaped townships were laid out to fit spaces left over between previously designated counties.

Of particular interest in the context of this paper is the fact that most of the Rideau corridor was surveyed under the earlier, single-front system. It may be added that many of the early surveys were inaccurate owing to the inadequacies of the instruments.⁷ As early as August 1815, Alex. McDonell, Superintendent of Location, writing attention of the Military Secretary, strongly recommended the running of concession lines in the townships bordering the Rideau, otherwise a number of the settlers would be unable to locate their lots.⁸

The laying out of the early pioneer roads was therefore based on the base and concession lines delineated by the land surveys carried out as settlement progressed from the river frontages inland.

Pioneer Road-building and British Precedent

With the important exception of plank and corduroy roads, much of what was known in early 19th century Upper Canada on the technique of road-building, along with the concept of statute labour and toll roads was derived from England. In mediaeval England the splendid Roman roads had long since fallen into decay; indeed, the state of the roads in the early 17th century was such that the newly-introduced stagecoaches (1630s) were restricted to use in the summer

months. The journey from London to York (about 190 miles) took five days, reduced to four by 1706, although this progress was by no means common to road travel at the time. Similarly the stage run in 1658 from London to Exeter was made in four days, reduced to half that time in a little more than a century later. John Copeland cites the golden age of English stage coaching as 1820-36, with about 50 miles as the average day's run.⁹

The name most readily associated with road improvement is that of the Scottish-born John Loudon McAdam, appointed general surveyor of the Bristol district in 1817. So well known is McAdam that the term macadamized has passed into our language to describe a particular type of road surface. McAdam taught that proper drainage and materials were the prime requisites of a durable road. Stones of an exact size were used, a preliminary layer of 6-inch depth being followed by a second 6-inch layer a few weeks later.¹⁰ McAdam's methods were widely adopted in England, and later in the Canadas, although all too often a shortage of funds resulted in inferior work that passed as macadamized in name only. Two other road engineers contributed significantly in England to the technique of road-building - John Metcalfe and Thomas Telford. Whereas McAdam had recommended a soft foundation, Telford opted for a firm one made up of 7-inch by 4-inch blocks surmounted by a 6-inch layer of stones, and that in turn by small stones or gravel.¹¹

The concept of the turnpike trust was also derived from England, whereby trustees were empowered to defray the cost of constructing and maintaining the road by means of tolls charged road users. The toll companies were frequently subsidized for a portion of the original construction cost. The system brought about widespread improvement in the English roads so administered (about 20 per cent of the total mileage) from 1750 to 1850, but many of the toll road

or trust companies fell into financial difficulty. As we shall see, the system¹² served reasonably well in Upper Canada until the latter half of the 19th century, when its limitations became blatantly obvious.

The earliest roads in Upper Canada were little more than glorified trails through the bush, the stumps still standing, passable generally only on foot, and that during the dry summer months, or in the dead of winter, with sleigh or cutter. An early development, in order to cope with swampy passages of which there were many, was the celebrated or perhaps notorious corduroy road. This was formed by means of logs, laid transversely with earth fill. Besides providing a spine jarring tortuous passage for any wheeled vehicle, and constituting a fire hazard during the dry season, the corduroy road rapidly deteriorated, but it served as a practical expedient in the early days, the raw material being ready to hand.¹³

Another type of road, which enjoyed considerable vogue in Upper Canada in the period 1835-55, was the plank road. This consisted of 3-inch to 4-inch lumber at right angles to stringers, to which the planks were securely bolted, the planks overlapping the stringers by about 18 inches on the sides. A light finish of sand or gravel was laid on the plank surface, to absorb water and lessen the noise of horses' hooves and carriage wheels. It was claimed that stage coaches could average 8 miles per hour on a plank road under good conditions, and wagons with heavy loads about half that, but grades of more than 1:20 were deemed undesirable.¹⁴ The usual width of the plank road was 16 feet, but only 8 would be planked, with the rest gravel. White or yellow pine served best, but hemlock, beech, elm and maple were also used. The first such road was built in 1835-36 some miles east of Toronto on the Kingston Road. It was contended that the maintenance of a plank road was

one-quarter that of a stone road, and whilst lumber remained both accessible and cheap, plank roads were popular. One surmises that a contemporary traveller, Sir Richard Bonnycastle, was a mite fanciful in his enthusiastic description:

Fancy rolling along a floor of boards through field and forest
for a hundred miles. You glide along much the same as a child's
go-cart goes over a carpet.¹⁵

Nonetheless the stone macadamized road proved much the more durable, for the plank road deteriorated rapidly under heavy horse traffic, and was vulnerable to damp. Two references to plank roads in the Rideau region at mid-century describe the road from Merrickville to Brockville, a distance of 29 miles, as partially plank and part macadamized, and likewise the 15-mile road from the village of North Augusta to Brockville.¹⁶

Edwin C. Guillet states that the common road was the first improvement on corduroy. This was simply a dirt road, drained and bridged, with drainage ditch on one side, and with raised centre crown to assist run-off. Holes were filled with broken stone.¹⁷

Macadamized roads consisted of a 2- to 3-inch layer of gravel on a dirt base; these were generally impassable from March to the end of May, and were at their best as a means of transit in mid-winter. This make-shift macadamization simply reflected a lack of funds to do a proper job, subject withal to a severity of frost unknown in Britain. One has only to compare colonial practice in these early days to that of a properly built macadamized road in England, in which fully 3 feet of carefully graded stones were laid upon a dirt foundation.¹⁸

It should surely have been obvious that no valid comparison could be drawn between macadamized roads in

England and those going by that name in Upper Canada, a fact nevertheless which did little to hinder overseas travellers inveighing against the intolerable conditions of the roads in the colony. Indeed the *Emigrants Guide to Upper Canada*, published in 1820, described the roads as few and poor, with rough surfaces, wretched bridges, and inadequate service at the inns, but concluded that the roads were yet "moderately commensurate with the retarded progress" of the colony.¹⁹

Pioneers and Wagon-tracks 1783-1848

Reference has already been made to the first legislation (33 Geo.III, cap. 4) making provision for roads connecting the scattered settlements of Upper Canada. In 1796 a further act provided for the appointment of road commissioners,²⁰ followed in 1804 by an appropriation of £1,000 for road construction.²¹ Then in 1809 the legislature appropriated the sum of £1,600 for the repairing and laying out of roads apportioned among seven districts; £200 fell to the Eastern District, which included the Rideau region. The Lieutenant-Governor was also empowered to appoint commissioners to be responsible for the work carried out within their respective districts.²²

This was a start, but the most comprehensive and significant act passed by the legislature prior to the "Baldwin Act" in 1849, was that of 1810 (50 Geo.III, cap. 1), whose preamble in part read:

An Act to provide for the laying out, amending and keeping in repairs the public highways and roads in this province and to repeal the laws now in force for that purpose.

Under this act the overall authority in each district was invested in the Justices of the Peace in Quarter Sessions.

The Justices of the Peace appointed Surveyors of Highways for each county, who in turn appointed Surveyors of Lands; these two latter officials were salaried, at the rate of £0-7-6 per day for the Surveyor of Highways, and £0-10-0 for the Surveyor of Lands. The Justices of the Peace, on the petition of 12 freeholders, authorized the undertaking of a particular project. Roads were to be not less than 30 feet in width, and could be as many as 60 feet; bridges and causeways were not to be less than 15 feet in width.²³

The shortcomings of this act became readily apparent within a few years. By 1826 the editor of the *Kingston Chronicle* pointed out that the Justices of the Peace, with a monetary limit of £50 per project, were not vested with sufficient authority to discharge adequately their function. Even should a Surveyor of Highways present the most cogent reasons for a project, if the estimates exceeded this sum no Justice of the Peace could authorize it.²⁴ In 1824 amending legislation had been passed enabling the Justices to reassign statute labour to specific projects on the application of 12 freeholders. At the same time, mandatory road width was increased to a minimum of 40 feet and maximum of 66 feet. However, the £50 limit was not changed.²⁵

Insofar as the Eastern District, specifically the Rideau region, is concerned the description of an English traveller pertaining to conditions along the upper St. Lawrence in the 1790s is not without interest inasmuch as it paints a brighter picture than many of a later date. David William Smith, whose account was published in London in 1799, described the recently settled region as

for the most part fertile and under as high a state of cultivation as can be expected from the time it has been settled; the first improvements being made since the peace of 1783, when all was in a state of nature and

heavily timbered... Good roads have been opened, and bridges well constructed; some of them over wet lands, and the mouths of creeks and rivers of very considerable extent; and the first settlers have been able, by their very great industry, to erect comfortable houses... Settlements by this time had also been effected in the back townships and on the Ottawa "or Grand" River.²⁶

Isaac Weld described roads connecting scattered settlements along the St. Lawrence all the way from Montreal to Kingston in 1795-97, but cautioned that no one attempted the journey by road, if for no other reason than the difficulty of fording swift flowing streams. Water transportation, with all the delays attendant upon numerous portages around rapids, was greatly to be preferred.²⁷

The first reference found to road making in the Rideau region was the petition of Abel Stevens and Mathew Howard, dated 21 January 1800, describing a road 30 miles in length which they had built from "the Elizabeth Town Road, in Lansdowne, to the Kingston Mills," in the course of which endeavour they had built 15 bridges and causeways spanning all the small streams. Mile posts had been set up "so that people travel it with great ease with their teams." In return for this service, Stevens and Howard requested the land that had been assured them by order-in-council.²⁸ Since Brockville at this date was known as Elizabethtown, this road ran from thence to Kingston Mills, about four to five miles north of Kingston.

The question of the earliest roads aside, there can be little doubt as to their deplorable condition, particularly in the spring of the year and during wet weather. Lieutenant-Governor Gordon Drummond, writing to the Governor, Sir George Prevost in 1814, described the general state of the roads as follows:

The roads in this Province have been so much neglected since the commencement of the War, that during wet weather, in some parts, they are become totally impassable.²⁹

The earliest extant map of the Rideau waterway clearly showing a through road from the mouth of the Rideau to Kingston, signed J. Jebb, Royal Engineers, is dated 8 July 1816. Commencing just above Rideau Falls on the right bank of the Rideau River, the road proceeded in a southerly direction to Black Rapids, where it crossed to the left (or west bank), with a road leading off in the direction of Richmond about a mile beyond the river crossing. The main road was thence marked "cut in the winter of 1815,"³⁰ and proceeded more or less in a direct line to Olmstead's, approximately four miles to the west of the Rideau. From Olmstead's to Merrick's Mill (later Merrickville), the road followed the Rideau closely, and crossed again to the right bank at that point. Presumably the crossing was effected by ford or ferry, for the earliest bridge at Merrickville was built about 1832.³¹ From the Merrick's Mill crossing, the road ran from a mile or so beyond Merrick's Mill to Furnace, situated on the Gananoque River, shortly before which it debouched into White Fish Lake. The road over this course, from Merrick's Mill to Furnace, followed the line Irish Creek-Irish Lake-White Fish Lake, the Rideau waterway itself taking a course some ten miles to the west. On Jebb's map, three hamlets or crossroads - Easton's, Soper's and Soper's Inn were marked between Merrick's Mill and Furnace. The map also shows three roads leading off to Brockville from the through road between Merrick's Mills and Furnace. About a mile to the south of Soper's a road led off to Irish Creek, crossing the same by Koyle's or Kayle's Bridge, and from this point a projected road to Perth was indicated. Leaving Furnace, indicated as a mere hamlet

on the map, the road paralleled the Cranberry Marsh and the Kingston Mill Stream (subsequently known as the Cataraqui River) to a juncture with the road from Cataraqui, leading two miles further on to Kingston Mills, where the road crossed to the right or west bank of the Kingston Mill Stream. Since the earliest bridge known to have been built at Kingston Mills dates from 1832,³² the crossing in 1815 may have been by other means than a bridge. From Kingston Mills the road led on into Kingston, distant five to six miles. Over the whole route, Rideau Falls to Kingston, the map identifies three inns (Hadskil's, Soper's and Easton's); in addition to the hamlets of Billings, Olmstead, Merrick's Mill, Stone Mills, Furnace, where overnight accommodation may well have been available. Jebb's map does not indicate when this road was completed from Rideau Falls (New Edinburgh) to Kingston, other than the afore-mentioned stretch from Black Rapids to Merrick's Mill (winter of 1815).³³ At this early date this road would have been little more than a rough track through the bush, frequently passable only on foot. The alternative in summer was by canoe through the chain of lakes and rivers forming the Rideau waterway.

An 1821 map, taken from Gourlay's volume on Upper Canada, describes a road running along the "Rideau River" (*sic*) from a little to the east of Kingston as far as Gower township (roughly half-way between Smiths Falls and the mouth of the Rideau), with side roads running off to Brockville and Perth.³⁴ As the road alternated between both sides of the river, it may be assumed that a number of crossings were necessary.

The next map in point of time to show significant detail is that of James Grant Chewett, dated 1825. Kingston, Smith's Mill (Smiths Falls), Perth, Lanark and the site of Bytown are all connected and inter-connected

with tenuous road links. The projected road on the 1815 map from Koyle's or Kayle's Bridge to Perth has been completed, and extended through to Lanark. A through road west of the waterway from Kingston to Perth is marked projected, via Davis Mills and the Upper Narrows. The Kingston-Rideau Falls road shown on the 1815 map also appears on the 1825, but that portion of the road from Black Rapids to Bytown, on the east bank of the Rideau, does not appear, whether because it had been abandoned, or through the inadvertence of the cartographer, is unknown.³⁵ Comparison of the two maps indicates, considering the meagre resources of the colony, considerable achievement during this ten year period.

A map signed by Lt. Col. John By, dated 5 February 1829, shows further progress. Marked as main or post roads, By's map shows roads running from Bytown to Perth via Richmond, from Kingston to Soper's Inn, and thence to Montreal, and from Perth to Prescott. A "wood road" is shown from Richmond through Nicholson's Rapids, Clowes, Merrick's Mills, Maitland Rapids, Old Sly's to Smiths Falls, and a "bridle" road from Perth through the Narrows to Hoskin's Mills, near Jones Falls.³⁶

An 1830 map under By's signature shows for most part the Kingston-Bytown road as indicated on the 1815 map, but with feeders to Merrick's Mills and Burritt's Rapids, and with the final section to Bytown routed via Richmond. The projected direct road from Kingston to Perth, marked as projected on the 1825 map, does not appear on this one.³⁷

The primitive state of the province's roads in 1830 may be gauged by a letter received by James (later Sir James) Macaulay, then a judge on the Court of King's Bench. His correspondent described the state of the roads as a disgrace, which he attributed to the appointment of incompetent road

commissioners and insufficient funds. He recommended that a large sum should be appropriated from the 'loan' to put at least the post roads in good condition, whereas the cross roads and concession roads could be left to the townships.³⁸

The L.T. Hebert map, dated 1839, shows basically the same roads as those afore-mentioned, plus a number of additional roads. A direct Kingston to Perth road is clearly marked, proceeding generally to the west of the Rideau waterway, through Upper Narrows, skirting Dog Lake, Davis Lake, Indian lakes, and Mud Lake (later known as Sand Lake) to Perth; thence the road bore north-easterly via Franktown and Richmond straight to Bytown. This route, incidentally, is frequently used today and is the most direct road between Perth and Ottawa, although it takes a more westerly route through Carleton Place. Of interest, too, is the fact that the present Highway 15 from Kingston to Smiths Falls follows roughly the route laid out on the map of 1815. By 1839 roads connected up Brockville, Gananoque and Prescott with Smiths Falls, Perth, Lanark, Carleton Place, *etc.*³⁹

The Road and Bridge Act of 1830 authorized an overall expenditure of £13,650 of which the following sums were allocated for districts in the area traversed by the Rideau waterway:

Johnstown District	£1,100
Bathurst District	1,100 ⁴⁰

It may readily be seen that there had been a considerable increase in appropriations from the £200 per District allocated in 1809.

The following March the House of Assembly, in committee of supply, passed the following appropriations for roads in the region:

Augusta-Rideau River	£300
Merrickville-McCrea's	50
Kemptville-Olmstead's	50
South Gower	30
North Gower, Eastman's-Richmond	50
North Gower, Kantman's-Richmond	50
Marlborough, Olmstead's	100
Leeds, Yonge-western boundary	175
Oliver's Ferry-Perth	100
Willson's Inn on Merrickville Rd. - eastern boundary of Kitley	50
Willson's Inn-Oliver's Ferry	100
Oliver's Ferry-Perth	100
Landon's-boundary Kitley	70
Donaldson's, Rideau Lake-south side lake to old landing	100
John Dixon's, Yonge-Chaffey's Mills	100
Beverley, Bastard-Isthmus, N. Crosby	50
Alfred-Rideau River	600
Osgoode township-Rideau River	50 ⁴¹

coming to an aggregate total of £2,125. Unfortunately, no contemporary information concerning the average cost per mile of road construction and/or maintenance has been found. For this reason it is not possible to estimate how far the £2,125 would have gone toward improving the roads in region, although Thomas Roy's figure of £456 per mile for a first class macadamized road, given in 1841, provides indication as to the expense of sound construction.

In 1833 the legislature authorized the floating of a loan for the sum of £20,000, financed by debentures issued by the Receiver-General, for expenditure on the colony's roads.⁴² Money granted for this purpose was to be paid to the treasurer of each district.⁴³ Although a substantial increase in

monies set aside for roads, it was but a portent of things to come. On 9 December 1836 the House voted no less than £500,000 for the purpose, a resolution supported by a majority of 51. Four days later, when the House had resolved itself into committee of the whole to discuss expenditure on roads and bridges, a member observed that these had long been neglected, and that the building of railways and canals was of little use if the farmer could not get his produce to market.⁴⁴ It was an argument that would be heard again sixty years later. Of this substantial appropriation the editor of the *Bytown Gazette* commented, 26 January 1837, "better late than never." Although this bill gained royal assent on 4 March, the lavish appropriation had apparently been cut in the interim to a tithe of its original amount. Reverting to the editorial comments in the *Bytown Gazette*, the appointment of competent engineers and surveyors, with professional qualifications, was urgently required. Too much money had been spent patching up work that had been poorly done in the first place. Sparsely settled regions were in the greatest need, but because of their franchise, the well settled townships drew the most benefit. Boards should be established in each county, and engineers should be county appointees.⁴⁵

Critics and Expedients 1830-40

Concern over the rueful state of the roads in Upper Canada was widespread. Statute labour had been found sadly wanting, and was the subject of editorial comment as early as 1831 and possibly even earlier.⁴⁶ The Lieutenant-Governor, Sir John Colborne, in an address to the Agricultural Society of the county of Frontenac condemned it, recommending in its stead the letting of contracts for road work.⁴⁷

A cognizant critic of road-making practice and administration in Upper Canada was Thomas Roy, whose *Remarks on the Principles and Practices of Road Making as applicable to Canada* was published in London 1841. Roy contended that both the direction and the technique of road-making were much at fault. There was no overall direction, each project being a local affair, leading to the semi-passable wagon tracks which graced the province. The road commissioners, frequently store or tavern keepers, millers and tradesmen, were men ignorant of the art and devoid of experience. Nor was there an inspector of roads to maintain standards. Since an overall plan or design was lacking, unnecessary expense was incurred through the random and piecemeal selection of projects. Roy contended that building roads soundly in the first place was far less costly than patching and repairing those badly built by persons ignorant of the basic principles. He recommended larger trusts, regardless of township or concession lines, under the direction of an experienced road engineer. An inspector of roads, of proven professional experience, should be appointed on a non-political basis, to lay out, inspect and report upon all road work.

Roy recommended the stone macadamized road. The best material was stone in approximately 1½ inch cubes, laid in successive layers, with time for each to settle. The stone should be spread evenly by shovel, rather than simply dumped from a moving cart. Excavation, ditching and banking could be let out to contract, but the finishing of the road should be left to experienced and permanent employees. A properly laid stone road, good for about 12 years before re-surfacing, Roy estimated at £465 per mile. He recommended granite, trap or other "crystalline" rock as the best material, but unfortunately this was not found in many parts of Upper Canada. Broken boulders, widespread

throughout the province, were a good alternative according to Roy, as was limestone (abounding in the Kingston region), although the latter was less durable from atmospheric action. Plank roads should not be laid with less than 4-inch plank to be durable. The latter would last about 5 years, whereas 3-inch plank was good for little more than three. Roy stated that a well-laid stone road would far outlast a plank, but if a timber laid road must be resorted to, then the road surface should consist of 18-inch to 24-inch blocks set on end, with yet larger blocks for swamp land. This would form an incompressible layer, which would stand up much better under horse traffic than the longitudinally-laid plank road - indeed until the wood decayed. Gravel was also a good surface. Roy recognized the limited nature of the colony's resources, stating that only Toronto's streets were laid to the English standard.⁴⁸

Unfortunately evidence has not been deduced to determine the impact of Roy's credo on the province's road-builders. Certainly macadamized stone roads found general acceptance where road improvements were carried out, whereas plank roads were a passing phase while timber was abundant and cheap. An official in the Civil Secretary's office, D'Arcy Boulton, took Roy seriously enough to lay his technique on macadamizing before the road company trustees concerned with this type of work. Boulton considered Roy's macadamizing technique "likely to be useful" for some regions, but did not commit himself beyond this qualified endorsement. At an earlier date (1834), Roy had been in favour of timbered roads rather than stone macadamized, whereas it is obvious from his published work of 1841 that he had reversed his stand. Boulton held that the macadamized road would outlast a timbered road thrice over, with lower maintenance costs. Time proved him right.⁴⁹

The editor of the *Lanark Herald* (Carleton Place), as late as 1850, was found discussing the merits of various timbers for plank roads. He believed that well laid oak plank would last 12 to 15 years, whereas pine was good for about eight years, and hemlock for seven, although hemlock had not been in service long enough to be certain of this.⁵⁰

The Toll-road

The toll-road or turnpike was built, owned and maintained by private interests, who charged the public tolls for the use of the road. In theory the tolls were to be used to defray the costs of construction and to maintain the road to the requisite standard, with a margin of profit, of course, for the trustees, each toll-road being an individual business enterprise. In practice, as shall be seen, the trustees too often skimmed on their trust, the roads deteriorated to a scandalous degree, whereupon users objected to paying the toll, and sought frequently by many ingenious dodges to avoid doing so.⁵¹

According to Glazebrook, the first toll-road opened in Lower Canada in 1805.⁵² There is some question as to when toll-roads originated in Upper Canada: Middleton and Landon (*The Province of Ontario*, Vol. II),⁵³ cite the year 1829, but the report published by the Public Roads and Highways Commission 1914 attributes the first toll-roads in the Upper Province to the County of York in 1833.⁵⁴ (See: 3 Wm. IV, cap. 37.)

In 1840 the legislature passed a comprehensive act (3 Vic., cap. 53), regulating turnpike trusts throughout the province. Turnpike trust boards were established in each district, made up of the current trustees of the extant turnpike trusts in each district; these nominees were to be

styled commissioners in their respective districts. The commissioners were empowered to appoint an engineer or surveyor in each district, who in turn was to superintend the construction and the upkeep of toll-roads under this charge. The commissioners were also to appoint toll-keepers, and set tolls.⁵⁵ Further legislation passed in 1843 exempted church-goers from tolls on Sundays, and anyone going within a half-mile from one part of his own land to another.⁵⁶ An amendment to the 1840 act the following year stated that no person living within a half mile of a road under the authority of the commissioners of the turnpike trusts was liable either for statute labour or its commutation unless the road had been macadamized or otherwise improved.⁵⁷

Provision had been made in 1840 for Treasury loans to district trustees, security for which, principal and interest, was based on the tolls. If the tolls proved deficient to cover the interest on the loan, a rate could then be levied on the district by the magistrates in Quarter Sessions on the application of the Receiver-General, but this generally proved an impractical procedure. The magistrates would not impose such a levy unless it could be shown that the interest was recoverable in no other way; generally they preferred an increase of the tolls.⁵⁸

Old Roads and a New Board of Works 1841-48

By legislation passed early in the Union period (1841), a Board of Works was established for the whole of the newly united Province of Canada which became responsible for all public works - such as main roads, bridges, and harbours. No public works could be undertaken anywhere in the province without the authority of the Board.⁵⁹ Legislation passed in 1846 provided for the appointment of two salaried

Commissioners of Public Works, who were empowered to sign contracts on behalf of the province relating to roads, bridges, canals and harbours. No work could be undertaken, however, without the sanction of the legislature. The commissioners had to submit annual reports to the legislature 21 days after the commencement of each session, covering all public works under their jurisdiction. The commissioners could discontinue work on any public road and substitute another, and they set the rate of tolls. None of the roads in the Rideau Corridor were vested in the Crown by this Act, unless one considers that portion of the Quebec-Sandwich trunk road between Kingston and Brockville or Prescott.⁶⁰

The Richmond Road: Richmond Landing to Perth, 1817-24

The first settler on the south bank of the Ottawa River, just below the Chaudière Falls, was Caleb T. Bellows, circa 1810. Bellows built a wharf and store, known until 1811 as Bellow's Landing, and thereafter as Richmond Landing. About 1814 soldier settlers from the 99th and 100th Regiments of Foot came to Bellow's Landing, and leaving their families encamped there 1817-18, cut out a rough road to a mill site on the Jock River, via Bell's Corners, where William Bell had built a cabin in 1815.⁶¹ The road cut through the bush from the bay below the Chaudière Falls to Chapman's Ranch on Goodwood, a location about three miles from the present town of Richmond. The work was superintended by a Sergeant Hill of the 99th Regiment.⁶²

In the same year, 1818, a rough bush road was cut through from Richmond to Perth, following the 4th concession lines of Goulbourn and Beckwith townships (closely following the present highway from Richmond to Franktown), thence south to the 3rd concession line to Gillies Corners and

south-westerly to the 2nd concession of Drummond township, and so to Perth. Sir Francis Cockburn, deputy quartermaster-general, reported on the Richmond-Perth Road in 1818:

The road will be sufficiently opened in the course of a month to admit of the sleighs passing over it during the winter, and I would earnestly recommend that an expenditure of £300 or £400 exclusive of two or three months rations and rum, might be allowed for the payment and subsistence of about 80 men to be employed in making it passable for wagons during the summer.⁶³

A detailed, stage-by-stage, description of the Bytown to Perth Road (reproduced *verbatim* in Appendix F) was written by brigade-major G.A. Eliot, 68th Regiment in July 1824.

According to Eliot, the road out of Richmond Landing traversed a low swamp, rendered quite impassable at the spring breakup. The first four miles of road from the landing, other than the swamp, were covered with a surface of sand and gravel. The next difficult stretch was the four miles before reaching Goodwood, where the ground was much cut up with gullies and numerous small water courses which flooded in the spring. This section, Eliot reported, required considerable bridging and a number of causeways. Although the road could have been routed more directly, this would have led through an unsettled and swampy tract. The road through Nepean township was passable for wagons carrying up to a half ton. Eliot believed that an expenditure of £200 would suffice to improve greatly this section of the road.

The road entered the township of Goulbourn between the 3rd and 4th concessions. Notwithstanding that the road had been cut 40 feet wide and ran

"straight as a dye," it was passable only for persons on foot. Evidence of extensive spring flooding was observed where the road crossed a creek leading to Goodwood; and low lying land for a distance of $4\frac{1}{2}$ chains necessitated "a permanent and solid bridge." Sections of the road were so bad that the settlers never travelled it except on foot, carrying whatever they required on their backs. Extensive causewaying was called for. Not surprisingly these arduous conditions greatly impoverished the settlers, whose clearings were meagre, forcing many of them to seek work on the Grenville Canal or in the lumber camps. Eliot stated that an expenditure of £450, covering 1,300 feet of causeway and two bridges, plus contingencies, would render the road through the township of Goulbourn passable.

The route through the adjoining township of Beckwith lay through a difficult swampy landscape. Leaving Goulbourn near Livingstone's, a track followed the Town line to the 3rd concession of Beckwith, where it was to join up with a previously cut Government road, which although cut to a width of 40 feet, was so swampy as to be impassable. Eliot deplored the money wasted on this road, and recommended instead a route along the 4th concession of Beckwith from a point near Livingstone's to Lot 19, which had already been opened by the settlers to a width of 20 feet over generally solid ground, whereby could be had "an excellent road at a trifling expense."

From this point Eliot recommended a route leaving the 4th concession near William Wilson's and taking an oblique course across to the 3rd concession, near John Smyth's on Lot 15, in order to avoid an extensive swamp, whereas this route would require only about one quarter mile of causeway. Following the 3rd concession from, at or near John Smyth's to Wickham's Tavern in Franktown, a causeway about a quarter

mile long would be required across a swamp, and a bridge over the Goodwood River. A rudimentary structure had already been put up spanning the Goodwood, over which Eliot stated that he "scrambled at considerable risk." He noted that a 50 mile road passable for loaded wagons led to Brockville from Wickham's Tavern.

Continuing along the 3rd concession as far as David McCrea's on Lot 6, the route should then follow a fairly good road already opened by settlers through a dry hardwood tract, cutting over to the 2nd concession, thence joining the Government Road in Drummond township near Wiseman's on Lot 1. The whole road through Beckwith township would come to about £240, to include about 320 rods of causeway, one bridge over the Goodwood, and the opening of 5 miles of crossroad.

The final stretch of road through the township of Drummond to Perth called for an estimated £160 expenditure. Nearly 660 rods of causeway were called for, the last mile into Perth being practically continuous swamp. The settlers had built a by-pass to the swamp, which had been so wretchedly causewayed as to be impassable for a horse.

In order to render the whole 50 miles from the Ottawa to Perth passable for loaded wagons, total expenditure was estimated at £1,050. The utility of the road, concluded Eliot, was almost self-evident. The settlers' lot in the military townships would be "materially affected by the measure," Eliot observed, since it was cheaper to transport goods up the Ottawa to Richmond Landing than it was up the St. Lawrence to Brockville.⁶⁴

Perth Road: Perth to Kingston 1824

The approximately 42 mile stretch from Perth to Kingston, albeit

passing through Shield rock, appears to have been, from Eliot's description, easier country for road-builders since there was less extensive swamp.

The country leaving Perth was not difficult, the first six to seven miles requiring comparatively little work to improve the road. Some very steep hills were encountered on the final four miles to the Narrows, and a number of wet spots required causeways, but none of any great length. The road from Perth as far as the Narrows and a little beyond had been opened to a width of 30 feet. The underbrush, not being shaded by big trees, had grown up high and thick; in passing through on foot, Eliot soon was soaked through. The going was good, the road in fair condition, as far as Ira Sly's, from whence a road led off to Brockville where the settlers drew their supplies and to whose market they sent their produce.

From Sly's to the juncture with the Montreal Road, about a mile from Kingston Mills, the road lay through bush, in some places the road being of sufficient width for but one carriage to pass, with a rocky uneven stretch through brulé from Sly's to Haskin's Mill "on the White Fish" (present day Morton). Even in the wet spots a tolerably good road could be made by "opening, levelling and fresh logging." For the last four miles before reaching the Montreal Road, the Perth Road passed through very swampy ground, for which quite inadequate causeways had been provided "some years ago," rendering this part impassable for wheeled vehicles. But from the point where the road from Perth joined that from Montreal, seven miles into Kingston, the going was good.

Eliot concluded that from Perth to Russell's, some 35½ miles, the inhabitants regarded Brockville or Gananoque rather than Kingston, as their market towns because the roads to the two former centres were superior.

Until there was more settlement between Russell's and Kingston, Eliot believed that the road could scarcely be kept up even in its semi-passable state by the few inhabitants in the region. Eliot's estimate for work to bring this section up to a rudimentary standard came to £1,350.⁶⁵

Eliot arrived in Kingston, having traversed the 90 odd miles between Richmond Landing and Kingston, 10 days later than planned. In his report he described the road as "so much worse than I could possibly have imagined." Further to his point, he continued:

...for the unfortunate natives who are cursed with such a detestable means of *non* communication it was particularly *malheureux* that you did not make the attempt; as you would not infrequently have had the pleasure of sticking in the mud, & must either have left the principal part of your baggage behind, or had it carried on mens' backs; as it is quite impassable in many parts for any thing in the shape of a horse.⁶⁶

The Brockville-Perth Road 1815-51

Writing to the Military Secretary on 24 June 1815, the Superintendent of Locations recommended Fort Wellington as the best base for settlers bound for the Rideau. The route from Cornwall was nearly twice the length, and virtually impassable, whereas that via the mouth of the Rideau necessitated haulage by team around rapids for a distance of nine miles.⁶⁷ It was Brockville, not Fort Wellington, however, that became the point of departure for the first settlers destined for Perth. According to the surveyor's diary of R. Sherwood, in the spring of 1816 there

was but one road from Brockville to the south shore of Rideau Lake at Lindsay's, in the 1st concession of Bastard; by 26 March Sherwood had completed the road from Rideau Lake, via Otty Lake, "to the depot, now known by the name of Perth."⁶⁸ The road over which the first settlers, in the spring and summer of 1816, reached the Rideau from Brockville was described as a mere wagon track, 26 miles in length to what was then known as Stone Mills on the eastern end of Upper Beverley Lake in the township of Bastard, thence a further 12 miles to the south shore of Rideau Lake at a point then known simply as "the Bay," near the future site of the village of Portland; from this point the settlers proceeded by scow.⁶⁹

Surveyor R. Sherwood's diary records that the Brockville-Perth road was completed to "the depot, now known by the name of Perth" by 26 March 1816.⁷⁰ The Brockville-Perth road first appears on a map dated 1821, via Unionville, Addison, Frankville, Lombardy village, Rideau Ferry.⁷¹ It is not certain that this was the exact route followed by the first settlers, but it is likely that it was; unfortunately the earliest map of the region is a little too late to establish this point with any certitude.

As late as July 1824 the 45-mile Brockville-Perth road was described as in a very bad state of repair, in part because it traversed a tract granted to absentee landholders. Often settlers had to carry goods on their backs, the road being passable only on foot.⁷² An idea of the utterly appalling conditions on this road has been left us by a John M'Donald, who travelled it from Brockville in 1821. Wagons were often upset, resulting in one death and frequent injuries. The mire was of such consistency that wagons had to be pulled forth by means of oxen, and on one occasion he recalls handspikes being required to pry a horse's hooves from the gummy clay. Frequently rail fences

were taken down to serve as rough corduroy passages through the morass. But according to the future Anglican Bishop of Quebec, G.J. Mountain, the Perth-Richmond road was quite the worst, compared to which all others were "turnpike and bowling green."⁷³

The indefatigable Presbyterian missionary, William Bell, has left a memorable account of his journey from Brockville to Perth in 1817.

Leaving Brockville I set out for Perth, now 43 mile distant. A Mr. Kilbourn sent a horse with me more than half the way. In the latter part of this journey I travelled more than twenty miles through woods, where no human habitation is to be seen, excepting three settlements. The road, all this way, is nothing more than... cut through an extensive forest, where the traveller has to pass over rocks and wade through swamps, and to surmount all the irregularities of the ground in its natural condition. The day being hot, I was attacked by swarms of mosquitoes, which stung me so unmercifully, that in a short time, my hands and face were covered with hard swellings. In time I reached Perth, still by the country people called the Depot -- because the government stores for the settlement are kept there...⁷⁴

Reverting to the 1816 activities of surveyor Sherwood, a survey was undertaken from Perth to undisclosed settlements in the township of Montague in the general vicinity of the Smiths Falls. Sherwood found that a route south of the Rideau was the better, terminating at Lot 12 in the 7th concession of Elmsley. The superintendent of road ordered, although the snow lay still a foot deep on the ground, that the road should be cleared

to the width of a rod (5½ yards). On 16 May 1816 Sherwood marked the road from Rideau Lake to Kitley, over which 40 head of cattle passed two days later, crossing Rideau Lake at Oliver's Ferry.⁷⁵

Plans were afoot by the mid-1830s for macadamizing the Brockville to Portland portion of the Brockville-Perth road. The legislature in 1837 authorized a loan of £30,000, on the security of tolls, for the repayment of principal and interest, the tolls collected to be applied solely for this purpose until the debt had been discharged. The receiver-general advanced the money to trustees, who were solely responsible for the letting of contracts. Persons living within a half-mile of the road were liable for statute labour, or its commutation at the rate of £0-2-6 per day. The tolls levied were to be sufficient to pay off the loan in 30 years. Any deficiencies in doing so were to be made good by a tax levied on the inhabitants of the Johnstown District.⁷⁶ An amending act the following year empowered the commissioners to extend the road to 'Newborough,' in the township of North Crosby.⁷⁷

Ten years later, in 1848, the Brockville-Perth road was described as "exceedingly bad."⁷⁸ But by 1851 the editor of the *Brockville Recorder* considered the road good enough for a stage-coach, whereas a Mr. Glascott, who had the franchise for the route, insisted on staying with the much rougher buckboard. The editor contended that however bad the roads were,

they were not so bad as to justify a buckboard, when we know, from our experience, that the difficulty in running coaches only lies in the imagination of the contractor ...⁷⁹

Market Access Roads

With few exceptions travellers' tales of the rigours of stage-coach travel on the primitive roads of Upper Canada depict a deplorable scene. In attempting to reconstruct the past, however, the historian should not be mesmerized by these admittedly erudite and literary accounts from the pens of well-heeled travellers, frequently from overseas, to whom a recently opened province such as Upper Canada must have seemed crude, to say the least of it. Few of these writers made allowance for the circumstances, nor yet for the discomforts of English stage-coach travel in the by no means remote past. In the period with which we are concerned, there could be no valid comparison between a wealthy and long settled England and a frontier colony, such as Upper Canada undoubtedly was until at least the mid-19th century.

The settlers, of whom a goodly proportion were farmers, had little occasion to travel afield by stage; their main concern was to get their produce to market or the nearest grist mill, for which most were dependent, unless within easy access of a river or lake, on the concession roads which formed an increasing network in the better settled areas. Thomas F. McIlwraith has perhaps adjusted the historian's perspective, in an article appearing in a 1970 issue of the *Canadian Geographer*, in which he presents what he has been able to deduce of the sentiments of the pioneer farmer, culled from land survey records, assessment rolls, municipal and provincial committee reports, etc. For these people, states the author, speed, comfort and reliability (even by the primitive standards of Upper Canada) were not prime factors. He feels that this more numerous but less articulate class has been ignored by historians, taken up by the descriptions of travellers, often from England, resulting in a distorted notion of what contemporary opinion of the country people on the subject was.

Admittedly McIlwraith's article is based on a close study of York county, remotely situated from the Rideau region, none the less his thesis merits attention in general terms.

McIlwraith begins with the 'open road' cut through the bush, little more than a wagon track from which the stumps of the felled trees had yet to be removed. Providing the axles of a farm wagon could clear these stumps, the road was passable except in the spring break-up or in the autumnal rains preceding the winter's snow. In the winter there was generally a period of two months or more of good sleighing, when even the worst roads became passable.⁸⁰ No doubt a rough, jolting ride was had to market, but pioneer life offered few comforts and no doubt the people of that day thought less of such discomfort than would those of a later generation. The author also postulates that under adverse weather conditions, the improved roads (plank or macadamized) were apt to deteriorate to the condition of the "stump-and-rut-variety," whereas in the depth of winter, with good snow cover, even the worst roads achieved some approximation to the best. McIlwraith describes the good sleighing season as of seven to eight weeks duration,⁸¹ but with the more severe winter of the Rideau region, this period may well have extended to nearer three months.

Significantly, McIlwraith notes that the nature of the crops produced in Upper Canada permitted marketing in winter, when the roads, however bad, were at their best, and all roads with good sleighing, became passable. In addition, unless they went to the lumber camps, the region's farmers had comparatively little to do in the depths of winter, hence plenty of time to market their produce in the nearest town. With the spring break-up, water transportation again came into its own, supplementing in considerable measure the inadequate roads. Taking these points into consideration, it is perhaps not surprising that

there was as much evasion of statute labour as there was, for with the good sleighing season, about four months in length, in winter and the numerous navigable waterways in summer, the indifferent roads were much less of a hardship than many a seasoned traveller imagined. Indeed McIlwraith makes the point that roads improved much more rapidly south of the Great Lakes, where the winters were shorter and milder, and hence the sleighing season less of a timely aid in negotiating bad roads. Settlers in the Canadas could scamp on statute labour because the climate and crops made them less dependent on roads than is generally believed.

McIlwraith also advances the argument that statute labour would not have been evaded had it clearly been in the interest of the settler to perform it.⁸² The fact that evasion appears to have been fairly widespread suggests, McIlwraith argues, that for many settlers the roads were adequate. His thesis on the general use and indeed acceptability of the concession roads leading to mill or market has to be taken in conjunction with the forthright criticism by travellers familiar with the discomforts, mishaps and delays attendant on the use of the trunk roads served by the stage.

The Economy of the Region

It will be recalled that the initial phase of settlement in the region had as its setting the upper St. Lawrence River whence settlement proceeded back or north to the Rideau. Somewhat later a trickle of settlement commenced at the Ottawa entrance to the Rideau and worked upstream. At the other end of the Rideau waterway, where the Cataraqui empties into the foot of Lake Ontario, settlement began with Kingston. Most of these early areas of settlement had one feature in common - reasonably fertile soil of varying quality,

which along with relative ease of access accounted for their early selection and future development along agricultural lines.

A spur of the rocky Shield breaks the pattern of what would otherwise have been broadly describable as the Rideau agricultural region in the form of a rocky intrusion extending from Frontenac county into western Lanark and down into Leeds, touching the St. Lawrence in the townships of Leeds, Lansdowne and Pittsburgh. From the chain of lakes (Rideau, Newboro, Opinicon, and Sand) to the Cataraqui River, a scenic, generally wooded area, with some fertile tracts scattered therein predominates. It would not be correct to describe this area as barren since mineral deposits were found through western Lanark and Leeds counties, as well as into the townships of Bedford and Loughborough in Frontenac. Fairly fertile land was found in south-western Frontenac county, specifically in the townships of Kingston and Portland in the vicinity of the town of Kingston. By contrast, the back or rear townships of both Lanark and Frontenac counties remained forested and sparsely settled, if not actual wilderness, as late as 1880. Although these regions supported a lumber industry, by 1870 the best or prime timber in the Rideau region had been cut.

The Rideau agricultural region, comprising Portland and Kingston in Frontenac county, and the region from a little above Smiths Falls to the mouth of the Rideau, and extending from the Rideau to the St. Lawrence rivers, became one later devoted to dairy farming, whose main crops were wheat, oats, potatoes, mixed root crops, and in the Smiths Falls-Perth region, maple sugar. The quality of the land varied from excellent in the townships of Oxford, Elizabethtown, Augusta and Yonge in the south-eastern sector to marginal land in such townships as Osgoode, Marlborough and Huntley, tracts of which were swampy.

Pioneer Roads

With these generalizations in mind, market access or secondary roads may be considered as shown on the Chewett map of 1825, and again by the Hebert map of 1839.

The 1825 map shows mainly the trunk roads, which have been described in an earlier context. The only network of secondary or access roads delineated on this map is in the early settled townships of Elizabethtown, Augusta and Edwardsburgh, fronting on the St. Lawrence, the first two of which contained within their boundaries some highly fertile land, particularly at a distance from the river. The principal market town was Brockville, from which roads radiated into the newly settled concessions of Elizabethtown as well as neighbouring Augusta. In like manner Prescott and Brockville offered market facilities for the farms of Augusta township, and Prescott and Johnstown those of Edwardsburgh township to the east.

Moving north to the Rideau River, not far from the point where it debouches from Rideau Lake, was located the market village of Smiths Falls, in 1825 still known as Smith's Mills. From this point roads radiated, even at this early date, to Franktown, Murphy's Falls (later Carleton Place), thence north-west to Shepherd's Falls on the Mississippi River, thence doubling back in a broad arc to Perth via the village of Lanark on the Clyde River. Likewise from Smith's Mills a network of roads extended south into the townships of Kitley and Bastard, bounded on the north by the Rideau River and Rideau Lake respectively. From Perth on the Tay, a tributary of the Rideau, trunk roads led to Kingston and Brockville, but on the 1825 map no secondary or access roads were marked.

In 1825 Bytown was still a year in the future, although there was a handful of settlers and two or three houses between the Chaudière Falls and the mouth of the Rideau.

The only roads marked in 1825 were the trunk roads from Richmond and Burritt's Rapids to the future site of Bytown, as described in an earlier context.

The L.J. Hebert map of 1839 shows little change, other than the development or ramification of the road network in Elizabethtown and Augusta already mentioned. It may be noteworthy that this map is small scale (10 miles to the inch), on which few of the cross-roads are named.

Road Development at Mid-century

By this time the period of rough pioneer settlement was for the most part over, settlement having flowed to all regions in any wise deemed arable. For a study of the access roads and market centres as by then developed, the Rottenburg map of 1850 is on a generous scale with a considerable wealth of detail.

Market Towns and Entrepôts

The entrepôt for a large part of Carleton county undoubtedly was Bytown (shortly to be renamed Ottawa), which in 1850 numbered a population of 6,016, with about 60 stores. With the exception of Kingston 126 miles distant at the Lake Ontario entrance to the Rideau Canal, Bytown was by far the largest entrepôt in the whole region under study. Bytown's industry included a grist mill, two saw mills, four foundries, a distillery and four breweries, seven tanneries, and a soap and candle works. Neighbouring New Edinburgh, on the right bank of the Rideau by the scenic falls, was smaller, with a population of merely 200, but with a thriving industry made up of grist mill, saw mill, woollen factory and a sash and door factory.⁸³ Roads converged on New Edinburgh and Bytown along both banks of the Rideau.

Six miles up the Ottawa from Bytown lay the village of Britannia, boasting both a saw mill and woollen factory. The village of Bell's Corners in 1850 numbered 50, and as shall be described hereafter, both places were connected to Bytown by a turnpike.⁸⁴ Bytown, with several markets, acted as the entrepôt for both Nepean and Gloucester townships. Bell's Corners and Britannia appear to have been farm supply centres along with Richmond in adjacent Goulbourn township. Farm products brought to market in Bytown included wheat, oats, peas, potatoes, wool and butter.⁸⁵

South of Gloucester lies Osgoode, whose produce was similar to that of Gloucester and Nepean, but with the addition of maple sugar. The market centre for Osgoode was the village of Metcalfe, situated 25 miles distant from Bytown. Metcalfe's industry consisted of three asheries in 1850.⁸⁶ Near the northern boundary of Osgoode, located at a point where two roads converged from the south, was Barton's Inn, which probably was a staging point between Metcalfe and Bytown.

The township of North Gower, a small wedge-shaped township lying in the crook of the Rideau, was described as fairly fertile, and above the norm for eastern part of the province. The farms of North Gower produced wheat, oats, potatoes, maple sugar, wool and butter,⁸⁷ the principal market for which was Bytown, also Burritt's Rapids on the Rideau, and Kemptville on a tributary of same. The latter village in 1850 supported a grist mill, two saw mills, a foundry, two tanneries, two distilleries, and a carding and fulling mill.⁸⁸ The villages of North Gower, Manotick on the Rideau, and Osgoode were also supply centres,⁸⁹ although these three places were not marked on the Rottenburg map. Ready access during the season of navigation to Bytown was to be had from both Kemptville and Burritt's Rapids. Kemptville was also the market town for

farms lying in the townships of South Gower and Oxford in Grenville county. Kemptville thus possessed the advantage of both road and river linkage, to which in a few years was to be added that of the region's first railway.

The township of Marlborough, bounded on the south by the Rideau River, centred on the riverside settlement of Burritt's Rapids, conveniently located on the Rideau River, and served by a road connecting Smiths Falls with Richmond. Burritt's Rapids' industries, besides the grist mill to which outlying farms brought their grain for milling, included a carding and fulling mill, tannery, two asheries and two saw mills.⁹⁰

Goulbourn township, bordering Nepean on the west, was watered by the Carp and Goodwood (later Jock) rivers. The township's principal market was the long established (1817) village of Richmond. Located on the Goodwood, Richmond's population in 1850 numbered 600, supporting a grist mill, saw mill, distillery and two tanneries. Agricultural produce from neighbouring farms was made up of wheat, oats, potatoes, turnips, wool and butter.⁹¹ A reasonably good road connected Richmond with Bytown, a distance of 21 miles. The village of Ashton, population 150, mid-way between Richmond and Carleton Place, is indicated on the map as a crossroads. Ashton supported three general stores for the supply of neighbouring farms.

Of the nine "agricultural" townships in the county of Lanark, (*viz.*, Montague, North Elmsley and North Burgess bounded by the Rideau River; Beckwith, Drummond, Bathurst, Dalhousie, Lanark and Ramsay) the best land was found in Drummond. The outlying townships of North and South Sherbrooke, Lavant, Darling and Pakenham, were little settled and forested. Produce from the county's farms was fairly uniform from one township to another - wheat, oats, potatoes, maple sugar, wool and butter, with some townships cultivating turnips in addition.

The county town of Perth (Drummond Township) featured a cattle fair, and a not inconsiderable industry, with a grist mill, saw mill, oatmeal and barley mills, three foundries, four tanneries and a brewery. Its population stood at 1,581.⁹² Perth enjoyed both land and water communications, being situated on the Tay, tributary to the Rideau, and with roads radiating to Smiths Falls (marked as a good road), Lanark and Carleton Place. Lanark on the Mississippi River operated a saw mill and a tannery, with roads leading principally to Perth (a plank road at this time being under construction, 12 miles in length.)⁹³ From Lanark a road led into the back concessions of Dalhousie, a rocky region containing iron deposits and marble quarries.

Smiths Falls in 1850, with a population of 674, was half the size of Perth, although destined to surpass it in the future. Situated on the Rideau, with a fall of 12 feet at this point, Smiths Falls had abundant water power, and operated two grist mills, an oatmeal mill, two saw mills, a foundry, ashery and two tanneries. Besides the advantage of Rideau navigation, and through stage routes to Brockville and Perth,⁹⁴ a network of roads led in from Kitley township south of the Rideau, a region largely agricultural.

Carleton Place on the Mississippi, equidistant (21 miles) from Perth and Smiths Falls, in 1850 numbered 500 persons, with industry consisting of a grist and saw mills, oatmeal mill, a woollen factory, foundry and tannery.⁹⁵ From Carleton Place several roads led into Ramsay township, as well as to Perth, Franktown and Richmond. The village of Bellamysville, at the northern end of Ramsay township, on a tributary of the Mississippi, was a small centre, nine miles distant from Lanark by road.⁹⁶ Finally the village of Innisville, 12 miles from Perth on the Mississippi River, lay midway

between Perth and Carleton Place, from which roads forked off to Ramsayville. Innisville contained a grist mill, saw mill and a carding machine; its population was 150.⁹⁷

In the county of Grenville, lying between the Rideau and St. Lawrence rivers, Oxford township adjacent to the Rideau in the north contained some of the most fertile land in the Rideau region. Its principal entrepôt, Kemptville, on the south branch of the Rideau, supported a grist mill, two saw mills, a foundry, tannery, two distilleries and an ashery.⁹⁸

From Kemptville two roads led north to Bytown, one on the west side of the Rideau via Richmond, the other on the east side of the river via Hog's Back. Access to Bytown was also given by a branch off the west side road at Pierce's Tavern. An "indifferent" road ran from Kemptville to Prescott via Spencerville, as did another road described as "opened but not used for travelling" that ran through Kirbys'. Brockville and Kemptville were connected by a road that was routed through Bellamys. A rather indirect road ran from Kemptville to Burritt's Rapids and Merrickville and thence to Smiths Falls via the west bank of the Rideau.

In the neighbouring township of Wolford, which also was fairly fertile, the principal entrepôt was Merrickville on the Rideau, which in 1850 numbered about 700 inhabitants. Merrickville was served by a number of roads from the west, branching through Kitley township, and by a road north of the Rideau with Smiths Falls. Two grist mills, a saw mill, two shingle factories, two tanneries, and a foundry were operating in Merrickville at this time, served by an abundance of water power produced by a 20 foot fall in the Rideau.⁹⁹

Apart from the main market towns of Brockville and Prescott on the St. Lawrence, a considerable market town in

the north of Augusta township and located on the South Branch of the Rideau River, was Bellamysville, 17 miles from Prescott. Roads fed into this town from all directions, but its principal connection lay with Merrickville and Smiths Falls to the north and with the Brockville-Prescott road to the south. Bellamysville lay in the midst of an excellent farm belt, providing a tannery, grist mill, saw mill, carding and fulling mill, tannery and ashery for the products of the surrounding farms.¹⁰⁰

The neighbouring township of Elizabethtown, early settled, also was a very fertile region. Apart from the major market centre and port of Brockville, the smaller market centres evident from the configuration of the roads, were Addison, Greenbush and Unionville, all located in the northern part of the township. Addison was a village of 60, whose sole industry listed at this time was an ashery, and Greenbush a few miles to the east offered the services of a steam grist mill, saw mill and ashery. Two roads converged on Unionville, but it cannot have contained more than a general store or two, no industry being listed in 1850. A small market town in the neighbouring township of Yonge was Farmersville, with 200 population, and the usual mills.¹⁰¹ A road led in fairly direct line south-east from Farmersville, through Unionville, to Brockville.

Brockville and Prescott on the St. Lawrence were obviously the major market centres for this region. In 1850 Brockville numbered 3,000 population, whose industry included a shipyard, steam grist mill, sawmill, two tanneries, a foundry and candle factory. Two markets served the surrounding area to which a number of roads gave access.¹⁰² Further downstream on the St. Lawrence, Prescott in 1850 had a population of 2,000, in which operated two distilleries, two tanneries, a brewery and a grist mill.¹⁰³

The Canadian Shield intruded into Leeds and Lansdowne townships, although the townships contained some good farm land. The principal market town for this area was Gananoque, founded in 1798 with the building of a sawmill at the mouth of the Gananoque River. In the neighbourhood of Gananoque the farms were quite good, although between it and Kingston was much rock. With an abundance of water power, Gananoque's industries comprised two grist mills, a saw mill, oatmeal mill, besides such enterprises as a nail factory, pail factory and shingle manufactory.¹⁰⁴ The Rottenburg map does not show a number of secondary roads converging on Gananoque, as is the case with Kingston, Brockville and Prescott, but simply the trunk road from Kingston to Montreal, and a road coming in from the north.

The region drained by the South Nation, about 280 square miles in area, lies for the most part to the east of region concerned in this study, with the exception of the township of Edwardsburgh in south-eastern Grenville county. The terrain consists of a level, undulating plain, with rather acidic and sandy soils.¹⁰⁵ Spencerville, on the Petite Nation 12 miles from Prescott, was the inland market town, on the trunk road between Kemptville to the north (marked on the map an "indifferent road") and its juncture with the Kingston-Montreal road near Prescott. Secondary roads ran north-east and south-west from Spencerville into the neighbouring townships. The town contained in 1850 a saw mill, grist mill, carding and fulling mill. The ground was swampy in the rear of the township, but farms in the more arable areas produced wheat, oats, potatoes, wool, butter and maple sugar.¹⁰⁶ The principal entrepôts for this region were the St. Lawrence ports of Prescott and Johnstown.

The township of Kingston, whose soil was loam with a clay sub-soil, produced the usual crops found throughout the

agricultural regions of the Rideau area - wheat, oats, peas, potatoes, and maple sugar; the township's farms also produced wool and butter. The townships of Portland and Loughborough produced similar crops and products; Loughborough however, was more sparsely populated than Portland. Pittsburgh township on the left bank of the Cataraqui, contained much rocky land, but with arable land interspersed, whereas Storrington was described by W.H. Smith as rough and hilly, notwithstanding which it too contained land under the plough.¹⁰⁷ Although the town of Kingston had generally been considered to be served by an unproductive back country (this was attributed by some to the indigence of Irish settler's), W.H. Smith observed in 1850 that its market was well supplied with both meat and vegetables.¹⁰⁸

Kingston was the obvious entrepôt for this area, with its population in 1850 of 10,097, and its market, shipyards, and extensive industries. Neighbouring Portsmouth, with 500 inhabitants, included within its bounds three shipyards, a steam sawmill and a brewery.¹⁰⁹ Besides the trunk roads leading into Kingston, a network spread north from Kingston through the townships of Portland and Loughborough as far as Sydenham. Between Kingston and Sydenham small village supply centres indicated on the map are Waterloo, a village on the Napanee-Kingston trunk road, with connection north to Harper's Corners and south to Portsmouth. From Harper's Corners a road led north to Sydenham, with one to the north-west into Portland township, where it joined a road network centering on Spike's Corners.

Lumbering and Mining

Much of Frontenac and western Leeds counties were characterized by rock and intermittent clay flats.

Land fitted to dairy farming was cultivated in Lansdowne township, Leeds county, and in Pittsburgh township in the south-eastern corner of Frontenac county.¹¹⁰ However, the economy of the region, broadly speaking, consisted of lumbering and in north-western Leeds, western Lanark and south-central Frontenac counties, mining. A clear delineation cannot, of course, be made because of the overlap of mineral deposits into predominantly agricultural areas in some places. In general, however, this region was more sparsely inhabited, verging in the extremities to wilderness.

In the county of Frontenac lead was found in Bedford and Storrington townships, as well as phosphate of lime, the latter also occurring in Loughborough.¹¹¹ In Bedford a lead mine was located between West Rideau and Silver lakes, from which roads led to the town of Westport and to Judson's Mills on the Tay River above Perth. Bedford township was sparsely settled in 1850, its population numbering but 907.¹¹² The entrepôt for this township from the map appears to have been Westport, at the head of Rideau Lake in the neighbouring county of Leeds. Westport's establishments included a grist mill, saw mill, foundry and a tannery. According to Smith's directory, about two million board feet of lumber had been shipped from Westport the previous season.¹¹³ The region abounds in water courses, and certainly the chain of Canoe Lake, West Rideau Lake and Sand Lake offered access to lumbermen by water to Westport. Lumber roads as such, probably built by the companies themselves, as were access roads from mines, were in general short, leading to water. One such marked on the Rottenburg map of 1850 was Judy's Lake lumber road, about four miles in length, leading in the manner of a portage from West Rideau to Sand Lake. Between West Rideau and Silver lakes a road is marked on the map, without notation, leading in a westerly direction to

the boundary of Hinchinbrooke township, where a notation reads "Reid's S.M." Lead was found in Loughborough township (9th concession)¹¹⁴ to the south of Bedford, and from the details discernible on the map, the entrepôt for Loughborough would appear to have been Sydenham, mentioned in a previous context. The northerly two tiers of townships in the township of Frontenac and most of Hinchinbrooke are shown on the 1850 map without roads, Hinchinbrooke township being described in the Smith directory as sparsely settled, and Oso, Olden, Kennebec, Barrie, Clarendon and Palmerston as wilderness.¹¹⁵

Passing to the county of Leeds, in which a spur of the Shield extends south to the St. Lawrence, the townships of North and South Crosby presented a generally wooded and rocky terrain, in which both lumbering and mining were engaged in. Phosphate of lime, also known as apatite, was found in South Crosby and iron in North Crosby.¹¹⁶ The Chaffeys and Matthews mines near Newboro produced iron ore.¹¹⁷ From Westport a macadamized road led to Newboro, and from thence two roads led to Portland on Rideau Lake. Newboro had a steam grist mill and a tannery.¹¹⁸ Leeds township to the south was thinly settled in 1850, although in close proximity to major centres on the St. Lawrence, the reason being that little agriculture was carried on therein because of the rocky terrain, but limestone, freestone and iron were found in abundance. Marble was also worked along the Gananoque River.¹¹⁹ Through this largely rocky and wooded township only two roads were shown in a north-south direction on the 1850 map. One led from Gananoque north and thence west into Storrington, where it joined the road from Kingston along the left bank of the Cataraqui River, near Cranberry Lake. The other road, which is labelled a bush road, headed straight north from a point on the

Gananoque-Brockville road though a region marked "bush" and "marble rock," past Gananoque Lake, to join a road designated "pretty good" running east from Seeley's Bay, and thence north. The length of the former road may be estimated at about 30 miles.

The region of the county of Lanark which now concerns us comprises the western and northern extremities of the county, or the townships of North Burgess, North and South Sherbrooke, and the back tier of Lavan, Darling and Pakenham. In the main this was a rocky and wooded region. The township of North Burgess was described by Smith as rocky. The 1850 map shows three roads traversing the township: a good road from the Narrows to Perth, a second road marked "government road not travelled" and a third from Westport to Perth; this latter was a part of the Kingston-Bytown trunk road. Phosphates were mined on the 7th concession of Burgess, and mica on the 9th.¹²⁰

The township of South Sherbrooke at the western extremity of Lanark was but little settled in 1850, with a population of 452 and only 630 acres under cultivation, from which a crop of wheat, oats and potatoes was raised in 1849. The township numbered three saw mills within its bounds.¹²¹ Iron ore was found in the township, but whether as early as 1850 is not known. By 1879 a bed of iron ore measuring 60 feet was found at Myers Lake, about 20 miles from Perth on the township line between South Sherbrooke and Bathurst.¹²² The previously mentioned road from the lead mine near West Rideau Lake in Bedford township to Judson's Mills on the Tay River passed within a mile or so of Myers Lake.

Likewise North Sherbrooke, a tiny triangular-shaped township, was little settled, with an 1850 population of a mere 343 and 1,495 acres under

cultivation.¹²³ One trunk road only is shown in 1850 diagonally across the north end of the township headed for Balderson, on the township line between Bathurst and Drummond.

Lumbering was the basis of the economy in these townships, as in the back tier. No roads are shown in this region on the 1850 map, and hence the abundant watercourses, chains of lakes and rivers, were used to get the timber to market. In the region herein mentioned the principal water courses were provided by the Tay and Rideau rivers, and by the Mississippi River.

Roads - Farm Market Access, Lumber, Mining

Nothing has been found in the course of this research to delineate basic differences in roads serving respectively an agricultural, forested or mining region. It is surmised that lumbering roads in the region were short, providing access to a waterway from the felling site. Water transportation before the coming of the railroads would also serve for the transportation of ore. Often lumber and mining access roads were built by private companies to enable them to bring in supplies and to get their products to market. Since lumbering roads were presumably used for log hauling in the winter only, or for bringing in camp supplies in the fall, there was probably no impetus to effect costly improvements such as planking or macadamizing although the road would have to be free of stumps. Before the advent of the railways water transportation, wherever available, offered a readier means of transit than roads. Nevertheless, roads were used for the transport of sawn lumber. In the 1850s, for example, "immense loads" of sawn lumber were moved from Lanark to Perth by road for transshipment on the Tay and Rideau Canals (Jean S. McGill, *A Pioneer History of the County of Lanark*, p. 166).

Toll-road Companies

The 40-year period between the passing of the Baldwin Act of 1849 (12 Vic., cap. 81) and the act amending the General Road Companies Act of 1890 (53 Vic., cap. 42) spans the era between what one may well term pioneer road-building and that of modern highway development. Toll-roads built and maintained by chartered companies at the outset seemed to provide the readiest means of improving the road system, by a meld of the toll-road concept and private enterprise.

The Baldwin Act and the Joint Stock Companies Act 1849

The salient feature of the Baldwin Act (12 Vic., cap. 81) was the incorporation of each township of Upper Canada having 100 inhabitants (resident freeholders) or more, with full powers of purchasing, acquiring and holding lands and tenements, and of forming contracts, "all such powers being exercised by, through and in the name of the municipality of each township respectively." All powers respecting roads and public highways, previously vested in the Justices of the Peace in Quarter Sessions, were transferred to municipal corporations of the county or counties, who henceforth appointed overseers of highways and road surveyors. County councils were authorized to open new roads and repair existing ones. Road width was to be not less than 40 feet, and not to exceed 90.¹²⁴ The basic significance of the act for the purposes of this study is the transfer of responsibility for roads and highways from the magistrates in quarter sessions to elected representatives at the township or county level.

The Joint Stock Companies Act, passed 30 May 1849, authorized the formation of joint stock companies for road building purposes, whenever five or more persons had subscribed sufficient stock for the enterprise, with 6 per cent of the capital paid up.

The directors of such concerns were authorized to fix, levy and collect tolls for the use of these roads, and to erect toll-gates for collection of the same. The charter in each instance set a deadline for completion of the road. Road company stock could be bought up by county or township authority 21 years after completion and opening of the road. Funeral processions and church-goers were exempt from tolls.¹²⁵ These two acts form a significant watershed in road development, presaging the birth of the modern highway system in the mid-1890s.

Several amendments to the Joint Stock Companies Act were passed during the course of the next fifteen years, defining more strictly the operations and obligations of toll-road companies, until with Confederation, roads became a provincial responsibility. An act passed in 1850 (13-14 Vic., cap. 14) set maximum tolls, and stipulated that works must be kept in good repair.¹²⁶ The Consolidation Act of 1853 enabled a municipality to own stock in a road company, and in some circumstances, buy it out. This act (16 Vic., cap. 190) repealed that of 1849, but charters issued under the latter continued undisturbed. The 1853 act redefined the terms of its predecessor, besides providing for the appointment of arbitrators to settle land litigation. Notice of projects planned by incipient road companies had also to be given to interested municipalities.¹²⁷ Further legislation in 1859 prohibited toll-road companies from charging tolls until necessary repairs had been effected. The following year county road engineers were empowered to examine and report upon the condition of toll-roads when it was deemed necessary.¹²⁸ Perhaps as a reflection upon the manner in which some road companies discharged their obligations, in 1865 the legislature of the Province of Canada saw fit to confiscate "portions of roads on which no toll

has been allowed to be taken for more than six months," and assign the same to township or county authority, to be maintained by statute labour.¹²⁹ With the passing of road and highway jurisdiction to the newly created Province of Ontario, legislation (Ont. 31 Vic., cap. 31) was soon forthcoming (1868) regulating the operations of road companies. Tolls were not to be collected while the road was out of repair, arbitrators being designated to determine the state of the road. The right or interest of any road company might be sold subject to any judgement obtained against the company.¹³⁰

The Bytown and Nepean Road Company 1851-1922

The Bytown and Nepean Road Company was incorporated on 21 April 1851, with a capital of £3,000. The president was Andrew Dickson, and the secretary-treasurer Robert Lees. The company's first meeting was held in Lees' office in Bytown, 21 April 1851. In accordance with the 1849 Act, the subscribers contracted to purchase 600 shares, at £5 apiece, in the new company.¹³¹ James D. Slater, later superintending engineer of the Rideau Canal (1858-72), was the consultant engineer, who drew up three routes for the road from Bytown to Bell's Corners, recommending the southerly and most direct. A contract was let to Isaac Hope of Kingston for the first five miles at £1,850.¹³² The road was 14 feet wide for the first mile out of Bytown, and thereafter only 9; subsequently the whole road was widened to 14 feet, the contract for which was then let at the rate of £600 per mile. Stone had to be brought from a considerable distance. Hope's first contract was from Bytown to Britannia Hill, and the second from that point to Bell's Corners. The first 1.1 miles was completed on 22 May 1852; by 1 July that summer 3 more miles had been finished,

and one year later, another five miles. The road was completed to Bell's Corners in 1853 with macadamized surface. The company reported the road as very well built, anticipating that it would require little maintenance; as of 11 December 1854, the company was out of debt.¹³³

With four miles of the road built by July 1852, the directors made provision for a toll-gate at "about the eastern sideline of lot 35." The following rates were posted:

each vehicle	£0-0-1	per	mile
" additional horse or beast	0-0-½	"	
every led horse	0-0-½	"	
" horse and rider	0-0-½	"	
" score of sheep, cattle or swine	0-0-½	"	

Clergymen were to travel toll-free.¹³⁴ Toll receipts for the first six months came to about £300, which covered the contractor's rate for one-half mile of completed road. On 6 July 1852 capitalization was increased to £5,500, and on 19 April the following spring, the company declared a dividend of sixpence on the pound (2.2 per cent).¹³⁵

In view of the company's apparently good start, the remuneration paid their secretary-treasurer, £15 *per annum*, seems less than generous, particularly when the bids for toll-keepers ran from £45 to £60 *per annum*. Robert Lees thought so, for he submitted his resignation in April 1852, complaining that a foreman labourer received nearly double what he did. In the circumstances he did not consider even £50 adequate for discharge of the responsibilities of the office.¹³⁶

The Bytown and Nepean Road Company, as originally constituted, had served no notice on the township at the time of its incorporation; at that time it was not mandatory

to do so. This led to litigation, for Nepean township had given prior approval to the Bytown and West Carleton Road Company. The outcome in the Court of Chancery of an action brought by Nepean township was amalgamation of the two companies, with the township adding £1,000 to the capitalization, the new company continuing under the name of the Bytown and Nepean Road Company.¹³⁷

By 19 July 1853 the road was completed to Bell's Corners, at a total expenditure of £4,920-17-0. Four years later the company reported a falling off of receipts due to "the almost total stagnation of the lumber trade," confirming a report of declining business activity throughout the county two year's previously.¹³⁸

As early as three years after its completion, the road was reported in very bad state by one of the company's directors. He alleged that he had seen a number of vehicles mired down, and had had "a great deal of trouble myself."¹³⁹ This was to prove a recurrent complaint levelled against toll-road companies, and was to result in their eventual demise. Once built repairs were not kept up, the road deteriorated to the degree that patrons resented paying the tolls, and widespread were the dodges resorted to in order to evade the toll. The company made some effort to keep the road up: 84 tons of stone were ordered for road repairs over the first five miles and 56 tons for the last three, for use in the spring of 1862. Whether the measures were adequate must remain a matter of conjecture, but it is strongly suspect from the nature of subsequent complaints over a number of years that they were not.¹⁴⁰

Writing in November 1872 to one of the directors of the Bytown and Nepean Road Company, Alexander Campbell, then Postmaster-General, condemned the road outright: stones applied to the surface were much too large, and dumped thereon without any sand or binding; the sides of the road

were strewn with boulders and logs which could well cause an accident, for which the company would obviously be held to account, and snow clearance was quite inadequate. Campbell considered it outrageous to expect people to drive horses on such a road. C.H. Pinhey replied that the company was very concerned about the size of the stones, but could procure no labour to break them down. In reply Campbell advised them to buy a stone-crusher which would soon pay for itself. Such machines could be had in New York or Pittsburgh, a good one costing \$1,600, but smaller and cheaper models were also available.¹⁴¹

Fully fifteen years later, in 1887, an irate correspondent threatened to apply for an injunction to compel the company to repair the road. He complained of pitch-holes throughout its length, some so deep as to be hazardous, and commented that it was almost impossible to drive loads over the road.¹⁴²

The toll-keeper's lot seems scarcely to have been an enviable one. In February 1864 one of the Bytown and Nepean toll-keepers applied for a pay increase, contending that his salary was inadequate. He was on duty day and night, and had to pay an assistant from his own salary. In addition, he had to supply his own fuel and candles. A nine months' supply of firewood cost \$20, and the toll-house was a lightly built, draughty structure in an exposed location, whose "multitudinous doors and windows keep it always cool." The toll-keepers' plea was not in vain, for at the New Year, 1868, his salary was raised to £75 *per annum*.¹⁴³

A portent for the future course of events transpired in early November 1873, with an inquiry from the county clerk as to the terms on which the company might be prepared to turn the road over to the county. The reply of the company at that time is not known, but fifteen years later, 18 June 1888, the Bytown and Nepean Road Company agreed to dispose

of that portion of their road lying within Ottawa's city limits for \$1,250.¹⁴⁴ By this time toll-roads maintained by private companies were very much on the defensive along with statute labour, and were seen as outmoded relics of the past.

An account of the demise of the road companies is reserved for the final chapter, inasmuch as their passing from the scene forms a part of the inception and development of the modern highways system. In the interests of continuity, however, the story of the Bytown and Nepean Road Company will be carried through to its conclusion herein. Reference must be made to the Toll Roads Municipal Expropriation Act of 1889 and succeeding legislation passed by the provincial house, the purpose of which was to facilitate the take-over by the counties of the remaining toll-road companies.

The 1889 act was the tip of the iceberg. A succession of acts followed, aimed at the extinction of all the road companies within the province, to counter which the surviving road companies rallied for mutual defence. On 1 November 1897 the secretary-treasurer of the Kingston and Storrington Road Company wrote to the Bytown and Nepean Company urging the necessity of concerted action to oppose legislation introduced in the Ontario House in the previous session, which if passed, would result in the virtual confiscation of all the toll roads in the province.¹⁴⁵ Sometime about the turn of the century a Roads Company Association was formed, for on 1 April 1901, its secretary wrote to the Bytown and Nepean Company on the subject of threatening legislation pending in Toronto. A week later he was able to utter a note of reassurance, inasmuch as the two objectionable bills had been withdrawn, and replaced by one sponsored by the premier, simply making provision for the purchase of road companies, and providing for

arbitration under the Public Works Act of Ontario.¹⁴⁶ But in 1905 the directors of the Bytown and Nepean Road Company apprehended the imposition of lower rates by the government, which, it was feared, would have dire consequences for many of them. A proposal was made and recorded to appoint a lawyer to see to their interests in the House.¹⁴⁷ Then in November 1909 the company received an application from the Ottawa Valley Motor Transit Company for a reduction in tolls. The secretary-treasurer deferred a decision until the next directors' meeting, scheduled for the fall of the year. Whether or not the directors entertained this suggestion, the directors' meeting, when convened in November, decided to defer payment of a dividend, pending repair bills. An expenditure of \$2,500 had been authorized by the shareholders for the repair of half the road; it was apprehended that if the work on the remaining half was as costly, there would not be sufficient in the capital account (\$4,000) to pay for it.

There can be little doubt of the urgency of repairs, for the following month the provincial road inspector, from whose decision there was no appeal, had declared the Bytown and Nepean Road out of repair, but had given the company until the fall of 1910 to make good on the repairs, estimates for which varied from \$1,250 per mile up.¹⁴⁸

The last years of the Bytown and Nepean Road Company were bedevilled by rising costs for road maintenance, efforts to foil the unremitting efforts of toll evaders, and the problem of speeding. The company's secretary wrote to the constable for Carleton County on 22 July 1910, that

I am advised by our toll-keeper at Bell's Corners that many drivers of automobiles are now driving their machines at dangerous, in fact, furious rates of speed, along the Richmond Road. He says that many of the proprietors and owners of

property along that road, are complaining bitterly of the nuisance and menace to life, arising from this furious driving of automobiles.¹⁴⁹

The speed limit at the time was 10 miles per hour in town and 15 on the open highway.

Many motorists behaved with a contempt for the law, that being right what they could get away with. In the words (May 1914) of a harassed toll-keeper:

Owners of cars (by misrepresenting where they are going) are constantly getting through the gate nearest the city on a five cent fare, and then using the road to within sight of the gate at Bell's Corners and returning. If means were adopted to detect, convict and publish the names of a few examples I think it would have a salutary effect....

The fact of people possessing automobiles does not seem to indicate that they are above petty larceny.¹⁵⁰

Plus ça change plus c'est la même chose.

The President of the Ottawa Valley Motor Car Association appealed to its members not to give short destinations, and not to "skin" through the gates.¹⁵¹

This appeal does not seem to have had much effect, but then the proportion of Ottawa Valley Motor members to the total motoring public is unknown. In December 1916 a survey conducted by the company, covering observations of weekend, afternoon and evening traffic the previous summer, showed that only 39 per cent of the road users were paying the full toll. Of the remainder, 22 per cent were evading part of the toll by misrepresentation, and 39 per cent were paying no toll at all. It was not an encouraging statistic.¹⁵²

In 1914 the equipment owned by the Bytown and Nepean Road Company comprised one farm iron roller (to roll the snow in lieu of a plough) and one road grader (described as a Climax reversible road machine with angle blade). The heavy snowfall of 1915-16 led the directors to consider whether the use of a snowplough would not be advisable in place of the roller. About this time a resident of Westboro complained of the flooding along Richmond Road both there and in Ottawa West; small pools formed filled with stagnant water, admixed with the ordure from horses. It must have been rather smelly and unsightly, and may well have been a health hazard as claimed by the company's Westboro correspondent. Be that as it may, the company denied any responsibility for the condition.¹⁵³

The Bytown and Nepean Company's papers include a tabulated statement of receipts and expenditures for the years 1914-18, indicating this long-established road company's operations in its twilight years.

	Annual Receipts	Repairs etc.	Collectors etc.	Indebtedness End of Year for Repairs
1914	\$ 5866.61	6554.03	1331.02	6490.04
1915	6527.22	5757.18	1630.47	4677.57
1916	6550.82	4799.82	1379.49	7086.03
1917	7493.14	6472.02	1282.50	5600.00
1918	8436.43	6049.50	1623.24	10778.03 ¹⁵⁴

Although these figures do not enable one to draw any precise accountant's conclusions on the operations of the company or its financial solvency, one observation can be made: that in three of the five years under review the company's expenses exceeded its receipts.

Be that as it may, by November 1919 the directors had decided to sell out for \$50,000, exclusive of the two toll houses and the lands connected thereto. The Bytown and

Nepean Road Company had not paid a dividend for five years, all receipts having been expended on maintenance of the road.¹⁵⁵

Expropriation proceedings were undertaken by the county early in 1920, and completed on 7 February.¹⁵⁶ Although the county took over the toll-houses as well, the toll-collectors were to be allowed to stay on for some time. A general meeting of the company's shareholders was scheduled for 4 June 1920 to appoint an arbitrator to determine the payment to be made the road company by the county.¹⁵⁷ The arbitral award, determined by 17 March 1922, came to \$42,454.59. The final meeting for the winding up of the Bytown and Nepean Road Company was held on 7 June 1922, at 53 Queen Street, Ottawa, at two in the afternoon.¹⁵⁸

The Ottawa and Gloucester Road Company

The Ottawa and Gloucester Road was designed as a winter road, to run from the city limits of Ottawa at the southerly end of Esther Street to Billings Bridge, from thence to join the Prescott road.¹⁵⁹ Incorporated 9 November 1868 under the terms of the Joint Stock Companies Act, the company was to build a macadamized road from Ottawa to the township line between Gloucester and Osgoode, the first five miles to be completed within two years. Beyond the fact that Carleton County granted the company a time extension for completion of the work,¹⁶⁰ nothing further has been adduced concerning the fortunes of the Ottawa and Gloucester Road Company until the annual report of the board of directors for the year ending 30 November 1884:

cost of the work	80,406.71
money expended	169,899.52
capital stock	63,880.00

amount paid up	61,432.00
tolls expended	17,981.21
dividends since last return	2,422.40
expended on repairs	1,370.36
superintendent's semi-annual salary	5,000.00 ¹⁶¹

The Kingston and Perth Road Company 1850

Unfortunately the information to hand on the Kingston and Perth Road Company is less than adequate. Further research might result in a fuller account, but this is far from certain.

The Kingston and Perth Road Company was incorporated in 1850. It may be recalled from an earlier context that the earliest map on which was marked a road through the townships of Pittsburg, South and North Crosby and Burgess to Perth was that of 1839. This road, but for the section between Davis Lake and the Upper Narrows, lay to the west of the Rideau waterway. In October 1843 John F. Kingston, of Bedford township, petitioned the Legislative Assembly for a road from Kingston to Perth, through the townships of Loughborough, Bedford, Sherbrooke and Bathurst, which was not granted. This route presumably followed a different and less settled route than the road shown on the 1839 map, for the 1854 prospectus of the Kingston and Perth Road Company read:

...the settlement of the lands, now unoccupied, lying in the rear townships of these counties, and the extension of our market by opening up communications with those townships in the counties of Lanark and Leeds whose natural outlet is Kingston, but from which we are at present shut off for want of public roads.¹⁶²

The Storrington road (viz. via Storrington township) had already been built. The Kingston and Perth Road Company engaged an engineer, John C. Innes, who plotted a route 50½ miles in length from Kingston to Perth, via the Narrows, Loughborough Lake, the head of Buck Lake, and Westport. By 1855 the survey was completed, and the road was through to Loughborough Lake by 1854. The road was passable in winter in 1855, but was not completed until 1859-60.

By 1855 a total of \$54,000 had been expended, less than half the total estimate. Kingston City Council issued \$16,000 in debentures, and a further \$10,000 was forthcoming from private subscription. Municipalities along the route were less forthcoming.¹⁶³ When the road was completed, it shortened the journey from Kingston to Perth by 46 miles over the route via Brockville.¹⁶⁴

In 1858 an appropriation of £1,500 had been granted for the improvement of the Kingston and Perth Road which passed through an unsettled tract of Crown Land, the intention being that the land be opened for settlement.¹⁶⁵ A further sum of £1,400 was allotted to the improvement in the road through Bedford township in 1861, from Lot 14 on the 12th concession of Bedford towards Westport. This included the building of a log bridge, 7 rods in length, covered with hemlock plank.¹⁶⁶

Although the Kingston-Perth road, as seen above, traversed unoccupied Crown Lands, and so should presumably have qualified as a colonization road, and hence for a special grant from the Colonization Road Fund for the promotion of settlement, it was not so designated. The government made a grant in aid conditional on the financial support of the city of Kingston, the county of Frontenac and the townships through which the road passed which was not forthcoming.¹⁶⁷

In 1873 a petition was got up by the settlers of Loughborough and Bedford townships for the extension and improvement of the Kingston-Perth road.¹⁶⁸ The petition was headed by Benjamin Tett, sr., J.P. Tett and Brothers, and John Chaffey, early settlers related by marriage, who operated extensive enterprises, including ship-building, saw mills and a general store in the Newboro region. A further petition submitted in February 1874 cited the work of the Kingston and Perth Road Company "about 18 years ago," which had expended considerable effort on the project, making a good winter road, with a foundation laid for a summer road; the company, however, had failed and subsequently gone into receivership (no date).¹⁶⁹ Finally in April 1876 the road commissioners ruled that \$500 be granted from the Colonization Fund for the improvement of this road, with the proviso that the municipalities contribute \$260 each, to be deposited with the Commissioner of Crown Lands, and all paylists to be forwarded to the department. The work was to be under the superintendence of the municipalities.¹⁷⁰

In 1881 extensive repairs were undertaken over a 4-mile stretch in Loughborough; culverts were built or replaced, grading was improved, crossways repaired.¹⁷¹ Whenever possible, local men were hired, who lived nearby. At other times there are references to boarding men near the works. In October 1887 a road overseer mentioned in his report a bridge foundation which provided no firm base for the crossing. The bridge "was built with timber to low water mark then covered with stones from 2 to 4 feet deep as required when the bridge settled in the soft bottom."¹⁷²

Shortly after the New Year 1888, the reeve of North Crosby applied for an \$800 grant in aid for the improvement of the final section of the road between Westport and Perth. This section of the road passed through a

sparsely settled mountainous country, served by a semi-weekly stage. The road was described as being barely passable. The petition was granted.¹⁷³ The same summer a Napanee correspondent inquired of the superintendent of colonization roads whether a portion of the \$800 allocated to North Crosby might not be set aside for the township of Loughborough, whose need was great. The road inspector subsequently advised the commissioner that North Crosby's need was the greater, the road being in so dilapidated a state that it was entirely in the public interest that all the money be spent there.¹⁷⁴

The Old Perth Road is a travelled route today, and is clearly marked on the 1:250,000 topographic map put out by the Department of Energy Mines and Resources. While it is not a principal highway (the main Kingston-Ottawa highway, via Smiths Falls, follows a route to the east of the Rideau waterway) there is little doubt, however, that the old road provides a rewardingly scenic route through the little hamlets of Inverary, Perth Road, Buck Lake, Bedford Mills and the scenically situated village of Westport at the head of Upper Rideau Lake.

The Bedford and Loughborough Road 1865-92

It should not be assumed that all, or most, of the trunk roads during this period were the work of chartered toll-road companies. Toll-roads, as we have seen, could as well be operated by municipal authority as by private companies, and by no means all roads were toll-roads. The one about to be considered was not a toll-road, and indeed falls under the head of a colonization road.

On 1 February 1865 a petition was submitted to the superintendent of colonization roads for aid in the building

of a road from the Kingston-Perth road near Westport, to the Kingston-Sydenham road. According to the reeve and township councils of Bedford and Loughborough the projected 14 mile road was to run in a south-westerly direction through the back concessions of Bedford and Loughborough townships. The benefits to be derived were several. The Kingston market would be made more readily accessible to the 1,700 inhabitants of Bedford township. The road would tap the promising mining region of Bedford, abounding in lead, plumbago, iron and red and brown ochres. A number of unsold Crown Lands reinforced their brief, despite which their petition initially was rejected.¹⁷⁵

About six weeks later the superintendent of colonization roads reversed this decision, recommending a grant of \$1000 for the completion of the road, citing the significance of the mineral deposits in the area and the round-about route its settlers had to use to get to Kingston. Indeed the reeve of Loughborough had made known that some settlers had abandoned the township for the want of proper roads.¹⁷⁶

Towards the end of March 1865 the Colonization Lands Department inquired of the townships how much they had spent and what further they were prepared to contribute. On 5 June the reeve of Loughborough replied that the township had appropriated \$500 and that the county had put up \$250, which had already been expended on the project. Given what later transpired, it is not known if these figures are accurate. According to the report of the road inspector, dated 22 April 1867, both Loughborough and Bedford had exaggerated their contributions. The former had put their expenditure at \$1,100 and the latter \$700, whereas closer scrutiny had disclosed that these sums were more like \$750 and \$500 respectively. Further correspondence followed back and forth between the commissioner of crown lands and the township councils with the result that the commissioner

averred he would henceforth rely on the road inspector's report. By order-in-council of October 1868 an appropriation of \$1000 was approved from the Colonization Roads Fund, provided the townships put up double that amount for the completion of the road. The townships had not met their part of the obligation by August of that year (nor had they done so by 1872),¹⁷⁷ but the government left the offer open.¹⁷⁸ How this imbroglio was resolved is not known, but the road was finished to everyone's satisfaction. An unsigned letter from the reeves of Loughborough and Bedford to the assistant commissioner of crown lands expressed keen appreciation of the road improvement from Loughborough to Fremoy: "the money has been expended to the greatest advantage and far exceeds our expectations." They added that the overseer had procured tents for the men, who had camped rather than put up in moveable shanties, at a considerable saving overall.¹⁷⁹

Maintaining the road presented problems. An overseer wrote in the summer of 1872 of the high wages of labour, and the difficulty of getting sufficient hands during the harvest.¹⁸⁰

Initially this road and others in the vicinity were built to promote settlement. By the 1890s they served another purpose, probably unforeseen by their original builders, in providing access to this scenic region for an increasing number of tourists. A correspondent in the summer of 1892 made reference to the influx of American tourists to Loughborough Lake, many of whom spent the summer in the various farmhouses which dotted its shore, presaging an industry which would sustain the district when lumbering and mining were no more.¹⁸¹

Horse Drawn Vehicles

First we may mention the springless wagon for the transport of freight, whether farm produce to the nearest market town, or farm supplies procured from the local general store. Such a conveyance's last attribute was comfort (see Figure 12), but it served its purpose. A rudimentary and notoriously uncomfortable conveyance much used by country people was the buckboard, a carriage whose suspension was based on long and pliable boards. The two-wheeled, two-seater buggy was long a familiar sight on the farms of Ontario, surviving well into the present century. The democrat was a somewhat more elegant equipage, with two to three seats, lightly sprung, and hauled by two horses. The cutter, mounted on runners, was in general use through the sleighing season.¹⁸²

The early stage coaches were vehicles stoutly built, the body of the coach enclosed front and back, with strongly designed roof, for upsets were frequent occurrences, often accompanied by injuries. The earlier coaches were not even fitted with doors, which were considered a handicap or hazard in the fording of rivers and streams. Later a door was fitted on each side for the admittance of passengers, and each door was fitted with a sliding window. But Guillet informs us that some of the cruder early coaches had open sides, fitted with curtains. The interior of the coach was fitted with three to six seats, those in front with backs to the driver, or facing to the rear. A baggage rack was fitted to the back of the coach, with lighter pieces of luggage lashed to a second rack on the roof of the coach. Some passengers, often venturesome young bucks and sports, liked to ride beside the driver, generally a breed of hard driving, hard drinking, teamster, with a fund of yarns from the wayside inns and markets. Stage coach travel, although invested with an aura of romance at this remove, was highly

uncomfortable, offering a jolting tedious progress, with generally very early starts and long hours on the dusty road. It was however, before the coming of the railways, the sole means, however exhausting, of long distance travel by land. Stage coaches were used to carry the mails as well as passengers, the former under contract.¹⁸³

The term stage coach was derived from the necessity on runs of any distance to change horses at regular stages. Guillet states that the average stage for a team of horses was about 15 miles, and that between 30 and 75 miles was a normal day's run. Hence by stage from Toronto to Montreal required about 4½ days.¹⁸⁴ Some stages used a two-horse team, but the larger coaches used four. Sir Richard Bonnycastle recorded that by the mid-1840s the earlier cruder stage coach was still in service:

It is a mighty, heavy, clumsy conveniency, hung on leather springs, and looking for all the world as if elephants alone could move it along; and, if it should upset, like Falstaffe, it may ask for levers to lift it up again.¹⁸⁵

It was no uncommon thing for passengers to have to alight, and assist to extricate the coach from the mire, often by the expedient of levering it forth with fence rails, or again laying the same as a temporary corduroy surface over an otherwise impassable stretch. Broken limbs were not unknown, and coach operators counted an overcrowding and hence cushioned propinquity to protect their charges from being violently flung about within the coach or pitched forth through the windows. Then as now drinking drivers constituted an additional hazard of the road. Although no doubt there were sober drivers, the nature of the work - out in all weather, stops at staging points when a warming toddy would be more than welcome on a cold winter's day -

encouraged tippling along the way. More than one stage was lost through a tipsy driver losing control or going over the bank. Apart from the cold the best season to travel by coach was the winter, when good sleighing meant good time was made, with a much smoother ride. For this reason, a stage's wheels would be removed in the winter and replaced with runners.

By the 1850s a superior and much larger, and better appointed Concord coach was introduced which seated 16 passengers. Some of these coaches had their panels gaudily painted, and with flowery inscriptions indicated the operators or line.¹⁸⁶

A brief commentary on wagon and coach makers in the Rideau region may be of interest. Presumably there was little need to import coaches from the United States, for there seem to have been plenty of carriage shops and coach makers locally, with Kingston and Ottawa boasting the most numerous establishments, but with no lack of wagon and coach builders at intermediate points.

Table 1 gives an overview of carriage and wagon making in the early 1850s. Information on teamsters and carters has been included to provide some indication of the number of people engaged in these two occupations, and, by inference, the extent of freight haulage in the region.

Table 1

Place	Carriage Makers	Wagon Makers	Wheel- wrights	Teamsters	Carters
Bytown	6	1	4	75	-
Carleton Co.	-	2	4	5	2
Frontenac Co.	-	3	9	28	-
Kingston	12	6	6	20	47

Grenville Co.	12	16	3	9	-
Lanark Co.	8	19	-	2	1
Leeds Co.	-	41	14	25	5

Source: Census of the Province of Canada, 1850-51

In 1861 the census listed six carriage and one wagon factory, and in 1873 Bradstreet listed 12 carriage makers in Ottawa. Cluff's Victoria Livery, Boarding and Sales Stables, an Ottawa carriage builder, advertised in the 1879 Carleton County Atlas.

Kingston's 1861 census listed three carriage and wagon factories, and in 1864 "carriage works too numerous to mention." The 1878 Frontenac County Atlas carried an advertisement for J.W. Brown & Co., omnibus, street car and carriage builders, located at Princess and Barry streets.¹⁸⁷

Smiths Falls and Perth were the two principal towns between Kingston and Ottawa. Smiths Falls listed five carriage shops in 1863. Robert Lewis, carriage maker and blacksmith is mentioned in 1875. In 1863 Perth had three carriage shops, and the same number in 1880, one of which was Rick's carriage works.¹⁸⁸

Turning to the smaller centres, in 1861 Kemptville listed four such establishments, including that of J. Spotswood and Z. Ashbruck, and in 1873 Kemptville's industry included four carriage shops and a wheelwright's. Merrickville supported the establishment of the carriage maker Obadiah Reed in 1860, and listed John Garry's carriage shop the following year, with the notation that the first such had been established in the town as early as 1850. In 1879 Manotick had four wagon shops, listed in the Carleton County Atlas.¹⁸⁹ Scenically situated Burritt's Rapids supported one carriage shop in 1861, listed a wagon shop in 1863,

and ten years later both a carriage maker and a wheelwright. Burritt's Rapids business section in 1879 included 3 wagon shops.¹⁹⁰

The enterprise of Conley and Truelove, boat-builders and carriage makers, was established in the village of Westport at an early but unspecified date, and the census of 1861 recorded the establishment of Thomas Ryan, carriage manufacturer. The same year neighbouring Portland supported a wagon shop and a carriage shop. In 1861 Newboro boasted a carriage shop, and in 1879 a carriage maker. In 1864 Seeley's Bay had a carriage factory, and in 1861 Oxford Mills a carriage shop.¹⁹¹ To this may be added the county composite figures taken from the 1861 census:

Carleton County		4	carriage and wagon factories		
Frontenac	"	2	"	"	"
Grenville	"	nil			
Lanark	"	3	"	"	"
Leeds	"	3	"	"	" ¹⁹²

From the foregoing, it will be readily apparent that the region did not lack for shops and manufacturers of the various horse-drawn vehicles which were the mainstay of the time for everyday needs, even after the coming of the railroad. When it is recalled that the survey on which the preceding paragraphs are based encompassed a much narrower region than that adopted for this study, the vitality of the local carriage and wagon-making industry is the more readily apparent.

Rideau Region Stage Lines

Enough has perhaps been said about the stage coach *per se* to consider specific stage coach services in the Rideau region. Perhaps first may be considered the Bytown-Prescott service, which in the next chapter, may readily be compared with the

region's first railway. We do not know when a through stage coach service was first provided on the 61-mile run from Bytown to Prescott, but in August 1846 was advertised a service under the slogan "through in one day," using four-horse teams and covered carriages with good springs. Coaches left Bytown from Burpee's Hotel at the reasonable hour of 8:00 a.m., on Tuesdays, Thursdays and Saturdays, and from Gilman's Hotel in Prescott at the same hour alternate mornings, Mondays, Wednesdays and Fridays. The route was Edwardsburgh, Oxford, South Gower, Mountain, Osgoode and Gloucester. The proprietor was McCarger, Wilson and Company, and the fare was \$4 each way. Meal stops were made at McCarger's Hotel, South Gower, and at Barton's in Osgoode.¹⁹³ In 1847 the Bytown-Prescott stage service (whether the same company or not unknown) advertised 14 hours for the run with good roads, and 18 hours with bad,¹⁹⁴ in connection with the mail contract, but stage coach times must be taken with reservations, and no doubt varied from summer to winter conditions. In 1851 Samuel Wilson was operating a 13-hour, thrice weekly service on the 60-mile route, using either a wagon or a two-horse stage for the conveyance of the mails, and no doubt passengers as well.¹⁹⁵ The two terminals offered a number of hotels for the wayfarer. Prescott in 1857, for example, was served by four hotels: the Commercial, North American, Victoria and Exchange, and a few years later, the Queen's.¹⁹⁶ The directory for 1857 listed seven hotels in Ottawa: the British, City and Grand River on Sussex Street; the Matthews Hotel on York Street; the Prince of Wales Hotel on Rideau Street, and the St. Lawrence and the Union House on Sparks and Elgin streets respectively.¹⁹⁷ En route the town of Spencerville had the Exchange Hotel and the Spencerville Hotel.¹⁹⁸

W.H. Smith observed in 1850 that the quality of accommodation had improved greatly with the settling of the country and the increase in traffic. As the pioneer period receded into the past, travellers demanded more in the way of the amenities.

The settler, who fifteen or twenty years ago, when he was detained on the road was glad to put up with a share of a bed with a neighbour, thankful that he could get any shelter at all, now, after growing independent, and paying a few visits to the city, begins to raise his head a little in the world; he drives himself and his wife in the "new buggy," sends his man on with the team, and if he stays on the road, requires not merely a bed, but also a room to himself, and the tavern keeper soon experiences the truth of the old adage, "*tempora mutantur, et nos mutamur in illis*."¹⁹⁹

Those inn keepers unwilling to provide better accommodation with the changing temper of the times simply, but for out of the way places, went out of business. Loft accommodation by mid-century was a thing of the past, let alone the sharing of beds and washing up at the pump. Many inns served excellent meals and were ready to lay on the table at the sound of the coach horn.

The Carleton-Ottawa and Perth Stage Company inaugurated stage coach service in 1855 between Ottawa (as it had then become) and Perth. Leaving the Rideau Hotel at 6:30 a.m., the coach arrived in Perth the same day, the fare being £0-12-6.²⁰⁰ The following summer one Edward Dowdell secured the Ottawa-Perth mail contract, using stage coaches, departing each terminal at 6:00 a.m.²⁰¹ In 1857 John Burrows' public stage advertised the 52 mile run

Ottawa-Perth, on a daily except Sunday service, as 10½ hours to Perth, and 8½ hours on the return trip to Ottawa.²⁰² In that year the old town of Perth supported the Cockburn Island Hotel, the Enniskillen Dragoon Hotel, whose proprietor was William Hicks; in 1880 Hicks' Hotel is also listed.²⁰³ En route the village of Bell's Corners, nine miles from Ottawa, provided (1857) accommodation: Hugh Bell is listed as "hotel keeper - a good house."²⁰⁴ Richmond at the next stage offered the Temperance House, and listed four inn keepers,²⁰⁵ and at Franktown, half way between Richmond and Perth, the traveller found Hughton's Hotel, which the *Canada Directory* listed as "an excellent house and obliging landlord."²⁰⁶ In 1857 Edward Reilly inaugurated a stage line between Richmond and Ottawa, the round trip fare being one dollar.²⁰⁷ Nearly 30 years later (1884) Hugh Reilly (whether related to Edward or not is unknown) operated the Ottawa and Richmond Stage, leaving the British Lion Hotel on Sparks Street, in Ottawa, daily at 2:30 p.m. The run was made in 3½ hours.²⁰⁸

Another more or less trunk stage service of which we have knowledge was that operated between Brockville and Perth, and Brockville and Westport. As early as January 1830, E. Willson advertised a mail and passenger service between Brockville and Perth, leaving the former at the ungodly hour of 4:00 a.m. Wednesday and Saturdays, and Perth at the more conscionable hour of 9:00 Mondays and Thursdays.²⁰⁹ In 1842-45 a thrice weekly mail service, using a two-horse wagon or sleigh, operated a roughly 9-hour service over the 42 miles, the departure from both Brockville and Perth being at 6:00 a.m.²¹⁰ In 1847 the following mail and stage service was advertised:

lv	Brockville	3:00	p.m.
arr	Smiths Falls	10:00	"
lv	" "	6:00	a.m.

arr Perth	9:00 "
lv "	2:30 p.m.
arr Kitley	9:00 "
lv "	5:00 a.m.
arr Brockville	9:00 " ²¹¹

In 1851 W.H. Willson of Brockville operated a 9-hour service between Brockville and Perth, leaving Brockville at 12:00 noon three days per week, arriving in Perth at 9:00 the same evening. Willson had recently been supplied with "new and elegantly covered carriages, on thorough braces"; the fare was £0-10-0.²¹² In 1857 Brockville listed five hotels: Willson House Hotel on Main Street, associated with the stage line, McKenzie's Hotel, also on Main Street; the Brockville Hotel; and the Ottawa Hotel and Tunnel Hotel, both on Market Square.²¹³ En route accommodation between Brockville and Perth was available in the villages of Unionville, Addison and Frankville,²¹⁴ to which may be added wayside inns and taverns such as Redmond's Inn, ten miles or so from Brockville, Dack's Tavern, Frayne's Tavern and Lombard's Tavern.²¹⁵ In 1858 Ninian Bates advertising under the slogan "through in eight hours," operated the Brockville and Westport Royal Mail Line, which left St. Lawrence Hall, Brockville, daily except Sunday, advertising under the slogan "through in eight hours."²¹⁶ Francis A. Cameron operated a hotel in Westport at this time with this recommendation in the pages of the directory: "families and travellers en route to the Lake will find this a good resting place."²¹⁷ The advertised time for the Brockville-Westport run was generally 9 hours. In March 1858 Jacob Gallinger of Farmersville secured the Brockville-Westport mail contract, and announced his early intention of putting first-class coaches in service,²¹⁸

as late as 1871 to such places as Westport, Chaffey's Mills, Harrowsmith and Sunbury,²¹⁹ although we have no details about service. In 1857 the *Canada Directory* listed seven hotels in Kingston: the Albion House, British American, City, Golden Chain, Irons, Quebec House and the Telegraph.²²⁰

By 1856 the Royal Mail Stage, operating between Mirickville (this older spelling of Merrickville still current at this date) and Brockville was advertising connections with the train, for by this time the Grand Trunk line was through from Montreal to Toronto. The Royal Mail stage left Crozier's Hotel, Merrickville on Tuesdays, Thursdays and Saturdays at 4:00 a.m., calling at Monsell and Augusta en route to Brockville; the return stage left Wilson's Hotel in Brockville in the afternoon of the same day following the arrival of the train. The same company operated a service between Merrickville (the North Mirickville Hotel) at 3:00 a.m. daily, in the dead of night, calling at Burritt's Rapids and Oxford Mills, to connect with the Bytown and Prescott Railway at Kemptville. The return stage left Kemptville at approximately 4:00 p.m., arriving in Merrickville at around 7:00.²²¹ The Royal Mail Stage advertised "a commodious covered carriage." The line's proprietor was Robert Crozier.²²² Crozier also operated a service from Merrickville to Irish Creek, for which no times are given other than departure Merrickville at 7:00 a.m., and Irish Creek at 6:30 p.m., daily except Sunday. Train connection was made at the latter place.²²³

The railway with its much greater speed and punctuality, doomed the colourful but cumbersome stage coach to oblivion. It is too obvious to belabour the point that road transportation simply could not compete in any wise with the railway until the advent of the internal combustion engine

and the modern highway network, which will be the subject of the third chapter. Guillet states in his *Pioneer Travel* that by 1870 all the main line or trunk stage routes had been abandoned to the railways.²²⁴ Nonetheless the stage coach survived until late in the century for shorter distances in regions not served by railway. For example, Hugh Reilly was still operating the Richmond Mail Line as late as 1892 (and perhaps later), the coach leaving the Brunswick House on Sparks Street, Ottawa, daily except Sunday.²²⁵ Likewise at the same date R.L. Hornidge's Metcalfe Mail Line was operating a coach on the 20-mile run from Ottawa to Metcalfe.²²⁶

One can perhaps be nostalgic about stage coaches, particularly if one has never experienced their discomfort - at least on most of the roads they had to operate on in the last century. One may exclaim with a mid-century balladeer:

We hear no more of the clanging hoof,
And the stage-coach rattling by;²²⁷

but the fact remains that such a conveyance could not survive long in the age of steam, nor at all in that of the motor car and motor coach.

THE COMING OF THE RAILWAY TO THE RIDEAU REGION

Steam Railways and Enabling Legislation

The railway developed from the primitive wagonway or tramway, on which were operated horse-drawn vehicles. The Cornishman, Richard Trevithick (1771-1833), designed and built the world's first steam locomotive, which in a trial run at Merthyr, Wales in February 1804, hauled five wagons and 70 men along the rails. This was but a prototype, never developing as a commercial proposition. George Stephenson (1781-1848) is generally considered the progenitor of the steam locomotive, which in conjunction with the marine engine, was to revolutionize life in the 19th century. Stephenson produced his first railway locomotive in 1814.

The world's first steam railway, the Stockton and Darlington, 38 miles in length, opened on 27 September 1825. The next was the 31-mile Liverpool and Manchester, which opened on 15 September 1830. The Liverpool and Manchester was the first line to carry freight as well as passengers, and to use steam power throughout.¹

American railway development followed close on English, and undeveloped as the country then was, Canada was not far behind. The first railway chartered in the Canadas was the Champlain and St. Lawrence in 1835, a 15-mile line laid with wooden rails connecting the St. Lawrence and Richelieu rivers. The Lieutenant-Governor of Lower Canada, Lord Gosford, went on the train's inaugural run on 31 July 1836. The first railway project in Upper Canada was that of the

abortive London and Gore, chartered in 1837 (7 Wm., IV, cap. 61) to construct a line from London to the head of Lake Ontario. Under the aegis of Sir Alan MacNab, at that time member for Hamilton and Speaker of the Legislative Assembly, the London and Gore project was absorbed into that of the Great Western in 1845. The Great Western's design was the spanning of the Upper Province from the Niagara to the Detroit frontiers.²

The 1850s have been described by historians as the decade of the railway mania, when promotional schemes for railway development sprouted like mushrooms. More often than not those schemes were abortive, many being speculations sponsored by promoters seeking a quick return on their money. None the less the 1850s did witness the debut of the railway era in the Canadas, which contributed in no small measure to the creation of the nation that would emerge in the near future. On the biggest scale in the years preceding Confederation was the Grand Trunk, which before the decade of the 1850s was out, provided 800 miles of through line from Sarnia to tidewater at Portland, Maine. During this decade of hectic railway promotion, two lines were built in the Rideau region - the Bytown and Prescott and the Brockville and Ottawa. Before proceeding to their story, the subject of enabling legislation covering railway enterprise throughout the province merits attention.

The first railway legislation passed by the legislature, which received assent 30 May 1849, defined certain services which future incorporated railway companies owed the government, comprising the conveyance of troops, police and the mails, and the rendering of telegraph service at the disposal of the government.³ Another bill (12 Vic., cap. 29), also given royal assent on 30 May 1849 defined the conditions under which the province would guarantee loans floated by railway companies for the

construction of their lines. The province would guarantee the interest on loans raised by a railway company providing the projected line was at least 75 miles in length, and providing the rate of interest did not exceed 6 per cent *per annum*. A further provision included in the act was that the sum on which the interest was guaranteed was not to be greater than the sum expended by the company on the project before the guarantee was given. The sum put up by the railway had to be deemed sufficient to complete the road to the satisfaction of the Commissioner of Public Works (which had jurisdiction over railways and canals from 1840 until the formation of the federal Department of Railways and Canals in 1879). The government would not guarantee the interest on any loan until one-half the entire project had been completed. Payment of the interest so guaranteed by the government became the first charge on the railway, and no dividend could be declared until the whole of the interest had been paid off. Nor could any dividend be paid the company's shareholders until 3 per cent of the unpaid principal, paid over from the company's profits, had been deposited in a sinking fund with the Receiver-General for redemption of the debt. Railway companies so guaranteed were under the additional obligation to render semi-annual accounts to the inspector-general, who was to invest the sinking fund monies.⁴ Since railway development entailed heavy capital expenditure, governments came to be deeply involved in the financing of railways.

There followed in two years the Railways Clauses Consolidation Act (14-15 Vic., cap. 51), passed 30 August 1851, which declared that all railways chartered under individual acts were to be designated bodies corporate. As such, railway companies could purchase or receive grants of land, carry lines across private property (lands belonging to a corporation, etc.), erect buildings (such as depots or

stations, freight sheds, round-houses and so forth), build branch lines, borrow money, cross crown land, remove trees, amalgamate with other railways, etc. The act stipulated that work could not proceed until maps and plans had been deposited with a clerk of the peace. The line was not to deviate more than one mile from the plans submitted. Nor could a railway follow along a highway without the permission of the relevant municipal authorities. Sundry regulations as to the election, duties and responsibilities of boards of directors were included.

The act spelled out operating procedure in considerable detail. All employees serving in the passenger service were to wear badges identifying their function or office. Trains were to run to schedule according to public notice - arrival and departure boards displayed in stations, and the timetable. Baggage cars were to be placed next to the engine and in front of passenger cars. This was a major safety feature before the days of steel under frames, when coaches in a hard head-on collision could telescope like a concertina. (Frequently in England on local trains the van, or baggage car, is to be found at the back of the train, but with steel coaches this constitutes no hazard.) All locomotives had to be fitted with a bell and steam whistle. Shipment of flammable or explosive or otherwise dangerous goods was prohibited, except by prior notice, and with the containers clearly marked. Passengers refusing to pay their fare could be put off, and passengers standing on car platforms whilst the train was in motion had no redress for injury. Finally, a map and profile of each completed line went on file in the office of the Commissioner of Public Works.⁵

The Municipal Loan Fund was established by statute in November 1852 under the management of the Receiver-General. Loans were to be for a term of five to 30 years, and municipalities could borrow therefrom for the

assistance of various works besides railways, such as goals, court houses, harbours, and so forth.⁶

The enforcement of safety regulations was the subject of sundry legislation pertaining to railways as to steamers. The first passed by the Province of Canada legislature (19 Vic., cap. 11) empowered railway companies to penalize employees for dangerous practices. Contravention of company by-laws, in the event that there had been no injury to persons or property, drew pay forfeitures of not less than 30 days; otherwise a fine of £100 or imprisonment up to five years could be imposed.⁷

A far more comprehensive act, entitled "for the better prevention of accidents on railways," (20 Vic., cap. 12) was passed on 27 May 1857. A salient feature of this Act was the institution of the Board of Railway Commissioners. Provision was made for the appointment of up to three Inspectors of Railways, with broad powers to ensure the maximum safety of railway operations. All railways constructed or under construction were subject to inspection - locomotives, cars, stations, crossings, fences, gates, sundry works and other buildings. Company directors and their subordinates were to furnish full information as to the state of construction, re-construction, state of repair of track, bridges, and culverts; and inspectors were to have ready and free access to the company's telegraph. Obstruction of the inspectors, on conviction, entailed fines of up to £10 or imprisonment up to three months. Inspectors could forbid the running of trains over track considered dangerous. Any equipment, such as locomotive, car, bridge or tunnel found wanting by the inspectors had to be made good at the expense of the company. No railway could open to carry passengers until one month after notice had been given to the Board of Railway Commissioners, who could, on

the basis of inspectors' reports, postpone the opening of any railroad. The government could order the replacement of any swing or moveable bridge by a fixed structure.

A score of operating regulations followed. Companies had to use the best communications equipment available for communicating between the engine cab and the conductor, and for stopping or disconnecting cars. A speed limit of six miles per hour was imposed through all unfenced lines passing through built-up neighbourhoods in towns or cities. A brakeman was to give warning by whistle or bell whenever a train or cars were reversing in a populated neighbourhood. Pedestrians crossing lines were to use foot-bridges wherever provided. No horses or cattle were to be at large on any road or highway within one-half mile of a railway. All railway companies were constrained to give notice within 48 hours of any serious accident to the Board of Railway Commissioners.⁸ In its blanket provisions, the act resembled the Steamboat Act of 1851.

On 30 June 1858 an act was passed amending the Railways Clauses Consolidation Act in order to permit a company to alter its line of track at any time for the lessening of a curve or the reducing of a gradient. No company, however, had the right to extend its line beyond the termini cited in its charter.⁹

An act enabling municipal corporations in Upper Canada, on a petition of three-quarters of their ratepayers, to guarantee a bonus to companies affording them a means of communication, by a rate levied on the company's property, was passed on 4 May 1859. Once taken under the terms of this act, the terms became binding on the municipality. The rates levied for such bonus were limited to one per cent of the increase in the assessed value of the property.¹⁰ The Brockville and Ottawa Railway was to become heavily subsidized by bonuses authorized by this act (22 Vic., cap. 39).

Before leaving the subject of railway legislation, it may be pertinent to cite the comprehensive Railway Act of 1868 (31 Vic., cap. 68), passed by the first parliament of the newly constituted Dominion. This repeated most of the provisions of the 1857 legislation, although the regulations were elaborated and more precisely defined. Freight rates or tolls had to be posted in a public and prominent place. Goods on which the tolls had not been paid might be sold by the company after six weeks. Tolls could also be reduced by order of parliament under certain conditions. Railway companies could refuse the carriage of dangerous goods.¹¹

Railroads in the Rideau Region

Timber, particularly the magnificent stands of white pine, was the principal resource of the forested 60,000 square mile Ottawa Valley. Square timber was in ready demand in the British market for use in naval dockyards, particularly after Napoleon's blockade of continental ports which by 1806 cut off imports from the Baltic. Even after the restoration of peace preferential tariffs secured a goodly portion of the British market for colonial imports. Preferential tariffs on timber imports continued until 1842 when they were reduced for the first time, being phased out entirely by 1866.¹²

The square timber trade required little in the way of technology, other than the industry, skill and brawn of lumbermen and river drivers, the squared logs being transported by sundry tributaries (the Gatineau, Lièvre, Madawaska and Bonnechere) to the Ottawa, and thence to the St. Lawrence to the great entrepôt of Quebec, where they were loaded on timber ships for England. The lumbermen drove ever deeper into the forested hinterland, reaching the

headwaters of the Madawaska by 1847.¹³ The peak year for the square timber trade in terms of exports to the United Kingdom from all British North America was 1845; with the abolition of the British preference in 1866 the square timber trade declined, petering out by the turn of the century.¹⁴

By the 1840s a market developed, first in the settled regions of Upper Canada along the shores of the St. Lawrence and Lake Ontario, then in the United States, for a more finished product - sawn lumber. This gave birth to important milling centres in the region, the mills being operated first by water power, later by steam. Unlike squared timber, the successful development of the sawn lumber industry depended, at least in part, on the facilities of railroads and canals for its transportation to market. The sawn lumber trade was dependent on the development of steam power, whereas that of square timber was based on the broad axe, river drive and the square-rigger. The first railway in the Rideau region, the Bytown and Prescott, was conceived as a lumber road to serve the American market by connecting with the Ogdensburg Railroad, completed in 1850.¹⁵ The Reciprocity Treaty with the United States 1854-66, establishing free trade in natural products, greatly redounded to the advantage of the Canadian sawn lumber trade, inasmuch as eastern American forest resources were becoming depleted by this time.¹⁶ About the time that the British market became highly competitive for Canadian square timber, therefore, the American market opened for sawn lumber.

The search for virgin timber stands resulted in the progressive penetration of the hinterland. The need to supply the lumber camps with food stimulated the agriculture of the region although pork and flour, the two great staple foods of the lumber camps, were increasingly imported from

the Great Lakes region.¹⁷ As the lumber camps moved farther into the interior (as far afield as Lake Temiskaming by about 1837), better transportation facilities to bring in supplies and to get the products to market were required. Conceivably the Kingston and Pembroke Railway, a line not included in this study, may have played a greater role in these respects than either the Bytown and Prescott or the Brockville and Ottawa railways. In any case the latter two served, with the Rideau Canal, to funnel the products of the region's saw mills to the American market, via Kingston, Brockville, Prescott. Another important route for transporting sawn lumber to the United States comprised the Ottawa-St. Lawrence-Chambly Canal water system.

The Bytown and Prescott Railway 1850-84

The first railway into the future capital was the Bytown and Prescott, incorporated 10 August 1850, to build a railway from some place or places on the River Ottawa,

at or near Bytown, to some place or places on the River St. Lawrence at or near Prescott, with power to hold steamboats and vessels to ply on the waters of either river to any place not more than twelve miles distant from either Terminus.

The nominal capitalization was £150,000, with provision to increase the same by £100,000.¹⁸ The principals cited in the Bytown and Prescott's act of incorporation included Nicholas Sparks, Edward McGillivray, George Patterson and John McKinnon. McKinnon was the son-in-law of Thomas McKay, an important mill owner in New Edinburgh.

The Bytown and Prescott was the brain-child of Boston capitalists, although it is not known how much money the American promoters invested in the line. The railway was

conceived by them as a lumber road designed to make connection with the American railroad network at Ogdensburg opposite Prescott.¹⁹ This connection dictated the choice of gauge for the line.

At issue in the Province of Canada at the outset of the railway era was the choice of either the standard (4 foot 8½ inch) gauge which had been widely adopted by the American railways, or the broad gauge (7-foot) initially chosen by the Grand Trunk. A Royal Commission in 1845 had recommended the standard gauge, but a parliamentary committee settled on a compromise broad gauge - 5 feet 6 inches. (In 1872-73 standard gauge was adopted throughout Canada.)²⁰

In the case of the Bytown and Prescott, standard gauge was adopted to render trans-shipment at Prescott, once a train ferry connecting Ogdensburg and Prescott had been brought into service, simpler. The Boston interests also saw the gauge question as improving their competitive position *vis-à-vis* the broader gauged Grand Trunk.

Surveys

The initial surveys of the route were carried out by a well-known engineer, Walter Shanly, whose "Report on the Location, Surveys and Estimates..." was dated 26 July 1851. The roadbed was to consist of sand or gravel to a depth of 2 feet. Ties or sleepers were to be of dimensions 7½ feet by 9 inches by 7 inches, and rails were to be of the "inverted T" pattern, 60 pounds to the yard²¹ (which is very light by modern standards, in which the heavier rail averages more in the neighbourhood of 130 pounds to the yard).

The overall length of the projected line, from the west end of MacTaggart Street in Bytown to the shore of the St. Lawrence below Prescott,

was 53.12 miles, with a little extra mileage to take in Kemptville. No gradient exceeded 30 feet to the mile (0.5 per cent), and 88 per cent of the line was straight track. Sidings were to be at 5 to 9-mile intervals. Rolling stock would consist of the following:

2 passenger, 2 freight and 2 shunting engines
 2 " cars
 40 box cars
 30 platform cars
 35 gravel cars

at an overall cost of £24,250. The total estimate for the railway came to £195,000, and the project was expected to take two years. The railway was expected to cut the Bytown to Prescott journey from 12 to 15 hours to something in the order of 1½ hours.²²

Only two bridges of any extent were called for: over the Rideau at Bytown and spanning the Nation River at Edwardsburgh. The following way or intermediate stations were proposed:

Cunningham's	mileage 10.95 from Bytown
Long Island	15.80
Garlick's	22.35
Kemptville	31.00
Sanderson's	37.10
Spencer's	44.70 ²³

The Prescott terminal site encroached on ordnance land at Fort Wellington. The company proposed two routes for the consideration of the military secretary: through a gully between Fort Wellington and the town of Prescott, or in front of the fort along the river, and thence into Prescott. The military secretary replied that the officer commanding the Royal Engineers had no objection to the river-side route, providing no buildings were erected on ordnance property.²⁴ Walter Shanly recommended that the terminal

be within the town limits between Fort Wellington and the town, with the best location on the bay between Frazer's wharf and projecting land in front of Fort Wellington.²⁵ This site proved unacceptable to the O.C. Royal Engineers, on the grounds that any buildings between the fort and the river would mask the guns' line of fire, and hence was inadmissible on military principles. This objection, dated 14 October 1851, found a response in an order-in-council, dated 25 October, proposing that the company be permitted a line no wider than 90 feet on ordnance property, devoid alike of deep cuttings or high embankments so as to in no wise mask the fire from the guns, and that the company should lease the land from ordnance. It is noteworthy that the original application to ordnance was for the rails to cross ordnance property only, there being no mention of a depot.²⁶ The final arrangement, approved on 3 December 1851, implemented the terms of the order-in-council, with the proviso that the Ordnance Department might resume the property should future military requirements so dictate.²⁷

The decision to follow the "Kemptville route, east of the Rideau" was conveyed in the survey instructions. The overall supervision of the survey was entrusted to James D. Slater. A survey party under George Wadsworth left Prescott at the end of April 1851, and a second party headed by Alfred W. Sims, began from the Bytown end early in May.²⁸

The location of the Bytown terminal was a crucial one, inasmuch as the railway, as aforementioned, was designed as a lumber road. Walter Shanly stated in his *Reports on the Preliminary and Location Surveys of the Bytown and Prescott Railroad* that lumber exports to the American market in 1850 had amounted to 20-million board feet, and estimated that sawmills in the Ottawa Valley region were capable of

producing five times that amount. The lumber trade employed about 11,000 men annually, whose camps had to be supplied. The export route for the American market in the states of Vermont, New Hampshire and Massachusetts lay via the Ottawa and St. Lawrence rivers and the Chambly Canal to Lake Champlain, the lumber averaging about 10 days in transit; Shanly calculated that this time could be cut to four days via the projected railway with one transshipment at Prescott-Ogdensburg.²⁹ Since lumber for the American market was really the *raison d'être* for the railway in the first place, the site of the Bytown terminal should have been determined by the needs of the lumber trade. Although Bytown's first saw mill, built by Thomas McKay, was located at the Rideau Falls, by the time the Bytown and Prescott was in the planning stage the neighbourhood about the Chaudière Falls had supplanted it as a lumber depot and saw mill centre. In retrospect this would appear to have been a better location for the terminal, particularly in view of the line's subsequent financial failure, but if so, it was an error not remedied until 17 years after the line had been built, with completion of the Chaudière extension in 1871.

Another possibility for the Bytown terminal was that of the canal basin, more or less that of the future Grand Trunk terminal. Walter Shanly did not favour this site, partly on the grounds that the space was cramped, partly that he did not consider the canal business sufficient to justify selection of this site for the terminal. Shanly anticipated that the lumber exports from the hinterland to the north of the Ottawa would far exceed any business to be derived from the canal.³⁰ A further factor which may have militated against the canal basin site was the fact of its being over 80 feet above the level of the Ottawa River, to which a spectacular flight of eight locks gave access. A further consideration militating against the

Rideau Canal basin was the necessity for a long and costly embankment on the approaches, which Shanly estimated would require an additional year's work.³¹ The banks of the Ottawa River were out of the question because of steep bluffs and fluctuation of the water level. Shanly proposed that the depot be located on the north-eastern outskirts of Bytown, which would give a pleasant and scenic approach near the Rideau Falls. Probably the clinching argument originated with two of the major shareholders: Thomas McKay, who owned cloth, flour and lumber mills at Rideau Falls, and his son-in-law, John McKinnon.³² It lay very much in McKay's interest that the railway depot be located near his mills, and so it was. On 10 November 1852 the company was granted a lot on the west side of Dalhousie Street between Bolton and Boteler streets. The depot was finally built on Sussex Street between Redpath and Boteler streets at the instigation of Thomas McKay and John McKinnon.³³

Financing and Construction

Ground was broken in September 1850.³⁴ The company issued and negotiated £100,000 worth of bonds in England, bearing interest at 6 per cent, of which £56,700 worth was used for securing 5,400 tons of iron rails under contract from the Ebb Vale Iron Company. It was anticipated that a rise in cost of iron over the year 1852-53 might increase the cost for the rails by £24,000. The company applied to various municipalities for loans under the terms of the Municipal Loan Fund Act 1852. By this means the following sums were realized:

Bytown	£15,000
Gloucester	5,000
Oxford	6,000
Prescott	7,500

To this may be added from private subscribers in the following places:

Bytown	£8,950
Prescott	4,130
Kemptville & elsewhere	5,170
contractors	3,400

giving a total (bonds, loans and stock) of £155,150.

Among the costs included in building the railway were:

preliminary surveys & engineering	£ 2,212
right of way, station grounds	2,960
terminus in Bytown (12 acres)	2,087
grubbing & clearing line	7,374
grading	35,100
masonry	968
fencing	463
superstructure	6,770
wharfage	720
incidental expenses	<u>966³⁵</u>
total	59,620

In August 1853 the Grand Trunk offered to assist the enterprise by taking £100,000 worth of first mortgage bonds and an equal amount of the company's stock providing the road was constructed to broad gauge, but the directors rejected the offer.³⁶

The Bytown and Prescott made a tight finish. The company ran out of rails when construction had reached to within a few miles of Bytown; unable to replenish its stock, the company laid the last few miles with wooden rails surmounted by hoop iron. Money was in short supply, for the first manager, Robert Bell, was in the habit of issuing promissory notes, which for a time assumed the function of local currency, but eventually all were redeemed at par.³⁷

Opening of the Bytown and Prescott Railway

The first locomotive for the new railway was the 18-ton *Oxford*, product of the Boston locomotive works of Hinkley and Drury. It was delivered to the Ogdensburg depot, and thence ferried by barge across the river to Prescott³⁸ where it was landed and placed on the rails on Friday, 19 May 1854. That evening the engineers and contractors held a celebration at Gilman's Hotel, Prescott, at which Walter Shanly was presented with silverware to mark the esteem in which he was held. In his acceptance speech, Shanly referred to the hard times the railway had passed through, and that it had been his first railway project.³⁹

On Wednesday, 21 June 1854, the line was open as far as Spencerville, a distance of 10 miles. Nonetheless a train was engaged by a 150-strong party of the Sons of Temperance, who proceeded over the newly laid line to Spencerville, where a procession led by the Port Elgin Brass Band marched to the picnic grounds. A number of speeches were delivered, refreshments were served, the band played, and then the party returned on the train to Prescott. The editor of the *Bytown Citizen* unctuously observed that the line had opened with a "cold-water festival," and trusted that the line would ever be an agent of sobriety. The track was expected to be through to Kemptville by mid-July.⁴⁰ A second celebration followed in August when the track reached Kemptville. At one o'clock a special train with celebrants aboard departed Prescott for Kemptville, where the township of Oxford laid on a banquet, with a band in attendance. The train returned to Prescott at half-past five. The editor of the *Brockville Recorder* was miffed at receiving an invitation the day following the celebration.⁴¹

The first train from Prescott pulled into Bytown, or perhaps to a temporary depot in New Edinburgh, on a snowy Christmas Day, just before 5:00 p.m., 1854. The bridge

spanning the Rideau, giving access to what was apparently known as the 'Sussex Street terminal', was incomplete.⁴² Three weeks later the *Brockville Recorder* reported the Bytown and Prescott Railway in full operation, the run taking "less than three hours."⁴³

The Ottawa and Prescott Railway in Receivership

By statute passed 30 May 1855, the Bytown and Prescott became the Ottawa and Prescott,⁴⁴ corresponding to the dropping of Bytown for the somewhat grander and more euphonious Ottawa.

In the summer of 1856 the Ottawa and Prescott operated two trains daily, except Sunday, in each direction. The best time was 2½ hours, connecting at Prescott with the Grand Trunk Montreal-Toronto service, and with various steamship lines serving the St. Lawrence and Lake Ontario. The Ottawa and Prescott time-table, commencing 6 May 1856, was the following:

lv. Ottawa	6:00 a.m.	1:20 p.m.
arr. Prescott	8:30 a.m.	5:00 p.m.
lv. Prescott	9:00 a.m.	2:30 p.m.
arr. Ottawa	12:50 p.m.	5:00 p.m. ⁴⁵

This schedule was modified slightly in September; there was the same frequency of service, but the running times were a little slower. By the spring of 1860 a Brockville connection provided by the Brockville and Ottawa Railway gave circuitous service to Smiths Falls, Perth, Almonte and Pembroke.⁴⁶ An agreement was worked out with the Grand Trunk giving the latter running rights over the Ottawa and Prescott track between the junction of the two lines and the wharf on the St. Lawrence. In return for the Grand Trunk offer to contribute \$7,000 towards the enlargement of the wharf, the Ottawa and Prescott agreed to convey Grand Trunk passengers

in its own cars from the wharf to the junction with the Grand Trunk line. In addition, the Grand Trunk agreed to pay the Ottawa and Prescott 35 cents per ton on freight moved over their track, and a "fair" return on passengers as well.⁴⁷

In 1864-65 the Ottawa and Prescott was still maintaining a twice daily service in each direction except Sunday. Connections were advertised with the Royal Mail and with the American Line at Prescott, and with divers other steamer lines across the river at Ogdensburg. At that time the company officers were Robert Bell, president; B. French, superintendent; and Joseph Mooney, secretary treasurer.⁴⁸ Robert Bell (1821-73), surveyor, journalist and politician, was one of the company's principal promoters, and contributed more than anyone else to the project's completion, serving thereafter as president for a number of years.⁴⁹

Although the railway had seemingly done brisk business during its first ten years, the company had in fact done little more than pay working expenses and carry out the necessary maintenance on the line. The various municipalities which had advanced money to the railway had become indebted to the government for the same.⁵⁰

Stone for the building of the new parliament buildings in Ottawa was a major, if temporary, freight consignment on the Ottawa and Prescott. The company's earnings for 1862 were down by \$7,896.75 over that of the previous year in part because of a suspension of work on the buildings, coupled with a bad harvest and economic recession. Between 1860 and 1861 these consignments of stone from Ohio had formed a major part of the railway's freight business. Meantime the company had been in arrears with its bill from the Ebb Vale Company for its supply of rails. Controversy over settlement of Ebb Vale's bill ended in Chancery, and in

January 1862 the Ottawa and Prescott agreed to pay the plaintiff's bill against the interest on the first mortgage bonds, plus 30 per cent of the company's gross earnings. A decrease in traffic did not allow the company to meet its obligations on this scale, and Ebb Vale allowed the payments to stand over.⁵¹

By early 1865 the Ottawa and Prescott was financially foundering. The company had defaulted on its interest payments, and a bill was pending in the legislature to promote the interests of the various creditors. For example, the town of Prescott had subscribed stock to the amount of \$30,000, and had borrowed \$100,000 from the Municipal Loan Fund which was advanced to the company. To secure this loan, Prescott jointly with Ottawa took a second mortgage on the company, the Ebb Vale Company holding the first mortgage, and the Grand Trunk the third. In all, \$235,987 was owed by the Ottawa and Prescott to its various creditors. Meantime Charles J. Brydges of the Grand Trunk, in execution of a judgment, had seized the company's rolling stock, bringing the operation of the Ottawa and Prescott to a halt. Collusion between the Ebb Vale Company and the Grand Trunk, to transfer the Ottawa and Prescott to the Grand Trunk was suspected. By closing the line down, it was alleged, the Grand Trunk hoped to induce the Ottawa and Prescott to sell out for less; thereafter the Grand Trunk would appropriate the line, operating it solely for its own benefit, leaving the other creditors without resource. For two years the various municipal creditors had been assessed for repayment of the loans, which in the case of Prescott had proved so onerous a burden that property values had been depressed.⁵²

By statute dated 18 March 1865 (28 Vic., cap. 35), the Ottawa and Prescott Railway was declared in a state of financial stringency and in the hands of the receiver, having failed to pay the interest on its first,

second and third mortgages, and with several creditors having obtained judgements against the company. Provision was made for any mortgagee or creditor to proceed against the company, to acquire the railway and its properties free of encumbrances, and to operate the railway under the original charter unconditionally.⁵³ The bill then vested the railway, with all its goods and appurtenances, in Joseph Robinson of Lawrence Pountney Hill, Cannon Street, London, who was empowered to act as trustee for the various creditors. The schedule of the new proprietors was the following:

Ebb Vale Company,	London
Thomas Robinson,	"
Robinson & Eyre,	"
W.D. Sterling,	"
F.A. Tamplin,	Liverpool
Bailey Bros.,	"
Thomas Reynolds,	Montreal ⁵⁴

A mortgage was taken on the line for £50,000 at 8 per cent, due on 15 January 1887, financed by the Union Bank of London.⁵⁵

The St. Lawrence and Ottawa Railway 1867-84

The name of the original Bytown and Prescott was changed for the second time, by statute dated 21 December 1867, at the hands of the newly-created federal Parliament. The Ottawa and Prescott became the St. Lawrence and Ottawa, with all property and rights of the former company vested in the new. Capitalization was not to exceed \$1,500,000, issued in shares of \$100 each. The head office was established in London, England, but with a resident managing director. The provisional board of directors consisted of:

Joseph Robinson

Thomas Robinson

Alexander Robert Eyre

Thomas Reynolds, acting as provisional managing director

William Quilter

The new company's shareholders were the following:

Ebb Vale Company	\$405,492.69
Thomas Robinson	127, 242. 69
Robinson & Eyre	161,324.25
W.D. Sterling	6,792.60
F.A. Tamplin	11,887.65
Bailey Bros.	27, 170. 36
Thomas Reynolds	<u>50,000.00</u>
	789,910.24 ⁵⁶

Under the act (1867) incorporating the St. Lawrence and Ottawa Railway, provision had been made for extending the line into the province of Quebec, county of Ottawa, at or near the Chaudière Falls. While the line was not extended into Quebec, a branch was built to the Chaudière in 1870, giving the railway direct access to the industrial centre of the city of Ottawa. From a point about 5 miles south of Ottawa the Chaudière branch crossed the Rideau River about three-quarters of a mile west of the Billings Bridge, skirted the western shore of Dow's Lake, followed St. Lawrence Street and curved east across LeBreton Flats to the new terminal on Broad Street. The St. Lawrence and Ottawa Broad Street station was located between that of the Canadian Pacific Broad Street Station to the north, and the depot of the Canada Atlantic Railway to the south. Indeed it was competition with the latter line that induced the St. Lawrence and Ottawa to undertake the Chaudière branch. The first locomotive passed over the 5-mile Chaudière branch on 10 December 1870.⁵⁷

By legislation dated 14 June 1872, an extension via Portage du Fort, Quebec, to Pembroke and from here to Sault Ste. Marie or a point on the shore of Lake Superior was authorized. (This extension was never built.) The company was empowered to sell lands, erect buildings, receive grants in aid, borrow money under the provisions of section 7 of the Railway Act, and enter financial arrangements with other railways. Charges on earnings were listed in the following order of priority:

- 1) payment of working expenses
- 2) payment of the £50,000 mortgage at 8 per cent
- 3) " " " " " 7 " "
- 4) " " dividend not exceeding 8 per cent on the preferred stock.⁵⁸

Total capitalization in 1875 was \$1,136,902.53. Preferential share capital paid up amounted to \$789,909.20, and the bonded debt paid up to \$346,993.33.⁵⁹

In 1875 the principal officers of the St. Lawrence and Ottawa Railway were William Quilter, London, president, Thomas Reynolds of Ottawa, vice-president, A.G. Peden, secretary treasurer and J.M. Taylor, freight agent, both of Ottawa, Jonathon Macklin, Ottawa, engineer, and Calvin Dame of Prescott, engineer. The same names appeared on the board of directors as in 1867, with the addition of William Carter and Francis Tothill, both of London.⁶⁰

The St. Lawrence and Ottawa Railway Company Amendment Act, passed 12 April 1876, authorized the company to borrow up to \$200,000 sterling and to issue debenture stock and mortgage bonds with coupons; stock registers had to be kept.⁶¹

The first year for which were found passenger figures for the St. Lawrence and Ottawa Railway was 1867, when the line carried a total for the year of 48,757. There was a slight decline the following year, but from 1869 a steady

increase in passenger traffic ensued, reaching an all-time peak (for the period where statistics are available) of 79,525 in 1874. Thereafter the passenger business tailed off sharply, and except for a slight revival in 1878-79, had fallen off to fewer than 35,000 by 1882. This curve may be compared with that of the Brockville and Ottawa. The Brockville and Ottawa carried fewer than 40,000 passengers in 1865-66 increased dramatically to a higher level in 1870-71 than that ever attained by the St. Lawrence and Ottawa (93,091), thus peaking four years before its rival. Thereafter the passenger trade declined, at least until 1875-76, the last year for which figures are available for the Brockville and Ottawa.

Turning to the figures for freight, the St. Lawrence and Ottawa in 1867, again the first year for which figures are forthcoming, carried 14,657 tons. Following an initial peak of 39,382 tons in 1867-68, and slight fall-off in 1868-69, a slow undulating increase follows to the year 1876-77, but from 1878 there follows a sharp increase to a peak of 100,054 tons in 1881, with an even steeper decline from that year to 1883, when the freight tonnage sagged to the 1870-71 level, at 34,547 tons in that year. The Brockville and Ottawa line, by contrast, always carried substantially more freight throughout the period for which comparable figures are available - viz. 1865-70. Brockville and Ottawa tonnage climbed steadily from 1865 to a peak of 113,167 tons in 1871. A considerable decline in freight tonnage over this line ensued over the next four years, the figure for 1875 being 72,838 tons. Unfortunately the statistics for the two roads are not contemporaneous throughout, those for the Brockville and Ottawa ending in 1876, and for that reason direct comparison is possible only for the years 1867-76. For this limited period it may be said that the Brockville and Ottawa was consistently the heavier freight carrier, roughly in the ratio of 2:1.⁶²

The question may well be asked why figures are available only for these years. In the case of the St. Lawrence and Ottawa, the earlier records of the company were lost in a fire, and in the case of both companies, statistics were absorbed into those of the Canadian Pacific on this colossus taking over the two regional lines. The Canadian Pacific has preserved only systems-wide statistics for freight and passenger traffic, which obviously have no bearing whatever on rail traffic in the Rideau region.

An inventory of the rolling stock and St. Lawrence and Ottawa property in the year 1875 is of interest, and is quoted *verbatim*:

main line	54 miles	
Chaudière branch	5 "	
iron rails used over 50 miles		56 lb/yd
steel " " " 9 "		60 & 72 lb/yd
sidings	6.6 miles	
engine houses	3	
locomotives	9	
1st class passenger cars	10	
2nd class emigrant cars	6	
baggage & express cars	6	
cattle & box cars	63	
platform cars	45	
level crossings	67	
Prescott wharf		
junctions with other lines	1	
bridges	5 ⁶³	

In 1882 Archer Baker was general manager, and R.K. Clarke was listed as general freight and passenger agent. The company operated two trains daily each way;

the expresses (passenger trains) in each direction, daily except Sunday, took from 2 hours to 2 hours 5 minutes, and the mixed trains (passenger and freight combined in one train), took 4 hours to 4 hours and 10 minutes. Principal intermediate stops were at Kemptville and Osgoode.⁶⁴

Anecdotes recalled by old-timers abound. On 4 March 1869 two trains were completely buried in snow at Gloucester. On 24 February that year a train which left Prescott on Saturday morning did not arrive in Ottawa until Tuesday night! Celebrities travelled the St. Lawrence and Ottawa. The Duke of Connaught travelled over the road on his first visit in 1869. The engine *Thomas Reynolds*, a coal burner, freshly painted for the occasion, with a chequered sand-box and red wheels, pulled the Marquis of Lorne's train on 2 December 1878 from Prescott Junction to the Sussex Street depot in Ottawa. It may be of interest too to recall the scale of wages paid railway men in the 1860s and 1870s. Engine drivers on passenger trains got \$50-\$55 per month, firemen \$25-\$30. Carpenters and mechanics were paid 12¢ to 15¢ per hour. As mentioned earlier, in hard times wages were often paid in IOUs, later redeemed, despite which many loyal employees stayed on. In 1879 a shortage of coaches made for extraordinary improvisation in the operation of an Exhibition Special in Ottawa. Flat cars were pressed into service, with improvised seats of steel rails and boards. Passengers had not far to travel, however, from the depot in Lower Town to Exhibition Landing, somewhere in the vicinity of what later came to be known as Lansdowne Park.⁶⁵ Even by the year 1874, an English visitor looked down his nose at what he was pleased to consider the crudity of the colonial arrangements.

There is a sufficient similarity between an English and a Canadian railway for a person to see that they belong to the

same order of things, but yet the points of dissimilarity are very marked. The engine is a monstrous machine, with a "cow lifter" slightly oscillating like a gigantic adder's tongue feeling the way. The platform on which the driver and stoker stand is covered on top and sides, adding considerably to the bulk and appearance of the engine. The guards, porters and policemen are not in livery, and there is nothing to distinguish them from other gentlemen, so that a stranger desiring information or assistance stands an excellent chance of going without it. A small rope runs along under the roof of each carriage, by which the conductor rings a bell on the engine to make a stop. About 3 a.m. we pull up at a station, a queer-looking place; not even enclosed from the surrounding country. On one side a few planks nailed together in the shape of a platform, about a foot from the ground; on the other side several very large piles of cordwood. Some distance away a little shanty and a sawmill. Beyond this nothing but raggedness and the grey morning visible.⁶⁶

CPR Amalgamation

By 1884 the St. Lawrence and Ottawa had about run its course as a separate entity. As happened with so many small regional lines, the St. Lawrence and Ottawa was fated to be taken over by one of the large systems, in this case the Canadian Pacific, then in the process of completing Canada's first transcontinental railway.

The first intimation of CPR interest in the St. Lawrence and Ottawa was an announcement, in July 1884, of Canadian Pacific's intention to sell "the old station of the St. Lawrence and Ottawa on the south side of the city (Lot No.1 in the 5th Concession Rideau Front)."⁶⁷

The CPR take-over occurred on 26 September 1884, when that company leased the St. Lawrence and Ottawa line for a term of 999 years.⁶⁸ In point of legal fact, although the CPR had to all intents absorbed the St. Lawrence and Ottawa, the latter was one of a number of leased lines designated as the Ontario and Quebec Railway, aggregating 692.3 miles in all, including lines to the west of Toronto.⁶⁹

In June 1885 the Canadian Pacific advanced the sum of \$227,155.49 to the account of the St. Lawrence and Ottawa, the statement for which was the following:

statement of expenditure to	
31st Dec. 1883	\$69,900.00
floating debt & interest on	
mortgage bonds	143,512.54
balance ticket & mileage	
accounts	253.53
balance supplies & labour,	
re-building bridges & on	
freight traffic	<u>13,489.42</u>
Total	\$227,155.49 ⁷⁰

A financial statement for the St. Lawrence and Ottawa branch for the year ending 30 June 1886 showed a subscribed and paid up capital of \$2,153,243. Municipal aid totalled \$390,000, and total cost of the railway and rolling stock was computed at \$1,903,489.⁷¹ The *CPR Annual Report* for 1888-89 recorded the issue of first mortgage bonds to the value of £200,000 sterling, or \$973,333, bearing interest at 4 per cent, and reaching maturity on 15 June 1910.⁷²

The CPR continued the same service provided by the former St. Lawrence and Ottawa, with one express and one mixed train in each direction, daily except Sunday. The express made the run from Ottawa to Prescott in two hours flat, so averaging 26.5 miles per hour, faster by 5 to 10 minutes than hitherto. This was slow time for an express, but a glance at the time-table for November 1885 indicates no fewer than seven intermediate stops:

lv. Ottawa	2:00 p.m.
Chaudière Jct.	2:25
Gloucester	2:28
Manotick	2:37
Osgoode	2:57
Kemptville	3:16
Oxford	3:30
Spencerville	3:55
arr. Prescott	4:00 ⁷³

The two trains a day in each direction, daily except Sunday, were continued at least until 1915, the last year for which old time-tables in the Canadian Pacific Corporate Archives are available.⁷⁴ According to the CP Archives, passenger service on what had long been known as the Prescott branch of the CPR was discontinued in October 1957 and through freight sometime in 1970-71. At present an irregular local freight service continues, but to all intents the line has been abandoned.

The St. Lawrence and Ottawa Railway in Retrospect

The Bytown and Prescott began full operation in the same year that the Reciprocity Treaty with the United States came into effect (1855). Theoretically, the treaty should have had a positive impact on the fortunes of the railway, particularly since the railway was built to serve the

American market. However, the juxtaposition of these two events renders it difficult to estimate the effects of the treaty upon the railway and the impact of the railway on its two termini, Bytown and Prescott.

Table 2 gives the value of imports and exports passing through Bytown and Prescott for the years 1850 to 1857.

Table 2. Value of Imports and Exports: Bytown and Prescott

Year	Bytown		Prescott	
	Imports	Exports	Imports	Exports
1850	£ 1,366	-	£ 14,423	£ 5,850
1851	-	-	30,612	8,231
1852	20,601	-	42,896	20,768
1853	40,157	2,934	47,274	13,740
1854	65,125	-	116,852	16,768
1855	52,786	33,046	108,398	49,671
1856	83,730	26,360	167,893	100,148
1857	70,884	9,083	119,105	102,574

Source: Province of Canada, Tables of Trade and Navigation, 1853, Table 28; *ibid.*, 1857, Table 17.

Of particular interest are the export columns. In 1855 Bytown experienced a tremendous upsurge in exports, from a nil figure in 1854 to £33,046 in 1855. This was short-lived, however, and the following two years showed a steady decline. A similarly spectacular growth in exports in the year following the completion of the railway is evident for Prescott, although in this case the initial increase was not only maintained but augmented.

While Bytown did not maintain its 1855 export levels, imports grew steadily after 1854. It is not known whether the Bytown and Prescott railway was a major factor in this instance, since a large increase was registered between 1853-54.

The experience of Brockville and Kingston, two other distribution centres on the St. Lawrence, may shed some light on what was occurring at Prescott. The Reciprocity Treaty appears to have had much less of an impact on Brockville. For the period 1850-1857 Brockville's best export year was 1852. Indeed Brockville was a more important import/export centre than Prescott between 1850 and 1853; however, between 1854 and 1857 it was rapidly superseded by Prescott in both categories. This would tend to suggest that the railway was a factor in establishing Prescott's superiority. Insofar as Kingston is concerned, no major change in export values is discernible between 1854 and 1857. Imports, on the other hand did increase dramatically.

In conclusion, one may well wonder whether the railway realized its goal of tapping the lumber market, whether lumber (presumably sawn) was the principal freight item, and what effect the first railway to be operated in the region had upon the economy.

Unfortunately there is insufficient evidence to give concise answers to these questions. As mentioned in an earlier context, the records of the Bytown and Prescott and subsequently Ottawa and Prescott were destroyed in a fire. Figures for classified freight tonnage became available only in 1874-75, by which time the five-mile Chaudière branch had been completed. Hence it cannot be deduced from traffic figures whether the absence of this extension prior to 1871 had in fact the baleful effect attributed to it by more than one writer.

That the railway was bankrupt by early 1865 has been cited already. A cautionary word at this point is in order concerning the financial practices frequent in railway promotion a century ago, whereby it was not unknown for a railway to return a profit to its promoters whilst bankrupting creditors. Research on the subject of the management of the Bytown and Prescott-St. Lawrence and Ottawa has not shed any light on the relative integrity of the company's management through its various vicissitudes and therefore the question remains a matter of conjecture.

Several historians have attributed the line's financial malaise to the initial failure to locate the terminal in the midst of the lumber depots at the Chaudière Falls, and hence the company's failure to tap the lumber trade at the crucial point. According to a more or less contemporary account by J.M. and Edward Trout, published in 1871, the consequence of the action of the directors' self-interested decision was that "lumber traffic is not one-fourth what it would have been had the original project been adhered to."⁷⁵ Several other historians concur in this view. Further factors adversely affecting the line's operations were the temporary interruption in 1862 of consignments of stone for the new parliament buildings, not to mention an economic recession combined with a bad harvest.

With access to classified freight tonnages from 1874 (see: Table 3) some deductions may be made concerning the railway's operations until its take-over by the CPR in 1885. For the seasons 1874-75 and 1875-76 lumber constituted only 19.7 and 15.5 per cent respectively of total freight tonnage. The following year lumber shipments rose to 28.9 per cent of freight tonnage, thereafter continuing a fluctuating increase to a peak of 42 per cent of total freight carried for the season 1881-82. For the few remaining years of the St. Lawrence and Ottawa's autonomy,

the percentage for lumber shipments declined, constituting 22.5 per cent of the total in 1883-84 and 14.6 per cent for the partial season July 1884-February 1885. Be it noted that lumber shipments on the St. Lawrence and Ottawa constituted the largest portion of total freight tonnage only for the period 1879-84; for the rest of the period manufactures exceeded lumber shipments.

Concurrent statistics for the period 1874-85 enable a comparison to be drawn, with reservations, between the lumber (presumably sawn lumber) carried on the St. Lawrence and Ottawa with the same commodity shipped by the Rideau Canal. It should be noted that the seasons do not always exactly coincide, the railway figures being frequently based on the fiscal year, and the canal on the calendar year. The latter figures also are broken down into many more categories than those for the railway. In 1874, 9,735 tons of sawn lumber were carried by the railway, compared with 13,878 of the same on the canal. In 1876 sawn lumber shipments on the canal were 10,915 tons compared with 7,565 for the season 1875-76 on the railway. In the season 1876-77 sawn lumber shipments on the railway (12,987 tons) exceeded those on the canal (12,016 tons) for the first time. Thereafter St. Lawrence and Ottawa sawn lumber shipments exceeded those on the Rideau Canal by approximately 2,000 tons until 1878-79, when lumber shipments by railway began rapidly to pull away from canal shipments. For example, in 1879-80 railway shipments exceeded canal shipments by approximately 5,000 tons, and in the 1880-81 season were nearly triple those routed through the canal (24,769 tons compared with 8,425). The following season (1881-82) the St. Lawrence and Ottawa shipped over five times the tonnage of sawn lumber that went by the canal (41,566 tons compared with a mere 8,103 tons). On the other hand, the following year (1882-83) canal shipments began to narrow the gap (19,315

tons by railway and 12,510 by canal). (It may be noted parenthetically that the figures for this season were based on the fiscal year for the railway and the calendar year for the canal.) In the course of the 1883-84 season, canal shipments overhauled railway shipments: railway sawn lumber freight tonnage stood at 7,776 tons, whereas 12,510 tons went by the Rideau in 1883 and 16,117 in 1884. Because of the CPR take-over railway figures for 1884-85 cover the period 1 July-28 February only, but even so exceeded the canal tonnage for 1885 by more than 1,000 tons. It follows then that for the four year period 1879-83 sawn lumber tonnage via the St. Lawrence and Ottawa greatly exceeded that shipped by canal, but that from 1874 to 1875-76 canal tonnage for this particular commodity exceeded that carried on the railway.⁷⁶ It appears from these figures that the St. Lawrence and Ottawa was an able competitor of the canal for sawn lumber, but it may be noted that the canal's navigational season was from May to November, and, more importantly, that sawn lumber constituted the bulk if not all of the railway's trade in forest products, whereas sawn lumber comprised only a proportion of the forest products conveyed by the canal. It is a pity that our figures are for so brief a period for the Brockville and Ottawa Railway, which one surmises realized to a greater degree the designation of a lumber road.

Table 3. St. Lawrence and Ottawa

Year	Tons of Lumber Carried	% of Total Freight	Number of Board Feet (based on a conversion factor of 600 board ft/ton)
1874-75	9,755	19.7%	5,853,000
1875-76	7,565	15.5	4,539,000
1876-77	12,987	28.9%	7,792,200
1877-78	16,768	31.9	10,060,800
1878-79	16,368	37.8	9,820,800
1879-80	19,491	33.9	11,694,600
1880-81	24,769	28.2	14,861,400
1881-82	41,566	42.0	24,939,600
1882-83	19,315	33.0	11,589,000
1883-84	7,776	22.5	4,665,600
1884-85*	3,698	14.6	2,218,800

* $\frac{2}{3}$ of year only.

The final column in Table 3 enables us to place the St. Lawrence and Ottawa Railway lumber trade in some perspective. According to C.C.J. Bond (*The Ottawa County*, p. 36), lumber production in the Ottawa area was as follows:

1859	ca. 25	mbf
1868	100	mbf
1871	250	mbf
1886	288	mbf
1896	343	mbf

Assuming an average annual production of 250 mbf between 1874-75 and 1883-84, it seems clear that with the exception of 1881-82, when the railway would have carried approximately 10 per cent of the sawn lumber cut, the St. Lawrence and Ottawa was at best a minor route, seldom transporting more than 1/20th of the lumber production of the Ottawa mills.

The Brockville and Ottawa Railway 1853-78

The second railway in the region was also conceived as a lumber road, and like the Bytown and Prescott it too had a slow birth amidst financial stringencies. Nonetheless the region offered bright prospects for a railway serving it. The 60,000 square mile area comprising the Ottawa basin, of which only an estimated 1000 square miles was settled in 1856, contained some 37,000 square miles suitable for agriculture. It was then thought, at least by the editor of the *Carleton Place Herald*, that the Ottawa Valley would prove capable of supporting a population of some five million.

The staple export of the Ottawa Valley before the coming of the railway was provided by the square timber trade, with 1,200 ships loading timber at Quebec annually. Two-thirds of the timber came from the forests of the Ottawa Valley. The numerous lumber camps employed 30,000 men, for which 40,000 tons of provisions had to be imported annually, at an average cost of £3-15-0 per ton. Annual savings through the agency of the Brockville and Ottawa railroad were estimated at £90,000.

At the time of the Brockville and Ottawa's inception, the square timber trade based on the United Kingdom market was giving place to the production of sawn lumber for the American market, where there was a keen demand for white pine.

The average price for sawn lumber in the American market was \$16 per thousand feet, and the Chicago market alone had taken something in the order of 300-million feet in three years. The demands of the domestic and the American market for sawn lumber were also on the rapid increase. It was assumed that the sawn lumber trade would prove most profitable to the Brockville and Ottawa because lumber delivered to Upper St. Lawrence ports was shipped to Chicago at an average cost of \$3.50 per thousand, whereas the rate from Saginaw and points on Lake Huron, although a thousand miles nearer Chicago, averaged \$4.50 to \$5.00 per thousand.⁷⁷

Reference has been made to the "railway fever" of the early 1850s in the previous section. A preliminary investigation of possible routes had been made in January of 1853, at the end of which the various promoters returned to Perth, where they were treated to a railroad dinner by the town.⁷⁸

The Brockville and Ottawa Railway was incorporated on 22 April 1853 (16 Vic., cap. 106), to build a railway from the St. Lawrence at Brockville to the Ottawa at Pembroke, via the mouth of the Madawaska River. The route was to lie from Brockville to the Rideau River at or near Smiths Falls, thence to or near Arnprior, the mouth of the Madawaska and so to Pembroke, with a branch line from Smiths Falls to Perth. Initial capitalization was set at £500,000 in shares of £5 each. The first board of directors consisted of: George Crawford, William Matthie, David B. Ogden Ford, George Sherwood, James Shaw, Robert Bell (not known if same Bell of St. Lawrence and Ottawa), Robert M. Watson, Andrew Dickson, James L. Schofield, Charles E. Jones, Reuben B. Holton, and Albert M. Richards. Annual meetings were to be held at Brockville on the first Monday in February.⁷⁹

By May stock subscriptions were being sought throughout the communities and townships along the projected route. As a Ramsay correspondent wrote on the 12th.,

...Things seem to look pretty brisk if you can only keep the people alive to it and get them to take up the stock liberally through the different townships...Your letter is being read to the Public generally in the store this morning ...⁸⁰

The Sheffield firm of Messrs. James Sykes and Company secured the construction contract, signed in Montreal on Friday 2 December 1853.⁸¹ The contract called for a first-class road from Brockville to Pembroke, with a branch from Smiths Falls to Perth, the whole line to be built and in service within three years at a cost of £930,000. Bridges and culverts were all to be of iron or stone, and grades and curves were to be at least up to Grand Trunk standard. There was to be a total of 13 miles taken up by sidings and switches. Up to 20 acres were allotted for each station. Five of the stations were to be of fire-proof brick or stone construction, and there were to be 15 wayside stations. The projected rolling stock included 13 locomotives with tenders, 270 cars of all types and one or more snow-ploughs. To complete the railway stock, a machine shop, infirmary, turntables, good sheds, cranes, switches and signals were called for. By early September 1853 engineers were surveying the route and taking levels at various points. The road was to be open from Brockville to Smiths Falls, some 40 miles, by the summer of 1854.⁸² By 3 November 1853 advertisements were out for ties and fencing contracts. Ties or sleepers were to be of black ash, oak, bastard elm or red pine, and were to be 9 feet in length, 8 inch diameter, and flattened on one side to a 7-inch face. Ties to the number of 40,000 would be required

for the section from Brockville to Smiths Falls, 15,000 from Smiths Falls to Perth, and 27,000 from Smiths Falls to Carleton Place. Ties and fencing materials were to be delivered by contractors along the right-of-way by 1 May 1854.⁸³ The contract price for ties for the section Smiths Falls to Carleton Place was £7-10-0 per hundred. The 10,000 rails to be laid between Carleton Place and Franktown were supplied at £1-2-6 per hundred. Fencing from Brockville to Carleton Place was tendered at £40 per mile, Halifax currency.⁸⁴

The construction contract for the 60 miles from Brockville to Carleton Place, with the branch line to Perth, was sub-let to A. Elliott and Company. By late April 1854 the work was reported well in hand. The whole 60 miles, Brockville to Carleton Place, had been cleared, and grubbing and grading were well advanced. Land titles for the right-of-way were being quickly processed. James Sykes, leading partner in the firm Sykes DeBergue and Company had arrived from London to visit Brockville and points along the projected line of railway. A conference of reeves was held on 20 April 1854 in Brockville, at which a uniform policy was determined on for the issuance of government debentures (presumably municipal).⁸⁵ Five years were to pass, however, before the Brockville and Ottawa was open.

Amending legislation was passed on 19 May 1855, increasing the capitalization to £1,200,000 currency, still in £5 shares. The construction of branch lines was authorized to Newboro, Westport, Merrickville and Richmond. The company was empowered to operate steamers on both the St. Lawrence and Ottawa rivers, but as far as can be determined never did. The line might deviate up to two miles from the plan, and a telegraph line might be installed along the railway. Finally the stock could be put on the London market.⁸⁶

A Time of Troubles

The building of most railways was fraught with financial troubles, to which the Brockville and Ottawa was certainly no exception. The editor of the *Brockville Recorder* asserted in a leader of 8 December 1853 that Bytown interests had opposed the Brockville and Ottawa project in the interests of their own road, the Ottawa and Pembroke Railway, but were now experiencing trouble in their turn financing their line as far as Renfrew. It rather served them right, the editor chortled, in that

the people of Bytown are now reaping the reward of their conduct to the Brockville and Ottawa railway when it was struggling into existence.⁸⁷

The Recorder editor was objective enough nevertheless to acknowledge that after so many bad jokes had been passed in Brockville on the troubles of the Bytown and Prescott, that Brockville must expect retaliation now that its own cherished project was in the doldrums.⁸⁸

The final arrangements for construction of the Brockville and Ottawa Railway were that 60 per cent of the cost should be financed through bonds and paid up stock, and 40 per cent through the issue of Municipal Loan Fund Debentures. But at the rate the work was going, by the time the £350,000 in debentures had been exhausted, only 97 miles of the total 130-mile line would be completed.⁸⁹ The directors therefore passed a resolution that inasmuch as

the contractors have failed to make provision for the payment of the interest on the Municipal Loan Fund Debentures due July 1st, the Municipalities be requested to advance the Company the sum of £2,550, besides the coupons on the Bonds now in the bank, and charge the same against this Company as part of their respective loans.⁹⁰

This resolution was forwarded by the secretary of the company to the mayor of Brockville, the reeve of Elizabethtown and the wardens of Lanark and Renfrew. The Recorder advised that the people, unpopular though this measure was, make the best of a bad bargain, and pay the interest on the debentures, otherwise the government would resort to a special levy on the taxpayers.⁹¹

The railroad company and the town of Brockville were at variance upon the terms on which the municipality had advanced money to the company to build the line. The location of the depot in the town of Brockville was also at issue.⁹² An injunction was filed in the Court of Chancery by the Brockville and Ottawa Railway Company against the town of Brockville on 30 March 1858 demanding that the town council desist from interference with the company's works on pain of a £5,000 fine.⁹³ The company also maintained that the town had not lived up to the financial terms of a previous agreement. The town council defended the action, contending that only 10 per cent of the stock subscribed for in the act of incorporation had been paid up and that the company had failed to pay the interest on the town's loan. Further to that, the road was still unfit for traffic, and would not be so even when the whole amount of the loan from the municipalities had been paid over to the company. The company countered that they had spent £6,000 for two locomotives in April 1858.⁹⁴

The Brockville Tunnel 1854-61

A further source of bedevilment, and one undertaken against the advice of consulting engineer Samuel Keefer on the grounds of expense, was the Brockville Tunnel. Not only did this add to the financial problems facing the company, but as noted above, provided an additional source of friction between the town of Brockville and the railway company.

Contractor for the Brockville Tunnel was Messrs. J. & D. Booth.⁹⁵ The corner stone was laid with "due Masonic Honours" by Adiel Sherwood, one of the original Brockville settlers in 1784, and the Acting Deputy Grand Master of the Masons, "this 16th day of September 1854, in the year of Masonry, 5,854."⁹⁶ A little over six months later, 25 April 1855, the Yorkshire labourers demonstrated, several albeit rather good naturedly, the only damage done being to the secretary's buggy. Their pay was several weeks in arrears, and the contractor complained that he had already sunk £4,000 in the project, presumably from his own pocket, and was unwilling to advance more. The Recorder editor sympathized with the plight of the poor workers, who in effect were labouring without pay. At this point the project was stalled for want of funds.⁹⁷ The contract was taken over by Brown Row and Company, the first 11 cars of lumber passing through the tunnel on 9 May 1860.⁹⁸ When opened the Brockville Tunnel was the first of its kind on the continent.

"A breath of air has passed over the dry bones..."

So opened a leader on the editorial page of the *Brockville Recorder* on 17 January 1856. The Board of Directors had at last bestirred themselves, the editor noted, and advertised for tenders on a new contract. Every effort should be put forth to complete the railway, the editor cautioned that, "care must be taken that we do not, as we have so far done, pay too dear for our whistle."⁹⁹ Clearly one final push was needed.

In February Samuel Keefer reported that location surveys were completed to Bonchere, 92 miles from Brockville, and grading for a distance of 34 miles. Some progress had been made on the long bridge at Smiths Falls.

The Perth branch (Perth to Smiths Falls) was nearly finished, but no work, other than the preliminary survey now completed, had been undertaken beyond Carleton Place. The decision had been made to build iron bridges rather than wooden. No rails or rolling stock had yet been delivered. Keefer calculated the cost per mile as £7,400.¹⁰⁰

In March 1856 a new contract was taken by a Mr. Moore, on much the same terms as the previous one with Sykes DeBergue. Work was to get underway on 1 May 1856, and the line to be opened to Carleton Place by 1 September 1857, to the Madawaska one year later, and through to Pembroke by 1 September 1859. Moore agreed to spend about £20,000 of his own money on the road and went to England to purchase rails for the first 40 miles.¹⁰¹

An attempt to raise money by stock subscription in England failed, for English investors were wary because of a crisis in the Grand Trunk's fortunes. As the editor of the *Carleton Place Herald* saw it (3 July 1856), the road must either be discontinued, or the municipalities must foot the bill with or without government subsidy. So far Lanark and Renfrew had expressed willingness to carry it through, but the municipalities of Elizabethtown and Brockville had yet to be heard from. Lanark and Renfrew had subscribed £250,000, and it was expected that Brockville would put up £100,000 and Elizabethtown £50,000, but the latter had not yet been voted on. In return for this aid, the municipalities were to be represented on the board of directors, and the superintending engineer was to be responsible to the municipalities.¹⁰²

By 10 July 1856 arrangements had been completed to complete the road as far as Arnprior without delay. A director was to go to England for the purchase of rails sufficient to lay track as far as Carleton Place, and the rolling stock was to be bought in England.

In the interests of economy, however, the company reverted to wooden bridges, and single rather than double track.¹⁰³

The new board of directors elected in July 1856 included only three members from its predecessor - George Crawford, George Sherwood and Albert M. Richards. The newly elected directors were Reuben P. Colton, Hon. James Morris (a former Postmaster-General and member of the Legislative Council), Eleazar F. Whitmarsh, James Bell, R. Matheson, Richard Shaw, Alexander Moffatt, John Scott and John S. Beckwith. Brockville had voted another £16,000 issue of debentures to aid the project. The township of Elizabethtown seems to have been the most reluctant of the municipalities from editorial comment current at the time.¹⁰⁴

On 25 September 1856 the directors met at Smiths Falls to open tenders for grading, fencing and bridging the line through to Arnprior.¹⁰⁵

By 21 June 1858 a Smiths Falls correspondent reported that 4½ miles of permanent way was laid out of Smiths Falls, and single track laid from the Canal Basin, Smiths Falls, a distance of 3½ miles "to the ballast field." Despite the previous decision to buy the rolling stock in England, the first two locomotives were ordered from the Ontario Foundry, Kingston, and delivered to Smiths Falls, obviously by canal. They carried the name-plates *Ottawa* and *St. Lawrence*, and were "finished in a very superior style." The locomotives made quite an impression in Smiths Falls, for in the words of the same correspondent:

The iron horse is causing great excitement amongst us. Crowds of spectators are daily & hourly standing in dread astonishment, witnessing his movements as he smokes along.¹⁰⁶

By early November 1858 only 8 or 9 miles of track were still to be laid between Brockville and Smiths Falls, and 7 or 8 miles on the Perth branch. The Perth-Brockville section was expected to open the following month. The stonework of the bridge over the Rideau at Smiths Falls was nearly finished.¹⁰⁷ A temporary work stoppage occurred late in November, caused by the seizure of debentures by the Bank of Upper Canada "to cover last month's estimates." The *Rideau Gleaner* (Smiths Falls) editor feared that unless arrangements were made with the bank immediately, the long-deferred railway would not be finished before the spring.¹⁰⁸ Apparently the trouble was resolved quickly, for the Brockville and Ottawa Railway opened for service on 25 February 1859.

Opening of the Line

The editor of the *Brockville Recorder* had been a staunch supporter of the Brockville and Ottawa Railway from its inception, and so not surprisingly he was included on the first excursion over the line from Brockville to Perth on 10 January 1859. Leaving Brockville at 9:00 a.m., the run to Smiths Falls was without incident. The track seemed in good shape, except for a short unballasted section a few miles from Smiths Falls. Leaving this point at 11:00 a.m., the excursion was so beset with misadventure that, in the words of the *Recorder's* editor, their progress became "a complete epitome of the history of the road from its first inception, stopping, backing, changing, with no one apparently capable of solving the difficulties."¹⁰⁹

Basically the trouble was the weather which was bitterly cold on leaving Smiths Falls, with the thermometer sliding to 40°F below zero by five in the afternoon. Snow had caked on the rails between Smiths Falls and Perth,

consequent upon rain which had fallen a few days previously. With a covering of glare ice on the rails the driving wheels of the locomotive had no purchase and futilely spun on the icy surface. (There is no mention of use of the locomotive's sander, but whether utilized or not, the device was ineffective.) Having failed to make any headway out of Smiths Falls, the decision was made to back the train back to the station, allowing the disillusioned excursionists to dine there, whilst another locomotive was dispatched to clear the way for the train to make a second attempt. Luncheon over in Smiths Falls, the train set out for the second time, apparently with two engines double-heading, but again the attempt was abortive. The forward engine's cow-catcher caught up the snow in the centre of the track, so distributing it that again the train was stalled, forced to admit defeat, and return in reverse the second time to Smiths Falls. At this point the enthusiasm of the excursionists had long since waned; several Smiths Falls gentlemen called it a day and went home, and two excursionists from Brockville decided to return thence by stage, arriving some three hours before the return train.

A third attempt on Perth was made, but the comedy of errors had not yet run its course. The locomotive ran out of water, and a halt was called while water was fetched for the boiler. Under way once again, the travellers concluded that nothing further could go wrong, but in this they were disappointed, for about $1\frac{1}{2}$ miles out of Perth the couplings between the first and second coach parted, "leaving a car full of most consummate grumblers, all alone in their glory, till the engine returned from Perth with a rope to hitch to the car." At length the train pulled into Perth at about 6:45 p.m., having completed the forty-mile run from Brockville in all of $9\frac{3}{4}$ hours.

Tea was had in Perth, after which the train set out on the return run about 8:00 p.m. But if the weary travellers thought that they would have an uneventful return trip to their no doubt welcome beds, again they were mistaken. A derailment delayed them another three hours, the train finally pulling in to Brockville at 3:30 a.m., the bone-weary excursionists, in the words of the editor, "never to forget the first trip to Perth on the Brockville and Ottawa Railroad."¹¹⁰

A second excursion was nevertheless mounted later in the month, for members of the Perth town council and the county councils of Lanark and Renfrew. This one passed without incident. Leaving Perth at 9:15 a.m., the train arrived in Brockville at 11:40, where a sumptuous meal was laid on at the Wilson House, after which the train returned the celebrants to Perth by 6:00 p.m. The editor of the *Perth Courier* ventured to predict that the road would be second to none when properly ballasted.¹¹¹

Regular service on the Brockville and Ottawa Railway opened on the morning of 1 February 1859 between Brockville and Perth, 40 miles, daily except Sunday, the run taking 2 hours 45 minutes southbound, and 2 hours 35 minutes northbound. The fare from Perth to Smiths Falls was \$0.40 and Perth to Brockville \$1.50.¹¹² The following rates (1859) for the Brockville and Ottawa Railway, with comparative freight rates, where available, for the Rideau Canal (1858) were in effect:

	Railway	Canal
1 st class goods	0.35 per 100 lb.	
2 nd " "	0.25 " " "	
3 rd " "	0.18 " " "	
4 th " "	0.14 " " "	
Flour	0.20 bbl. (\$1.80 - 2.00/ton)	\$0.60/ton
Pork	0.30 " (\$2.10 - 2.40/ton)	0.40/ton

Wheat	0.06 bu. (\$2.00/ton)	0.60/ton
Cement, fire clay & sand	0.25 bbl. (\$1.75 - 2.00/ton)	0.20/ton
Lumber	1.50 ton	0.80/1000ft*
Cattle and horses	14.00 car load	
Clap boards, slaves, lathes	12.00 car load ¹¹³	

* \$1.33/ton

For the five classes of freight for which there exists comparative data, the railway was roughly three times as expensive as the canal. An exact comparison is not possible since the Canadas converted to the short ton (2000 pounds) in 1859, and it is not known whether the railway rates were established while the long ton (2240 pounds) was still in effect. Nevertheless, the above comparisons (which are based on the short ton) are close enough to provide an excellent indication of the relative costs of each facility. On an individual item basis, it is interesting to note that the rate variance was smallest in so far as lumber was concerned (1:166), possibly because the line was designed to tap the sawn lumber trade. While it should be borne in mind that the railway effectively ran at a right angle to the canal, locational factors, speed and year round operation rather than costs, provided the railway with its main competitive advantages.

The Brockville and Ottawa's passenger schedule posted 15 February 1859 showed one train a day in either direction:

lv. Perth	8:10 a.m. (Perth time)
arr. Brockville	11:20 a.m.
lv. Brockville	5:15 p.m. (Brockville time)
arr. Perth	7:55 p.m.

Two features of this service were that travellers could return the same day, and that passengers leaving Perth on the morning train, with the Grand Trunk connection at Brockville, could be in Toronto or Montreal the same evening. The 'Perth time' and 'Brockville time' notations read strangely to modern eyes, until it is remembered that the inestimable convention of Standard Time is less than a century old.¹¹⁴

Beginning 14 March 1859, a connection for Ottawa was provided Brockville and Ottawa Railway passengers at Prescott Junction, via the Ottawa and Prescott and the Grand Trunk systems. Leaving Perth at 8:30 a.m., the traveller made connection with the Grand Trunk at Brockville at 1:00 p.m., and at Prescott Junction with the Ottawa and Prescott at 2:30 p.m.¹¹⁵ It was a roundabout route to be sure, but the Brockville and Ottawa had no connection with Ottawa until the opening of the Canada Central from Carleton Place to Ottawa in 1870. Still the Brockville and Prescott Junction railway connections probably provided a shorter trip than taking the stage direct from Perth to Ottawa, and undoubtedly would be much more comfortable.

The first serious mishap to befall the new railway, other than the death of three railroad men returning from a spree in Brockville on a hand-car, was the collapse of the bridge spanning the Rideau at Smiths Falls on the evening of 22 April 1859. The collapse was attributed to faulty design.¹¹⁶

Late in August 1859, the *Perth Courier* reported the line open to Almonte. A daily stage service was available from Almonte on to Arnprior.¹¹⁷ On 15 September the *Courier* advertised an excursion to Brockville, with steamer connection for a Thousand Islands cruise, and taking in the Brockville Horticultural Exhibition; the return fare was £0-6-3. Leaving Perth at 9:15 a.m., the excursionist

enjoyed a full day, arriving back in Perth at 7:10 p.m.¹¹⁸ A second excursion run by the Brockville and Ottawa Railway offered half-fare to Kingston (courtesy the Grand Trunk), to attend the Provincial Exhibition, 26-29 September. Cattle and produce for display at the fair went for half the normal rate.¹¹⁹ Such were the bargain rates offered the first summer of the road's operation.

Not Out of the Bush Yet 1859-74

Behind the scenes the Brockville and Ottawa was labouring under the same financial burden as the neighbouring Ottawa and Prescott. The company owed money to the municipalities, had reneged on payment of principal and interest, and still was far from completion. Even before service opened, the *Perth Courier* was clamouring over payment of a £200,000 loan by the town council and bemoaning the fact that the municipal nominees to the board of directors had failed to gain any satisfaction.¹²⁰ A week later the editor attributed the failure of the town's railway interests to factionalism on the town council, and charged that the ratepayers were about to be saddled with increased rates to cover the £200,000 loan. A financial statement from the company was much needed, he averred, but was being blocked by interested parties on the town council.¹²¹ On 18 February 1859 the *Courier* editor noted that the Bytown and Prescott's creditors had requested appointment of a receiver, and that the Brockville and Ottawa owed the municipalities the aggregate sum of £350,000, which they in turn owed the Municipal Loan Fund.¹²² Then in April came the not unexpected news that the sheriff in Brockville had seized debentures, valued at \$19,000.¹²³ In July 1859 the *Perth Courier* despaired of the line ever paying for itself until it had been completed to the Ottawa, and

preferably to Pembroke. Sale of the road to the Grand Trunk, the paper contended, was the surest solution to overcome the present pretty pass which had been reached through mismanagement, and to relieve the municipalities which were labouring under increased rates to redeem their loans.¹²⁴ A year and a half later, the editor of the *Brockville Recorder* wrote that the line would never be completed until the municipalities withdrew their lien, and also noted that the rate-payers of Lanark and Renfrew were disturbed at the company's proposal to issue £100,000 in preferential bonds, "which would reduce the lien held by the Municipalities to that amount." The editor reported that £70,000 worth of the preferential bonds would be set aside for the extension of the line to Rody's Bay and the purchase of rolling stock, and that the amounts owing to the various contractors would be paid from the remaining amount, not to exceed £15,000.¹²⁵

The solution offered by the government was in the form of legislation (25 Vic., cap. 60) passed on 9 June 1862. The preamble of the act observed that although the line was through to Arnprior, the means available to the company to finish the job were inadequate. The act authorized the company to transfer its property and rights to a new company to be formed in England. The bonds might also be converted to stock in the new company. The capitalization was reduced to £550,000 sterling.¹²⁶ The Relief Act (27 Vic., cap. 57), given royal assent 15 October 1863, recognized the need for re-organization, the company having been unable to pay the interest on their mortgages and bonds. The company was enabled to issue preferential bonds in the amount of £60,000 sterling, to finance completion of the line to the Ottawa River, either at Arnprior or Rody's Bay, and for the equipping of the railway. The bonds, principal and interest, were to be a first charge on the

company after the claims of the municipalities (United Counties of Lanark and Renfrew, Town of Brockville and the Township of Elizabethtown), to secure which the company was authorized to mortgage the whole line with all its appurtenances, finished and unfinished.¹²⁷

Further legislation passed 18 September 1865, granted a five-year extension for completion of the line from Arnprior to Pembroke, the head of steel having reached Arnprior "during last year."¹²⁸

On 1 February 1868 further financial re-organization was called for. The company's president, B.P. Cooke, petitioned the lieutenant-governor of the province for legislation authorizing financial arrangements effected by the company.¹²⁹ In March the Ontario legislature passed enabling legislation which conferred the government's fiat on the company's arrangements. The present stock and all bonds were converted to new stock by the shareholders and the capital stock was reduced to \$500,000. Bonds were converted to the new stock at the rate of 50 cents on the dollar, and old paid-up stock to the new at the rate of 10 cents to the dollar. After the passage of this act (4 March 1868), holders of the old stock had no further claim on the company.¹³⁰ In 1874 relief was afforded the municipalities whose indebtedness to the Municipal Loan Fund of Upper Canada was reduced by the Ontario legislature to the sum of \$556,292.16, and this amount was lent to the Brockville and Ottawa Railway Company. The company was authorized to issue preferential mortgage debentures to cover this loan, bearing interest at 5 per cent. These debentures were to be the first charge on the company, payable to the treasurer of Ontario.¹³¹

Brockville and Ottawa's Operations: The Final Years

1865-77

The lumber road's final years of autonomy witnessed a surge both in freight and passenger traffic. In 1865 the Brockville and Ottawa carried 28,845 tons of freight, and in the season 1871-72 no fewer than 113,167 tons, nearly a four-fold increase. In the final two years for which figures are available freight tonnage fluctuated, declining to 72,838 tons in 1875-76, rising to 85,505 tons the following season.¹³²

It is unfortunate to say the least that we have classified freight tonnage for the Brockville and Ottawa for three seasons only. In the thirteenth annual report of the Brockville and Ottawa Railway for the season 1875-76, the directors regretted the decline in the lumber traffic, hitherto their greatest source of revenue, because of the depressed American market.¹³³ Yet that very season the aggregate lumber tonnage shipped on the B&O, 44,727 tons, comprised 61.4 per cent of the total freight traffic on the line,¹³⁴ compared with the modest 7,565 tons of lumber shipped on the St. Lawrence and Ottawa the same season, constituting a mere 15.5 per cent of the latter's aggregate freight tonnage. Even in 1881-82 lumber shipments on the St. Lawrence and Ottawa were only 41,566 tons, 42 per cent of total freight for the season. Lumber shipments on the B&O rose to 53,571 tons, (62.65 per cent of total freight) in 1876-77, the last year for which returns are available. It is evident that the St. Lawrence and Ottawa does not compare with the Brockville and Ottawa as a lumber road.

Turning to passenger traffic, the B&O's passenger trade increased almost two-and-a-half times from 1866 to 1871, the figures being 39,747 and 93,091 respectively. Over the course of the next five years, however, the railway's passenger business declined steadily to 51,680 in 1876,¹³⁵ a drop of 49.4 per cent.

A business depression in the United States was blamed, particularly for the effect on lumber shipments, as was a rate slashing campaign on the American lines which meant that the eastern seaboard market could be supplied more cheaply from Michigan and points west than from Canada. The company in June 1876 reported the line nearly through to Pembroke (exact date when opened to traffic not known), which¹³⁶ was expected to have a restorative effect on freight traffic, presumably lumber. Whether this proved to be the case cannot be confirmed in the absence of further figures.

Before moving on to company returns, it is *apropos* to mention that during this period of the 1870s, the company's chief officers were one and all Brockville residents. H.L. Redhead was president, C.H. Redhead (relationship unknown) secretary and treasurer, Archer Baker and the Hon. A.B. Foster, general-managers, H.A. Alden mechanical superintendent, and T.A. McKinnon was general superintendent.¹³⁷ An inventory of the company's property dating from 1875, may also be of interest:

length of the main line	45½ miles
" Perth branch	12 "
" of road with iron rails	57½ "
" sidings	7 "
weight of rail main line	60 lb. per yd.
" " sidings	56 " "
no. engine houses & shops	3
" engines	9
" 1 st class passenger cars	4
" 2nd " emigrant cars	1
" baggage & mail cars	3
" cattle & box cars	25
" platform cars	148
" level crossings	42

" overhead bridges	1
" railway junctions	2
gauge	5'6" ¹³⁸

Turning from rolling stock and equipment, what may be concluded from the company's returns? For the year 1871-72 returns for the Brockville and Ottawa were the following:

gross earnings	\$275,431.99
operational expenses	180,615.45
net earnings	94,816.54 ¹³⁹

In 1875 gross earnings of the road came to \$238,467.32, against which must be written off \$176,862.67 in operational expenses. The break-down for revenues was the following:

passenger traffic	\$ 66,869.16
freight "	165,367.68
mail & express	5,487.48
Misc.	743.00

The company's operational expenses were made up of:

maintenance line and buildings	\$ 73,551.68
repair of engines	10,896.58
" cars	10,052.37
general operating expenses	82,362.04 ¹⁴⁰

On the face of it the company was making money, albeit at a modest rate. Its total capitalization in 1875 was \$1,331,980, of which \$483,980 was made up of ordinary share capital, and \$848,000 of bonded debt.¹⁴¹ Finally the company's financial returns for the year ending 30 June 1877 gave the following picture:

ordinary share capital authorized	\$500,000
" " " paid-up	495,600
bonds authorized & paid-up	292,000 @7 per cent
debentures " "	556,000 @5 " "
total capital authorized	\$1,348,000
" " paid-up	1,343,600

all government loans discharged
by issue of 5 per cent debentures¹⁴²

The Canada Central Railway: Amalgamation 1861-78

The Brockville and Ottawa's days as a separate entity by 1877 were far spent. In 1856 a railway known as the Canada Central was chartered to build a railway from somewhere on the shores of Lake Huron, via Ottawa, to Quebec. This vague mandate had lapsed, but in 1861 (24 Vic., cap. 80) the Canada Central Railway was chartered to build from Lake Huron to Montreal via Ottawa.

In September 1870 the first section of the Canada Central had been completed. This comprised a line from Carleton Place into Ottawa, the second railway to give access to the capital.¹⁴³ At Carleton Place, the Canada Central coming out from Ottawa met the Brockville and Ottawa, which hitherto had had no rail access to Ottawa, other than by the cumbersome roundabout route already referred to via the Grand Trunk and the St. Lawrence and Prescott. The two lines were run in conjunction, providing Brockville traffic direct access to Ottawa. The Canada Central, at this initial stage only 28.5 miles in length, operated three locomotives, six passenger cars, two baggage cars and 45 freight cars. In its first year of operation it carried 28,540 passengers, and its balance sheet looked like this:

gross earnings	\$32,411.20
operational expenses	25,058.84
net earnings	7,352.36

Canada Central's board of directors was made up of the following:

H.L. Redhead, Brockville, president
A.B. Foster, Waterloo, vice-president

A.R. Chaffee, Montreal, secretary & treasurer

H.P. Alden, " general superintendent

S.A. Mackinnon, Brockville, local superintendent

All but Chaffee's name also appeared on the 1875 Brockville and Ottawa Board.¹⁴⁴

For the season 1874-75 the Canada Central carried a total of 88,461 passengers and 35,317 tons of freight. Its receipts came to \$125,458.29 and expenses to \$98,296.79.¹⁴⁵

On 10 May 1878 the Brockville and Ottawa amalgamated with the Canada Central, under the title Canada Central Railway Company, with capitalization of \$3-million, distributed in \$100 shares.¹⁴⁶ The two railways, operated in conjunction since 1870, henceforth formed one entity.

Acquisition by the CPR: The Brockville Branch

In 1881, shortly after the formation of the CPR syndicate, the Canada Central was acquired by the Canadian Pacific and thereafter operated as the CPR Brockville branch; as will be recalled, the St. Lawrence and Ottawa was soon to be taken over as well.¹⁴⁷

The earliest CPR time-table found (1882) for the 75-mile Brockville-Ottawa service lists three expresses daily, except Sunday, in either direction, with running times varying from 3 to 3½ hours.¹⁴⁸ A time-table dated 2 November 1885 shows three mixed trains a day Ottawa to Brockville, one mixed train to Carleton Junction (later Carleton Place), and two expresses Ottawa to Smiths Falls. A 3½ hour Ottawa-Brockville service made frequent stops:

Ottawa lv.	10:00 a.m.
Bells Corners	10:29
Stittsville	10:45

Ashton	11:10
Carleton Jct.	11:35
Smiths Falls	12:20 p.m.
Irish Creek	12:40
Bellamy's	1:05
Brockville arr.	1:30 ¹⁴⁹

For some reason the expresses operated only from Brockville to Carleton Junction, and from Smiths Falls to Ottawa. The only through train from Brockville to Ottawa was a mixed train, which took 3½ hours for the run.

The 1895 time-table indicates two through trains daily each way, plus locals operating between Ottawa and Smith Falls and between Carleton Junction and Brockville.¹⁵⁰ By 1901 the CPR time-table indicated a daily through train each way, with running times of 2½ hours for one, and 2 hours 40 minutes for the other, Ottawa to Brockville, daily except Sundays. In addition, there were two locals daily between Ottawa and Carleton Junction, and one local daily to and from Smiths Falls.¹⁵¹ The latest time-tables seen (1915) indicate similar service.¹⁵²

Passenger trains no longer roll on the CPR Brockville branch, the service having been discontinued between Ottawa and Brockville on 24 January 1966, although the CNR instituted a passenger service from Ottawa to Toronto, via Smiths Falls and Brockville, the same day. These trains have running rights over the CPR line from Smiths Falls to Brockville, once a part of the old Brockville and Ottawa Railway.¹⁵³

The Brockville, Westport and North-Western 1873-1912

This 45-mile line with the grandiose titles provides an intimate view of a railway's inception, financing and operation. By comparison with such undertakings as the

Grand Trunk and the Canadian Pacific, the drama of the Brockville, Westport and North-Western is enacted upon a very small stage indeed, notwithstanding which its story is not without significance in a study of land communications within the Rideau region. Further to the purpose of this study, the Brockville and Westport provides the researcher with a longer run of passenger and freight statistics than either of its two predecessors in the region; unfortunately these figures are not contemporaneous with those of the Brockville and Ottawa or the St. Lawrence and Ottawa, for the Brockville and Westport was a later venture spanning the turn of the century.

The Brockville and Westport Railway made an abortive start. It was incorporated by act of the provincial legislature (34 Vic., cap. 45) in 1871, but for a full thirteen years it remained a dead letter.¹⁵⁴ This premature birth of the little venture was at last given a solid base in 1884, with a second act of incorporation (47 Vic., cap. 63) passed by the Provincial House on 25 March.

The Brockville, Westport and Sault Ste. Marie Railway 1884-1903

The prospectus of the newly-chartered line was nothing if not ambitious. With an authorised capitalization of \$10-million, put on the market in \$100 shares, the line was to be begun in three years and completed in six. Standard gauge was chosen. The following gentlemen were listed as principals: George Taylor Fulford, John Fisher Wood, Robert H. Preston, William Hartsnell (or Hartwell) Fredenburgh, William Chester Stevens, John Roddick, Rufus Brown, James Cumming, James Beatty Saunders, Robert J. Jelly, and George Hutcheson.¹⁵⁵ Further legislation in 1885 limited grants in aid to \$128,000 for what was then considered the

initial stage from Brockville to Westport. (This 44.5 mile line was to be the sum total of track laid and operated by the company.) An order-in-council dated 28 April 1886, set a deadline for completion of the road to Westport of 1 August 1889.¹⁵⁶ The following year the Ontario legislature set a time limit of eight years for completion of the line to Sault Ste. Marie, and authorized the Brockville and Westport to amalgamate with any of the following lines, the latter two of which were and remained mere "paper" railways: the Irondale, Bancroft and Ottawa; the Kingston and Pembroke; the Ottawa and Thousand Islands (little more than a vestigial railway); the Northern Pacific Junction and the Gananoque, Perth and James Bay. The Brockville and Westport could negotiate running rights with any of these that had track laid to run on, or with the Canadian Pacific.¹⁵⁷

Although the Brockville, Westport and Sault Ste. Marie was never to realize its goal, neither did it remain in the numerous company of the "paper" railways. Work began on 11 January 1886, and the first 40 miles opened in 1888. The company began service with 2 locomotives, 1 passenger car, 1 baggage car and 30 freight cars. Its share capital stood at \$1,125,000, of which \$60,000 was paid up, and a number of first mortgage bonds had been issued. The cost of the road was \$638,210, and the contractor was R.G. Hervey.¹⁵⁸

The company's annual report for the year ended 30 June 1888, when the line opened for service, gives further financial details. Dominion government bonuses amounted to \$128,000, and municipal grants in aid to \$116,000 made up as follows:

Brockville	\$36,000
Elizabethtown, (part of)	7,000
rear of Yonge & Escott	15,000
" Landsowne	5,000
Bastard and Burgess	28,000

South Crosby	6,000
Newboro village	4,000
North Crosby	15,000 ¹⁵⁹

The track had been laid on what was to be the final section, Lyn to Westport, but not yet ballasted.¹⁶⁰

The annual report for the year ended 30 June 1889, listed the following Board of Directors:

W.H. Cole, Brockville	
I.F. Wood, M.P., also of Brockville	
D.W. Downey	"
Robert Bowie	"
George H. Weatherhead	"
H.F. Fitzsimmons	"
Daniel Derbyshire	"
W.B. Smellie	"
Samuel Thomas	New York
James Mooney	Brockville
Samuel Elliott	New York ¹⁶¹

It will be noted that the above Board of Directors included none of the principals or promoters of the company appearing in 1884. There had been no addition to the rolling stock. The cost of the rolling stock and workshops was \$37,000, land and damages \$36,500, and for grading, masonry, bridges and stations \$564,710, making an aggregate of \$638,210 for the railway. The line was laid with 56 pound steel rails, and the radius of the sharpest curve was listed as 8 degrees. Engine houses and shops numbered but one, there were two junctions with other railways, 35 level crossings and no overhead bridges.¹⁶² Such was the Brockville, Westport and Sault-Ste. Marie Railway on completion, still several hundreds of miles from the ultimate terminus set in its prospectus.

In 1888 there was a new bond issue, most of which was deposited with the Investment Company of Philadelphia, who

advanced money for the further construction of the road. At the same time that the bonds were issued, a trust deed or mortgage was taken on the railway by the Knickerbocker Trust Company of New York, as security for the bond issue.¹⁶³

An Old Story: Bankruptcy and Receivership

To extend the railway beyond Westport further aid was needed. In March 1889 the Ontario government piloted a bill through the legislature granting aid from the Consolidated Revenue Fund, at the rate of \$3,000 per mile to finance the extension a distance of 55 miles, from the line's intersection with the C.P.R. in Oso township to Palmer's Rapids.¹⁶⁴ The subsidy was granted on condition that the project was completed within the time stipulated, and that the completed works (grades, width of cuttings and embankments, bridges and quality of rails) passed inspection by a government appointed engineer.

Then in April 1892 further legislation emanating from Toronto granted the Brockville and Westport a further 8 years to complete the line to Sault Ste. Marie.¹⁶⁵ At that time the Brockville and Westport was still operated by the contractor, and a tariff had not been posted by the company.¹⁶⁶ The only addition made to the company's inventory by 1895 was a second engine house and shops, and another 7 platform cars (rented).¹⁶⁷ By June 1902 the surveyed line extended 25 miles to Sharbot Lake, where a juncture was planned with the Kingston and Pembroke, but grading had not been begun beyond Westport. At that time the Brockville and Westport was running one mixed train per day Brockville to Westport, returning the same day. The main freight commodities were lumber, farm machinery and implements, merchandise, farm and dairy products. According to an engineers report (June 1902) the mineral deposits

in the general vicinity of the line offered good prospects - hematite at Delta (on the B & W), lead sulphide at Upper Rideau Lake, magnetite near Newboro, and zinc and lead at Sharbot Lake.¹⁶⁸

In 1902, although by then in the hands of a receiver, the railway could boast the following improvements. A new 1,800 foot trestle had been built, at a cost of about \$8,000. A new engine house and locomotive shed had been built at Westport for about \$4,000, and 2,500 new ties had been laid. The service nonetheless was accounted poor. The short turn-around of the train forced travellers to stay overnight, rather than concluding their business and returning the same day. Those with extensive business to transact had perforce to stay over two days. Much business was done by telephone as a consequence.¹⁶⁹ There had been little addition to the rolling stock, beyond two locomotives, but the remaining two were nearly worn out. Although the line was said to have good potential since it traversed a prosperous agricultural and stock raising country, it was considered poorly managed.¹⁷⁰

In terms of freight tonnage 1891-1903, the Brockville and Westport's returns showed a very slow increase from a mere 8,638 tons in 1891 to a peak of 18,535 in 1902, and a slight decline in 1903 to 17,899 tons. This was a fraction of what was carried on the other two railways already considered, but of course the latter were more in the nature of trunk lines. After carrying 42,290 passengers in 1891-92, the passenger trade went into decline but rose to 59,457 in 1903-04.¹⁷¹ We shall return to traffic figures later, in order to compare the foregoing with those under new ownership. It is now time to trace the financial fortunes, or perhaps misfortunes, of the ailing Brockville, Westport and Sault Ste. Marie.

By 1893 the Board of Directors had six new faces: Henry M. Hoyt, jr., president, of Philadelphia; Samuel Hunt of Cincinnati; W.G. Parish of Athens, Ontario (on the line); George R. Webster of Brockville; W.C. Fredenburgh of Westport; and E.A. Geiger, secretary.¹⁷² Possibly the only significant point about the composition of the Board at this time was the appointment of an American president; in any case, the ailing enterprise had already fallen into the hands of American interests. Be this as it may, by mid-summer 1893 the Brockville and Westport was heavily in debt, with the following judgements against it:

21 Jan. 1891	G. & J. Brown Mfg.	\$1,248.52
21 Mar. 1892	Ontario Bolt Co.	521.78
12 June 1891	William J. Webster	2,746.94
29 June 1892	James Pearson	1,019.79
27 June 1891	Lewis & Knowlton	1,810.20
21 Oct. 1887	Wm. Donovan	925.39
---	James Baird	255.21
	Total:	<u>\$9,113.70</u>

In addition to the foregoing court judgements, the Brockville and Westport owed money to the following firms:

Rathbun Co.	\$ 733.40
Canadian Lumber	300.00
Faye & Co.	565.00
W.T. McCullough	1,000.00
Geo. E. Ashley	71.00
W.J. Webster	400.00
L. S. Lewis	400.00
for a total of:	<u>\$3,469.40</u>

\$5,014.69 was also due "on old payrolls." Total indebtedness came to \$28,472.02.¹⁷³

Not surprisingly, in the light of the foregoing,

the Investment Company of Philadelphia and Knickerbocker Trust Company of New York, which held \$900,000 worth of the company's bonds, had the road placed in the hands of the receiver in December 1894. The Investment Company of Philadelphia foreclosed receiving a judgement "declaring that the bonds are a first lien on the undertaking, and ordering the Railway to be sold." Thereafter as noted heretofore, the Brockville and Westport was run by the receiver for a number of years, who spent a certain amount on improvements.¹⁷⁴

The Brockville and Westport Return for the year ending 30 June 1896 showed that a total of \$41,580.58 indebtedness had been incurred by the contractor while operating the railroad prior to June 1891, to which was added the receiver's floating debt for operating expenses, presumably for the year 1895-96, of \$2,062.39, for a grand total of \$43,642.97. A breakdown of these two categories of indebtedness follows:

for the first category:	judgements	\$10,285.00
	bills payable	4,319.40
	accounts	14,691.95
	pay rolls	12,284.21
	Total:	\$41,580.58
for the second category:	fuel	851.10
	ties	764.99
	timber	345.70
	misc.	100.60
	Total:	\$2,062.39 ¹⁷⁵

One year later (1897) the company's returns showed the figure of judgements had escalated to \$76,802.25 (bearing 6 per cent), bills payable for ties to \$1,303.31, and the balance owing on a locomotive \$1,151.75.¹⁷⁶

By March 1899 the company had defaulted on payment of the interest on their first mortgage five per cent gold bonds.

The Investment Company of Philadelphia, which held most of the bonds, set proceedings afoot to secure the sale of the railway for payment of the bonds.¹⁷⁷ The total indebtedness of the company as of 30 June 1899 stood at \$108,738.51.¹⁷⁸

On 10 November 1902 it was announced that the Brockville and Westport Railway would be put up for auction at Brockville on 20 January 1903, and that a syndicate had been formed to bid for the line.¹⁷⁹

Before bidding for the line, the syndicate closely investigated the property. The Brockville terminal consisted of a frame 3-storey building, measuring 50 by 60 feet; a newly built engine-house of brick at Brockville was of dimensions 60 by 75 feet, and a frame work-shop 50 feet by 100. The Westport terminal, comprising a station in good repair, freight depot and engine-house, covered about one acre. The company operated in 1902 four locomotives, one of which was found to be in first-class condition, one older but still in very good working order, and two definitely described as old, although presumably still serviceable. Passenger coaches were described as "very fair" but the excursion cars were antiquated. The road-bed was found in good condition, although as recently as 1900 the line had been considered in poor condition. The syndicate regarded the region served by the railway as a productive one and noted that the weekly cheese production on an average was valued at \$20,000. According to the latest census, the population of Westport, near which was a mica mine, stood at 900.¹⁸⁰ Recent improvements included the purchase of one locomotive, two passenger cars, the locomotive shed or engine-house at Westport, fitting up of the stations, the laying of new ties, and the re-building of a trestle; there was reported to be a good balance in the treasury.¹⁸¹ Such then was the state of the Brockville, Westport and Sault Ste. Marie Railway on the eve of the auction.

The Brockville, Westport and North-Western Railway 1903-06

It will be recalled that in December 1894 the Investment Company of Philadelphia and Knickerbocker Trust Company of New York had foreclosed on the Brockville, Westport and Sault Ste. Marie Railway and placed the line in the hands of a receiver.¹⁸² The Philadelphia Investment Company, holding the company's stock and bonds as security, advanced money to the contractor for the operation and maintenance of the line. In December 1902 Knickerbocker Trust foreclosed on the railway's first mortgage (\$1,125,000), forcing the road's sale by public auction at Brockville on 20 January 1903. The auction aroused much interest, for the bankrupt company had a number of creditors. In the words of Charles F. Holm, a member of a New York syndicate which bought the road for \$160,000,

The sale of the Road took place as advertised, at Public Auction at exactly three o'clock on January 20th at the Town Auction Room on the main street in Brockville. The auction room was packed with people, evidently a number of the native syndicate and bondholders and outsiders.¹⁸³

The purchasers of the Brockville and Westport were New York residents, one of whom, Clarence P. King, was president of the Washington, Alexandria and Mount Vernon Railroad, another, Charles F. Holm aforementioned, a solicitor.¹⁸⁴ Significantly, the purchasers were closely connected with Knickerbocker Trust.

Since the former Brockville, Westport and Sault Ste. Marie owed money to a number of Canadian creditors, the sale of the road to an American syndicate threatened, if it did not completely jeopardize, the claims of the former. This led to protracted and closely contested litigation, which will be considered in context. Suffice it to note

at this point that the Canadian creditors had also applied for a charter to the Railway Committee of the House of Commons.¹⁸⁵ As early as February 1903 the reorganized syndicate had been informed that it must apply for a charter also, and that at least five of the 18 directors should be Canadians. On the 18 February the Minister of Railways and Canals authorized the operation of the road *pro tem* by the American syndicate, cited as Holm, Gerken, Schmitt and King.¹⁸⁶ W.S. Buell, the American syndicate's solicitor, writing to Holm on 28 February 1903, informed him that the Railway Committee looked askance on companies owned by foreigners, and that it would stand the syndicate in good stead whilst the charter was pending, to appoint a majority of Canadians as provisional directors; these could be conveniently replaced by syndicate members once the charter had been secured. He himself, if appointed, would undertake always to vote in their interest. Buell's advice was readily adopted.¹⁸⁷

Knickerbocker Trust's foreclosure on the first mortgage of \$1,125,000, which had led to the sale by auction, made necessary complete financial reorganization by the new owners.

W.S. Buell, Brockville and Westport's solicitor, who worked closely with the new owners, believed that his principals had got on to a good thing, inasmuch as the net earnings for the year past were

practically sufficient to meet all expenses and pay interest on the bonds, although the road has been run in the most one horse fashion of any road in this country, with only one train a day each way.¹⁸⁸

Henry Gennerich, a member of the syndicate and president of the United National Bank, regarded the road, on inspection, as a highly lucrative investment.

In conclusion Gentlemen [in a report written to his associates on 25 February 1903] I am pleased to say that I was agreeably disappointed while going over this Road, and when I say to you that my personal opinion is that we have one of the grandest propositions ever offered I am telling you exactly what I think, and I do not believe there is any place where work such as *selling bonds* (italics added) could accomplish more for us personally than in this proposition.¹⁸⁹

One may well wonder whether the road had not been acquired for mainly speculative purposes.

On 1 April 1903 solicitor Buell informed C.F. Holm that he had taken possession of the railway in the name of the new owners, and had re-engaged all the old employees at the same pay.¹⁹⁰

A week later Buell advised Holm to increase the capitalization from \$1-million to \$5-million, and not to issue any more stock than was required from time to time; half the stock to be in preferred shares and half common. He estimated that \$5-million would extend the railway 500 miles from Westport to Sault Ste. Marie, with a branch line to Barry's Bay and another to North Bay, at the rate of \$20,000 per mile.¹⁹¹

New York Syndicate Confirmed 1903

The reader will recall the objection of the Canadian creditors to the acquisition of the old Brockville and Westport property by foreign interests, to the jeopardy of their own claims. This issue was resolved in the spring and early summer of 1903. On 7 May the parliamentary Railway Committee met to deliberate on the rival claims for incorporation.

Claims from divers creditors of the old company aggregated \$125,000. Opponents to the New York syndicate charged that the latter had bought the line for \$160,000 and planned to sell it to the Grand Trunk for \$600,000, turning a handsome, if not an exorbitant profit. The Canadian creditors asserted that they had offered the syndicate \$160,000 for the property, plus all the money expended on improvements and an additional \$50,000. Acting for the syndicate, Holm offered to sell the railway to the Canadian creditors for what the syndicate had paid for it, plus the money spent on improvements and 6 per cent, on the condition that the sum be paid over in cash. As foreseen by the syndicate, the offer was rejected. The syndicate then made a second offer to the creditors, which they also anticipated would be refused: a transfer of \$38,000 in subsidies and \$12,000 of common stock.¹⁹²

Intense lobbying on the part of the aggrieved creditors followed in the Railway Committee. James Cooper, who had a strong interest in the Dominion Wire Manufacturing Company, appealed to the Prime Minister for settlement of an outstanding claim totalling \$67,688.55 with accumulated interest since 1892 of 6 per cent, as well as for the interests of Canadian creditors in general.¹⁹³ The lobbyists contended that no charter should be granted the new company until the claims against the old had been settled. Buell countered that the claim did not make sense when the new company was asking nothing for that portion of the line already built, and that this was an issue between the creditors and the bankrupt company. Meanwhile solicitors for one group of creditors offered to settle for 40 cents on the dollar, and another for 50 cents.¹⁹⁴ The outcome of this litigation, in a judgement rendered a year later (May 1904), was that the creditors' sole claim was upon the unearned subsidy granted to the old company, which would

be paid by the government once the new company had fulfilled the terms thereof. Furthermore, all creditors were "absolutely foreclosed and barred from any [other] claim or lien whatsoever." Inasmuch as the bondholders of the former company

were parties to the action, and that they themselves brought the action and sold the road and all its assets, thereby taking the purchase money in lieu of their claim upon the Railway and its assets,

it was ruled that they had no claim upon the newly-incorporated company.¹⁹⁵

As early as 28 April 1903 a court order had vested the property rights, privileges and franchise for the Brockville and Westport in Charles Holm, John Gerken, Valentine Schmitt and Clarence P. King.¹⁹⁶ The bill incorporating the new company set up by the American syndicate, to be known as the Brockville, Westport and North-Western (3 Edw. VII, cap. 88), received royal assent on 24 October 1903.¹⁹⁷ Of its passage the company solicitor, W.S. Buell, wrote that it had been the hardest fought successful private bill before Parliament in years.¹⁹⁸

Buell billed the company \$3,212.35 for legal services, although his initial estimate had been for \$1,200. Buell justified the increase on the basis of the complexity and protracted nature of the case. The company eventually paid \$2,500 in cash and made up the balance of \$712.35 by giving him a \$1,000 BN & NW bond and \$1,000 "worth" (par value) of BW & NW stock.¹⁹⁹ It is not known if this represented an accurate valuation of the stocks and bonds (i.e. 35.6 per cent of face value).

Launching of the B.W. & N.W. 1903-05

The first meeting of the newly formed company was held at Brockville on 23 November 1903. The acquisition of the former Brockville, Westport and Sault Ste. Marie was approved, and the directors were authorized to issue bonds to the extent of \$450,000 in one-thousand dollar units bearing interest at 4 per cent semi-annually, 4,500 shares of common stock at \$100 per share, and 4,500 shares of preferred stock at \$100 per share, bearing interest at 6 per cent. The aforementioned 450 first mortgage 20-year gold bonds were secured by the Knickerbocker Trust Company. The following shareholders were listed in the company minute-book, under date 23 November 1903:

Charles F. Holm,	New York	2,210 shares
John Gerken	"	"
Valentine Schmitt	"	"
Clarence P. King,	Philadelphia	"
H.W. Gennerich,	New York	20
Carsten Heilshorn	"	"
Martin Zimmerman	"	"
A. Bernard	"	"
Robert Bowie,	Brockville	"
William Henry Comstock,	"	"
James Cumming,	Lyn	"
William C. Fredenburgh,	Westport	2 ²⁰⁰

representing a total stock subscription of \$898,200. (According to the Department of Railways and Canals, the company's paid up share capital for the year ending 30 June 1904, was \$900,000.) From the foregoing it will be readily seen that less than one per cent of the stock was in Canadian hands. A further transaction recorded for 23 November 1903 was the sale of the syndicate's interests in the concern to the newly-formed company for \$1,350,000, taking their remuneration in the company's securities

to that amount. The sum of \$759,620 was paid back to the 23 members of the syndicate and public subscribers, from which it was deduced that the profit to the syndicate and the subscribers was \$67,460.²⁰¹

The board of directors of the re-organized company, recorded in the minute-book this same 23 November 1903, was identical with that of the shareholders listed above, but for the names of A. Bernard and Charles F. Holm.²⁰² The board committed itself as early as 25 November 1903 to undertake the extension beyond Westport at an early date. The line was to be immediately brought up to government standard, which would require some ballasting, at an estimated cost of about \$8,000. More rolling stock was so be acquired, and the service was to be increased to two trains daily. A reorganization of the company's employees was also called for.²⁰³ In mid-December 1903 Martin Zimmerman was appointed general-manager, and the head office designated as rooms 90-94 in the World Building, New York City.²⁰⁴

On 23 May 1904 the Brockville, Westport and North-Western borrowed \$100,000 on a one-year term at 5 per cent from the Knickerbocker Trust Company, putting up as collateral \$125,000 worth of first mortgage gold bonds and 1,405 shares of preferred stock. A year later the loan was renewed at 6 per cent.²⁰⁵

The company's capital account, as of 30 June 1904, stood as follows:

ordinary share capital \$1,000,000 authorized with \$450,000
subscribed and \$450,000 paid up

preference share capital \$1,000,000 authorized with \$450,000
subscribed and \$450,000 paid up

ordinary bonds \$450,000 authorized with \$450,000 subscribed and
\$450,000 paid up

government bonus paid old company \$105,200 credit balance
 treasurer's account from contributions of stockholders since 23
 November 1903 \$34,339.94 subscribed and paid up

total capitalization: \$1,605,539.94 subscribed and paid up.²⁰⁶

In the spring of 1905 Gustav Schock, the company's treasurer, declared the company's bonded indebtedness as \$450,000, in addition to which was the \$100,000 loan to Knickerbocker Trust, \$3,000 outstanding on King's note, \$5,504 outstanding on a locomotive, and interest accruing of \$2,222.22 on the Knickerbocker loan, from which it follows that Brockville and Westport's total indebtedness stood at \$560,726.²⁰⁷ Within a year the company was to undergo yet another reorganization, but before proceeding with that story, an account of the railway's operations as the Brockville Westport and North-western merits attention.

Old Railway: New Company 1903-06

With the tentative take-over by the New York syndicate, certain measures to improve operations were undertaken as early as February 1903. Fire insurance was increased for employees, passengers and railway property. A new curve was built at Lyn, and masonry work throughout the length of the line improved. Although the existing rolling stock was adequate, a considerable expansion was planned, to include a new locomotive, one passenger car and one combination mail and passenger car, 8 new box cars, 3 new stock or cattle cars, and 13 flat cars, to be fitted with air brakes and automatic couplers, for an estimated overall expenditure of \$20,000. All stations along the line were to be repainted, platforms repaired, and all station agents, conductors and brakemen were to wear uniform.

Coal, it was noted, was both scarce and expensive, the cost having doubled during the past year. Wood sold for \$1.53 per cord standing, and \$1.75 cut: wood was presumably used for heating only, for by this date the day of the wood-burning locomotive was, with few exceptions, long past. Two trains daily were planned for the near future, and three on Fridays to handle the cheese shipments, amounting to about 150,000 pounds (75 tons) per week. A Sunday morning train was considered, to make connection with the Grand Trunk and the New York Central. (It is of interest to note in passing that the law for Sunday trains in 1903 permitted their operation only if they made connection with some other line.)²⁰⁸

The second train was added to the daily service on the morning of 6 April 1903, to the great convenience of travellers on this short 45-mile line, who were thus enabled to return the same day. A generally tighter financial control was introduced. The books of each station agent were made subject to audit. Annual passes issued by the old company were called in, and new ones issued. Daily and weekly reports, showing receipts and disbursements, were instituted. The company's account was transferred from the Bank of Montreal, allegedly under Conservative party auspices, to the Bank of Toronto, a Grit institution.²⁰⁹ Although Liberal administrations were in office both in Ottawa and Toronto, the board's decision can only be regarded as expedient if short-sighted, for in February 1905 the Conservatives under J.P. Whitney were to gain office in Queen's Park, beginning a near ten year tenure in power.

Early in December 1903 the Brockville and Westport made arrangements for a telegraph service with the Great North Western Telegraph Company, whereby the railway would erect 25-foot cedar poles along its right-of-way, on which the telegraph company was to string the wire. Both companies were to have joint use of the telegraph service, but all

traffic having to do with train orders was to have priority. The telegraphists, employees of the railway company (at the way stations the station agents handled the telegraph as well) were to handle commercial traffic, handing over the receipts for the service to Great North Western.²¹⁰

In July 1903, before the new company had secured its charter, they had an offer for the road for \$500,000 from the Philadelphia Coal and Coke Company, which they declined. The board of directors went on record that they would consider no offer of less than \$600,000.²¹¹

Late in 1903 the company identified the need for a new locomotive. At that time they were operating with three, only one of which was described as being in good shape; one stood in need of extensive repairs, and one was definitely unreliable. The company also needed three new passenger cars in order to operate two daily trains. The estimated daily expense of running the second train during the winter came to \$29.42. The stations agents' pay had had to be increased, because with two trains daily their railway work claimed their whole time, whereas hitherto they had been allowed to supplement their \$20 to \$25 per month with outside employment.²¹²

In accordance with the company's expressed need for another good locomotive, the general-manager was authorized on 24 February 1904 to order two, the overall cost not to exceed \$4,000. Two second hand engines could be had for \$500 each from the New York Central, but each would require about a thousand dollar overhaul to be fully serviceable. In April Zimmerman ordered instead a new locomotive from the American Locomotive Company, the engine to be delivered on 1 June at a total cost of \$10,485.²¹³ In addition, at least two more passenger cars were needed. Otherwise the outlay for the railway in 1904 was mostly for new ties and improvement of the roadbed. The general-

manager also considered cutting back to one train per day, making two round trips, by cutting down on times at stops, and so saving the expense of an extra train crew.²¹⁴ This was not implemented.

The annual meeting of the new company was held for the first time in Brockville, rather than New York, in September 1904. For the year ending 30 June 1904, the company reported its rolling stock to consist of 4 locomotives and 44 cars of all types.²¹⁵

In March 1905 the Brockville and Westport was running a 2-hour service over the line, at an average speed of 22.5 miles per hour. Besides the two expresses, there were two mixed trains daily, one in either direction. The time-table for the expresses read as follows:

Brockville	3:40 p.m.	9:30 a.m.
Lyn	3:55	9:15
Athens	4:24	8:46
Delta	4:54	8:16
Elgin	5:07	8:03
Newboro	5:28	7:42
Westport	5:40	7:30 ²¹⁶

On 11 June a Sunday train was put on for the first time for the summer season. At that time the company listed its rolling stock at 3 locomotives, 5 passenger cars, one emigrant car, 2 baggage cars, 11 box cars, 8 platform or flat-cars, and 3 coal cars.²¹⁷ The Annual Report for 1905-06 lists one more locomotive, 3 more emigrant cars and one snow plough. The Sunday train was again introduced from 11 June. This same report listed the company's operating profits (defined as gross revenues minus operating expenses) for the years 1902 to 1906 inclusive:

1902	\$ 6,115.81
1903	11,728.60
1904	17,638.59

1905	23,900.02
1906	29,570.14

This reflected, in the eyes of the directors:

perfect title, low capitalization, large reserve, low bonded indebtedness, increased earnings each year, bond interest promptly paid, excellent charter and extension privileges, economical management.²¹⁸

The Brockville and Westport anticipated a lucrative return early in 1905 from the shipment of phosphate ore from the German-Canadian Apatite Company's mine near Newboro. First, however, the B & W had to build a spur line a few hundred yards in length to the mine. Although the B & W's part would be restricted to shipment to Lyn, where the ore would be consigned by Grand Trunk for Montreal and shipment overseas, the Brockville and Westport calculated on a profit of 40 cents per ton, and on the basis of an annual shipment from the mine of 20,000 tons, a return of about \$8,000.²¹⁹ Obviously this project came to little for the tonnage of mining products overall on the B & W never so much as approached a figure of 20,000 tons.

Railway and Marine World in a late 1906 issue reported the B & W's capitalization increased from \$1,125,000 to \$2-million. No further investment had been made in rolling stock, and the 45-mile line was still laid with the very light 56-pound rails.²²⁰

The traffic graph for the Brockville and Westport for the period 1903-06, when a second reorganization ensued, shows a steady increase in the passenger traffic, rising from a total of 59,457 to 73,468. Freight for the same period showed a very modest undulating increase from 17,899 to 21,865 tons.²²¹ As noted previously, no contemporary figures exist for the other two regional railways, both of which had been absorbed long since by the Canadian Pacific.

The only comparative freight figures are for the Rideau Canal, which for the 1903-06 period was carrying three to four times the tonnage as the railway, but this is not a valid comparison, since the Rideau Canal provided a through route from Ottawa to Kingston, whereas the Brockville and Westport acted simply as a feeder to the Rideau region. It is of interest, however, to note that the canal operated only from May to November - viz., six months of the year.

In the late summer and fall of 1905 company minutes indicate friction between the board of directors and the general-manager. On 16 August a resolution was entered in the minute-book that no contracts be let in future without the written approval of the president. Furthermore, in future the general-manager was to submit a written report monthly to the secretary for submission to the directors, covering all action taken by him on behalf of the company. Again on 15 November the general-manager's absence was noted, and it was resolved that hereafter he attend all directors' meetings while in the company's employ, and report fully on all action taken in the company's service.²²² The outcome of this apparent altercation with the general-manager is not known; in any case, changes were in the cards for the following year.

The Extension that Never Was 1903-07

Inherent in the whole concept of the Brockville and Westport from the very outset, with the incorporation of the onetime Brockville, Westport and Sault Ste. Marie, was the extension of the railway far beyond Westport into what it was hoped would prove a lucrative hinterland, rich in timber and mineral resources. In this context the line of railway built and operated to date was a mere prelude. But as proved the case with so many railway ventures, the dreams of promoters

did not progress beyond lobbying for subsidies, applying for deadline extensions, and dispatching of survey parties into the bush from the head of steel.

The route of the proposed extension was roughed out within a month of the purchase of the bankrupt line. An entry in the company's minute book, dated 4 February 1903, sketched out a route passing north of Westport, crossing the C.P.R. Montreal-Toronto line at Maberley, thence to the Madawaska River, skirting same to Palmer's Rapids. From Palmer's Rapids, some 15 miles south-east of Barry's Bay, the proposed route proceeded west and to the south of Algonquin Park to Berk's Falls (*sic.*, Burk's Falls, at least on later maps), 20 miles to the north of Huntsville. The line would then strike north for the French River and thence north of Lake Huron to its eventual destination at Sault Ste. Marie²²³ - for the goal of the reorganized and revitalized Brockville, Westport and North-Western remained that of its defunct precursor.

By November 1903 the company was preparing to launch the initial survey covering about 50 miles beyond Westport.²²⁴ The region through which the proposed extension would initially pass was quite different from the country already traversed by the railway - easily worked rolling clay land, extensively used for dairy farming and abounding in cheese factories. Beyond Westport lay an undeveloped rugged country, rich in timber resources and, so it was thought, minerals.²²⁵ Indeed in the Sharbot Lake region had been found extensive deposits of lead sulphide, iron, zinc, barium, gypsum and iron pyrites.²²⁶ Preliminary investigations carried out and reported on by November 1903 indicated that an extension of 20 miles to connect with the C.P.R. would pass through pretty barren country, but that once the line was through to Palmer's Rapids (about 100 miles), a region rich in minerals would be tapped.

If the Brockville and Westport effected a juncture with the Canada Atlantic at Barry's Bay, the company would get its share of the grain traffic to New York. The estimated cost of the extension to Barry's Bay was \$2,070,000.²²⁷ W.S. Buell, the company's solicitor, anticipated a profitable juncture with the Canadian Northern at North Bay, and a share of the grain shipments from the west. Buell had already met Messrs. Mackenzie and Mann, the ingenious architects of the Canadian Northern system, destined from its small beginnings as a prairie railway to develop before many years had passed into Canada's second transcontinental line. Mackenzie and Mann already controlled in 1903 the Irondale, Bancroft and Ottawa Railway,²²⁸ and as we shall see, would within the decade absorb the Brockville and Westport as well. Buell was nothing if not an enthusiastic promoter. In writing to the 'captain' (Charles Holm) on 28 November 1903, he expressed his faith in the enterprise:

Hope you won't mind my expressing my opinion but I have worried over this bloody railway so much that it positively seems like a child of my own labour and travail. I can see it grow quite a lusty chap in the near future. If you can swing it along for a year or two and first reach the CPR and then the Canada Atlantic and then North Bay I can see you people making money right along and a good fat jack pot at the end. This country is booming, why even in this town with nothing new to start things going it is practically impossible to rent a house today.²²⁹

Nearly another year had passed with nothing undertaken even as to preliminary surveys, when Buell in September 1904 raised the matter, if only as a measure to help sell bonds and acquire subsidies.

The solicitor wrote Holm that the cost of operating a survey party ran to \$750 per month, and that the survey covered from one to three miles per day.²³⁰ On 8 February 1905 the general-manager ordered an immediate survey of the first 80 miles for the extension, at an estimated cost of \$30 per mile, to be in charge of R. Carr-Harris, a civil engineer in good standing. The object of this first stage was a connection with the Canada Atlantic. The company was confident that a government guarantee for the extension bonds would be forthcoming. Unfortunately misunderstanding arose from the outset between the company and Carr-Harris over the cost of the survey.²³¹ By early May the directors were dissatisfied at the cost of the survey, but Buell defended Carr-Harris, whom he considered the ablest railway engineer in Canada. Carr-Harris had gone over the first hundred miles of the route at least three times to find the best grades. At time of writing (4 May), the exploratory survey had covered 65 miles from Westport and the instrumental survey 20 miles, but \$1,600 had to be forwarded by return mail to meet immediate expenses. In a follow-up letter four days later, Buell asserted that the results of the survey were worth \$100,000 to the charter, ending on a querulous note:

If your Directors are sick of it put a price on the whole thing and give me a three months option on it or fix a commission, and I would try to settle it.

Don't fail to send on the \$1,600 so as to stop our liability to the survey party.²³²

By 18 May the survey party was on strike, with seven weeks pay in arrears.²³³

In his report Carr-Harris asserted that the company directors had unrealistically set a rate of \$30 per mile for the survey, but that the engineer in charge

of the field party had insisted that the company pay the current rates for the work. The scene of the surveys was a sparsely settled, mountainous region, entailing heavy grades unless the best route were found. This had been ascertained by means of a barometrical survey, which had been conducted to a point west of Clyde Forks, about 60 miles from Westport. An instrumental survey had followed to a point about 20 miles beyond Westport, with the instrument man and the level man walking off the job because of non-payment of their wages. Only the engineer in charge of the party had been able to persuade enough men to stay on to finish the job, and although the order to discontinue the survey was issued on 17 May, it reached the party only on the 22nd.²³⁴

The dispute between Carr-Harris and the company went to court, resulting in the engineer being awarded \$1,100 and costs.²³⁵ The company seems to have bungled the survey from the beginning.

With the survey for the first 20 miles completed, a start on construction was delayed because of the state of the labour and financial market. An entry in the company's minute-book for 4 September 1905 observed that their charter required a start on the extension of the line by 24 October, but this deadline had been postponed two years by statute.²³⁶

More than a year later little further progress had been made. *Railway and Marine World* for October 1906 noted that the preliminary or exploratory surveys had been completed to some 300 miles beyond Westport, but nothing further had been done on the instrument survey, which determined the line for construction. The editor considered that the Brockville and Westport's future prospects hinged on extending the line beyond its modest beginnings, into a hinterland rich in minerals and timber. Heavy anticipated traffic in iron, zinc, lead, barium, sulphate, gypsum and iron pyrites would provide,

according to an unnamed prominent engineer, an ample return on the capital invested on the extension.²³⁷ A Report on the Brockville, Westport and North-Western from the previous year dealt more specifically with the resources along the line of the proposed extension as far as Killaloe, where the Brockville and Westport would meet the Canada Atlantic. Leaving Westport, the first community along the proposed line was Althorpe, a village with a population of 50, but boasting a cheese factory. Maberley had a population of 150, and Macdonald's Corners about 200, with a lime kiln and saw-mill. Further on, at Denbigh, population 100, was located a large plumbago mine. Palmer's Rapids, heretofore referred to, population about 100, had a saw mill. A large corundum mine and a saw mill was located at Combermere, a village of 150, at the next point on the proposed line. Barry's Bay, with a population estimated at 125, had both a carriage factory and a saw mill, as had Watson's Corners, the next community on the line. Caldwell's Corners, population 100, was the scene of a large lumber company, and at Calabogie, population 200, were to be found two saw mills and a carriage maker's. On the concluding stretch of the proposed line into Killaloe, Dacre featured both a grist and a saw mill, and Cormac (50 population), a saw mill. Killaloe at this time (1905) numbered 200 inhabitants, again with a saw mill. The same report covered the communities along the 45 mile existing line from Brockville to Westport, which as might be expected in this settled region, exhibited a good deal more variety of industry. For example, Brockville with a population in 1905 of 9,000, boasted a stove works, tool works, glove factory, hat manufacturer, agricultural implements factory, brewery, biscuit factory, among others, not to mention sundry manufacturers at such places as Athens, Phillipsville, and Newboro.²³⁸ The more diverse

activities of the region long served by the railway did not gainsay by any means the opportunities in the more primitive hinterland beyond.

The company recognized that the future of their company depended upon an early extension of the line beyond Westport, from which would be derived heavy freight traffic in timber and minerals. The route now determined upon lay through Barry's Bay to North Bay, but the actual location surveys by the summer of 1907 had not progressed beyond the initial 20-mile point out of Westport.²³⁹ The deadline for completion of the line was extended from year to year, and as late as 1909 legislation (8-9 Edw. VII, cap. 55) conferred another five year's grace to finish the job.²⁴⁰ Long before that term had expired, however, the little railway had ceased to have any corporate identity. Not a foot of rail was ever laid beyond Westport.

Last Days of the Brockville and Westport 1906-14

The Brockville, Westport and North-Western was due for one more reorganization, a feat of legerdemain amongst the stockholders. According again to *Railway and Marine World*, in its July 1906 issue, the manoeuvre was occasioned by a change in control of the United National Bank of New York, which had become the virtual owner of the property.²⁴¹ In any case on 9 May of that year the syndicate which had acquired the line in 1903, dissolved, each member turning over all his stock (\$10 per share common, and \$25 preferred) to four trustees.²⁴² The property was bought for the sum of \$105,000 by E.R. Thomas and O.F. Thomas, both of New York City, who used this sum to pay off the \$100,000 loan to Knickerbocker Trust, due 28 April 1906. The purchasers acquired \$451,000 (par value) of capital stock and \$102,000 in first mortgage bonds.²⁴³

According to newspaper reports, the purchaser was E.B. (or E.R.) Thomas, president of the Lehigh Valley Railroad. The three Canadian directors, W.H. Comstock of Brockville, J. Cumming of Lyn, and W.C. Fredenburgh of Westport, were retained on the board of directors.²⁴⁴

As has been previously noted, the outcome of litigation in 1904 was that the creditors of the original Brockville, Westport and Sault Ste. Marie had only a claim on the unearned subsidy granted to that company. The first subsidy, dated 1885, was for construction of the Brockville-Newboro section, at the rate of \$3,200 per mile. The second, dated from 1889, was for the construction of the line from Newboro towards Palmer's Rapids, at the same rate. All but \$37,200 of the old subsidies had been paid, and this sum had been applied by the Brockville, Westport and Sault Ste. Marie to the firm which had supplied the rails (Cooper, Fairman and Company, Montreal) towards the settlement of their account. On 21 July 1906 the newly organized company proposed that the remnants of the old unearned (because the line had not been built to government specifications) subsidy be shared amongst all the creditors of the defunct company. The new company was subsidized only in the amount \$49,600 for construction of the line towards Maberley.²⁴⁵ Whether or not this subsidy was paid since the railway was not extended to Maberley is not known; in any event a subsidy in the amount of \$35,600 was paid in 1906-07. This latter may well have been the balance of the old unearned subsidy. On 22 December 1906 an arrangement was made whereby the amount of the old subsidy was assigned to Cooper, Fairman and Company, to be shared with the various construction creditors.²⁴⁶

By the spring of 1907 the newly organized company was falling behind in its bond interest, due 1 June. A board meeting held 27 May in New York

declared

that the reading of the minutes and all other business than the matter of the Bond Interest, be laid aside and the attention of those present be confined to the principal question at issue as stated.

It was decided to defer payment of interest on the bonds and to authorize the sale of three locomotives to secure an \$11,000 loan.²⁴⁷ Two years later the floating debt, which in 1907 had been \$30,000, had been reduced by more than half to \$14,000.²⁴⁸ In 1909 the company was under the presidency of E.R. Thomas, with F.T. Lewis vice-president, and C. Heilshorn secretary and manager.²⁴⁹

The payment of bond interest due 1 June 1909 was deferred, as it had been two years previously. Bondholders exchanged their coupons for script bearing 6 per cent, payable 1 July 1912, and issued by the Hudson Trust Company of New York City.²⁵⁰

With these financial details as a background, it is well to look at the Brockville and Westport's operations in its last autonomous years.

The company's *Annual Report* for 1909-10 listed its rolling stock as 4 locomotives, 5 passenger cars, 1 baggage and express car, 8 box cars, 6 flat cars, one stock car and one coal car.²⁵¹ The 45-mile line comprised 40 curves and 36 miles of straight track, traversing a total of 51 bridges, 31 of which were wooden structures, one of iron, and 19 combination iron and wood, and two trestles, one 700 feet in length and the other 575 feet.

Freight tonnage on the Brockville and Westport reached a peak in 1912-13 - 41,604 tons, nearly double the tonnage for 1906. The trend over the three-year period 1906-09 had been an almost imperceptible rise, but from 1909 the curve turned up sharply, falling off in like manner in the season

1913-14, to slightly less than the figure for 1911. Traffic statistics for the Brockville and Westport cease after 1913. In terms of passenger traffic, the Brockville and Westport, to recapitulate a little, had shown a spectacular increase beginning in 1899, reaching its first peak of 73,468 in 1906, declining steadily in the next three years to 61,721 in 1909. The passenger traffic reached an all-time high in 1911, when the Brockville and Westport carried 74,574 passengers. From 1911 to 1913, the last year for which there are any figures published, the passenger business fell off steadily to a figure (62,782) slightly above that for 1909. Overall the passenger trade exhibits much sharper fluctuations than that for freight, which is comparatively flat.²⁵²

Mackenzie and Mann Take-over 1910-14

The story of the Brockville and Westport was to prove no exception to the general trend in all railway enterprise, small regional lines absorbed by larger systems being the rule rather than the exception.

In its issue of July 1910, *Railway and Marine World*, that sensitive barometer to change in the world of transportation, reported that the Brockville, Westport and North-Western was being acquired by Mackenzie and Mann interests. As shall be described later, the indefatigable railway promoters were then started on a line, the Canadian Northern Ontario, to run from Ottawa to Toronto, eventually providing through service from Montreal to Toronto, and thence on their transcontinental line to the west. The Ottawa-Toronto line would cross the Brockville and Westport, giving the Canadian Northern access to Brockville.²⁵³ Hence no doubt the expanding trans-continental's interest in the diminutive Brockville and Westport.

Portents were not lacking in the summer of 1910 to confirm *Railway and Marine world's* report. The last meeting of the Brockville, Westport and North-Western to be held in Brockville convened in July. On 13 July the secretary reported an extensive transfer of stock and change in the controlling interest. Resignations of the following board members were accepted: Charles F. Holm, F.T. Lewis, Carsten Heilshorn, A.P. Van Tuyl, E.R. Thomas and W.J. Curle. In their stead a new board of control was elected, made up of the following members: R.P. Ormsby, D.B. Hanna, (Canadian Northern men), G.G. Ruel, F.H. Phippen, J.D. Morton and R.C. Vaughan. The remaining directors had the following *pro forma* motion entered in the minute-book for the 13 July, regretting the retirement of their New York associates,

inasmuch as we have found them to be men of sterling integrity as well as genial companions, whose periodical visits we have always enjoyed.²⁵⁴

The next meeting, held 15 July 1910 in Toronto (1 Toronto St.), elected D.B. Hanna president, and J.D. Morton vice-president. L.W. Mitchell was appointed treasurer, and R.P. Ormsby secretary. On 2 August a by-law was passed, confirming the move of the head office from Brockville to Toronto, effective 9 August 1910.²⁵⁵

The *Annual Report* of the Brockville, Westport and North-Western for 1910-11 cited the "original cost" of the railway to the 1906 company as \$1,350,000 (apparently a reference to total capital, not the purchase price) with the cost of improvements up to 30 June 1911 as \$51,464.32.²⁵⁶

On 13 July 1911 a receiver was appointed on behalf of the bondholders. Most of the bonds and a preponderance of the common stock were held by MacKenzie and Mann.²⁵⁷ Payment on bond interest had been defaulted on

since 1 December 1908, as a result of which the Knickerbocker Trust Company brought an action in the High Court of Justice against the Brockville and Westport and Mackenzie and Mann, co-defendants, for the amount due, both principal and interest, on bonds issued on 1 December 1903. The railway was sold by public auction in Osgoode Hall, Toronto, on 14 December 1911, for \$250,000, to R.P. Ormsby, representing the Canadian Northern, who was appointed secretary-treasurer of the reconstituted company,²⁵⁸ which was authorized by the Minister of Railways and Canals to operate the railway.

The Brockville and Westport's *Annual Report 1912-13* listed the following board of directors:

R.P. Ormsby	chairman of board & purchaser
L.W. Mitchell	treasurer, both of Toronto
W.S. Buell	Brockville, local solicitor
J.D.N. Morton	Toronto, assistant controller
Geo. Beecher	Brockville, auditor
R.S. Gosset	Toronto, auditor of disbursements
W.J. Curle	Brockville, general superintendent, freight agent, passenger & baggage agent ²⁵⁹

There are two familiar names on the above list - viz., the resilient solicitor, W.S. Buell, and W.J. Curle, superintendent under the reorganized syndicate of 1903.

The Brockville and Westport's *Annual Report* for 1911-12 lists the employees, 43 in number, with their annual pay.

2 general officers	@ \$1,650
2 general office clerks	304
8 station agents	433
2 enginemen or drivers	1,010
2 firemen	670
2 conductors	918
3 trainmen	676
1 machinist	835

1 carpenter	633
5 shopmen	532
4 section foremen	571
11 trackmen	451 ²⁶⁰

Traffic patterns for the final years of the Brockville and Westport under its own name have been considered in relation to the overall trends from 1906. Upkeep in this period, when the Brockville and Westport was part of the Canadian Northern in all but name, included a few items which found their way into the comprehensive columns of *Railway and Marine World*. In the summer of 1912 the company placed an order for two first class cars and one combination car with J.T. Gardner of Chicago.²⁶¹ Apparently the Board of Railway Commissioners did not find the line up to government specifications, for in the summer of 1913 they ordered the renewal of some 30,000 ties or sleepers, the re-ballasting of the whole line, repairs to several bridges, and the bringing of all level crossings up to safety standards.²⁶²

Formal conveyance of the Brockville, Westport and North-Western Railway Company, "extending from Brockville north-westerly about forty-five miles to the village of Westport including stations, yards, buildings, equipment etc.," was effected by federal statute cited as the Canadian Northern Railway Guarantee Act, dated 12 June 1914, to the Canadian Northern Railway. Several other lines in the general area were absorbed into the Canadian Northern system by the same legislation: the Canadian Northern Ontario (see below), the Bay of Quinte, the Irondale, Bancroft and Ottawa, and the Marmora Railway and Mining Company.²⁶³ So ended the corporate existence of the ambitiously conceived, although modestly implemented, little railway.

The sometime Brockville, Westport and Sault Ste. Marie continued operation as a picturesque branch line of the

continent-wide Canadian National system for nearly forty years, well into the era of the automobile, the long-distance highway haulers, not to mention the air lines. By mid-century, the 45-mile branch no longer carried sufficient freight to justify its continuance. In common with rusting branch lines all over the country, the former B & W was fated for abandonment. The Board of Transport Commissioners gave effect to this (Order No 79236) on 8 June 1952.²⁶⁴ The last train on the Brockville and Westport pulled into Brockville on 30 August 1952, hauled by engine number 86, completing 40 years service on the line. In the words of her driver, it was "like riding a farm tractor." The line was forthwith abandoned, and when the track was taken up, it was said that the rails laid in 1886 were found to be in good condition.²⁶⁵

To sum up - what was the significance of this little railroad, over the course of its 66 years? Happily we have sufficient data on freight and passenger traffic, and financial returns for the period 1891-1914 (see: Appendix C) to make some meaningful deductions on the role played by the B & W in its heyday.

The Brockville and Westport: An Appreciation

Figures on classified freight tonnage for the Brockville and Westport are available for the period 1891-92 to 1913-14. In general, these figures show that agricultural products (flour, grain, livestock) and manufactures were the most important classes of freight hauled by the railway. The carriage of lumber (forest products) was not large, exceeding 10 per cent of total tonnage only once before 1910-11 and never rising above a peak figure of 16.76 per cent in 1911-12. The same can be said for mineral products.

In fact, mineral products were not included in the classification of freight carried before 1903-04; coal only for 1903-04 to 1905-06, and mineral products thereafter. Coal shipments hovered around the 5 per cent mark from 1903-04 to 1905-06; as did mineral traffic until 1910-11, when it started approaching 10 per cent. Thus the transport of forest and mineral products, while certainly not inconsequential, was never a mainstay of the line.

Of the three principal subdivisions under the heading agricultural products (flour, grain, livestock), the transport (1891-92 to 1905-06) of grain was the most important throughout the period. Train shipments started out at a level of 970 tons in 1891-92, rose steadily to a peak of 4,667 tons in 1895-96, and showed a fluctuating decline thereafter to a figure of 2,975 tons in 1905-06. In terms of percentage of freight carried, the figures range from a low of 11.23 per cent in 1891-92 to a high of 30.97 per cent in 1895-96. The transport of livestock ranged from a low of 1,021 tons in 1897-98 to a high of 2,173 tons in 1905-06. This fairly dramatic change was not reflected, however, in the percentage figures which show a tight range of 7.51 per cent for 1,021 tons (1897-98) to a high of 12.27 per cent for 1,060 tons in 1891-92; the average being slightly above 10 per cent, or almost exactly consistent in percentage terms with the peak year for tonnage carried (1905-06) of 2,173 tons. Flour shipments ranged from a low of 695 tons in 1891-92 to a high of 2,373 tons in 1896-97 and a percentage of 8.05 to 16.27 respectively.

Of considerable interest is a series of statistics for the years 1908, 1910, 1911, 1913 and 1914 wherein the various types of freight carried by the Brockville, Westport and North-Western are treated under two heads: "tonnage originating on road" and "tonnage received from connecting roads and other carriers." Under the former would be subsumed all freight for

which the Brockville and Westport was the original common carrier, as well as any freight that originated on other lines but was handled by a commercial intermediary before being transported on the B and W. For this reason, it should not be assumed that freight originating on the line is synonymous with freight originating in, that is to say produced in, the region. Such freight could easily have included a keg of nails produced in Montreal, shipped to a Brockville merchant, and subsequently sold to a Westport merchant who received delivery over the Brockville, Westport and North-Western.

The term "tonnage received from connecting roads and other carriers" is self-explanatory and can be assumed to include the following: any through-freight shipped from a St. Lawrence or Lake port to Brockville which was consigned to a buyer in the region served by the BW and N; any freight received directly from another railway, such as the Grand Trunk; and any freight received from the Rideau Canal.

The only connection between the Rideau Canal and the Brockville, Westport and North-Western was at Newboro. The distance between Newboro and Brockville via the Brockville Westport and North-Western was 40.0 miles; between Newboro and Kingston via the Rideau Canal, 38.79 miles.

Two factors would have militated against the railway attracting a considerable portion of traffic from the canal at Newboro: the cost of transshipment and the fact that the railway did not offer a shorter route to the St. Lawrence. The railway did, however, provide a considerably more direct route to Brockville, a factor that may have been significant for traffic travelling by rail east of Brockville or Lyn, possibly for traffic destined for New York State, and, of course, for traffic shipped to Brockville.

In terms of overall tonnage carried by the Brockville, Westport and Northwestern during these years, the percentage of freight originating on the line

was as follows:

1908	45.5%
1910	40.1%
1911	52.7%
1913	36.2%
1914	43.5%

Bearing in mind that these figures include goods that were not produced in the region served by the railway, it can be deduced that the railway, while providing an outlet for the production of the region, probably did not derive its principal importance from this activity, but rather as a supply line for the region and as one stage in a trunk route for goods emanating from the canal.

The pattern of freight distribution over the railway for these years provides some indication as to the nature of the economy in this section of the Rideau region. For example, over 95 per cent of the grain carried by the Brockville, Westport and North-Western did not originate on the line. A similar distribution pattern is evident for the transport of livestock, although in this instance over 98 per cent of the livestock shipped on the railway originated on the line and thus, presumably, within the region.

An examination of selected commodities for the years 1908, 1910, 1911, 1913 and 1914 yields the following results. Over 50 per cent of all livestock; poultry, game and fish; hides and leathers; stone, sand and other articles; lumber; and cement, brick and lime originated on the line. On the other hand, over 50 per cent of the traffic in grain; hay; other mill products; other fruits and vegetables; coal; coke; other forest products; iron and steel rails; other castings and machinery; bar and sheet metal; agricultural implements; wagons, carriages, tools, etc.; wines, liquors and beers; other manufactures; merchandise; and miscellaneous articles were "received from connecting roads and other carriers."

Significantly, the railway did not carry any "ores" or "other products of mines" during these years. The figures for flour; other products of agriculture; other packing house products; other products of animals; petroleums and other oils; sugar; iron pig and bloom; and household goods and furniture fluctuated from year to year or else were not comprehensive enough to permit conclusions to be drawn.

The percentage figures cited above, while shedding light on both the operations of the railway and the nature of the economy in the region, should be used with caution. In the case of certain items, the tonnage originating on the line was greater than the tonnage of items which did not originate on the line, even though the percentage of the latter was greater than the former. For example, while over 95 per cent of the traffic in grain was received from other roads and carriers, the grain tonnage originating on the line was substantially greater than the tonnage of poultry, game and fish, over 80 per cent of which originated on the line.

By eliminating those commodities which are known or assumed to have been produced in the area served by the railway from the series "tonnage originating on road," some indication of the extent to which the region contiguous to the railway was a commercial hinterland for merchants and industrialists in one of the major centres on the railway can be attempted. Brockville, rather than Westport or Newboro, has been selected as the most likely centre to have had a hinterland because of its size, transportation system and relatively more mature economic base. It should nonetheless be noted that there is no evidence in the freight statistics consulted to support the hypothesis that Brockville rather than another centre played this role. For this reason, the selection of Brockville is at best a tentative choice, based on an assumption that additional evidence might render untenable.

With the exception of tobacco, the returns for agricultural products are not specific enough to allow the postulation of any hypotheses. In 1908 and 1911, nine tons and three tons of tobacco respectively originated on the line. In the absence of any known evidence that tobacco growing was pursued in the region, it is assumed that this item was supplied to the region from Brockville. Brockville may also have served as a distribution centre for coal, although if so, for only two years (1908 and 1911) for which figures are available (835 tons in 1908 and 420 tons in 1911). Sugar; iron, pig and bloom; other castings and machinery; bar and sheet metal; possibly agricultural implements; wagons, carriages and tools; wines, beers and liquors; household goods and furniture; merchandise; other manufactures and miscellanea may also have been furnished to the region by Brockville merchants and industrialists.

Throughout the period under consideration, 1891-92 to 1913-1914, there was a remarkable balance between revenue derived from freight and revenue derived from passengers. Freight held a slight edge 1891-92 to 1902-03, during 1907-08, and 1911-12 to 1913-14. However freight revenues were never larger than 53.5 per cent of total revenues. Mail, express and miscellanea constituted a small percentage of revenue producing traffic.

Although no figures have been found for the years before 1905-06, the figures for train mileage from 1905-06 to 1913-14 give ample evidence that the company operated very few trains that were freight trains exclusively. The preponderance of train mileage was passenger train mileage, followed closely by mixed train mileage (except for 1913-14 when the latter exceeded the former by some 10,000 miles). Such figures suggest that slightly over 50 per cent of the trains operated by the Brockville, Westport and North-Western were passenger trains exclusively,

slightly under 50 per cent were mixed trains (that is combination passenger and freight) and that the balance was made up of freight trains only.

The Ontario and Quebec Railway 1872-84 et seq.

Two trunk lines slashing across the Rideau corridor, rather than serving it directly, remain to be considered. Although both were built as through lines from Montreal to Toronto direct in the one case, and from Montreal to Toronto via Ottawa in the second, their construction forms an integral part of the account of railways in the Rideau corridor region.

The first of these lines in point of time was the Ontario and Quebec Railway, which began with a preliminary survey conducted by the celebrated engineer Thomas Keefer for a projected line of railway, 225 miles in length, from Ottawa to Toronto. Keefer's reconnaissance was carried out in the months of March and April 1872.

Keefer reconnoitred two routes out of Ottawa. The first proceeded south-westerly to Richmond through Franktown to Perth; from Perth the line would proceed to a juncture with the Canada Central in Oso township, thence westerly through or near Madoc to Peterborough, and thence to Toronto. The alternate route out of Ottawa led to Carleton Place, thence to a crossing of the Mississippi River one-half mile west of what was then known as Caldwell's Mill, and on through Ferguson's Falls to Lanark, and thence to a second crossing of the Mississippi and through the valley formed by Bolton's Creek to the west, and so on to Toronto.²⁶⁶ Keefer's preference, if he had one, is not known, but his two recommended routes were to prove a bone of future contention between the neighbouring and rival towns of Perth and Lanark.

The Ontario and Quebec Railway was first chartered on 14 April 1871 (34 Vic., cap. 48), to build a line of railway from Toronto through or near Peterborough-Madoc-Carleton Place to Ottawa, to bridge the Ottawa River and thence amalgamate with existing Quebec lines. The company's capitalization was not to exceed \$1,250,000, and it was empowered to issue bonds and debentures as a first charge on the railway. The company's principals at that time were Henry John Hubertus, Harry Abbott, James Skead, Malcolm Cameron et al. The project was to be begun within three years and completed within eight from the passing of the act.²⁶⁷ The Ontario and Quebec was to be of standard gauge, and was to make connection with lines operating west of Toronto. At the New Year 1872-73 private subscriptions totalled \$852,000 and divers municipalities had pledged a further \$400,000; it was hoped that the work would get under way in the spring. The directors concluded that unless considerably more aid was forthcoming, it would be useless to float bonds.²⁶⁸

1873 was scarce two days old ere rivalry over the route surfaced between Perth and Lanark, for apparently the projected line could not conveniently satisfy both communities. Lanark cited the freight offered by the sawmills of Lanark and Dalhousie townships, the mineral resources of the region, extensive Crown lands for development and allegedly a shorter, easier route for construction. Perth countered that both routes passed through regions long settled, and hence the Lanark argument that their route would open land for settlement false. The Perth region also abounded in mineral deposits - iron, copper, lead, plumbago, phosphate of lime, mica, as attested by the last Report of the Geological Survey. The Perth route had already been surveyed, and appearances on the map to the contrary, the route via Lanark was not shorter.

Furthermore the Lanark route required two bridges over the Mississippi and one over the Clyde, besides extensive rock cuts. Routing the railway through Perth would encourage the opening of several industries. Presently Perth enjoyed only a branch line connection with Smiths Falls, which begged the question that Lanark had no railway connection at all. Finally the Perth Town Council passed a by-law granting a \$70,000 bonus on condition that the railway passed through Perth.²⁶⁹ Predictably Perth won the toss, but as was all too common in matters of railway enterprise, nothing was done for a number of years.

The Ontario and Quebec Railway was chartered *de novo* on 21 March 1881 (44 Vic., cap. 44) by CPR interests,²⁷⁰ the principals among others including H.S. Howland, L.R. Church, J.A. Chapleau, C.J. Campbell, J.R. Thibaudeau and A. Desjardins. Capitalization was \$2-million, distributed in 20,000 shares of \$100 each. Terms for construction were that the work must begin within one year and be completed within three years from the date of the charter.²⁷¹

Before any train made its inaugural run, the Ontario and Quebec Railway leased its line in perpetuity, 4 January 1884, to the CPR.²⁷² Partial service opened on the Perth-Toronto line in August 1884, with full service later in the year.²⁷³ In December 1883 the Ontario and Quebec had acquired from the CPR the Perth to Smiths Falls line, which it will be recalled, had originally been a part of the old Brockville and Ottawa Railway.²⁷⁴ In 1886 "under charter rights and in accordance with the terms of the lease," the Ontario and Quebec began its extension from Smiths Falls to Montreal.²⁷⁵ A major undertaking on this line was the bridge spanning the Rideau River at Merrickville. The bridge of cantilever design was 627.5 feet in length, in four spans, the centre of which was 35 feet 2 inches above high water.²⁷⁶ By

1 September 1887 service was opened on this final stretch of the Ontario and Quebec from Smiths Falls through to Montreal.²⁷⁷ As with the rest of the line, the Smiths Falls-Montreal extension, completing the line from Toronto, was handed over to the CPR on completion, affording the CPR a direct Montreal-Toronto line in competition with that of the Grand Trunk. Hitherto the CPR Toronto-Montreal service, commencing in 1884, had been direct only as far as Smiths Falls, thence proceeding through Carleton Place, Ottawa and the North Shore. A CPR time-table issued in November 1885, shows two trains daily in either direction between Smiths Falls and Ottawa, time for the running from 1¼ to 1½ hours.²⁷⁸

In 1900 the Canadian Pacific ran two trains daily between Montreal and Toronto. In the Rideau region connections were provided on the main line at Kemptville for Prescott, at Smiths Falls for Brockville and at Sharbot Lake Junction for Kingston.²⁷⁹ The Grand Trunk obviously provided a faster and more direct route for passengers from Montreal to Prescott, Brockville or Kingston, but the Canadian Pacific would derive local custom for intermediate points on these branch lines.

In the summer and fall of 1907 the Canadian Pacific laid double track between Vaudreuil and Smiths Falls, and planned to complete the same from Smiths Falls through to Toronto by the end of the year.²⁸⁰ This greatly increased the speed of service, and it is of interest to note, although Canadian trains to that date had been known for anything but speed, that for a brief five months the CPR trains in the Montreal-Toronto service held the world's speed record. On 16 April 1931 the westbound train covered the 124.0 miles from Montreal West to Smiths Falls in 110 minutes, at an average speed of 67.6 miles per hour, and eastbound over the same track in 108 minutes,

averaging 68.9 miles per hour. The previous world record had been held by the Great Western Railway's famous "Cheltenham Flyer," operating between Paddington and Swindon, a distance of 77.3 miles. The CPR record held for that summer of 1931, the English train regaining the title of the world's fastest train on 13 September 1931.²⁸¹ Of interest too to note is that the Ottawa train making connection with these flyers (the "Royal York" and the "Canadian") at Smiths Falls took a leisurely hour and a half to get to Smiths Falls.

Today part of the line is abandoned, but freight still operates east of Smiths Falls.

Canadian Northern Ontario Railway: 1906-14

The second of the trunk lines passing through the Rideau corridor was the Ottawa-Toronto line built by a subsidiary of the Canadian Northern, known as the Canadian Northern Ontario Railway. It originated as a 148.6 mile line from Toronto to Parry Sound, organized by the Mackenzie and Mann consortium 11 January 1904.²⁸² Plans for an Ottawa-Toronto line originated as early as 1905-06, but were delayed by disputes over the entry to Ottawa.²⁸³ Not until a special general meeting held 25 June 1909 in Toronto were practical measures taken to build the line, to join the Canadian Northern Quebec Railway at Hawkesbury, thence westerly to Ottawa, and from there south-westerly to Toronto, and eventually Hamilton. Five months later the line was open for traffic from Hawkesbury to Rockland, and was expected to be through to Ottawa in the near future.²⁸⁴ By March 1910 the first 100 miles east of Toronto had been let out to contract.²⁸⁵ A year later grading from Toronto to Trenton was practically completed, and track laying was well advanced. In February 1911, 71.7 miles of track had been laid.²⁸⁶

The Ottawa end of the line was the last to be built. In May 1911 a revised location of a three-mile stretch at Smiths Falls was approved (mileage 37.8-40.8 from Ottawa). Crossing of the Brockville and Westport line at Brockville Junction was agreed upon (mileage 189.34 from Toronto).²⁸⁷ Contracts for the remaining construction to complete the line were let on 19 May 1911. J.P. Mullarkey was the contractor for the last 50 miles into Ottawa. By June 1911 the Central Ontario, Bay of Quinte and the Brockville and Westport railways had been acquired.²⁸⁸ By the end of June 1911, according to company report, the line was finished and open for traffic from Toronto to Trenton. (*Railway and Marine World* reported that the section opened on 9 October 1911.) Although the Trenton-Ottawa section was expected within the year, in fact it was delayed by weather and other undefined conditions.²⁸⁹

By 12 June 1911 a start had been made grading the final section from Dwyer Hill. The Board of Railway Commissioners had approved the location plans for the line through Loughborough, Storrington, Bedford, South Crosby and Bastard townships.²⁹⁰ The following sub-contracts were let in August 1911 for work at the Ottawa end of the line:

P.W. MacLean, Brechin
 P. Allan, Chaffey's Lock
 Stewart and Hart, Portland
 C.A. Cook, Brechin
 McDonald & Chisholm, Hurdman's Bridge to Ottawa
 H. Cristian, Hog's Back to Richmond
 P.J. Brennan, Richmond to Smiths Falls²⁹¹

The nature of these contracts was not specified, but they covered comparatively short distances. In September 1911, 100 acres were purchased at Bowesville, near the Rideau River crossing, where the Toronto-Ottawa line was to join

the transcontinental on the approaches to Ottawa, where shops were to be located. Property was also acquired on Merivale Road, Ottawa, for company purposes.²⁹² A year later the line was open as far east as Deseronto, and grading was completed nearly to Chaffey's Locks.²⁹³ Plans were on foot to locate the Ottawa terminal on the north side of the Rideau River. In November preparations were made to begin track laying from Smiths Falls to Ottawa, but bridges were yet to be built over the Rideau and Jock rivers. By April 1913 the tracks were laid between Chaffey's and Lombardy, and the following month the lift bridge across the Rideau at Jones Falls was finished. On 11 September 1913 Sir Donald Mann inspected the completed line from Ottawa to Chaffey's Locks; there remained a 4 mile gap to complete from Chaffey's to Sydenham. Mann doubted that passenger service could be begun for six months in order to let the track settle. The 240 mile line between Ottawa and Toronto was nonetheless completed. By January 1914 a mixed passenger and freight service was run between Ottawa and Sydenham, 86.6 miles west of Ottawa. Regular passenger service between Toronto and Ottawa was scheduled to open the 29 June 1914.²⁹⁴ The first through train from Quebec City, run entirely on Canadian Northern track, arrived in Toronto on 1 May 1914, proceeding on to the west via Sudbury.²⁹⁵

This completes the account of the second trunk line bisecting the Rideau corridor, a line soon to be absorbed with the whole Canadian Northern system, the Interprovincial and eventually the Grand Trunk, into the government owned Canadian National.

'Paper' Railways

For every railway built in the region there were upwards of a dozen

for which not a yard of track was ever laid. The Rideau region was not peculiar in this respect, for this was general throughout the continent. Some projects never materialized for lack of funds, some were still-born through the machinations of rival interests, and others were the paper creations of unscrupulous promoters. In the latter 19th century railways were seen as a panacea for economic and commercial development, which in a real sense they were, until further technological development in the next century would relegate the steel rails and permanent way to mainly a hauler of bulk freight.

In the following pages three abortive railway projects will be described, for the light they may shed on why these lines expired as mere promotional schemes, chartered but unbuilt. Two of them, the Morrisburg and Ottawa Electric and the Ottawa and St. Lawrence Electric, belong to the optimistic era of cheap and abundant hydro-electric power, when short, electrified inter-urban railways - essentially glorified street cars - seemed the answer to future transportation requirements. With the proliferation of motor cars of ever greater reliability in the 1920s and 1930s, and of comparable significance, within the financial means of most, the suburban lines (as they were known) became a memory practically within one generation. The magnificent though inefficient steam locomotive, which attained mammoth dimensions by the early 1930s, was to follow the inter-urban trolley line into oblivion.

Kingston, Smiths Falls and Ottawa Railway 1887-1912

Of the three regional lines discussed thus far, none terminated in Kingston. To this day there is no direct railway connection between Kingston and Ottawa. This does not mean, however, that none was ever planned, as the story

of the Kingston, Smiths Falls and Ottawa Railway will amply testify.

This company, whose principals were John Carson, John S. Muckleston, George M. Macdonell, James Swift and Charles Fuller Gildersleeve, was chartered by federal statute (50-51 Vic., cap. 88) on 23 June 1887. The line was to be of standard gauge, and was to run from Kingston to Ottawa, via Smiths Falls, with one or more branch lines to tap the Rideau Canal. The company was capitalized for \$1-million, and stock was offered at \$100 per share. The head office was established in Kingston. Bonds might be issued with the concurrence of two-thirds of the shareholders. The project had to be started within two years and completed within five from the passing of the act.²⁹⁶

The first meeting of the provisional directors was held in Kingston on 24 January 1889. A.T. Drummond of Kingston accepted the board's proposal that he form a syndicate to build the line, and on 15 February 1890 set out to raise funds in England. Under the date 20 March 1890 the company's minute-book listed the following shareholders:

A.T. Drummond, Montreal	\$23,000
C.F. Gildersleeve, Kingston	23,000
Henry T. Bovey, Montreal	10,000
John L. Morris, "	10,000
F.R. Redpath, "	10,000
Henry C. Scott, "	10,000
Leslie H. Gault, "	2,000
George M. MacDonnell, Kingston	10,000
Andrew Drummond, Ottawa	2,000

for a total stock subscription of \$100,000, all of whom served on the board of directors.²⁹⁷

The project enjoyed the support of the Prime Minister, who was the M.P. for Kingston, and in 1889 a federal subsidy was granted for the construction of the first 20 miles.

Petitions had been forthcoming from Macdonald's constituents. Writing to Macdonald on 28 April 1890, George A. Kirkpatrick, Member for Frontenac, reminded the Minister of Railways and Canals (a portfolio held by the Prime Minister at the time) that a further subsidy for 36 miles in 1890 would finance the building of the line into Smiths Falls. The various municipal bonuses were contingent upon the railway being completed by 31 December 1891.²⁹⁸ As yet, however, not a sod had been turned. A contract for the preliminary survey to determine the best route was let to T.W. Nash, civil engineer, only in April 1890.²⁹⁹

On 26 June 1890 the board of directors took a fateful decision, unanimously approving the lease of yet to be built line to the Grand Trunk. First preference bonds to the amount of \$20,000 or £4,000 sterling, were to be issued per mile of line to be built. The bonds were for a term of 30 years and paid interest at 5 per cent.³⁰⁰ This arrangement would make the road the property of the Grand Trunk when completed, but the directors believed that it would be easier to raise money in England under the auspices of the Grand Trunk than otherwise.

Reviewing progress in the mid-summer of 1891, A.T. Drummond in a letter to the Minister of Railways and Canals observed that the company was directed mostly by Montreal interests, and that the whole route had been surveyed in the summer of 1890. Drummond had been twice to England to raise money, and had negotiated the sale of bonds to the Barings in the fall of 1890 but "catastrophe prevented the sale being carried out."³⁰¹ The company was given time extensions for commencement and completion of the project in 1891 and again in 1896.³⁰² Although Drummond's contract to build the line complete and ready for rolling stock was signed by 14 April 1892,³⁰³ the company had nothing other than the location survey to show for its efforts.

The reason apparently was the failure to raise money in England. Writing to Mackenzie Bowell on 29 April 1892, Drummond complained that the government's failure to subsidize construction of the railway for the final 40 miles, from Smiths Falls to Ottawa, would render his efforts to raise money in England more difficult, because investors might be wary of a project to which the federal government was not fully committed. He added that Macdonald had assured him a year before that the line would be subsidized through to Ottawa.³⁰⁴ By this date Macdonald had been in his grave for the better part of a year, but even had he lived it is questionable whether the Kingston, Smiths Falls and Ottawa would have fared better than it did.

The company's minutes for 14 April 1892 recorded the failure to sell bonds on the London market on the basis of their agreement with the Grand Trunk. The government had agreed to guarantee the interest on the bonds, and federal legislation (54-55 Vic., cap. 95) had authorized the issue of first preference bonds at the rate of \$30,000 per mile, not to exceed a total issue of \$2,940,000. On 7 February 1895 the bond issue had been changed to a rate of \$25,000 per mile, first preference 30-year bonds at 5 per cent, payable in sterling.³⁰⁵

Various communities along the projected line of railway negotiated grants in aid. The first such agreement between the City of Ottawa and the company was dated 15 December 1892, whereby the line was to be completed by 1 January 1898, and was to be operated independently, especially of the CPR, for a period of 40 years. Within five years the Kingston, Smiths Falls and Ottawa was to build a round-house within the city limits or one mile thereof, in return for which the property would be tax-free for ten years.³⁰⁶ Ontario legislation, passed 13 April 1897, guaranteed the debentures issued by the village of Merrickville

and the townships of Bastard, South Burgess and North Gower. Subsidies were also forthcoming from Smiths Falls (31 December 1894), Kingston (31 December 1897), a further subsidy from the City of Ottawa dated 1 January 1898, besides aid from the townships of South Crosby, South Elmsley and Rear of Leeds and Lansdowne.³¹⁷ Merrickville cancelled its aid (\$10,000) in April 1899 because the railway, scheduled for completion on 1 January 1898, had not yet been begun.³⁰⁸ No doubt the other municipalities behaved in similar manner. As for the federal government, Sir John Thompson informed Drummond in April 1894 that there was no point in his coming to Ottawa because further aid would not be forthcoming.³⁰⁹

Meantime the persevering Drummond sought what guarantees he could get from the Grand Trunk, which on the whole, did not lend a sympathetic ear. On 29 November 1892 the GTR general-manager wrote that probably satisfactory traffic arrangements would pose no problem once the line was built, but that in the meantime he could not commit the board in any way. By the following spring the two were discussing terminal arrangements at Kingston, the Kingston, Smiths Falls and Ottawa apparently having entered into a tentative agreement on the use of the GTR line into Kingston station. The former had to cover all expenses at the junction.³¹⁰ In October 1893 Sir Henry Tyler, President of the Grand Trunk, wrote to Drummond that the company could come to no agreement over traffic arrangements with a line yet to be built, but that when it was, he doubted not but that mutual arrangements quite satisfactory to both parties would be readily forthcoming.³¹¹ An agreement was nonetheless reached between the embryonic railway and the Grand Trunk, dated 7 February 1895, whereby the Kingston, Smiths Falls and Ottawa would have access to the GTR line into Kingston, and the G.T.R. would gain access

to Ottawa for a through passenger service from Toronto. The GTR would accord the Kingston, Smiths Falls and Ottawa its normal division of rates for branch lines.³¹²

By 1897 the nascent company's relationship with the Grand Trunk had slipped further. The difficulty of raising money on the London money market has already been cited. In part this was due to the crisis in the Grand Trunk's affairs in the early 1890s. The Kingston, Smiths Falls and Ottawa, specifically A.T. Drummond, had hoped that their association with the Grand Trunk would render their task of seeking English capital easier. Such had not proved the case. On 6 August 1897, Sir C. Rivers Wilson, the newly appointed president of the Grand Trunk, categorically rejected Drummond's plea for sponsorship in the London money market, refusing to "undertake the responsibility of introducing the undertaking directly or indirectly upon the London Market." Nor would the Grand Trunk renew the agreement due to lapse on 31 December 1897 for exclusive interchange of traffic whenever the line should be built.³¹³ In a further letter of 28 August, Rivers Wilson was quite explicit as to guaranteeing the interest on the Kingston and Ottawa's bonds:

We should hardly care to constitute ourselves as the Clearing House for the payment of the interest due your bondholders and I will therefore be glad if you will arrange for that to be done through the Trust Company or Banking House you may decide to deal with, as is customary.³¹⁴

In a long letter to the minister of Railways and Canals, dated 11 May 1899, A.T. Drummond told a sorry tale. The company had failed in its endeavour to raise money either in the United States or in the United Kingdom, as well as at home. In England in particular Canadian railway

enterprises were in bad odour, such that only "satisfactorily guaranteed bonds could be floated." Otherwise English investors thought of Canadian railways as non-paying properties in which they were unwilling to invest, a view which the railway returns for 1898 did nothing to alter. Of 70 railways reported on, only 14 had paid interest in full on their bonds and stock. Twenty two other lines failed to meet their operating expenses, and 7 more did not clear \$1,000 over their operating expenses. A dozen companies of the 70 failed to pay one per cent on their bonds, and of five others the net receipts did not reach 2 per cent on their bonds. The cause of all this, continued Drummond, was not far to seek: building too many lines through sparsely settled territory, resulting in numerous defaults scaring off investors. (This over-construction of railways through sparsely inhabited territory, if not actual wilderness, was to be exemplified a few years hence, with the undertaking of two trans-continental railways, in addition to the already well established Canadian Pacific.)

The policy of the Kingston, Smiths Falls and Ottawa, continued Drummond, had been to secure sufficient subsidies to enable the company by depositing the money at a good rate of interest to offer 20-year bonds guaranteed at 4 per cent. The company, however, was short about \$325,000 in subsidies, and further aid from the federal government had been refused. The Ottawa Board of Trade had been approached, but they considered \$325,000 more than they could handle. The Ontario government favoured lines penetrating unsettled regions in order to open up the province, which obviously militated against the Kingston and Ottawa's prospects with them. Hence, the company was short of money and unable to raise more.

Ottawa, albeit the national capital, had access to the west and central Canada only via the CPR, which, Drummond noted, reached not one third of the cities and towns in central and western Ontario. The Grand Trunk, which tapped the whole settled region from Montreal to the international boundary at Sarnia and Windsor, was shutout from Ottawa, with the CPR exploiting the situation by imposing high rates for GTR connections. Drummond averred that CPR opposition to a Kingston-Ottawa connection deterred the Grand Trunk from building the line, and that the interests of both Ottawa and the Rideau Canal would benefit greatly from a Kingston-Ottawa direct line.³¹⁵

Six weeks later in a letter to H.G. Blair, Minister of Railways and Canals, Drummond argued that since railways routed through unsettled regions with prospects of meagre returns on their investment regularly were granted government subsidies at the rate of \$6,400 per mile, his line, which was projected through a settled and prosperous region, was entitled to generous consideration.³¹⁶ Drummond's request was rejected but Blair suggested that he try again before the next session.³¹⁷

Mid-summer 1903 saw another of the company's directors, C.F. Gildersleeve, soliciting a subsidy from Prime Minister Laurier. Gildersleeve cited the railway as a sure means to prosperity and the consequent maintenance of the Liberal party in power. Furthermore, construction of the Kingston, Smiths Falls and Ottawa would reduce the running time from Kingston to Ottawa to a mere 2¼ hours. Nonetheless the subsidy was refused in the House. Laurier wrote to Gildersleeve that he himself favoured the subsidy, but doubted whether one would be forthcoming in the next session.³¹⁸

The spring of 1905 saw A.T. Drummond back banging the same drum. Drummond wrote Laurier that the whole line had been surveyed,

with plans and profiles drafted to a point within 40 miles of Kingston, and construction had begun. The projected line had been leased for some years to the Grand Trunk, but with the accession of Sir Rivers Wilson to the GTR presidency, all unconstructed branch lines had been dropped. The route selected from Kingston (Washburn, Brewer's Mills, Seeley's Bay, Morton, Jones' Falls, Elgin, Portland, Lombardy, Smiths Falls, Richmond to Ottawa) served communities, with the exception of Smiths Falls, presently without railway facilities. Furthermore, the present Kingston to Ottawa rail time of 5 to 6 hours would be cut to 2¼.³¹⁹ (It is of interest to note that this route, at least as far as Smiths Falls, is that followed by Highway 15-7.)

A further time extension was vouchsafed the Kingston, Smiths Falls and Ottawa (4-5 Edw. VII, cap. 114) in the summer of 1905 under the condition that construction must begin by 1 July 1907 and be completed by 1 July 1910.³²⁰ The following year the Grand Trunk continued its bland assurances to the impotent endeavour. Charles M. Hays, Grand Trunk's general manager, assured Drummond that the proposed Toronto-Ottawa line would utilize the projected route of the Kingston, Smiths Falls and Ottawa, in which event the government would refuse rights to any competitor. Hays added that he would be happy to talk the matter over with Drummond anytime.³²¹ The very next day Drummond explained to the Minister of Railways and Canals that construction had actually begun at Kingston Mills when a change in Grand Trunk policy led to a cessation of the work. Now however that the Grand Trunk had acquired the Canada Atlantic, the GTR was now intent upon an Ottawa connection, and so favoured resumption of the work. In August 1906 mileage under construction was reported as "practically none."³²²

Later the same month the Kingston, Smiths Falls and Ottawa sold out to the Grand Trunk. Acting as the KSF&O agent, A.T. Drummond sold all the capital stock, 1,220 shares (of which 220 were fully paid up) for \$50,000 to Charles M. Hays, acting for the GTR, which agreed in the terms of purchase to build a line from Rideau Junction to a point on the Canada Atlantic at or near Ottawa.³²³ *Railway and Marine World* for October 1906 reported that construction would be begun at once.³²⁴ The following May the Mayor of Smiths Falls complained to the Department of Railways and Canals that the repeated delays in starting the work had had an adverse effect on the town's business prospects. The Ministry replied that now that the Grand Trunk had taken up the long-deferred project in earnest, there could be no further reasonable doubt but that the line would be built.³²⁵

A hiatus in the Kingston, Smiths Falls and Ottawa minute-book spanning more than a decade (5 July 1897 - 1 November 1907) is surely indicative of the moribund nature of the enterprise. As of November 1907, the shareholders were the following:

Charles M. Hays	1,060 shares
W. Wainwright	20
R.S. Logan	20
Frank Scott	20

The board of directors, in addition to the foregoing shareholders, included E.H. Fitzhugh, A.T. Drummond, W.H. Biggar, J.W. Laud and H.G. Kelley.³²⁶ With Drummond the sole surviving member of the old management on the new board of directors, and 99 per cent or more of the stock held by Grand Trunk interests, the old Kingston, Smiths Falls and Ottawa company was owned lock, stock and barrel by the Grand Trunk. It remained to be seen whether the GTR would build the railway linking Kingston with Ottawa by a direct line.

Whether stalling for time or seeking further aid, the Grand Trunk in May 1908 stated publicly that construction only awaited the payment of certain bonuses by municipalities along the line, some of which had agreed to advance money, and others still had the matter under consideration.³²⁷ In December the Grand Trunk further explained that a direct Toronto-Ottawa line had definitely been decided on, and that the company had an agreement to take over the charter of the KSF&OR, which was seeking reaffirmation of bonuses originally pledged for its construction.³²⁸ In July 1909, at the annual meeting of the KSF&O shareholders (presumably Grand Trunk men holding shares in the former KSF&OR) held in Kingston, assurance was given that the line would be under construction within two years. A further application had been made to the federal Parliament soliciting a time extension.³²⁹ This too was forthcoming with the passage of legislation on 4 May 1910 (9-10 Edw. VII, cap. 116), the new deadlines being two years from passage of the act for commencement and in service within three years.³³⁰

It did not take Drummond long to realize that having gained control of the KSF&OR, the Grand Trunk was ready to abandon it, having bigger fish to fry. In February 1911 Drummond so informed the Ministry of Railways, adding that the GTR apparently preferred a Brockville or Gananoque connection from Ottawa with their main Montreal-Toronto line.³³¹ A little later in the month the ministry denied that there was any application before the Railway Committee to have the company's title changed to the Ottawa, Rideau Lakes and Kingston Railway.³³²

Time was running out for this on-again off-again promotional gambit. The final entry in the company's minute-book, 22 April 1912, recorded that the deadline for construction expired 4 May, and that a renewal of the

charter was not to be expected. This was shortly confirmed by Wainwright.³³³

The Morrisburg and Ottawa Electric 1908-19

As has been mentioned in an earlier context, the suburban electric line in the early years of the century seemed a practical and inexpensive solution to short distance inter-urban transportation, as had the ubiquitous street car and street railway for urban transit.

The Morrisburg Electric was originally incorporated by Ontario statute (8 Edw. VII, cap. 130) in 1908, to build a line from Morrisburg through Williamsburg, Winchester and Ormonde townships to Ste. Therese. An extension to Ottawa was included in the charter the following year.³³⁴ In 1910, again by Ontario statute (10 Edw. VII, cap. 145), the name was changed to Morrisburg and Ottawa Electric Railway and the capitalization reduced to \$500,000.³³⁵ James Oliver was president of the company and R.A. Bishop secretary. By September 1912 nothing had been done, but the company announced its intention of getting under way.³³⁶ By November 1912 J.G. Kilt of Morewood had replaced Oliver as president, and H. McDonald of Ottawa had replaced Bishop as secretary. Construction was to start in May 1913.³³⁷ Finally in September 1913 the company disclosed that it had let a contract to R.J. Tierney and Company for the first 10 miles out of Ottawa to South Gloucester.³³⁸ Construction began in November, with \$20,000 spent on surveys, and \$100,000 earmarked for construction.³³⁹ By the original charter 15 per cent of the capital stock had to be expended within two years and the line completed within five.³⁴⁰

By the fall of 1914 there was little apparent progress. The company announced its intention of undertaking construction on condition that the municipalities along the

proposed line guarantee one-sixth of the bond issue. Three tenders had been submitted, that of a New York firm being under consideration. The M & O's head office was in Ottawa, and the chief engineer was L. von Sydow.³⁴¹ In November 1914 was it announced that the main contract had been let to the Morrisburg and Ottawa Construction Company, which hoped to make a start in the spring of 1915.³⁴² In August 1915 *Canadian Railway and Marine World* reported that construction had reached Billings Bridge, three miles south of Ottawa, and would be resumed in the near future.³⁴³ From that point nothing further was heard of the project, other than a time extension in 1919.

As such, the Morrisburg and Ottawa Electric cannot be written off as a 'paper railway', but its impact on the Rideau region must have been minimal. The war, an early end to which in 1915 was scarcely to be expected, may well have sounded the line's death-knell.

The Ottawa and St. Lawrence Electric Railway 1909-15

Another ambitious electric line project chartered by the Ontario government on 13 April 1909 was that of the Ottawa and St. Lawrence Electric Railway, with head office in Ottawa. With an authorized capitalization of \$1-million, this grandiose project was for a line of suburban electric railway from the Ontario-Quebec boundary westerly along the shores of the St. Lawrence through Cornwall to Brockville, thence one line would proceed north-westerly through Athens and Lanark to Perth, and the other line, extending from Brockville to Morrisburg, would run north through Winchester, Kenmore and Metcalfe to Ottawa. Running rights were obtained from the Brockville and Westport for use of their line between Brockville and Athens.

The following principals invested in the enterprise:

William J. Armitage	C.S. Cossitt
W.L. Redmond	L.H. Daniels
W.P. Walker	Thomas Berney
M.S. Beckstead	J.L. Rolston
Frank Iveson	W.O. Riddell
	John E. Askwith ³⁴⁴

Survey work was begun on 10 May 1909 under the direction of A.H.N. Bruce, chief engineer, and the company announced that sufficient stock had been subscribed to start construction. The board of directors was made up of C.M. Willard, president, J.K.B. and W.M. Loughbridge, J.W. Bogart, A. Merkley and J. McFarlane. The proposed route was more precisely defined as Ottawa-Metcalfe-Ormond-Winchester Springs-Williamsburg-Morrisburg-Iroquois-Cardinal-Prescott-Maitland to Brockville; Brockville-Lyn-Athens-Perth-Lanark-Arnprior to Ottawa.³⁴⁵ Connection was to be made at Perth with another projected electric line, the Lanark County Electric, which would run to Ottawa through Arnprior.³⁴⁶ Nothing came of this project either.

Contrary to its report that surveys had begun on 10 May, *Railway and Marine World* in July stated that they would be undertaken in the near future. The total length of the projected line was 250 miles, of which 201.5 miles could be considered main line. A steam generation plant was planned at Brockville. The overall estimate was \$3-million.³⁴⁷

At a director's meeting held on 3 September 1909, an offer from a British syndicate to take over the charter and provide funds was discussed, the directors deciding to leave the matter in abeyance until the end of November. The entrance to Ottawa was still undecided. Grading was scheduled to start in early October. The 55-mile line, as finally projected between Ottawa and Morrisburg, would run through Greeley, Metcalfe, Vernon, Kenmore, Ormond, St. Therese, Morewood, Winchester, Chesterville,

Winchester Springs, Dunbar, Elma, Bouck's Hill, and Williamsburg to Morrisburg,³⁴⁸ which is virtually the present route of Highway 31. By 1 November 1909 the first 18 miles of survey work had been completed and arrangements had been made for connection with the New York Central.³⁴⁹

In 1911 the Ontario legislature extended the deadline for completion another five years. By November 1912 the survey work was nearly finished, and the contract, let to the Ottawa and St. Lawrence Construction Company, called for the completion of the first 50 miles by the spring of 1914, with construction scheduled to begin early in 1913. The company was reported undergoing reorganization.³⁵⁰ On this score no evidence was found that the 1909 offer of the English syndicate had been accepted.

In March 1913 the company petitioned the Ontario legislature for authorization to amalgamate with the North Lanark Railway, and to increase its capitalization to \$1-million, which was granted.³⁵¹ Further legislation (3-4 Geo. V, cap. 136) from Queen's Park granted yet another time extension, specifying that 15 per cent of the capital stock was to be expended within two years, that the line was to be completed within five years and that the company was also made responsible for all debts incurred by the North Lanark Railway Company.³⁵² The company in the summer of 1913 applied to various municipalities for aid, but with what success is not known. In April 1914 *Canadian Railway and Marine World* confirmed that the contract had been let to the Ottawa and St. Lawrence Construction Company, the line to start at the Connaught Rifle Ranges and thence pass through Ottawa to Morrisburg.³⁵³ By December 1914 about two miles of grading had been completed, presumably at the Ottawa end, and it was expected that a further 8 miles would be finished by the New Year.³⁵⁴ Press reports in March 1915 anticipated an early start on the Smiths Falls section.³⁵⁵

In 1915, however, the roof fell in. In March *Canadian Railway and Marine World*, which had been publishing periodic statements on an early start to construction, admitted that none of these predictions had been fulfilled, and that the editors had been unable to elicit any information from the Toronto promoters, J.A. Morden and Company, and so could only assume that the project was still in the promotional stage. In the meantime *Railway and Marine World* had had a letter from W.B. Russel of Toronto, protesting the use of his name by the Ottawa and St. Lawrence Electric, with which he had never had any connection whatsoever.³⁵⁶ No doubt it came as no surprise when a court order for the winding up of the Ottawa and St. Lawrence Construction Company was issued at Osgoode Hall on 2 June 1915.³⁵⁷

So passed into oblivion the Ottawa and St. Lawrence Electric Railway; over the course of six years it had surveyed the route from Ottawa to Morrisburg, but done little more than scratch the surface insofar as construction was concerned. Even had it been finished and put in operation, experience of inter-urban electric railways elsewhere would indicate a short life battling highway competition, although a few such lines survived into the decade of the 1950s. Probably one need not look farther than a paucity of funds for an explanation of the project's demise.

The Ottawa, Rideau Valley and Brockville Railway 1910-13

The reader may remember from an earlier context that the old Brockville and Ottawa Railway, despite its title, hardly provided direct access to the capital from Brockville. A more direct connection was envisaged, although perhaps not for the first time, by the promoters of the Ottawa, Rideau Valley and Brockville Railway, incorporated by federal statute (9-10 Edw. VII, cap. 144) in 1910.

The route projected lay from Ottawa through Manotick, North Gower, Burritt's Rapids, Merrickville, North Augusta to Brockville, with a branch line to Hull on the Quebec side.³⁵⁸ The act of incorporation set the capitalization at \$500,000 with head office established in Ottawa. The act listed the principals as Alfred McDiarmid and Robert E. Elliott of Montreal, Frederick A. Heney and Edmund W. Clark of Nepean township, George Elden Kidd and Donald Hector McLean of Ottawa, William C. Maclaren and James H. Gilmour, both of Brockville.³⁵⁹ The initial stockholders (\$100 shares) of the Ottawa, Rideau Valley and Brockville were:

George Eldon Kidd	\$2,000
Donald Hector Maclaren	2,000
Andrew Haydon	2,000
W.C. Greig	2,000
Sam Rosenthal	2,000 all of Ottawa
Harry W. Cooper (in trust)	\$115,000 of Montreal ³⁶⁰

The line was to be built by the company, but then taken over and operated by the Grand Trunk. In November 1910 *Railway and Marine World* cited the two principals of the nascent company as W. Wainwright, vice-president of the Grand Trunk, and W.H. Biggar, counsel for the GTR.³⁶¹

The first meeting was convened on 4 October 1910, and the last on 17 September 1913. No business was transacted other than an initial deposit of \$12,500, representing 2.5 per cent of the authorized capitalization, and the election of company officers.³⁶² The charter, dated 4 May 1910, had specified that the line must be begun within two years and completed within five. Finally on 25 September 1913, the company's treasurer, M.M. Reynolds, wrote to Wainwright stating that the charter had lapsed through non-compliance with its terms,³⁶³ and that concluded the short history of the epitome of a "paper" railway.

The Ottawa, Rideau Lakes and Kingston Railway 1911-14

Yet another unfulfilled endeavour to link Kingston with Ottawa directly along the axis of the Rideau corridor was the Ottawa, Rideau Lakes and Kingston Railway, chartered by the Ontario government on 8 March 1911, under the original title of the Ottawa, Smith's Falls and Kingston Railway. In 1912 the name was changed to the Ottawa, Rideau Lakes and Kingston Railway. The estimated cost was \$22,500 per mile, and the company was financed by English capital. The projected route lay from Ottawa through Manotick, Kars, Smiths Falls, Lombardy, Portland, Seeley's Bay, Brewer's Mills to Kingston, which was virtually the same route, except for the section from Ottawa to Smiths Falls, planned for the Kingston, Smiths Falls and Ottawa Railway (1887-1912) (see above). Branch lines were also authorized to Perth and Lanark. The Rideau River would be bridged at Manotick, Kars and Smiths Falls; the branch line would call for bridging of both the Tay and the Mississippi rivers.³⁶⁴ Overall length of the main line was to be 125 miles.

The board of directors was made up of N.M. Clougher of Ottawa, president; William Dennis of Halifax; R.H. McElroy of Carp, Ontario; G. L. Dickinson of Manotick and Dr. H. D. Ball of Toronto. The head office was in Ottawa, and the authorized capitalization was one million dollars. The company applied for a subsidy on 19 April 1913, at which time it reported the completion of full reconnaissance surveys.³⁶⁵ The municipalities along the route were to contribute to the cost. In May 1913 the field survey work was finished, and the company reported financing of the construction of the line well advanced.³⁶⁶ The company requested a time extension in February 1914,³⁶⁷ which was granted by further legislation (Ont. 4 Geo. V, cap. 123), 20 April 1914. The deadline for start of construction

was two years and for completion of the line five, which meant that the Ottawa, Rideau Lakes and Kingston should be in operation by April 1919. The company was authorized to issue bonds or debentures up to \$40,000 per mile. The preamble of the act contains the significant information that the start of construction had been delayed because of the company's inability to dispose of its bonds, meaning simply that it could not raise sufficient money to launch the undertaking in earnest. Perhaps of equal significance was the expense cited of the several bridges required over the Rideau between Ottawa and Smiths Falls, and the rough, rocky conformation of the country, with the intrusion of the Laurentian Shield, between Smiths Falls and Kingston.³⁶⁸ Indeed one may surmise that this factor may have been as significant as any in the demise of both this project and the earlier Kingston, Smiths Falls and Ottawa endeavour. With access to Ottawa, albeit via the CPR, at both Prescott and Brockville, the Grand Trunk may have concluded that a direct line of its own from Kingston to the capital through this scenic but difficult Shield country, was simply not worth the cost.

In any case, the line was never built, nor has there been a line of railway subsequently between Kingston and Smiths Falls.

Sundry 'Paper Railways'

The five still-born railway projects examined under this head by no means exhaust the number which were promoted, chartered, subsidized and dropped. There were a number of others - Smiths Falls, Rideau and Southern; Brockville, Merrickville and Ottawa; Perth and Kemptville, *et al.* too numerous to mention. Nothing is to be gained by detailing herein the little we know of these companies.

Conclusion

Thomas C. Keefer, civil engineer and railway promoter, at the behest of the directors of the Montreal and Lachine Railway, in 1849 wrote a pamphlet, entitled *The Philosophy of Railroads*, extolling in lyrical style the benefits, both economic and social, to be derived from railroads. Keefer's essay was polemical, seeing in the "civilizing rails" the panacea for all the ills of a frontier community. Science, technology, compulsory education and the franchise to the liberals of the last century seemed the key to Pandora's box for the future. *The Philosophy of Railroads* went through four editions in as many years, contributing in no small measure to what has since been known as the "railway mania" of the 1850s, in the course of which, as we have seen, the first two railways to serve the Rideau region were built.

The effect of railway development in the broadly defined Rideau region is in no wise analogous to the impact of the Canadian Pacific and the Canadian Northern on the opening of the West. The Rideau region was settled and the foundations of its economy largely established before a mile of steel was laid. Agricultural settlement had about reached the limits imposed by the topography of the region by mid-century, when the first railway was mooted. As we have seen, lumber rather than agricultural produce, was the staple product of the region, in the sense that both the Bytown and Prescott and the Brockville and Ottawa were built to tap the enormous timber reserves of the Ottawa Valley for the lumber yards of the American market. Notwithstanding the claims made by advocates of railways, the construction of railways in the Rideau region seems to have resulted in improved transportation service rather than the unfolding of new possibilities for economic development. To a considerable degree, the lines that were built were intended to serve a portage function, whether as stages in a larger

railway system or as lumber roads. In a limited sense, the function of the two railways traversing the Rideau region may have had more in common with the CPR and the Canadian Northern in the rocky and forested wilderness north of the Great Lakes, than these same lines once they had broken out upon the limitless expanse of the prairie, whose agricultural potential could scarce be exaggerated. The Rideau region, once the prime stands of timber had been depleted by the 1870s, held no such promise; indeed the main tide of immigration in the 1840s flowed through, rather than settled in, the region. The story of the Rideau region carries none of the drama of the high plains west of the 100th meridian.

Finally, the Rideau region is by no means a self-contained one, which makes it doubly difficult to determine the impact of the railways with any precision on its economy.

Until such time as an in-depth study or series of studies on the economic history of the region has been done, treating such factors as demography, agricultural and industrial production, volume of trade, proximity to transportation services, etc., a creditable assessment of the impact of railways on the region is not feasible. For this reason, the following comments must be regarded as highly tentative.

Bearing in mind that the Bytown and Prescott was the first railway to open in 1854, the population figures for Ottawa and Prescott, the two termini, may be of interest. In 1851, before the railway was built, the population of Bytown was 7,760; ten years later Ottawa boasted, at 14,669, nearly double that population. It is not suggested that this doubling of the population in ten years may be attributed solely to the railway. Following Ottawa's fortunes, by 1871, when it will be recalled a second railway, the

Brockville and Ottawa, had gained access to the capital, the city's population had risen by nearly another 7,000 (21,545) thereafter increasing at an accelerating rate to over 80,000 at the turn of the century, by which time both the Canadian Pacific and the Canada Atlantic had terminals in the city. Prescott, the southern terminal of the line, however, does not exhibit such growth. In the pre-railway era (1851) Prescott's population was 2,156, and ten years later had increased by scarce 400 souls. In 1871 Prescott numbered only 2,617, and by 1901 a mere 3,019. On the basis of population growth alone, the railway connection with Ottawa did next to nothing for Prescott - nor for that matter did the Grand Trunk, which by 1856 connected the little town on the upper St. Lawrence with both Toronto and Montreal. On the other hand, the substantial increase in foreign trade registered in Prescott in the 1850s may well have been influenced by its rail connections, a fact that underlines the difficulties inherent in using population figures as an index of economic activity or growth.

Brockville, Prescott's slightly more populous neighbour on the St. Lawrence, blessed with the Grand Trunk through line by 1856 and with the Brockville and Ottawa Railway's connection with Smiths Falls and Perth by 1859 and to Arnprior by 1865, and finally Ottawa by 1870, showed for the years 1851 to 1911 roughly a three-fold increase in population. In 1851, as yet with no railway, Brockville numbered 3,246, increased 20 years later to 5,102, and thereafter 7,009 in 1881, 8,791 in 1891, 8,940 in 1901 and 9,374 in 1911. So much for terminals - for Kingston was but an intermediate point on the Grand Trunk, and although a terminal of the Kingston and Pembroke Railway, this line hardly serves the Rideau region, pursuing its course through the hinterland to the west. It may now be asked whether the sawmill and manufacturing towns of Smiths Falls and Perth exhibited accelerating growth once on the railway.

In 1861 Smiths Falls numbered 1,137 souls, which by 1871 had increased infinitesimally; by 1891 the population of Smiths Falls had more than doubled, to 3,864. This, and the industrial expansion it no doubt reflects, may well be attributed to completion of the CPR Montreal-Toronto line in 1887, for which Smiths Falls became a divisional point. By 1901 Smiths Falls had reached 5,155, so that in 30 years its population had increased between four and five times. Perth displays a less spectacular growth. In 1861 Perth numbered 2,465, ten years later it had dropped slightly, and by the turn of the century reached only 3,588, an increase of less than 50 per cent in 40 years. With both Smiths Falls and Perth, particularly the former, canal traffic must be considered also a factor.

T.C. Keefer's paeans of praise for the benefits conferred by the "civilizing rails" notwithstanding, railways could prove very much of a mixed blessing to intermediate market towns and entrepôts, in the same way that the long anticipated St. Lawrence Seaway has not helped Kingston, and may indeed have contributed to its continued decline as a port and a commercial centre. This may well have been the case with Kemptville, through which, it will be recalled, the old Bytown and Prescott was deliberately routed. Perth seems also to have benefited but little if at all, from the railway connection, and one local historian has attributed the decline of Franktown to being bypassed by the Brockville and Ottawa. On the other hand, Carleton Place (originally known as Carleton Junction), exhibited a three-and-a-half fold increase from 1871 to 1901, and in 1911 its population stood at almost exactly thrice what it had been 40 years earlier, figures which would lead one to conclude that the coming of the railway was a beneficial factor for the future of the town. (See: Appendix D for tabulated figures from the published census on which the foregoing is based.)

At the time of the 1851-52 census Bytown (as it then still was) had no railway connection; its industries then numbered three grist mills, four saw mills, one distillery, five tanneries, two foundries, one brewery, five carriage makers, one cabinet factory and two boot and shoe factories. Nine years later, at the time of the 1860-61 census, there were two rather than three grist mills but 12 rather than 4 saw mills. The five tanneries listed in 1851-52 had declined by one in 1860-61 and likewise the formerly two foundries had been reduced to one. The one brewery in 1851 had increased to three in 1860 and in the latter census was listed one more carriage maker, for a total of six. Where there was one cabinet factory in 1851 there were four in 1860. In 1860-61 Ottawa's industrial base was considerably broader, for in addition to the 1851 industries, those listed in 1860-61 included the following enterprises: one woollen mill, three axe and edge tool factories, two soap and candle factories, one fanning mill, one brick yard, one shipyard, four sash and door factories, two cooperages, one marble works, two tin ware factories, two agricultural implement factories, one brass founders and one hatters.³⁶⁹ This apparent expansion may be attributed to factors other than the newly established railway connections, but the latter certainly contributed. It will be recalled that in this same period of slightly less than a decade Ottawa's population nearly doubled.

A similar comparison over the same period could be made for Kingston; since Kingston did not develop direct railway connections to points in the Rideau corridor, these figures are given for reference merely in the notes.³⁷⁰

On the basis then of research to date on this project, the economic effect of the railways on the Rideau corridor region cannot be deduced in more definite and tangible terms. The absence of simultaneous runs of traffic figures for the three railways and for the Rideau Canal makes anything beyond the foregoing vague generalizations the more difficult.

THE RIDEAU REGION AND MODERN HIGHWAY DEVELOPMENT

Probably no development in our time has so dominated and permeated the everyday life of mankind, certainly in North America and Europe, as the automobile. The internal combustion engine has conferred on everyman a speed and a mobility undreamt of through countless generations. To many a family, other than homeowners, the automobile is the largest single item in the budget, and many will make almost any sacrifice to possess a new car. Both a status symbol and a potential death-trap, the family car will be with us as long as oil springs from the earth, after which no doubt technology will devise another source of power. A mixed blessing perhaps to mankind, the automobile and the truck have released the horse from its role as a draught animal; one has only to recall the ordeals of dray horses and hackney ponies through the pages of Victorian novels to appreciate this. The roads, however, in what had become the Province of Ontario in the 1880s and 1890s were in no condition for automobile traffic, nor were they any better anywhere else in Canada. Before tracing the progress of modern highway development in Ontario, and specifically in the Rideau corridor, whereby the roads were ready for the automobile more or less when it appeared in significant numbers, the origins of the "horseless carriage" itself and the nascency of the Canadian automobile industry will be noted in brief.

Steam-carriages and the Internal Combustion Engine

As with so many things in this age of gadgetry and technological change, the origins of the automobile may be traced much further back in the 19th century than many realize. The earliest prototypes of the automobile were steam-cars, the first of which was built by Richard Trevithick, the Cornish innovator and pioneer, as early as 1801. The internal combustion engine originated in France in 1860, but the principal of compression which gives the gasoline engine its power has been credited to Dr. Nathan Otto of Germany in 1876. Gottlieb Daimler, also of Germany, designed the first 2-cycle engine in 1889. The first gasoline-powered motor car built in the United States dates from 1893, the creation of J. Frank and Charles E. Duryea. Many experimental prototypes, really little more perhaps than powered buggies, followed in the America of the 1890s, at the hands of Henry Ford, Elwood Haynes and Charles King, among many other entrepreneurs. At this stage the automobile was still a curiosity, and surely few foresaw that within a mere 40 years it would become the major competitor of the railways' passenger trade, not to mention cutting deeply into their choice freight.

Turning to Canada, the first steam-buggy on record was built in the year of Confederation by Henry Seth Taylor of Stanstead, Province of Quebec. A second was the creation of John B. Kelly at Blyth, Ontario, in 1884. The birth of the Canadian auto industry was in 1904, with the establishment of the first assembly plant in Windsor by Gordon McGregor and Wallace R. Campbell in the Walkerville Wagon Works, where were assembled 117 Ford cars under license from the parent plant. Four years later in 1908, R.S. 'Sam' McLaughlin founded the McLaughlin Motor Company in Oshawa, importing Buick engines through the agency of David Durant, but manufacturing the rest of the car there.

McLaughlin-Buick in the years ahead became a hall-mark for quality. The same year the Canada Cycle and Motor Company set up business in Toronto, and in 1910 Studebaker established a Canadian subsidiary in Walkerville, Ontario.¹ By this date the automobile was more than a curiosity and plaything of the well-to-do; it had yet to develop any degree of reliability for out of town travel, but it stood solidly on its rubber-tyred wheels and its noisome exhaust had become a feature of the urban scene. But what of the roads it would run on, particularly out of town; at the turn of the century many were not fit for horse-drawn traffic, let alone the demands of the proliferating automobile. At Confederation roads became a provincial responsibility, and bad as Ontario's were, the province led the country in developing a highway network adequate for the automobile age.

The Passing of the Privately-owned Toll-road 1889-1914

Increasingly as the 19th century moved into the 20th, the toll-road company, with its toll-houses and toll-gates, was held to be an anachronism. It is well to emphasize here that this by no means meant the end of the toll-road concept, although it is quite moribund in the Province of Ontario. Many controlled-access, 4-lane interstate highways in the United States, by their very designation 'turnpike', are toll-roads, but government built and administered. There are throughways in the Province of Quebec which charge tolls at the present time. Bridges all over the country charge tolls, particularly the bigger structures. In speaking of the passing of the toll-road herein, reference is made to such roads owned and operated by private companies.

Successive legislation passed by the Ontario legislature facilitated the purchase of toll-roads by the municipalities, and their expropriation if repairs were not kept up. The complaint against the road companies was generally that the roads were allowed to deteriorate whilst tolls were still collected. Toll-road companies were very unpopular, divers dodges and tricks were used by road users to evade toll payment, and sometimes rowdies would damage toll-houses and company property. The set of public opinion was running strongly against the toll-road, in favour of township or county control.

On 23 March 1889 the legislature passed the Toll Road Municipal Expropriation Act (52 Vic., cap. 28), empowering municipalities to appoint boards of commissioners, authorized to examine the condition of toll-roads within their respective districts, examine the books of the various companies, and assess the value of such toll-roads. Loans for the purchase of toll-roads were made available to municipalities. Finally, the act provided for arbitration in case of disputed settlement with toll-road companies.² Further legislation to facilitate the purchase of toll-roads followed in 1898 and 1901. The latter act became operable against a particular road company whenever the relevant municipal council received 50 petitions within a 3-month period that the road should be taken over. Toll collection was to cease once a road was assumed by the township, and in any case within three months of the petitions submitted to the township, which henceforth was responsible for the upkeep of the road.³ Then in June 1903 further legislation amending the General Road Companies Act was passed (3 Edw. VII, cap. 14) which provided for the appointment from the Department of Public Works of an Inspector of Toll Roads. He was to inspect toll-roads on the request of the county council,

or on the petition of at least 20 ratepayers resident within three miles of the said toll-road. If the inspector found the road not up to standard, he left notice with the president of the toll-road company or with the municipal office operating the toll-road.⁴ An act passed by the legislature the following year, 26 April 1904, empowered the municipality to take possession of toll-roads which had not complied with the inspector's deadline for repairs. Toll road inspectors were to give a fortnight's notice of inspection. All new bridges over 20 feet in length on toll-roads were to be approved by the Commissioner of Public Works.⁵

The rates chargeable by toll-roads were set by statute in 1897:

one-horse vehicle	1½¢ per mile
two-horse "	2¢ "
horse with or without a rider	1¢ "
automobile	3¢ "
threshing machine	5¢ " ⁶

By 1914 the days of toll-roads were definitely considered past. The published *Report of the Public Roads and Highway Commission of Ontario 1914* pronounced the valedictory for the toll-road in the province:

As an evidence of the development of the country, toll roads have, during the past fifty years, passed from being the most welcome institution to that of the most despised. It should not be forgotten that in the earlier period of this country's history, when the resources of the people were quite insufficient to meet the needs of transportation those who were prepared to build roads were public benefactors, even if

allowed to collect interest on their investment through tolls. At the present time, county councils have the power to include them in their county roads system, the Province paying one-third of the purchase price. This plan has done away with a number, but some remain in Carleton County and a few isolated cases.⁷

It is of interest to note that of the total of 102 miles of toll-roads in the province of Ontario in 1914, slightly less than half (49 miles) was located within the County of Carleton:

Bytown and Nepean Road	8 $\frac{5}{8}$	miles
Richmond Road	7	"
Nepean and North Gower Road	2	"
River Branch of Nepean and North Gower and the Hunt Club Branch of Gloucester and Metcalfe Rd.	9 $\frac{5}{8}$	"
Russell Road	4 $\frac{3}{4}$	"
Montreal Road	8 $\frac{1}{4}$	"

Outside the county of Carleton, the Commission noted, there were only eight toll-roads left.

Too often the road companies' watchword had been economy, and so it was not surprising that their roads were not kept up. The assumption of toll-roads by the townships, did not result in immediate improvement, however, since the townships tended to neglect them.⁸

Towards a Provincial Highway System 1896-1937

The time reference, covering 40 years, has been set with reference to the appearance in 1897 of the *First Report of the Provincial Instructor in Road-making*; the office had been created the previous year, the Provincial Instructor answering to the Minister of Agriculture.

A number of years were to pass before a Department of Highways was to emerge. The end of the 40-year period was marked by the deliberations of the *Report of the Royal Commission on Transportation, Province of Ontario*, which was published in 1939. During that period the highway system we know today, barring the super-highways, had emerged. In that span of time the provincial government undertook the construction of a highway network from end to end of the province, with roads soundly constructed on the latest engineering principles. The period witnessed too the development of a county roads system, providing in time good secondary paved roads in addition to the through highways between major centres. It was at the turn of the century that road-making forsook the traditional, pragmatic, haphazard system based largely on statute labour in favour of professional direction with trained and properly equipped road gangs. An initial step was the provision for the appointment of a civil engineer or qualified land surveyor on each corporation, who would on request examine roads and bridges, and make recommendations (53 Vic., cap. 42, 1890).⁹

The Provincial Instructor in Road-making *et seq*

Certainly the first report of this official, which appeared in 1897, conclusively demonstrated the need for new methods and new organization if the province was ever to meet the demands of motor traffic. For five months of the year the roads were in poor rutty condition, and "practically impassable" from mid-November to mid-December, and again in the spring from mid-March to mid-April. This meant that the roads were in what passed for good condition only from latter May to mid-October, and presumably in the dead of winter, if they were not snowbound. The Report expressed the doubt that there was so much as a mile of

true macadamized road outside a few towns and cities in the province. True, there were a good many miles of road covered with gravel or broken stone, described as macadamized, but wrote the road instructor,

they more resemble the roads Macadam found in England three-quarters of a century ago, the kind he removed, rather than those he constructed.¹⁰

These roads were improperly drained, with flat crowns, and with square shoulders at the sides obstructing proper run-off. Proper drains were not provided, and ditches were shallow; often natural water courses for drainage outlet were ignored. Little attention was paid to grading.¹¹

Gravel, the commonest road surface, was plentiful throughout the province. This consisted of fragments of stone mixed with sand or clay; this proved a good surface in dry weather but not in wet, when the road was rendered soft and slushy. If too much earth matter was mingled with the gravel, the latter exhibited poor wearing qualities.

For a macadamized surface granite, limestone and sandstone were found in widespread deposits and were in general use, and were graded in that order - although the quality of each varied within itself. In general stone that was both hard and tough was best. In Ontario limestone was the most readily available material, but its suitability or quality varied from next to useless to little short of excellent. Limestone was easily the most readily available stone in the eastern part of the province. It served very well where traffic was not excessive, but limestone of an open, porous nature degenerated quickly to mud under the action of moisture and frost. Sandstone, large deposits of which were found around the Forks of the Credit, was not suitable except for roads with light traffic since it tended to break down into sand. Granite, widespread in northern Ontario,

was good, but it too had a tendency to crumble to sand. Gneiss of variable quality was widespread in the north. Trap, found in large deposits in the Kingston-Gananoque region, formed an excellent road metal.¹²

The provincial instructor in his first report broke township roads down into three categories. About one-quarter of township road mileage was defined as main roads, often merging into the main streets of market towns. Roads in the next category, comprising about three-eighths of township mileage, served a considerable neighbourhood, and carried perhaps 20 to 30 vehicles per day. In the third category were the cross-roads and little used concession roads, dirt surfaced, which might carry a half dozen to a dozen vehicles per day. The other two categories were gravel surfaced.¹³ The main township roads often were taken over by the county.

In his third annual report the provincial instructor gave his prescription for improving the state of the roads in the province. Published in March 1899, the programme was a comprehensive one, and may be said to have laid the foundations of modern road design. The provincial instructor defined "Good Roads" as more or less the ideal, verging on the best European standards. "Better Roads" was a more practical goal initially, and entailed the abandonment of pioneer methods, particularly the discontinuance of the wasteful and ineffective system of statute labour. This had been well adapted to the pioneer period, when both labour and money were in short supply, but unfortunately had been retained long past its time because of the fear of high taxation if it were abandoned. The ingredients for the building of better roads were better drainage, proper grading, better surfacing (*viz.*, quality of stone and gravel), and the use of modern machinery. Lack of foresight and centralized control, combined with a

reluctance to spend money, had resulted in the rutted wagon tracks which too often passed for roads.

Good drainage, it was stressed, minimized the damage from frost. To effect this, drains had to be graded with a proper outlet, and earth sub-soil had to be kept dry. The road had to be properly crowned in the centre to provide for run-off. Soft material off the shoulders should never be used to build up the crown.

The most important machine for road maintenance was the grader, which had come into widespread use only in 1898, but there was apparently general ignorance as to its proper use. It was recommended that grader be owned by the township, with one or two men engaged on a permanent basis to operate the machine. A second requisite was a steam roller. Ottawa had had a 15-ton machine for a period of ten years, Kingston since 1887 and Brockville had been using one for five years. A steam roller was essential for the rolling of successive layers of crushed stone, the coarsest layer being on the bottom, according to the basic principles of Macadam.

Culverts were built under the road to carry water away from it, using natural water courses whenever possible. Culverts could be constructed of concrete, stone, brick, iron pipe, sewer pipe or timber, but the report recommended the use of arched stone and concrete culverts. Iron or steel bridges were greatly to be preferred to timber; a wooden bridge had a life span of about 15 years, whereas a steel superstructure would last 50 years, and masonry piers and abutments at least 100 years. Iron bridges were of several designs - plain beam or girder, beam truss, suspension truss and bowstring or arch truss. Galvanizing and painting of iron bridges preserved the structures.¹⁴ So were the principles of modern road-making promulgated, inimical to the haphazard procedure which had too often prevailed to this time.

The road instructor's principles were not long in being applied. In 1901 the legislature appropriated \$1-million from the Consolidated Revenue Fund for the improvement of highways. This legislation (1 Edw. VII, cap. 32) empowered county councils to designate certain roads within their boundaries as county roads, which they were then to bring up to Public Works standard, the provincial government in each instance granting to the county one-third of the total cost. This Act gave birth to the county road system, which contributed so much to the improvement of roads in the province.¹⁵ Further legislation (5 Edw. VII, cap. 27), followed in 1905, elaborating on the first act, and in April 1907 a further sum of \$1-million was earmarked from the Consolidated Revenue Fund, further facilitating the counties in bringing more of their roads up to standard, set at this time by the Department of Public Works.¹⁶

All this enabling legislation emanating from Toronto had, of course, to be implemented by the various counties if it was to be of any effect. In the Rideau corridor the first to adopt what was now officially known as the County Road System was the county of Lanark in 1903. Lanark's original road system comprised 98 miles in all, and by the season 1914-15 the principal or county roads had been metalled with fieldstone or limestone. All county road work was directed by a committee of five from the county Council.¹⁷ The next Rideau county to adopt the County Road System was Frontenac in 1907, the same year that the Kingston and Perth Toll Road was purchased by the county. Limestone for road material was widespread.¹⁸ Carleton came in in 1909, with a designated county road mileage of 277. A county road superintendent was appointed, with a foreman responsible to him in each township.¹⁹ Finally Leeds and Grenville County adopted the system in 1910, with 270 miles designated as county roads.

County roads were placed under the direction of an engineer, who consulted with a committee of three, presumably of the county council. As late as 1917 the county complained of a shortage of labour, which may have been attributable to the war.²⁰

An adjunct to the spread of the county roads system was the appearance of a body, headed by A.W. Campbell of the Department of Agriculture in 1904, known as the Good Roads Movement.²¹ Whether as a derivative of this or not, the Canadian Good Roads Association was organized in Montreal in 1913, and incorporated in 1917. Its aims were:

To collect and distribute information concerning Highway legislation, construction, and maintenance, in the various cities, towns, villages and municipalities throughout Canada; to stimulate and encourage in all ways, the improvement, construction, and maintenance of roads; the whole from an educational and practical standpoint.²²

A resolution dated 29 November 1918 read as follows:

No other public works are more urgently required in connection with the improvement of conditions in agriculture, industry, and of the people generally, or will afford so much labour in proportion to the money cost.

A large delegation waited on the federal government to urge joint federal-provincial action.²³ The Good Roads Association lobbied and campaigned for road improvement, and no doubt acted as a catalyst in the growing movement which finally gave birth to the provincial highway system. Nor were other advocates lacking, including S.J. McLean, Dominion Railway Commissioner, who put the case for basic road improvement succinctly in a statement published in the *Montreal Star* on 14 December 1918. Regardless of the speed and the dispatch of the railways, McLean averred,

farm produce had to travel to the local railway depot over country roads, which still left a great deal to be desired. Road haulage costs were a major brake on agricultural enterprise, even at this late date. According to McLean's figures, in 1917 one dollar carried a ton of freight on Canadian railways an average 144 miles, whereas one dollar carried a ton of freight on a farm wagon four miles. McLean might well ask: "Have we yet learned that a bad road is the most expensive thing in the world?"²⁴

The King's Highway 1914-37

With the growing reliability of motor vehicles, the need for a province-wide highways system was increasingly felt. The genesis of Ontario's highway network, for long the best in the country, may be traced to the recommendations of the Public Roads and Highway Commission, which delivered its published report in 1914. Central to the Commission's recommendations, was the establishment of a highways department, under a minister of the crown, deputy-minister and chief engineer. The development of a highways system and the improvement of existing roads were set within a 15-year schedule, 1915-30. Revenue was to be raised by the taxation of motor vehicles on a systematic basis. Construction on a permanent basis was to be financed by a bond issue of up to \$30-million.²⁵ In this connection the commission enunciated a principle:

The first principle in connection with road expenditures is that money secured by bond issues should only be put into permanent roads. The future should not be called upon to pay for the present, unless the present creates something that will be useful to the future. The maintenance of permanent roads is

made necessary through the wear and tear of the present generation; hence that burden should be met by the users. As bond issues must eventually be redeemed, and as the roads will wear out and call for renewal from time to time, the bonds should not run for a longer period than the natural life of the road with proper maintenance.²⁶

In 1915 the Ontario Highways Act (5 Geo. V, cap. 17) established the Department of Public Highways under a minister of the crown and deputy-minister. The stage was now set for the creation of a system of through highways to provide rapid access to motorists and haulers from one end of the province to the other. The act provided for a system of suburban roads under a commissioner for each city or town of over 10,000 population, who would define suburban roads to which the city or town would contribute in equal proportion to the county. Suburban roads were considered county roads under the supervision of the county engineer. Further aid was prescribed for county roads. Township road superintendents were also instituted to improve the uneven and rutty condition of township roads. Finally but surely not least from the aesthetic viewpoint, the act regulated the use of billboards and boardings within $\frac{1}{4}$ mile of a highway or county road.²⁷

The following year The Highway Improvement Act (6 Geo. V, cap. 14) empowered county councils to borrow from any bank, trust or loan company for work authorized under the act. Another \$1-million was allocated from the Consolidated Revenue Fund for highway improvement.²⁸

It was in the year 1917, however, that the Ontario legislature through the Provincial Highway Act, laid the foundation for a provincial highway system, initially to cover the 600-mile region from the south-western limits

of the province on the St. Claire and Detroit rivers to the Quebec boundary, joining all the important centres en route. Authority for the expropriation of toll-roads was included. The programme was to be under the sole control of the newly instituted Department of Public Highways, and looked to the creation of a province-wide highway system.²⁹ Interested municipalities were to contribute 30 per cent of the cost. The first paved highway to be opened in the province was the Toronto-Hamilton Highway, completed on 6 November 1917, and formally opened on the 24th of the month. County roads designated by the Minister of Highways were to be subsidized at the rate of 60 per cent.³⁰

Finally in 1919 the federal government took a hand, with a dominion-wide allocation of \$20-million for highway construction and improvement, of which Ontario's share was \$5,887,283 for the period 1921-27. The federal subsidy for approved highways in the various provinces was to be 40 per cent of the cost, for which the province had to guarantee proper maintenance. This was applicable to provincial highways only.³¹ Finally the Ontario government, through the Highway Improvement Act, the same year earmarked no less than \$5-million for highway work from the Consolidated Revenue Fund, with further provisions for the expropriation of toll-roads.³²

In 1920 trunk road mileage in Ontario was 1,824, the purpose of which was to connect up every county and county town, primarily for the benefit of the farmer. In the words of F.C. Biggs, Ontario Minister of Public Works, an energetic, enterprising if controversial character:

Then it is only a matter of a year or two when every farmer in the province of Ontario is going to be an automobilist and when he will not only be that but the owner of trucks, because we have come to realize that for the

short haul of from 50 to 60 miles, the quickest and most dependable way of placing stuff on the market is by motor trucks.³³

These were prescient words for in a decade or two long distance highway haulers were to make such deep inroads into the railway freight business that the railroads themselves began equipping themselves with fleets of trucks. This obviously had to await the development of a well maintained system of inter-connecting highways, which was rapidly forthcoming in the expansive decade of the 1920s and even through the Depression-ridden 1930s. For the present the truckers were welcomed by the railroads as handy adjuncts to the rails.

In 1920 the afore-mentioned F.C. Biggs, then designated Minister of Public Works and Highways, announced that highway expansion was a keystone of government policy, although it was asserted by his critics that this was no more than the policy of his predecessor, W.A. McLean.³⁴ Whatever the relative merits of McLean or Biggs, there is no doubt of the progressive roads policy pursued by the Ontario government in these years.

Reference has been made to the Highway Improvement Act of 1916. A second Highway Improvement Act passed on 19 May 1920 established the Highway Improvement Fund, wherein was to be deposited \$3-million *per annum* every five years, beginning with the start of the next fiscal year on 1 November 1919. Receipts from motor vehicle license fees were deposited to swell the fund, as were fines for infractions of the Provincial Highways Act. Furthermore county road superintendents were restricted to graduate civil engineers, members of the Engineering Institute or Ontario land surveyors.³⁵

During the expansive three-year period following passage of the Canada Highways Act in 1919 (mentioned heretofore),

the province subsidized about 20 per cent of township expenditure and up to one half for county. Among the public at large there was ample awareness of the value of the tourist dollar, and to the motorist the advantage of a highway network was self-evident. The department featured the marketing facility provided the farmer by good roads,³⁶ and without doubt an end to rural isolation which they would provide. As a conservative class who had from the start objected to an increase in taxes, the farmers may have proved less enthusiastic, but as time went on and more of them possessed themselves of cars and trucks, better roads may well have meant more to them than to the city dweller, who could rely on the electric tramcars to get to and from work, or downtown for shopping.

In 1923 the terms of the Canada Highways Act 1919 were extended to 31 March 1926. Federal aid was made available to the provinces providing such subsidized roads and highways were built and to the requisite standards within 5 years.³⁷

It will be recalled from the first chapter that pioneer corduroy roads, riddled with potholes, were at their best in the dead of winter. This would no longer hold true with the introduction of motor traffic. Until 1920 the Department of Highways sought to keep some roads open throughout the winter for sleigh traffic only. In that year the Department's budget for keeping the roads open came to only \$1,486, but this rose dramatically with the increase in motor traffic; in the 1926-27 season the expenditure was \$64,640 and the following year had risen to \$104,441 when the department was maintaining 1,200 miles of highway. By the late 1920s rotary and blade snowploughs had made their appearance, as had the four-wheel drive truck.³⁸ In the Department's *Annual Report* for 1928-29, the deputy-minister, R.M. Smith, observed that notwithstanding the great progress made,

highway development in the province was still in its infancy. He noted two trends which were to become dominant in the very near future: the bus or motor coach was replacing the electric line, and trucks were encroaching on the railroad freight business. (The first victim of the bus or motor coach was the suburban or inter-urban electric line, later to be followed to virtual extinction by the street car, or urban street railway. Branch line railway service was to follow suit in the early post-war years, and today the railways are secure only in the handling of bulk freight and on the defensive with high-speed passenger service on high density routes.) Finally the *Report* noted the debut of the four-lane by-pass highway in New York state and in England.³⁹

A numbering system with the designation King's Highway was introduced by George S. Henry, Minister of Highways, in the 1929-30 season.⁴⁰ In 1931 by act of the legislature (21 Geo. V, cap. 11) the Department of Highways was constituted a separate department, until then being known as the Department of Public Works and Highways.⁴¹ Finally in 1936-37 what was known as the trunk road was introduced, consisting of two 20-foot wide pavements separated by a boulevard, the roadway being paved with concrete. Such roads were to have a minimum visibility of 700 feet, a maximum gradient of four per cent and maximum curvature of three degrees. Three classes of highway were designated:

class A graded to a width of 40 feet, 20 feet paved							
B	"	"	30	"	20	"	road surface
C	"	"	24	"	16	"	"
with gravel ⁴²							

The background on highway development may well end with the Queen Elizabeth Way, first of the expressways in Canada. Begun in 1931, the 91-mile highway was opened on 7 June 1939 by the Queen consort, inaugurating a new era in controlled-access, four-lane boulevard-divided and by-passing highways.

The King's Highway in the Rideau Region 1915-28

The adoption of the county road system by the Rideau corridor counties has been dealt with, and it is now opportune to describe the inception of the provincial highways system in this region.

The Statute Law Amendment Act, passed 8 April 1915, authorized a bond issue, guaranteed by the province, to finance the building of a highway from Ottawa to the international boundary.⁴³ The year previous, the Ottawa Valley Motor Car Association had petitioned the government for a highway from Ottawa to Prescott, via the Experimental Farm, Manotick, North Gower, Beckett's Landing, Kemptville, Spencerville; barring Manotick, which is bypassed, this is the route of the present Highway 16. The association complained that there were 60 miles of very bad road between the national capital and the boundary, to the great detriment of the tourist traffic, which enjoyed excellent roads as far as Ogdensburg, on the American side.⁴⁴

F.G. Macdiarmid, Minister of Public Works and Highways, announced from Toronto on 17 October 1916 that the department proposed to build a highway from Ottawa to Prescott from the proceeds of 50,000 licenses issued in the province.⁴⁵ The Prescott-Ottawa project, together with that from Napanee to Kingston, was taken over by the provincial government on 15 August 1918, and Hearst announced on 11 September that roads radiating from Ottawa to Morrisburg, Pembroke, Kingston and Pointe Fortune would be assumed in the near future.⁴⁶ It was of course one thing to assume the responsibility for the highway, and another to carry it into effect.

The existing 57.6 mile road from Ottawa to Prescott was described as in very poor condition in the *Annual Report for the Department of Public Highways for Ontario 1918*. Starting from Prescott, the road through Edwardsburgh township was in very bad condition, requiring resurfacing, patching, the cleaning out of ditches and the building up of shoulders. Through Oxford township the road was very narrow, with a poor surface and narrow shoulders. The next stretch through North Gower was no better: the road was very narrow, the sides were overgrown with brush and small trees, and the surface was no better than the preceding sections. Finally the section through Nepean into Ottawa was poorly drained, often without a proper foundation.⁴⁷ The *Annual Report* for the following year found that much work would be needed to establish a proper foundation. The fence lines were overgrown with brush, and the right-of-way was only from 30 to 40 feet in width. Much of the route lay through swamp and what was described as boulder-clay hills which made for bad drainage. The road followed the Rideau River from Ottawa for 14½ miles, crossing it at Beckett's Landing and thence to Kemptville, joining the Toronto-Montreal highway three miles east of Prescott. The department promised a serviceable road from Prescott to Ottawa by the end of 1920.⁴⁸ Particularly bad stretches of the road, almost impassable at certain seasons, were from Kemptville to the Rideau River, the Cranberry Marsh, and from Manotick to near Ottawa.⁴⁹

The *Ottawa Journal* reported on 1 August 1919 that progress on the road had been slow; the job had been undertaken only with lobbying carried out by good roads enthusiasts in Ottawa and the vicinity. Labour was reported in short supply in summer. The highway had to be built from scratch, and passed through a sparsely settled region.⁵⁰

F.C. Biggs in 1920 stated that he recommended early completion, with the road to be partly macadamized and partly gravel. The local provincial member, H.P. Hill, wrote to Biggs complaining that the road would not be completed for many months and criticized the slow progress. Biggs replied that the road would be finished before winter (1921) and would be permanently surfaced within three years.⁵¹ Five bridges begun in 1920 were reported finished in 1921.⁵² The department's records by January 1922 showed all 57 miles of grading completed, all culverts and bridges finished, the whole surfaced either with heavy gravel or macadamized, and fencing 90 per cent erected.⁵³ By 1925 continuous pavement had been laid from Ottawa to Kemptville, bar an 8-mile gap from the Rideau River crossing to North Gower.⁵⁴ Notwithstanding the above the editor of the *Ottawa Journal* called the road a disgrace to the Ontario government, with a very bad surface re-patched annually and "accompanied by villainous detours." The Hearst government, (Sir William H. Hearst, premier 1914-19), charged the *Journal* editor, had given too free a hand to the lavish planning of engineers, whereas its successor, that of Ernest Charles Drury, 1919-23, had wasted money. The highway was, averred the editor, a very bad advertisement for Ottawa.⁵⁵ Work continued on what was to be Highway 16, and in 1928 only the section between Spencerville and Kemptville was unpaved. Paving throughout its length was completed in 1929.⁵⁶

It is of interest to note that the original road from Ottawa to Prescott, as shown on both an 1875 and 1909 map, followed a different route from the modern highway from Ottawa to Kemptville, passing south from Billings Bridge, through South Gloucester and Greeley, to the east of the Rideau River.⁵⁷ Harry and Olive Walker in *Carleton Saga* designate this as the "Prescott Coach Road," an extension of Bank Street.⁵⁸

South of Kemptville Highway 16 follows closely the route of the original Ottawa-Prescott road. The present route appears from the map to be the more direct.

The last chapter described how Kingston did not achieve a direct railway connection with Ottawa. Such was not to be the case in the highway era. It may be recalled from the first chapter that a map dated 1839 showed that the road from Kingston to Bytown through Perth lay generally to the west of the Rideau waterway - viz., the Cataraqui River and chain of lakes, and from Perth bore in a straight line north-easterly for Bytown through Franktown and Richmond. The Kingston to Perth road still exists, and is marked on current maps as the Old Perth Road. This route is a more direct one than the modern Highway 15, which follows somewhat of a zigzag course via Seeley's Bay, Crosby, Smiths Falls, and Carleton Place. Either engineering factors or the linkage of principal towns probably accounts for the change.

A highway linking Kingston and Ottawa, 102 miles in length, was projected, along with 22 other highways, by F.C. Biggs in 1920.⁵⁹ The route subsequently followed by Highway 15 shows fairly clearly on an 1875 map from Kingston to Seeley's Bay and a little beyond, petering out thereafter; from Smiths Falls a road is shown to Carleton Place, following fairly closely the route of the future highway, but beyond Carleton Place to Ottawa there was no road to speak of in 1875, and as will be recalled from the last chapter, no railway either until 1870.⁶⁰ The 1909 map shows a road following the route of the future highway from Kingston through Seeley's Bay, Elgin, Forfar and Portland to Smiths Falls, then much as it is today to Ottawa.⁶¹ And so in 1920 the road in the main existed, probably in deplorable condition, and it was a matter of bringing it up to the standards set for the King's Highway.

In 1920 the Kingston-Ottawa road was assumed as part of the newly-defined provincial highway system.⁶² The road was routed through Perth according to the principle laid down by the department that provincial highways must pass through all county towns, hence the diversion to include Perth.⁶³ There had been criticism of this route, and pressure had been resisted to follow the line of the Rideau Lakes more closely. Resident engineers and assistants were appointed to superintend construction for each 80 to 100 miles.⁶⁴

Departmental files for January 1922 recorded that 5 miles of grading had been completed, 30 per cent of the culverts were in, 2¾ miles had been macadamized, and 40 miles of good gravel laid.⁶⁵ The department's *Annual Report* for 1922 reported that four miles of road had been macadamized north of Barriefield, and that a macadam base had been completed on three sections: from Ottawa to Stittsville (eight miles), for four miles west of Carleton Place for three miles outside of Perth.⁶⁶

Thereafter a number of the Department of Highways Annual Reports were not printed, and so beyond this date only fragmentary information has been found on progress, and indeed the completion date for Highway 15 is unknown. A 1930 road map shows the highway completed via Perth,⁶⁷ but the highway may have been finished in the late 1920s.

A third highway which may be considered a through highway insofar as the Rideau region is concerned is that from Ottawa to Morrisburg, the present Highway 31. This one seems to have made slower progress, although being mooted as early as the other two already discussed. As early as March 1915 a deputation from Morrisburg and Dundas County had waited on the premier, W.H. Hearst, representing the advantages of this route over that of the projected Prescott-Ottawa on the grounds that theirs was shorter (only 42 miles)

and would allegedly benefit a wider area.⁶⁸ By 1921 the department was able to report that macadamizing was under way at the Ottawa end in Carleton county, and an excellent 26-mile stretch was anticipated by the end of 1922.⁶⁹ Despite this optimistic report, the department's *Annual Report* for 1926-27 stated that only the Morrisburg to Winchester section (a little less than half the route) had been assumed into the provincial highway system, and indeed as late as the 1930-31 season the road had not been brought up to provincial highway standard beyond Winchester North.⁷⁰ It may be surmised, therefore, that in the early 1930s motorists bound for Ottawa from Morrisburg ran out of highway-standard road about half-way to Ottawa, although in the same year that the Morrisburg-Winchester section had been assumed into the provincial highway network so was the final section from Bell's Corners into Ottawa.⁷¹

An idea of traffic density, computed for the summers of 1925-27 inclusive for two of the highways dealt with above, may be of interest. It is based on the daily average number of vehicles:

	Kingston-Ottawa	Johnstown (Prescott)-Ottawa
1925	566	838
1926	576	1,029
1927	709	1,185 ⁷²

It may be readily seen that traffic on the Kingston-Ottawa highway was roughly 60 per cent of that on the Prescott-Ottawa road. On the basis of these admittedly short-term returns, it would appear that whatever advantage Kingston enjoyed as a result of its water (Rideau Canal) connection with Ottawa, land transport, whether rail or road, rendered Kingston of secondary importance insofar as overland transport was concerned.

By the year 1930 the three roads herein discussed were clearly marked as provincial highways on the road maps of the time, in addition to which was Highway 29 from Brockville to Smiths Falls, and Highway 32, a short stretch from Gananoque north to a juncture with Highway 15 near Seeley's Bay. Basically this is the highway network in the Rideau region today.

Highway Transport

The genesis of motor transport has been touched on at the beginning of this chapter. In the inter-war period of the 1920s and 1930s the highway became a major competitor of the railroad. A brief review of highway legislation may set the account in perspective before proceeding to the final subject of this paper, the highway carrier in the Rideau region.

The first speed limits for motor vehicles in Ontario were set in 1903 - 10 miles per hour in town and 15 miles per hour on the highway. License fees were introduced at the same time.⁷³ In 1906 more comprehensive legislation prescribed penalties for reckless or drunken driving, provided penalties for infractions including suspension of the offender's license, established liability for injury and property damage, imposed certain safety regulations such as equipment of each vehicle with a horn or bell,⁷⁴ and in 1908 set an age limit of 17 for issuance of a driver's license.⁷⁵ In 1916 the Load of Vehicles Act set the maximum weight for a truck or lorry at 12 tons, and the maximum width of all motor vehicles at 90 inches. The use of flanges on wheels was prohibited.⁷⁶ In 1919 the speed limits were raised to 20 miles per hour in town and 25 on the highway. Mufflers and rear view mirrors became mandatory, and regulations were imposed on dealers in second-hand cars.⁷⁷

Finally in 1925 a gasoline tax of three cents per gallon was imposed.⁷⁸

Increasing regulation became necessary with the proliferation of motor vehicles. In 1911, for example, 11,339 automobiles and trucks were registered in the province of Ontario. By 1914 this figure had jumped to nearly three times that number, and by 1920 there were no fewer than 172,065 vehicles registered in the province.⁷⁹ This of course was only the beginning, for it was in the 1920s and 1930s that the family car became a commonplace, and the garage an adjunct of almost every house.

Trucking, as mentioned at the beginning of the chapter, began in the post-1918 years merely as a local carriage and a valued adjunct to the railway. One of the early trucking firms was Smith Transport established in 1919.⁸⁰ With the development of the provincial highway network in the 1920s and the increased power and reliability of trucks, motor haulage encroached deeply on railway freight, eventually operating on a continent-wide basis, and leaving the railways undisturbed only in the carriage of bulk freight. The Ontario Trucking Company was incorporated 15 January 1923, with head office in Toronto, licensed to operate a variety of vehicles - motor trucks, cabs, drays, omnibuses. In May of the same year the Toronto Trucking Company secured its charter.⁸¹ Roy M. Andrews Transport of Peterborough followed in 1926,⁸² and the same year Smith Transportation was incorporated, with a nominal capitalization of \$500,000, with head office in Toronto.⁸³ In 1931 Canada Transport Limited, with a capitalization of \$40,000 was established in Belleville,⁸⁴ and Smith Transport in Oshawa. The principals of the latter firm were Philip and Fannie Smith of Oshawa, Joseph Gutman also of Oshawa, and Harry Smith of Montreal.⁸⁵

There can be little doubt that some, if not all, of these haulers operated from Kingston, Brockville and Prescott into Ottawa. Traffic figures for trucks, on a daily average, show a significant increase on Highway 15 (Kingston to Ottawa) and Highway 16 (Prescott to Ottawa) in the early 1920s, when as we have seen, the former inadequate roads were brought up to highway standards:

	1914	1922	1924	1924	1925	1925	1926
			(summer)	(fall)	(summer)	(fall)	
Highway							
15	Nil	18	33	20	30	23	30
16	"	24	32	30	43	228	58 ⁸⁶

As late as March 1925 an economist on the staff of the Canadian National Railways, R.A.C. Henry, saw the motor vehicle as a common carrier supplementary rather than competitive with the railways, excelling in the short haul and urban services. He foresaw that steam and electric branch lines might well be replaced in some instances by motor transport, but he argued that before conclusions could be validly drawn on the economics of highway and rail transport, the trucking firms must assume their due share of highway costs.⁸⁷ Before another decade had passed the railways had lost a major portion of their most lucrative freight to highway haulers, while the railway passenger business suffered even more drastically at the hands of the motor coach or long-distance bus and the family car.

The motor coach could offer consistently lower fares than the railroad, and many preferred the bus lines for all but very long journeys, fancying that the bus gave them a better view of the country and a less depressing entry to the cities. And it goes without saying that nothing could, or can, match the mobility of the family car.

The first legislation regulating the operation of motor coaches, or buses to use a more current term,

was the Public Vehicle Act (10-11 Geo. V, cap. 76), enacted 4 June 1920, whereby the carriers of passengers or freight were licensed by the Department of Public Highways. Special licenses were issued, renewable annually, with the Department empowered to suspend or cancel the same for infractions under the act.⁸⁸

The first Ottawa firm to be incorporated as a motor coach company was United Coach Lines Limited, whose charter dates from 12 April 1926, with a nominal capitalization of \$300,000. United's directors were Bretislav Pliske, Gordon McLennan, William McElroy, Hamnett Pinhey Hill, Hugh Redford and Dale Harris.⁸⁹ United Coach Lines operated a service from Ottawa to Prescott, Brockville and Morrisburg.⁹⁰ On 25 March 1927 United Coach Lines began service between Ottawa and Morrisburg with one coach, and on 30 March between Ottawa and Brockville with three coaches. About the same time the management announced an early inauguration of an early morning and late evening service between Ottawa and Kemptville,⁹¹ which could be considered the forerunner perhaps of commuter service in the area.

In October 1927 O.F. Cook assumed United Coach Lines' franchise for the Ottawa-Morrisburg and Ottawa-Brockville service. About the same time Caverley and Sons of Kingston bought out T. Roberts of Ottawa, who operated an Ottawa-Kingston service via Smiths Falls under the title the Ottawa Interurban Transit Company.⁹²

The longest established and best known bus company in the whole region was Colonial Coach Lines Limited, incorporated on 7 January 1928, with head office in Kingston. Colonial Coach, whose provisional directors at the outset were John Ernest Cunningham, Robert Boak Burns and Le Ette Maud Carter,⁹³ bought out a number of franchises, including that of B. Pliske in

the Ottawa-Kingston service, Caverley and Son, and H.G. Flemming, who operated a Brockville-Prescott-Morrisburg service.⁹⁴ In their first season, the summer of 1928, Colonial Coach operated buses from Kingston to Ottawa via Seeley's Bay, Smiths Falls, Perth and Carleton Place; from Prescott to Ottawa, and from Brockville to Ottawa via Smiths Falls, Perth and Carleton Place.⁹⁵ In the summer of 1929 Colonial Coach ran three buses daily each way between Ottawa and Kingston, the run taking 5½ hours. Departure times from each terminal were 7:00 a.m., 12:30 p.m., and the afternoon buses leaving Kingston at 4:30 p.m., and Ottawa at 5:15 p.m. In addition during the summer months there was a Sunday Special from Kingston to Perth, stopping at Seeley's Bay, Elgin, Portland and Smiths Falls.⁹⁶ Fares from Ottawa to Kingston were \$3.75 (\$6.75 return), and from Ottawa to Prescott \$1.75 (\$3.15 return). The Ottawa bus terminal in 1929 was located at 88 Queen Street. The autumn and winter schedule that year listed three departures daily, at 8:00 a.m., 1:30 p.m. and at 5:15 p.m.⁹⁷

In 1930 Colonial's head office was moved from Kingston to Ottawa, and the board of directors was increased from three to as many as nine members.⁹⁸ In February of that year the capital stock was increased from the original 1,000 preference shares at \$100 each and 1,000 common shares to an additional 5,000 preference shares at \$100 and 5,000 additional common shares.⁹⁹ Early in the New Year 1930 Colonial Coach absorbed Toronto-Montreal Coach Lines, incorporated the year before, and Ottawa-Montreal Road Coach Lines, which had been operating since 1926.¹⁰⁰ Hence by 1930 Colonial Coach was extending its service far beyond the Rideau corridor area.

In the summer of 1930 Colonial Coach put on extra buses from Ottawa through Perth to Smiths Falls, a Kingston-Smiths Falls service taking in Perth, and an Ottawa-Morrisburg service.¹⁰¹

In the summer of 1930 the Colonial Coach fleet consisted of 47 of the latest model of bus, including deluxe parlour car coaches, no doubt in a bid to attract comfort-loving passengers away from the railroad parlour cars, with their deep plush swivelling easy chairs and spacious windows. That summer Colonial was operating as far west as Toronto.¹⁰² In June 1932 *Canadian Railway and Marine World* announced that Colonial's service from Ottawa to Montreal had been resumed on 1 May, inferring that it had not been operated in winter.¹⁰³ On the other hand, this may refer to a particular schedule, because certainly by this date highways were kept open through the winter.

The Colonial winter service, effective 1 November 1932, shows an 11-hour schedule Ottawa to Toronto, 5 hours Ottawa to Kingston and 2½ hours to Brockville.¹⁰⁴ Before the days of by-pass expressways bus service could not compete with express trains in running time, but offered substantially lower fares.

In May 1934 Colonial Coach Lines acquired a new Ottawa terminal, 365-375 Albert Street.¹⁰⁵ The summer service 1934 included a 5-hour schedule to Cornwall, 2¼ hours to Prescott and a half-hour more to Brockville.¹⁰⁶

A major break-through in the Ottawa-Toronto service, via Perth and Peterborough, was inaugurated on 15 May 1946 - with a morning bus departing Ottawa at 8:30 a.m., arriving in Toronto at the Bay Street terminal, at 4:35 p.m., a shade over eight hours.¹⁰⁷ The cutting of about three hours from the time was due to the opening of Highway 7, cutting straight west through the bush of the Cambrian Shield, giving more direct access to Toronto. This development was a harbinger of things to come, for with the completion of Highway 401 as well as 7, bus time to Toronto was cut further to little over 5 hours, which was faster than the Ottawa-Toronto fastest train time as a

result of the slow time on the railway between Ottawa and Brockville via Smiths Falls, adding as it does not only to the rail mileage between the two cities, but because of the nature of the roadbed, particularly between Smiths Falls and Brockville, precluding fast time.

As with so many railway companies, coach lines too tended to amalgamation. In 1968-69 Colonial Coach and Voyageur Coach Lines shared the same terminal on Albert Street. The *Ottawa City Directory for 1968* last listed Colonial Coach as a separate entity, the *Directory* for the following year clearly showing an amalgamation, under the title Voyageur-Colonial.¹⁰⁸ Currently this company provides on the hour service from Ottawa to Montreal, and nearly that frequency for Toronto as well. The completion of expressways made bus time-tables fully competitive with railroad, except for the fastest schedules, such as the Turbo gas-turbine rail service, 4 hours and 10 minutes Montreal to Toronto.

Conclusion

Through roughly a century and a half, the evolution of transportation overland in the Rideau region has been reviewed. From the fly-infested bush trails which more often than not served the early settlers as roads to broad well-engineered paved highways, travel through the region has steadily improved. The stage-coach was quickly displaced by the very much faster and surer railway, which in its turn fell victim to the more flexible motor vehicle, once the gasoline engine had attained some degree of power and reliability. With the demands of the latter, and the development of the modern highway system, the road took its revenge on Keefer's "civilizing rails." This is not to say that overall the days of the railroad are over.

In the case of the region under study, however, the three railroads built, the Bytown and Ottawa, Brockville and Ottawa, and the Brockville and Westport, were doomed to branch line status with the development of trunk lines by much bigger companies. As we have seen, all three were absorbed into larger systems, quite losing their identity. Once branch line operation was recognized as no longer feasible because of highway competition, these lines fell into disuse, until today only the excursion train operated as a nostalgic outing for hobbyists, occasionally disturbs the grass-grown right of way and rusted rails. The steam train has passed the way of the Rideau steamer, able to evoke memories only among the older residents of the region. With the developing energy crisis one cannot foresee an unlimited future even for the motor vehicle, but this takes us into speculation far into the future, which by all odds, lies well beyond the limits of this paper.

Appendix A. Revenues and Expenditures for the St. Lawrence and Ottawa Railway, together with classified freight tonnages.

1867	gross earnings	\$106,184
	net earnings	42,071
1868	gross earnings	118,043.51
	net earnings	42,729.81
	passenger earnings	57,205.06
	freight earnings	50,586.29
	other revenue	10,252.16
1869	gross earnings	128,622.56
	net earnings	21,162.18
	passenger earnings	63,061.52
	freight earnings	56,790.69
	other revenue	8,770.35
	current expenses	87,960.38
	dividends	19,500.00
1870	gross earnings	138,115.31
	net earnings	45,229.20
	passenger earnings	71,520.68
	freight earnings	55,996.16
	mail & express	10,598.47
	operational expenses	92,886.11
1871	gross earnings	142,169.98
	net earnings	46,896.58
	passenger earnings	75,298.87
	freight earnings	53,909.24
	mail & express	12,961.87
	operational expenses	95,273.40

1872	gross earnings	161,770.95
	net earnings	[45,953.28]
	passenger earnings	85,796.04
	freight earnings	61,832.86
	operational expenses	115,817.67
1873	gross earnings	183,348.71
	net earnings	[57,572.86]
	passenger earnings	104,084.49
	freight earnings	64,400.32
	misc. earnings	14,863.90
	operational expenses	125,475.85
1874	gross earnings	210,439.66
	net earnings	[80,247.96]
	passenger earnings	114,898.57
	freight earnings	80,579.55
	mail & express	12,762.13
	misc. earnings	2,199.41
	operational expenses	130,191.70
	maintenance of line	34,162.24
	engines & cars	50,132.09
	general operating exp.	45,897.37
1875	gross earnings	210,439.66
	net earnings	[80,247.96]
	operational expenses	130,191.70
	line, buildings	34,162.24
	engines & cars	50,123.09
	general expenses	45,897.37
	passenger earnings	108,808.90
	freight earnings	76,558.98
	mail & express	18,958.31

1876	gross earnings	173,669.64
	net earnings	
	passenger earnings	90,417.99
	freight earnings	90,115.52
	mail & express	13,136.13
	total operating expend.	112,557.58
	line & buildings	27,983.69
	engines & cars	39,006.61
	general operating exp.	45,567.28
1877	nil	
1878	gross earnings	129,517.12
	net earnings	37,864.72
	passenger earnings	62,171.80
	freight earnings	55,473.20
	mail & express	10,912.40
	misc. earnings	959.72
	operational expenses	91,652.40
	line & buildings	20,877.94
	engines	24,458.03
	cars	7,075.20
	general expenses	39,241.23
1879-80	gross earnings	147,114.93
	net earnings	37,289.91
	passenger earnings	72,442.32
	freight earnings	62,446.30
	mail & express	12,206.31
	operational expenses	109,825.02
	line	38,261.02
	engines	26,633.79
	cars	7,123.70
	general operating exp.	37,806.51
1880-81	gross earnings	147,549.55
	net earnings	[38,887.75]
	passenger earnings	55,738.00
	freight earnings	76,951.00

	mail & express	10,429.55
	misc. earnings	4,431.00
	operational expenses	108,661.80
	line & buildings	21,607.63
	engines	36,309.83
	cars	8,333.69
	misc. expenses	42,410.65
1881-82	gross earnings	139,955.57
	net earnings	30,954.95
	passenger earnings	41,316.45
	freight earnings	88,439.84
	mail & express	7,927.19
	misc. earnings	2,272.09
	operational expenses	109,000.62
	line & buildings	23,934.22
	engines	38,905.90
	cars	8,832.88
	misc.	37,327.62
1882-83	gross earnings	91,287.01
	net earnings	826.49 debit
	passenger earnings	29,502.59
	freight earnings	51,971.31
	mail & express	4,255.12
	misc. earnings	5,557.99
1883-84	gross earnings	69,878.70
	net earnings	42,154.82
	passenger revenue	27,474.50
	freight revenue	33,753.24
	mail & express	4,343.13
	misc. revenue	4,307.83
	operational expenses	27,723.88
	line & buildings	28,917.62
	engines	28,104.82
	cars	4,671.00
	misc. expenses	27,723.88

1884-85	gross earnings		47,742.84
	net earnings		4,270.96 debit
	passenger earnings		16,932.76
	freight earning		23,951.49
	mail & express		3,986.41
	misc. earnings		2,872.18
	operational expenses		62,013.80
	line		19,299.16
	engines		16,709.29
	cars		2,332.92
	misc. expenses		23,672.43
1874	flour	815 tons	1.65%
	grain	9,481	19.2%
	lumber	9,755	19.7%
	manufact.	24,081	48.7%
	other articles	<u>5,362</u>	10.9%
		49,494	
1875-76	flour	341	0.7%
	grain	7,330	15. %
	lumber	7,565	15.5%
	manufact.	26,469	54.2%
	misc.	<u>7,169</u>	14.7%
		48,874	

1876-77	flour	532	1.2%
	grain	6,800	15.1%
	livestock	935	2.1%
	lumber	12,987	28.9%
	manufact.	18,891	42 %
	misc.	<u>4,787</u>	10.7%
		44,932	
1877-78	flour	1,090	2.1%
	grain	10,294	2.0%
	livestock	293	0.6%
	lumber	16,768	31.9%
	manufact.	21,019	39.9%
	misc.	<u>3,160</u>	6 %
		52,622	
1878-79	flour	422	1.0%
	grain	6,162	14.2%
	livestock	60	0.1%
	lumber	16,368	37.8%
	manufact.	17,903	41.3%
	misc. art.	<u>2,388</u>	5.5%
		43,303	
1879-80	flour	635	1.1%
	grain	6,963	12.1%
	livestock	1,207	2.1%
	lumber	19,856	34.5%
	coal	5,890	10.2%
	manufact.	19,491	33.9%
	misc. art.	<u>3,516</u>	6.1%
		57,558	
1880-81	flour	3,275	3.7%
	grain	14,461	16.5%
	livestock	928	1.1%
	lumber	24,769	28.2%
	manufact.	24,902	28.4%
	misc. art.	<u>19,430</u>	22.1%
		87,765	

1881-82	flour	2,611	2.6%
	grain	16,669	16.6%
	livestock	750	0.7%
	lumber	41,566	42. %
	manufact.	26,241	26. %
	misc. art.	<u>12,703</u>	12.7%
		100,540	
1882-83	flour	1,670	2.9%
	grain	9,747	17. %
	livestock	354	0.6%
	lumber	19,315	33. %
	manufact.	13,673	23.9%
	misc. art.	<u>12,449</u>	2.8%
		57,208	
1883-84	flour	1,291	3.7%
	grain	5,828	16.9%
	livestock	444	1.3%
	lumber	7,776	22.5%
	manufact.	7,196	20.8%
	misc. art.	<u>12,012</u>	34.8%
		34,547	
1884-85	flour	743	2.9%
		(1 July 1884 -	
		28 Feb. 1885)	
	grain	5,770	22.8%
	livestock	206	0.8%
	lumber	3,698	14.6%
	manufact.	3,722	14.7%
	misc.	<u>11,195</u>	44.2%
		25,334	

Appendix B. Revenues and Expenditures for the Brockville and Ottawa Railway, together with classified freight tonnage.

1866	gross revenue	113,209	Note: gauge 5'6"
	expenses	62,080	rail 56-58 lb. yd.
	net revenue	51,129	
1867	gross revenue	138,884	
	expenses	81,027	
	net revenue	57,857	
1868-69	passenger revenue	44,904	25.06%
	freight "	127,735	71.3%
	misc. "	<u>6,533</u>	3.6%
		179,172	
1869-70	gross revenue	203,000	
	oper. expenses	143,377	
	net revenue	59,623	
1870-71	passenger revenue	72,288.56	27.7%
	freight "	179,114.12	68.7%
	mail & express revenue	4,800.13	1.8%
	other revenue	4,796.28	1.8%
	gross revenue	260,999.09	
	net "	113,301.44	
1871-72	passenger revenue	77,072.15	28%
	freight "	190,982.62	69.3%
	misc. "	7,377.22	2.7%
	gross earnings	275,431.90	
	operating expenses	180,615.45	

	net revenue	94,816. 54	
1872-73	nil returns		
1873-74	" "		
1874-75	" "		
1875-76	receipts: passenger revenue	57,713.64	31.68%
	freight "	118,199.11	64.88%
	mail "	3,309.56	1.8%
	express "	1,876.82	1. %
	rents "	365.00	
	wharfage "	705.56	
	total:	182,169.69	
	net revenue	50,864.32	
	expenses: line	49,817.46	
	engines	34,650.18	
	cars	7,034.09	
	operating expenses	<u>39,803.64</u>	
		' 131,305.37	
1876-77	receipts: passenger revenue	57,460.59	27.33%
	freight "	145,991.25	69.45%
	mail "	5,203.46	2.48%
	misc. "	1,555.70	
	total:	210,211.00	
	expenses: line, buildings	31,774.68	
	engines	34,640.60	
	cars	5,596.75	
	operating expenses	47,114.92	
	total:	119,126.95	
1875	flour & grain	9,300 tons	8.93%
	livestock	860	0.83%
	lumber(exc.firewood)	66,280	63.67%
	manufact.	24,773	23.8%
	pork, butter	<u>2,885</u>	2.77%
	Total	104,098	

1875-76	flour	808	1.11%
	grain	3,544	4.87%
	livestock	758	1.04%
	lumber	44,727	61.41%
	manufact.	19,442	26.69%
	misc. art.	<u>3,559</u>	4.87%
	Total	72,838	
1876-77	flour	2,054	2.4%
	grain	3,250	3.8%
	livestock	730 tons	0.85%
	lumber	53,571	62.65% net/gross 43.33%
	manufact.	18,372	21.49%
	misc. art.	<u>7,528</u>	8.8%
	Total	85,505	

In 1869 rolling stock consisted of 7 locomotives, 5 passenger cars, 138 freight cars and 2 baggage cars. In 1874-75 rolling stock was made up of 9 locomotives, 5 passenger cars, 3 baggage cars and 173 freight cars. In 1876-77 the average speed of passenger trains was 20 m.p.h., and of freight 14 m.p.h.

Appendix C. Revenues, Operating Expenses and Classified Freight Tonnages
for the Brockville, Westport and Sault Ste. Marie, later the Brockville,
Westport and North-western Railway.

1891-92	revenues: passenger	10,872.80	45.76%
	freight	12,678.40	53.36%
	mail	210.85	0.89%
	total:	23,762.05	
	oper. exp.	21,481.12*	
	net earnings	2,280.93	
	* further breakdown operating expenses:		
	line maintenance	2,489.88	
	engines	3,984.00	
	general operating expenses	15,007.24	
1892-93	revenues: passenger	11,140.88	45.54%
	freight	13,087.22	53.5%
	mail & express	234.67	0.96%
	total:	24,462.77	
	oper.exp. line maint.	6,908.68	
	engines	6,383.91	
	cars	231.16	
	gen. oper. exp.	7,300.90	
	total:	20,824.65	
	net earnings	3,638.12	
1893-94	revenues: passenger	12,811.81	46.21%
	freight	14,666.66	52.9%

		express	248.35	0.9%
		total:	27,726.82	
	oper.exp.	line & bldg.	6,154.32	
		engines	7,574.47	
		cars	88.55	
		gen. oper. exp.	9,202.87	
		total:	23,020.21	
	net earnings		4,706.61	
1894-95	revenues	passenger	11,690.70	46.07%
		freight	13,381.71	52.73%
		express	306.14	1.21%
		total:	25,378.55	
	oper.exp.	line & bldg.	6,182.58	
		engines	5,804.39	
		cars	610.06	
		gen. oper. exp.	8,069.24	
		total:	20,666.27	
	net earnings		4,712.28	
1895-96	revenues	passenger	12,513.60	43.76%
		freight	14,679.70	51.33%
		mail & express	1,405.41	4.91%
		total	28,598.71	
	oper.exp.	line & bldg.	11,621.14	
		engines	5,729.28	
		cars	613.30	
		gen. oper. exp.	8,851.30	
		total	26,815.52	
	net earnings		1,783.19	
1896-97	revenues	passenger	12,061.23	41.97%
		freight	14,067.42	48.95%
		mail & express	2,562.63	8.92%
		misc.	48.56	0.17%
		total	28,739.84	

	oper.exp. line	11,790.52	
	engines	7,067.06	
	cars	835.10	
	gen. oper. exp.	8,393.54	
	total	28,086.22	
	net earnings	653.62	
1897-98	revenue passenger	11,287.00	40.03%
	freight	14,191.78	50.33%
	mail & exp.	2,679.21	9.5%
	misc.	40.21	0.14%
	total	28,198.20	
	oper.exp. line & bldg.	11,499.62	
	engines	6,012.07	
	cars	865.22	
	oper. exp.	10,585.66	
	Total	28,962.57	
1898-99	revenue passenger	13,126.02	41.28%
	freight	15,892.74	49.99%
	mail & express	420.67	1.32%
	misc.	104.10	0.33%
	total	31,797.13	
	oper.exp. line & bldg.	15,510.04	
	engines	5,618.84	
	cars	453.64	
	gen. oper. exp.	8,556.89	
	total	30,139.41	
	net earnings	1,657.72	
1899-	revenue passenger	13,338.20	40.29%
1900	freight	16,903.20	51.06%
	mail & express	2,708.69	8.18%
	misc.	156.61	0.47%
	total	33,106.70	
	oper. exp.line & bldg.	10,597.11	
	engines	7,607.61	

			cars	1,080.80	
			gen. oper. exp.	8,874.00	
		net earnings		4,947.18	
1900-01	revenues	passenger		15,151.16	43.15%
		freight		16,996.36	48.40%
		mail & express		2,739.09	7.8%
		misc.		218.45	0.62%
		total		35,115.05	
	oper. exp.	line & bldg.		8,445.92	
		engines		12,066.13	
		cars		3,162.35	
		oper. exp.		8,421.47	
		total		32,095.87	
		net earnings		3,019.18	
1901-02	revenues	passenger		16,733.05	42.65%
		freight		19,393.87	49.43%
		mail & express		2,772.25	7.07%
		misc.		333.11	0.85%
		total		39,232.28	
	oper. exp.	line, bldg.		12,879.98	
		engines		7,671.61	
		cars		2,884.28	
		gen. exp.		9,680.60	
		total		33,116.47	
		net earnings		6,115.81	
1902-03	revenues	passenger		20,061.30	45.08%
		freight		21,111.57	47.44%
		mail & express		2,895.97	6.51%
		misc.		434.10	0.98%
		total		44,502.94	
	oper. exp.	line & bldg.		6,065.27	
		engines		9,041.40	
		cars		822.02	
		gen. exp.		13,198.25	

		total	29,126.94	
	net earnings		15,376.00	cost per
				mile 76.9¢
1903-04	revenues	passenger	23,486.50	48.49%
		freight	21,362.88	44.11%
		mail & expr.	2,979.67	6.15%
		misc.	602.20	1.24%
		total	48,431.25	
	oper. exp.	line & bldg.	7,190.31	
		engines	8,335.68	
		cars	975.31	
		gen. exp.	14,291.36	
		total	30,792.66	
	net earnings		17,638.59	cost per
				mile 66¢
1904-05	revenues	passenger	25,486.86	47.16%
		freight	23,060.17	42.67%
		mail & exp.	3,694.71	6.84%
		misc.	1,890.02	3.5%
		total	54,045.76	
	oper. exp.	line & bldg.	5,070.42	
		engines	11,065.35	
		cars	548.03	
		gen. exp.	13,461.94	
		total	30,145.74	
	net earnings		23,900.02	
1905-06	revenues	passengers	28,518.15	48.08%
		freight	26,344.85	44.41%
		mail	4,209.39	7.1%
		misc.	246.60	0.4%
		total	59,318.99	
	oper. exp.	line & bldg.	2,327.99	
		engines	11,627.16	
		cars	157.26	

		gen. exp.	15,636.44	
		total	29,748.85	
	net earnings		29,570.14	cost per mile 51¢
		passengers	30,486.73	
		mail	3,369.60	
		express	931.25	
		freight	27,154.17	
1906-07	gross earnings		62,023.00	
	net "		34,955.63	
1907-08	revenue	passenger	29,003.12	45.65%
		freight	30,183.15	47.50%
		total	63,537.73	
	oper. exp.	line & bldg.	5,251.59	
		equip.	2,479.96	
		operations	15,335.22	
		gen. exp.	7,094.61	
		total	30,161.38	
	net earnings		33,376.35	

In the season 1907-08 freight earnings per train mile (introduced at this time in returns) averaged \$1.07 for the B.W. & N.W., compared with:

\$2.29	for the C.P.R.
1.87	" " G.T.R.
1.02	" " C.O.R.
3.34	" " T.H. & B.
0.47	" " the Elgin & Havelock

1908-09	revenue	passenger	32,192.98	55.73%
		freight	25,575.54	44.27%
		total	57,768.52	
	oper. exp.	line & bldg.	9,930.69	
		Maint.	3,375.52	
		operations	18,539.14	
		gen. exp.	7,460.07	

total	39,305.42
net earnings	18,463.10

(It is obvious that the system of returns changed at this time.)

1909-10	passenger earnings	32,199	53.79%
	freight "	27,653	46.19%
	gross revenue	59,863	
	net "	21,952	
1910-11	passenger earnings	34,719	51.43%
	freight "	32,744	48.51%
	gross revenue	67,503	
	net "	30,012	(Railway & Marine World)
1911-12	revenue passenger	39,139.92	51.84%
	freight	<u>36,363.89</u>	48.16%
	total	75,503.81	
	oper. exp. line & bldg.	13,825.91	
	maint. equip.	3,671.01	
	traffic exp.	856.28	
	transp. "	22,045.51	
	gen. "	<u>2,854.23</u>	
	total	43,252.94	

Note: ratio operating expenses to operating revenues was 57.29%

1912-13	freight	37,727.28	from railway
	passenger	32,963.30	statistics
	operating revenues	76,447.27	
	" expenses	51,149.54	
	net earnings	25,286.73	33.08%
			net/gross
1913-14	revenue passenger	37,743.73	
	freight	32,866.45	
	total	70,742.94	

oper. exp. line & bldg.	46,721.80
equip.	6,796.10
traffic exp.	1,092.67
trans. "	26,135.90
gen. "	3,831.29
total	84,577.82
net deficit	13,834.88

Note: ratio operating expenses to revenue 119.55%

Classified freight tonnages follow:

1891-92	flour	695 tons	8.05%
	grain	970	11.23%
	livestock	1,060	12.27%
	lumber	897	10.38%
	mftd.	3,997	46.27%
	misc. art.	<u>1,019</u>	11.8%
		8,638	
1892-93	flour	1,291	12.3%
	grain	1,922	18.31%
	livestock	1,026	9.78%
	lumber	679	6.47%
	mftd.	4,441	42.31%
	misc. art.	<u>1,138</u>	10.84%
		10,497	
1893-94	flour	1,686	13.29%
	grain	2,871	23.43%
	livestock	1,094	8.63%
	lumber	890	7.02%
	mftd.	5,125	40.41%
	misc. art.	<u>1,016</u>	8.01%
		12,682	
1894-95	no return		
1895-96	flour	1,940	12.89%
	grain	4,667	30.97%

	livestock	1,357	9.0%
	lumber	903	6. %
	mftg.	4,561	30.27%
	misc. art.	<u>1,639</u>	10.89%
		15,067	
1896-97	flour	2,373	16.27%
	grain	4,196	28.77%
	livestock	1,296	8.89%
	lumber	684	4.69%
	mftd.	4,907	33.65%
	misc. art.	<u>1,127</u>	7.73%
		14,583	
1897-98	flour	1,987 tons	14.61%
	grain	3,125	22.98%
	livestock	1,021	7.51%
	lumber	661	4.86%
	mftd.	5,695	41.88%
	misc. art.	<u>1,108</u>	8.15%
		13,597	
1898-99	flour	2,069	15.6%
	grain	3,068	23.13%
	livestock	1,418	10.69%
	mftd.	5,660	42.67%
	misc. art.	<u>1,050</u>	7.92%
		13,265	
1899- 1900	flour	1,630	10.32%
	grain	3,375	21.36%
	livestock	1,589	10.1%
	lumber	683	4.32%
	mftd.	6,155	38.95%
	misc. art.	<u>2,370</u>	15. %
		15,802	
1900-01	flour	1,191	8.35%
	grain	2,641	18.51%

	livestock	1,629	11.42%
	lumber	721	5.05%
	mftd.	5,986	41.95%
	misc. art.	<u>2,102</u>	14.73%
		14,270	
1901-02	flour	1,736	9.84%
	grain	4,184	23.71%
	livestock	1,797	10.18%
	lumber	1,415	8.02%
	mftd.	6,396	36.24%
	misc. art.	<u>2,121</u>	12.02%
		17,649	
1902-03	flour	1,838	9.92%
	grain	3,408	18.39%
	livestock	1,964	10.6%
	lumber	1,135	6.12%
	mftd.	7,344	39.62%
	misc. art.	<u>2,846</u>	15.35%
		18,535	
1903-04	flour	1,369	7.65%
	grain	2,886	16.12%
	livestock	1,892	10.57%
	lumber	1,033	5.77%
	coal	807	4.51%
	mftd.	7,816	43.67%
	misc. art.	<u>2,096</u>	11.71%
		17,899	
1904-05	flour	2,320	11.45%
	grain	2,365	11.67%
	livestock	1,940	9.57%
	lumber	1,083	5.34%
	coal	1,130	5.58%
	mftd.	7,298	36. %
	misc. art.	<u>4,131</u>	20.38%
		20,267	

1905-06	flour	2,027	9.51%
	grain	2,975	13.96%
	livestock	2,173	10.2%
	lumber	1,109	5.2%
	coal	1,183	5.55%
	mftd.	8,520	39.98%
	misc. art.	<u>3,325</u>	15.6%
		21,312	

Note: from 1906 classified freight tonnage re-defined.

1906-07	agric. prod.	5,510	25.2%
	animal	2,762	12.63%
	mines	1,915	8.76%
	forests	1,337	6.1%
	mftd.	7,766	35.52%
	merch.	<u>2,575</u>	11.78%
		21,865	

1907-08 nil returns

1908-09	agric. prod.	6,594	30.06%
	animal	1,865	8.50%
	mines	1,005	4.58%
	forests	543	2.48%
	mftd.	8,542	38.94%
	merch.	<u>3,364</u>	15.34%
		21,935	

1909-10	agric. prod.	7,177	31.96%
	animal	4,489	20.7%
	mines	958	4.27%
	forests	2,096	9.33%
	mftd.	6,016	26.79%
	merch.	1,504	6.7%
	misc. art.	<u>216</u>	0.96%
		22,456	

1910-11	agric. prod.	10,813	41.87%
	animal	2,480	9.60%
	mines	2,374	9.2%
	forests	3,069	11.89%
	mftd.	5,043	19.54%
	merch.	735	2.85%
	misc. art.	<u>1,301</u>	5.04%
		25,815	
1911-12	agric. prod.	11,935	40.33%
	animal	3,808	12.87%
	mines	2,480	8.38%
	forests	4,961	16.76%
	mftd.	4,511	15.24%
	merch.	692	2.34%
	misc. art.	<u>1,209</u>	4.09%
		29,596	
1912-13	agric. prod.	10,424	25.06%
	mines	3,175	7.63%
	animal	6,636	15.95%
	forests	6,288	15.11%
	mftd.	11,254	27.05%
	merch.	<u>3,827</u>	9.2%
		41,604	
1913-14	agric. prod.	9,219	33.49%
	animal	5,090	18.49%
	mines	2,578	9.37%
	forests	3,069	11.15%
	mftd.	2,945	10.7%
	misc. art.	<u>4,626</u>	16.81%
		27,527	

Appendix D. Population returns Rideau Towns, derived from the published census.

	1851	1861	1871	1881	1891	1901	1911
Brockville	3,246		5,102	7,009	8,791	8,940	9,374
Bytown	7,760						
Carleton Place			1,205			4,059	3,621
Kemptville		1,068	872			1,523	1,192
Kingston	11,585	13,743	12,407	14,091	19,263	17,961	18,874
Merrickville		908	923				
Ottawa		14,669	21,545	31,307	44,125	59,928	81,062
Perth	1,916	2,465	2,375			3,588	3,588
Prescott	2,156	2,591	2,617			3,019	2,801
Richmond	434	516	487				
Smiths Falls		1,137	1,150	2,087	3,864	5,155	6,370

Appendix E. The Classification of Steam Locomotives.

Steam locomotives are classed according to wheel arrangement, made up of front-carriage or bogey wheels (optional), driving wheels, and trailing wheels (optional), located beneath the cab. Today and indeed for some years, international convention governs these designations. One in general use in the United States in the last century, Whyte's system, is reproduced below, as of possible interest with reference to some of the illustrations.

00	4-wheel
000	6-wheel
o00	4-coupled
o000	Mogul
o0000	Consolidation
o00000	Decapod
oo00	American
oo000	10-wheel
oo0000	12-wheel
oo00o	Atlantic
oo000o	Pacific
o00	4-coupled
o000o	Prairie
o0000o	Mikado

Source: E.P. Alexander, *Iron Horses: American Locomotives 1829-1900*, 1st ed., (New York: W.W. Norton & Co., 1941), p. 238.

Henry B. Comstock (*The Iron Horse*, New York, 1971) lists the following basic types of locomotive:

oOo	Columbia
ooO	6-wheel
ooOo	Bicycle
ooOoo	4-2-4
ooOO	American
ooOOOoo	Hudson, or Baltic
ooOOOO	Mastodon

These lists are not exhaustive, but most of the types pertain to the nineteenth-century, and so are of relevance to this paper.

Two locomotive types pertaining to the illustrations are the 4-4-0 American, and the 4-4-2 Atlantic.

The 4-4-0 American-type locomotive, according to Henry B. Comstock's *Iron Horse*, has been attributed to a design by George Sellers, circa 1834, but never built. The first of this type was built by James Brooks and Company, in the mid-1830s, and placed in service on the Philadelphia, Germantown and Norristown Railroad, the design of which was patented by Henry R. Campbell, civil engineer, in the employ of that company. By the 1890s many high-speed engines of this type were in service, one of which designed by William Buchanan, for service on the New York Central and Hudson River Railroad, was capable of speeds in the 100 miles per hour range.

4-4-2 Atlantic type was originally designed by George S. Strong in 1883 for the Lehigh Valley Railroad, but the engine was not built. In 1896 two such locomotives were built for the Atlantic City Railroad, operating between Camden and Atlantic City, averaging 70 miles per hour. The design incorporated four lightweight mainrods instead of two heavy ones, to reduce the hammering action, and hence wear and tear on the track.

The 2-4-0 or 4-coupled type, is described by Angus Sinclair and John H. White jr. in *Development of the Locomotive Engine*, (Cambridge, Mass: M.I.T. Press, 1970), as having originated in the United Kingdom, "a very common old, all-round engine of early days."

Appendix F. Report of Major Eliot, 68th Regiment of Foot, on the road from Richmond Landing to Kingston, July 1824.

On leaving the Richmond Landing, the first bad spot is a low swamp of some extent, which even at this dry season is very bad; & I am told in the spring is completely impassable, the waters of the Ottawa rising so much as to overflow the neighbouring low land, & consequently to render all the efforts of the people to make it practicable unavailing, the logs actually being afloat for some time...

The first 4 miles from the Richmond Landing, or as the people call it the Point, to Thomsons on Lot 29 is very much covered with rock & large stones; requiring in many places to be blasted, & the causeway although neither long or frequent, require ditching & repairs, and although this portion of the road lies generally through a favourable tract of hard wood land, with a good deal of sand & gravel; it is impossible that six families who I am informed are the whole who are obliged to work on it, can put it in the state it ought to be, for the convenience of the whole of that part of the country which depends on it as the only means of communication; I mean Richmond and its vicinity.

From Thompson's to Boyds (on Lot 12) 4½ miles, the road is generally through a better country; that is, not so rocky; but with rather more causeways: this portion is said to be worked on by 12 families.

At Boyd's the road takes a new direction, & crosses the 5th and 6th concessions, to where it comes on the town line between Nepean and Beckwith; a distance of about 10½ miles.

The first 6½ of which is tolerably good, but the remaining four running nearly the whole distance close to the Goodwood, is much intersected with gullies, or water courses of no great extent, many of which are said to be filled with water in the spring for a few days; & would require to be well bridged, so as to make them passable at all periods with wagons; a work which it would be impossible for the two families residing in this portion of the road to accomplish.

Although the road could have taken a more direct route, this would have led through a very swampy tract, and pass through an unsettled region.

The road in this township (Nepean) was originally opened by the military settlers under Capt Burke, on their first being placed at & in the neighbourhood of Richmond; and has been made wide enough for wagons to pass along it, which they do now, carrying with some difficulty nearly half a ton; the distance from the Richmond Landing to the Town of Richmond is about 20 miles; & I am convinced from my own personal observations, as well as from the opinion of the principal persons residing in Richmond that every exertion has been made by the inhabitants (said to be 40 families) of this Township, consistent with their limited means to put it in order...

Leaving the Township of Nepean as already described, & entering Goulbourn between the 3rd and 4th concessions, a road has been cut out in a straight line 40 feet wide; but which, notwithstanding the expense that has been incurred, is impassable for anything except people on foot.

The first bad spot is on Lot 26, where a small rivulet crosses the road & runs toward the Goodwood; it is passed over by means of a Log bridge,

and as there is but little water in it at present (July) offers no obstacle to travelers; the land is low on each side, & extends altogether $4\frac{1}{2}$ chains, bearing evident marks of having been overflowed in the spring; & as it is impossible to avoid it without making a considerable detour, it appears absolutely necessary to build a permanent & solid bridge over it, butting on the rising ground on each side; & in order to insure these objects the length of the bridge should be at least 110 yards.

The road from the town line of Nepean to Lot 23 although extremely flat & bad, is however practicable for a wagon; but from thence to Devin's on Lot 16 is totally impassable except on foot, although it has been cut for years; this tract is remarkably flat jungle as far as Lot 20, and from thence to Lot 16 is a swamp; the first part appears to be good heavy timbered lands, but so wet that it remains in a state of nature except in one or two places where trifling efforts have been made, but with little success; the swampy parts might be made much drier by draining, as there are a number of water courses running across the road towards the Goodwood, which if assisted by opening, would very probably make this portion of the road much better; but the only effectual remedy which could be adopted for the whole of these 2 miles is causewaying.

From Devin's on Lot 16 to No 11 is good with the exception of one small piece.

From near Leigh's on No 11 to Jackley's on No 6 is almost one continued swamp, & wet impassable tract, which it would also be requisite to log; a bridge is also required over the River Goodwood, which crosses the road on No 8; this stream is from 30 to 40 yards across, but having low banks & the water rising considerably in the spring, it would be necessary to make the bridge from 60 to 70 yards in length.

From Jackey or Jackleys to Anderson on Lot 2 the road is good; but from thence to the town line of Beckwith is nothing but swamp, along which the settlers never travel, neither could there be any object in their doing so, even if the road were good, as the Concession lines do not butt on one another therefore.

At Allen Wilsons on Lot 2 a cross road has been established through the bush, on a harder tract to Livingstone's on No 1; close to whose house a road has been opened on the 4th Concession line in Beckwith; this cross road (from Wilson's) I should recommend to be opened, & improved as the best means of getting to the road through Beckwith.

The settlers on this line being principally discharged soldiers, have quite enough to do to feed & clothe their families without giving much more than the statute labour requires from them for the maintenance of the roads; and from what I observed as I went along, I have every reason to suppose, that if they are not materially assisted by His Majesty's Government, it will still be many years ere this line of road is made passable for even an empty wheel carriage.

In the present state of the road the settlers are completely cut out from all communication with one another except on foot, & consequently from the mills during the summer months, except they carry the grain on their backs, thereby incurring an immense waste of time and labour, which ought to be bestowed on their farms; it is not therefore to be wondered at that their clearings are generally wretchedly small and that they are driven from their farms to work at the Grenville Canal, & to go lumbering which they do in great numbers; leaving their wives & children to make the best they can of it during their absence.

Leaving the Township of Goulbourne near Livingstone's it becomes necessary in order to arrive at the road cut out by order of H M Government, to run down the Town line the breadth of a Concession; that is to the 3rd Concession line in Beckwith; this cross track has not been cut, neither does it appear advisable to do so at present, as it runs principally through low, wet marshy ground for about a mile, to the commencement of the Government Road, which runs along the 3rd Concession line, & although cut out 40 feet wide from No 27 to No 14, is from its extensive swampy wet parts completely deserted by travelers; it is a great pity that the Public Money should have been so injudiciously expended.

Whereas by entering the 4th Concession line close to Livingstone's, & continuing along it as far as Lot 19, there are only two very short pieces of low land, & they can easily be put in order; this line has been opened by the settlers 20 feet wide, & as far as No 19 is over a generally solid foundation susceptible of being made an excellent road at a trifling expense.

At No 19 (4th Conc line) commences a swamp which with trifling intervals continues as far as No 11, and as I found this swamp extending across from the 4th to the 3rd Conc line and that it was impossible to avoid it entirely, I beg to recommend that the road should leave the 4th near Wm Wilson's, taking an oblique direction across to the 3rd which it would be advisable to come out on, near John Smyth's house on Lot 15; and by so doing there would be only about a quarter of a mile of causeway close to Wilson's. The country people at present travel this cross road nearly to John Smyth's & then turn up again to the 4th Concession line making a very considerable round, which might be avoided by throwing a bridge across the Goodwood, and causewaying a little more than a quarter of a mile of swamp

on the 3rd Conc line, which I should suppose could not be avoided; & which lies between John Smyth's & Wickham's Tavern in Frankstown; the frame of a log bridge has already been laid (over which I scrambled at considerable risk) & the people talk of finishing it this fall.

A road from Brockville (distant 50 miles) passes close by Wickham's door, & is continued to Huntley, & is travelled by loaded wagons.

Supposing the road to be continued as far as Wickham's in the proposed direction; it should evidently be continued along the same line (3rd) to David McCrea's on Lot 6 - but from thence it appears advisable to establish it across from the 3rd to the 2nd Conc line, near the termination of which it joins on the Government Road in Drummond, close to Wisemans on Lot 1.

This road has been opened by the country people, & is the only one travelled on; it passes over a dry hardwood tract; requiring very little to be done to it to enable wagons to pass, except opening and a little levelling.

The Government Road commencing close to Wiseman's or Lot 1 Township of Beckwith runs in a direct course along the 2nd Conc Line of Drummond & has been cut out 40 feet wide to the Town of Perth. From its commencement on Lot 27 to Hughes's Tavern on Lot 21, a distance of about 2 miles, there is scarcely anything but swamp, through which Cockburn Creek runs. This portion of the road is during the summer months impassable, except for persons on foot & requires causewaying the whole distance, there are several small clearings in this tract which have been abandoned.

From Hughes's to Alexr Fraster's on Lot 6 the road has been made passable for wagons by causewaying a very great proportion of it; but it is in fact very rough at present, but if the swamp above alluded to were put in order for them, I have no doubt the farmers on this line would be

ditching and covering the logs soon make it a really good one, their clearings shewing evident signs of great industry.

From Fraser's to the Town of Perth in the direct line is nothing but swamp, of at least a mile in length, which having been most wretchedly causewayed, with all sorts of small timbers, is now so much decayed as to be almost impassable for a horse. In order to avoid this swamp the inhabitants have established a road which is partly cut only, & runs along the side line between Lots 5 and 6 for nearly half a mile; & then crosses Lots 4 and 5 to an excellent frame bridge which has been thrown across the Tay this year (1824). Of this cross road there is about a hundred yards adjoining the bridge which being low is usually overflowed in the spring; & would require to be considerably raised with large logs so as to make it passable at all seasons.

From Perth to Barber's 3 miles - 3 miles along the Scotch line, very level, but much intersected with swampy mudholes which have been...& are now beginning to be ditched - will not require any assistance.

From Barber's to Thompson's $3\frac{1}{2}$ miles - cut out through the bush to Thompson's, about 30 feet wide on Lot 15 of the 8th conc; runs through a tract of hardwood, very level, & capable of being made a good road without too much trouble.

Thompson's to Black Creek, 3 miles. At and in sight of Thompson's there are 4 or 5 houses with a large clearing, & a short distance beyond, the road comes close to Salmon Lake, & continues so for about $3\frac{1}{2}$ miles to a little beyond Black Creek; for some distance it is very level requiring but little logging, & would be an excellent road if properly worked on; although it is in many places intersected with water courses, some of which are bad

nor are there any swampy spots, except at the Creek where a low flat extends a short distance on each side, & the waters rising considerably in the spring, the logs have the greatest part of them been removed from their places, & were scattered about in every direction when I passed over it; this spot requires a good deal of work, & great care that the same accident may not happen again, for although I had no difficulty in getting my horse, through, I should think it must be impassable in the wet season.

Black Creek to the Narrows, 4 miles. From Black Creek to the Narrows (4 miles) is uneven and some of the hills very steep; a number of places require causewaying, but not any of them have a great length.

At the Narrows there is a low point or tongue (which divides the Rideau Lake in two) of which a great part has the appearance of being overflowed in the spring; crossing at this place the water (at the latter end of July) is not more than 12 inches deep, over a bed of gravel, & and about 30 feet wide; a bridge is required & the land being low on both sides should be raised, to make it passable at all seasons.

Narrows to J. Hudson's, $\frac{1}{2}$ mile. From the Narrows to J Hudson's, a distance of $\frac{1}{2}$ mile, is generally low flat swayle; a considerable part of which will require digging.

Thus far the road has been opened 30 feet wide, but not being travelled on the underbrush has grown up to a great height, & not being shaded by large trees is much worse than if it had not been touched; I got completely wet through from head to foot in a few minutes, & had been merely passing along as a traveler, should for comfort's sake have carefully avoided the road.

Hudson's to Wm. Robin's, $1 \frac{1}{2}$ miles. From Hudson's to Wm Robin's about $1\frac{1}{2}$ miles, is hardwood, and a good foundation.

Robin's to Cameron's, 1 mile.... is generally good road, except one flat bad spot.

Cameron's to Leggat, 2 miles. From Cameron's to Stedman's at the...Brook 1½ miles, & from thence to Leggat's ½ mile is also generally good. The last 4½ miles the road has not been opened but commences again at Leggat's.

Leggat's to Warrens, 1 mile ...about 1 mile, is excellent with the exception of one spot; the whole distance being over hardwood land.

Warrens to Merrimans, 2 miles. From Warrens to near J Merrimans, about 2 miles, the road although cut has been fenced up & is not tracked on, owing to the want of a bridge over the Tucker Brook which crosses it, & a swampy spot which requires logging.

Merrimans to Hallidays, 1 mile. Near Joseph Merriman's commences a large clearing & old settlement, which extends in every direction, & an excellent rock opened road continues to Halidays for 1 mile; from thence through the bush to Ira Sly's is also generally very good, only requiring a little opening for another mile.

Halidays to Ira Sly's, 1 mile. A road leads from this settlement to Brockville, where they get all their supplies, & dispose of their surplus produce.

Sly has fenced up the road which passes in front of his house nobody travelling along it except on foot; it is difficult to make it without a guide; another road branching off to the right from near Halliday's joins the one above mentioned within about a mile of Haskin's a distance of nearly 6 miles; this is the road generally travelled on, it being better opened, but the one by Sly's is said to be upwards of a mile shorter.

Ira Sly's to Haskins, 4 miles. From Sly's to Haskin's Mill (on the White Fish) is 4 miles through the bush;

the first 2½ miles is very level, it then passes through a Brule & very rocky uneven tract; at the mills there is a steep hill on both sides of the stream which is deep, & about a chain in width.

Haskin's to Dr Heacocks, 3 miles... through the bush 3 miles is generally very good, requiring only to be opened out. At Heacock's the road joins the one leading from Kingston to Perth & the Ottawa.

Heacock's to Russell's, 5 miles. From Heacock's to Russell's at the edge of the 16 mile woods (5 miles) any description of wheel carriage might pass with safety.

From Russell's to where a road turns off to Brewer's Mills, 5 miles. From Russell's to the road which leads to Brewer's Mills (5 miles) is through the bush; & only wide enough for a wagon; in many places there are wet mudholes, but no swampy ground, except for a few yards every here & there; the ground is in some places uneven, but on the whole a good road might be easily made by opening, levelling and fresh logging.

From near Brewer's to where the road joins the Montreal Road 12 miles. Twelve miles from Brewer's it joins the Montreal Road about 1 mile from the Kingston Mills; the first eight of which is through hardwood, in many places very flat & it has not been opened, there are a great many bad mud holes, which appear never to have been worked on, nor are they likely to be for the present as on this space there are only a few huts, the inhabitants of which appear to be miserably poor.

The last four miles is almost entirely through swampy ground many parts of which appear to have very badly causewayed some years ago; but there are no signs of anything having been done lately upon it; it is consequently nearly, if not quite impassable for a wheel carriage.

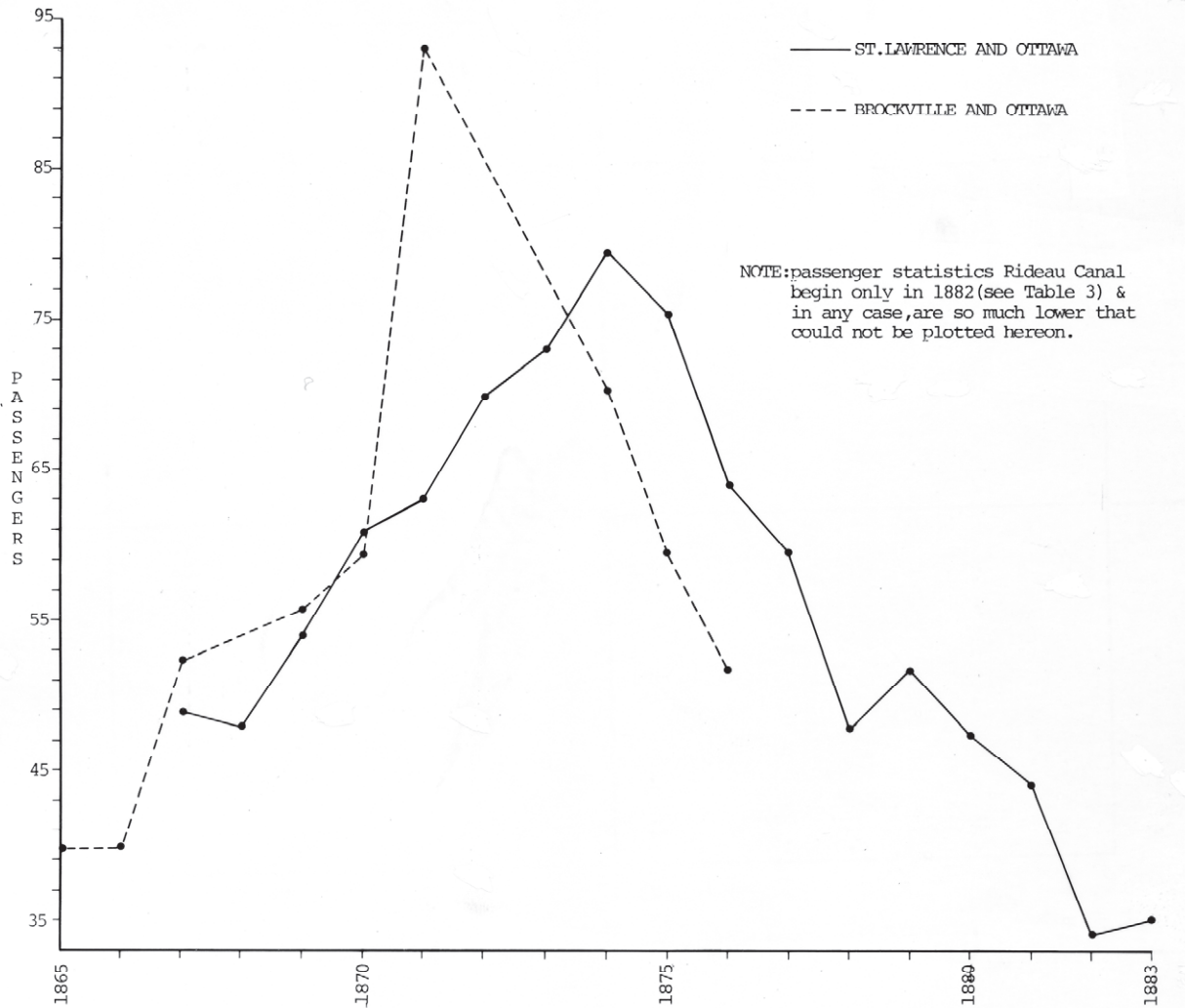
From the place where the two roads unite is good, for about 7 miles, to the Town of Kingston.

From Perth to Russell's, or about 35½ miles, the inhabitants make Brockville, or Gananoque, their market, by means of other roads, as being the nearer & more economical than the one in question; consequently the greatest part of this space in detached portions is never travelled on in the summer months, except by foot passengers; & the 17 miles from Russell's towards Kingston cannot be expected to be kept in order by the inhabitants of the very small clearings on it.

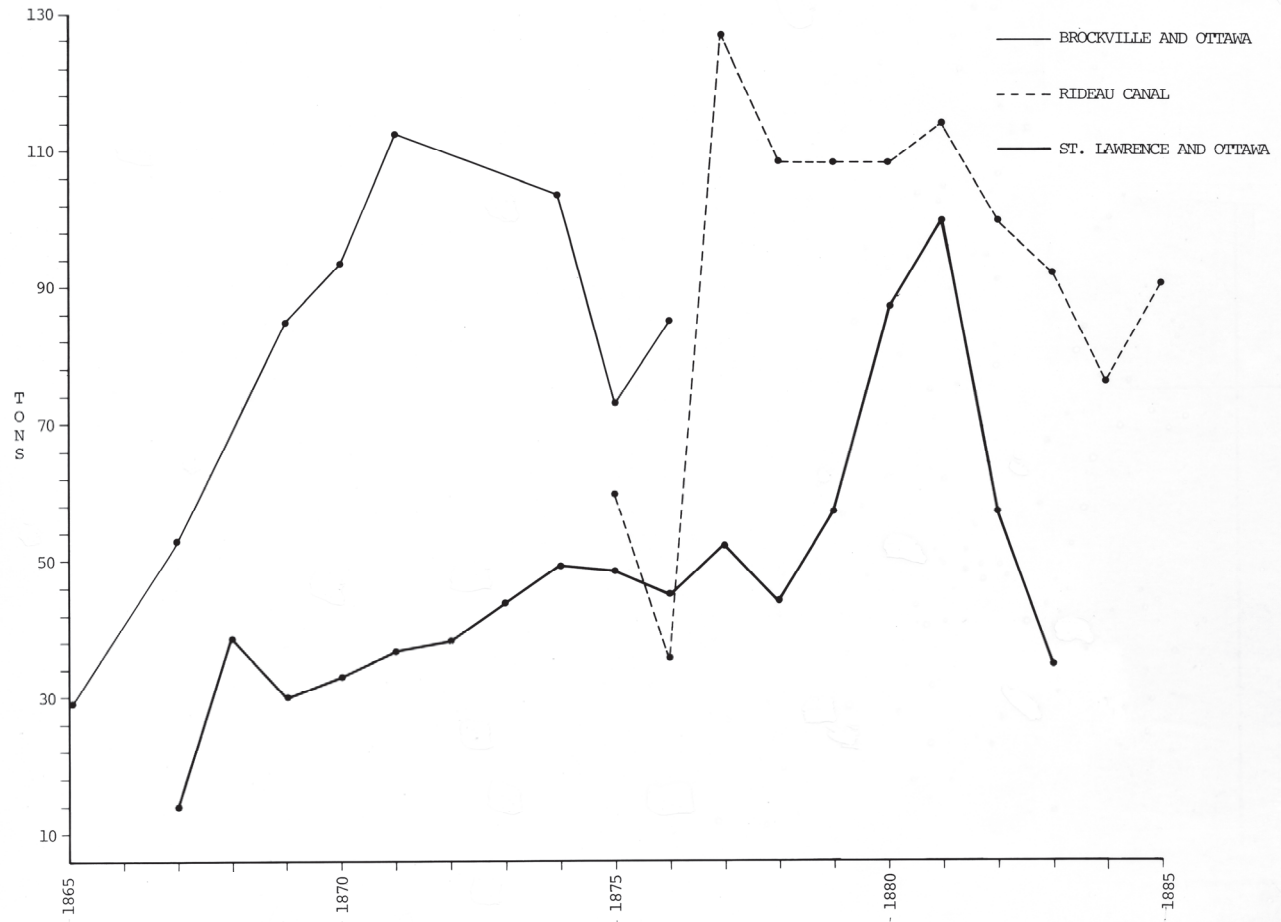
It is therefore evident, that in the present state of the country, it's utility is not very great in any other point of view than as a military Communications; & that if it were put in the best order possible it would still require to be kept in repair at the public expense; that is, until the line it passes through is much more thickly settled.

The source for the above description is to be found in the Public Archives, RG 8, British Military Records, C Series, Vol. 274, pp. 118-33.

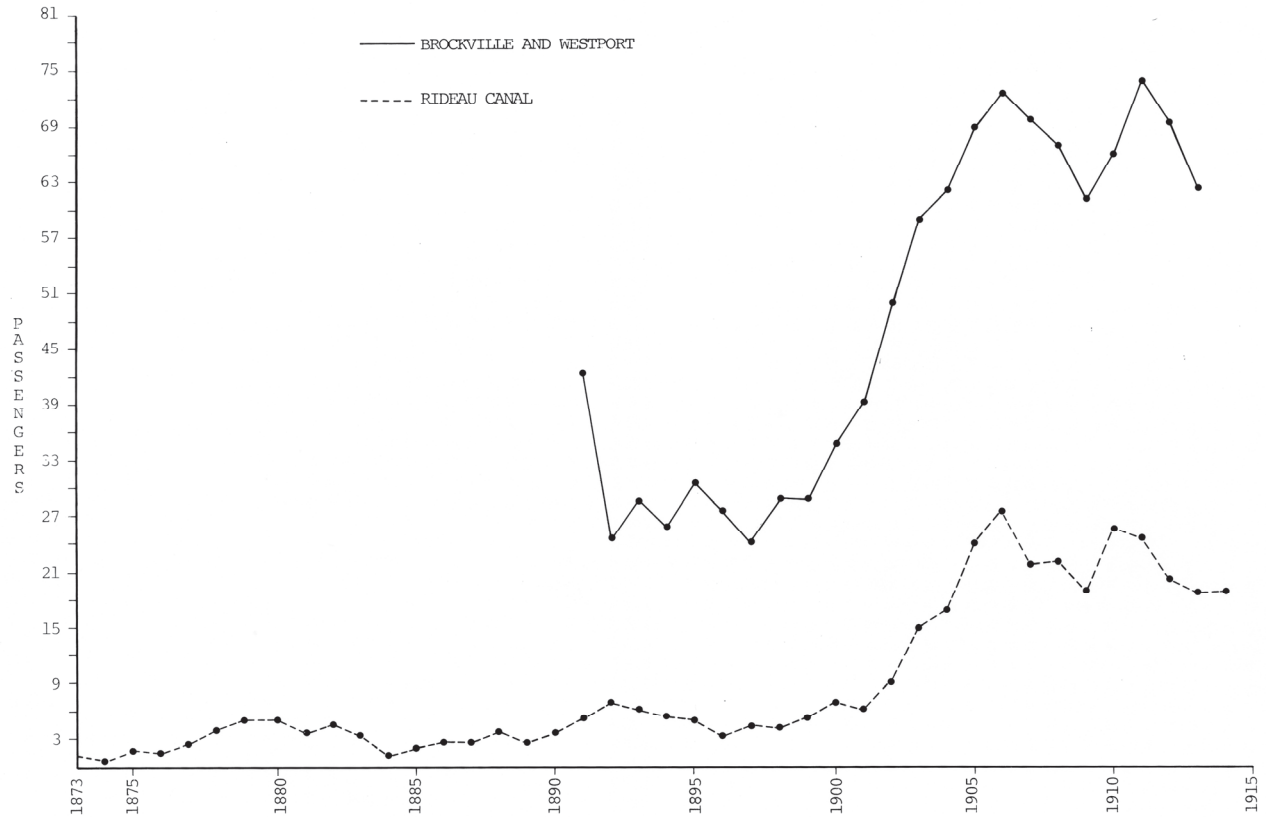
Graph 1. The passenger trade: St. Lawrence and Ottawa and the Brockville and Ottawa railways. (*Drawn by S. Epps.*)



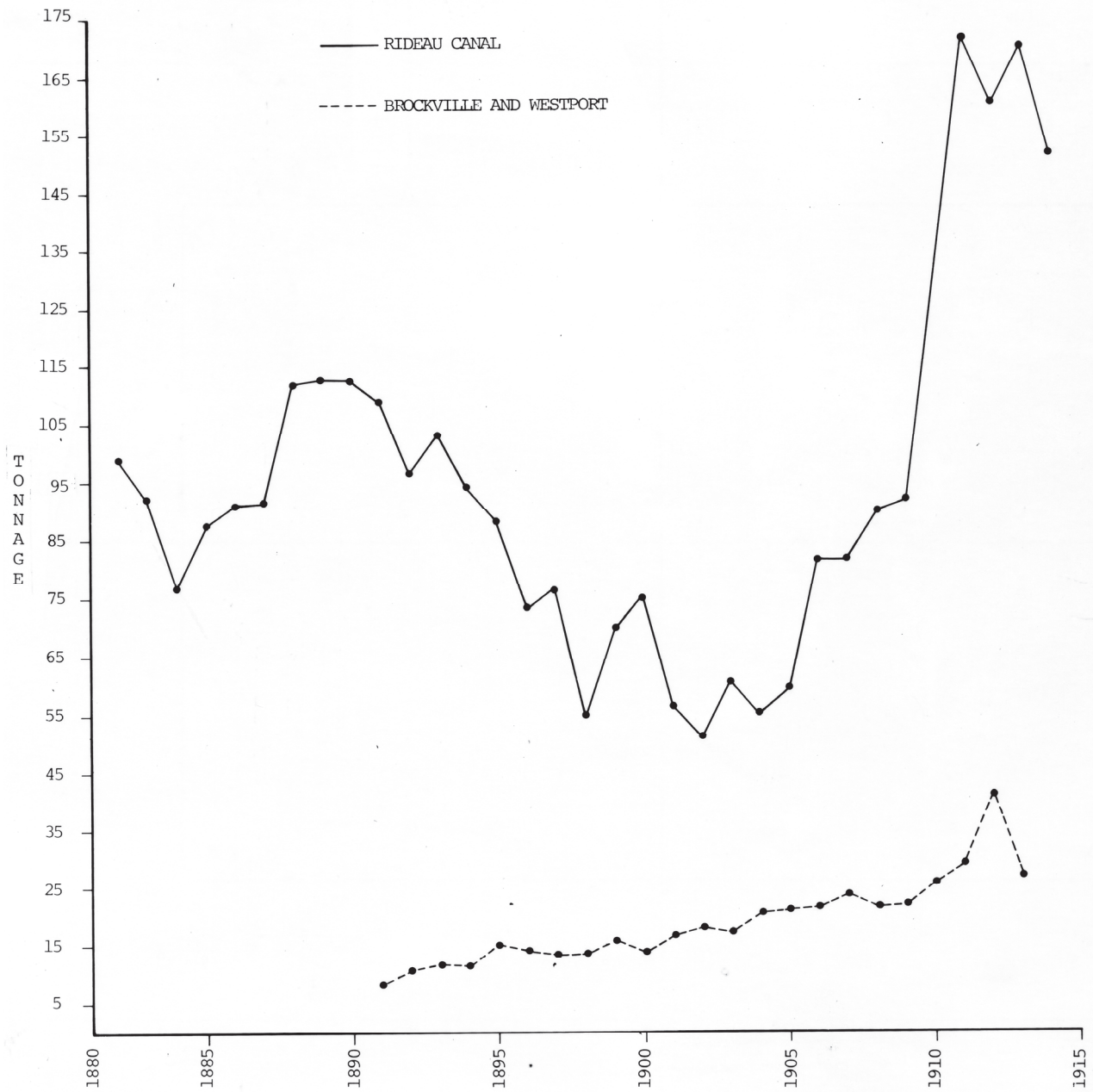
Graph 2. Freight Tonnage: St. Lawrence and Ottawa and Brockville and Ottawa railways and Rideau Canal. (*Drawn by S. Epps.*)



Graph 3. Passenger Trade: Brockville and Westport Railway and the Rideau Canal. (*Drawn by S. Epps.*)



Graph 4. Freight Tonnage: Brockville and Westport Railway and the Rideau Canal. (Drawn by S. Epps.)



Endnotes

ROADS IN THE RIDEAU REGION: WAGON-TRACK TO TURNPIKE, 1793-1890

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The following industries were listed for Kingston in 1851-52:

1 distillery	2 boot & shoe factories
2 tanneries	2 carriage factories
1 foundry	1 match factory
1 brewery	5 soap & candle factories
1 shipyard	2 steam engine works
1 potashery	2 cabinet factories
2 planing mills	1 copper works

The following industries were listed for Kingston in 1860-61:

1 flour mill	1 tannery
1 saw mill	3 foundries
2 woollen mills	6 breweries
2 distilleries	1 axe & edge tool factory
2 cabinet ware factories annual production	\$ 3,000
3 carriage & wagon factories	14,075
5 soap & candle works	46,758
3 pot & pearl ash factories	5,500
2 shipyards	10,000
2 sash & door factories	32,000
1 rope factory	1,400
4 agricultural implement factories	130,000
1 glue factory	1,500
2 sewing machine factories	2,140

THE RIDEAU REGION AND MODERN HIGHWAY DEVELOPMENT

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28. OS, 6 Geo. V, cap. 14.
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33. *Annual Review* 1920, p. 375.
34. *Ibid.*, p. 528.
35. OS, 10-11 Geo. V, cap. 20.
36. *Annual Review* 1922, p. 617.
37. *Ibid.*, 1923, p. 378.
38. *Public Highways* 1926-27, p. 19.
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46. *Ibid.*, 1918, p. 627.
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49. *Ibid.*, p. 85.

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71. Ibid., p. 62.
72. Ibid., pp. 74-75.
73. OS, 3 Edw. VII, cap. 27.
74. OS, 6 Edw. VII, cap. 46.
75. OS, 8 Edw. VII, cap. 53.
76. OS, 6 Geo. V, cap. 49.
77. OS, 9 Geo. V, cap. 57.
78. OS, 15 Geo. V, cap. 28.
79. *Annual Review 1921*, p. 441. Complete figures for Ontario vehicle registration 1911-20 follow:

1911	11,339
1912	16,266
1913	23,700
1914	31,724
1915	42,346
1916	54,575
1917	83,790
1918	109,374
1919	139,288
1920	172,065
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89. *Ontario Gazette*, 1926, Jan.-June, Vol. lix, p. 713.
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92. Ibid., 1927 Oct., pp. 613-14.
93. *Ontario Gazette*, Jan.-June 1928, Vol. lxi, p. 227.
94. *Canadian Railway & Marine World*, 1928, April, p. 229.
95. Ibid., 1928, June, p. 364.
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Ottawa-Kingston schedule Colonial Coach Lines follows:

lv Kingston	7:00 a.m.	12:30 p.m.	4:30 p.m.
arr Ottawa	12:30 p.m.	6:00 p.m.	10:00 p.m.
lv Ottawa	7:00 a.m.	12:30 p.m.	5:15 p.m.
arr Kingston	12:30 p.m.	6:00 p.m.	10:30 p.m.

daily, 3 coaches each way

97. *Canadian Railway & Marine World*, 1929, p. 718.
98. *Ontario Gazette*, 1930, Jan.-June, Vol. 63, pp. 322-23.
99. Ibid., 1930, Jan.-June, Vol. 63, p. 365.
100. *Canadian Railway & Marine World*, 1930, p. 109.
101. Ibid., p. 243.
102. *Ottawa Evening Citizen*, 14 June 1930.
103. *Canadian Railway & Marine World*, 1932, June, p. 331.
104. Ibid., Dec., p. 649.
105. Ibid., May 1934, p. 211; August 1934, p. 361.
106. Ibid., August 1934, p. 359.
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108. *Might's Greater Ottawa City Directory* (Toronto: Might Directories Ltd., 1968-69), p. 49.

Glossary

ASSIGNMENT. A process whereby a debtor, unable to meet his obligations in cash, can avoid bankruptcy by assigning his assets in whole or in part, to one of his major creditors, who thereafter administers or liquidates the assets, to attempt to realize his claim.

BANKRUPTCY. The debtor unable to meet his debts, submits to a court which appoints a receiver for the property. The receiver who is not appointed from among the creditors, undertakes to administer or liquidate the property so as to meet the debts owed to various claimants to the extent possible out of the assets of the bankrupt person or company. For example, the claims to the assets of an incorporated company begin with the bond holders, then the debenture holders, then general debtors, then preferred stock holders, and finally, if there is anything left, the holders of ordinary equity or common stock.

BILL OF EXCHANGE. An order to pay a certain sum on a certain date or on demand. It is a debt claim between parties in different countries or separated by a considerable distance in one country which is not perfectly integrated financially.

BOND. A certificate of debt owed to the bearer, bearing a fixed rate of interest and falling due at a specific future date. Security of a bond is generally on physical property and is then referred to as a mortgage bond.

In the event of non-payment, interest or principal, bond holders may seize the property against which the bond is issued, and sell it at public auction.

CAPITAL. The net worth of a company, consisting of amount invested, surplus, profits.

CAPITALIZATION. Consists of funded debt, share capital, and retained earnings.

COMMON SHARES. The sale of common shares provides money to get a company started. Holders of common shares are entitled to all earnings after the prior claims of bond and debenture holders, also the holders of preference shares. Holders of common shares have full voting powers, but do not direct the company. The interest paid on common shares is subject to the discretion of the board of directors.

CONVERSION LOAN. Brought about by change of the due date and/or interest rates by persuading the existing bond holders to return their currently held bonds and accept in their stead a new issue of bonds of different maturity and interest rates.

DEBENTURE. Similar to a bond in having a fixed due date, and a fixed yield, but unlike a bond, a debenture has no specific security, being backed by the general credit of the issuer.

DISCOUNT. Similar to interest, but deducted in a lump sum at the beginning of the loan, rather than reckoned as a percentage of the principal during the term of the loan.

FIRST MORTGAGE BONDS. Bonds secured by a mortgage placed on the assets of the company, and the first charge on the company's assets. Second mortgage bonds are similarly secured on the assets of the company, but ranking after first mortgage bonds on claims on the company's assets.

INCORPORATION. Process by which a company is organized as a limited liability venture, each shareholder being liable for the company's debts only to the extent of his subscription to the shares of the company.

INSOLVENCY. State of a debtor unable to meet his obligations in cash when due. A general term not carrying specific legal connotations, as does bankruptcy.

PREFERRED OR PREFERENCE STOCK. Stock carrying a fixed maximum return. Obligations to preferred shareholders take precedence over those of common shareholders.

RECEIVERSHIP. A receiver is one appointed by a court to administer the affairs of a bankrupt company on behalf of its creditors, thus replacing the board of directors elected by the common shareholders when the company was solvent.

Source: R.T. Naylor, *The History of Canadian Business 1867-1914*, Vol. II, (Toronto: James Lorimer & Co., 1975). See also: Dorothy M. Newman, Jean P. Newman and Walter C. Newman, *Canadian Business Handbook*, 2nd ed., (New York: McGraw-Hill, 1967).

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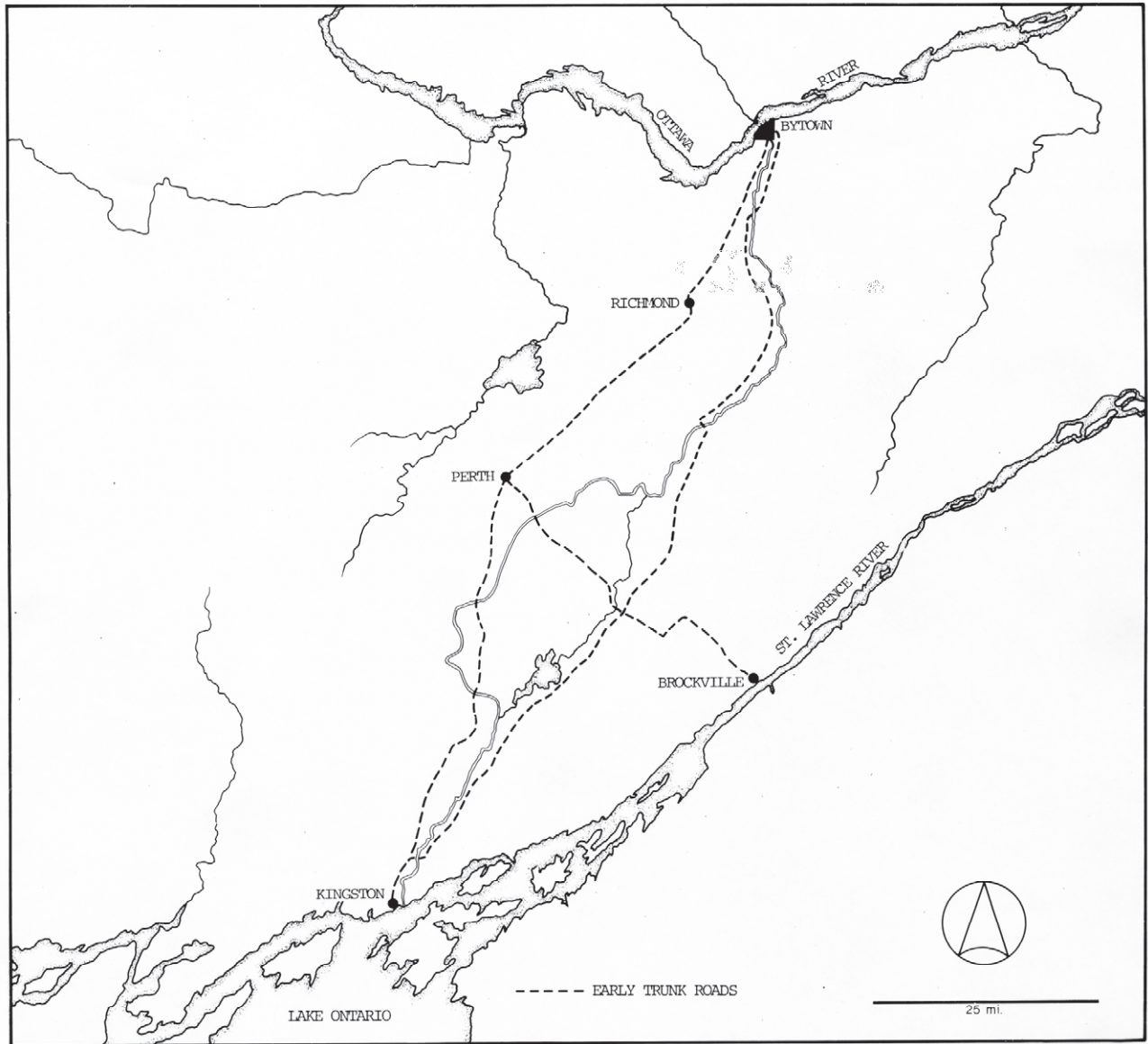
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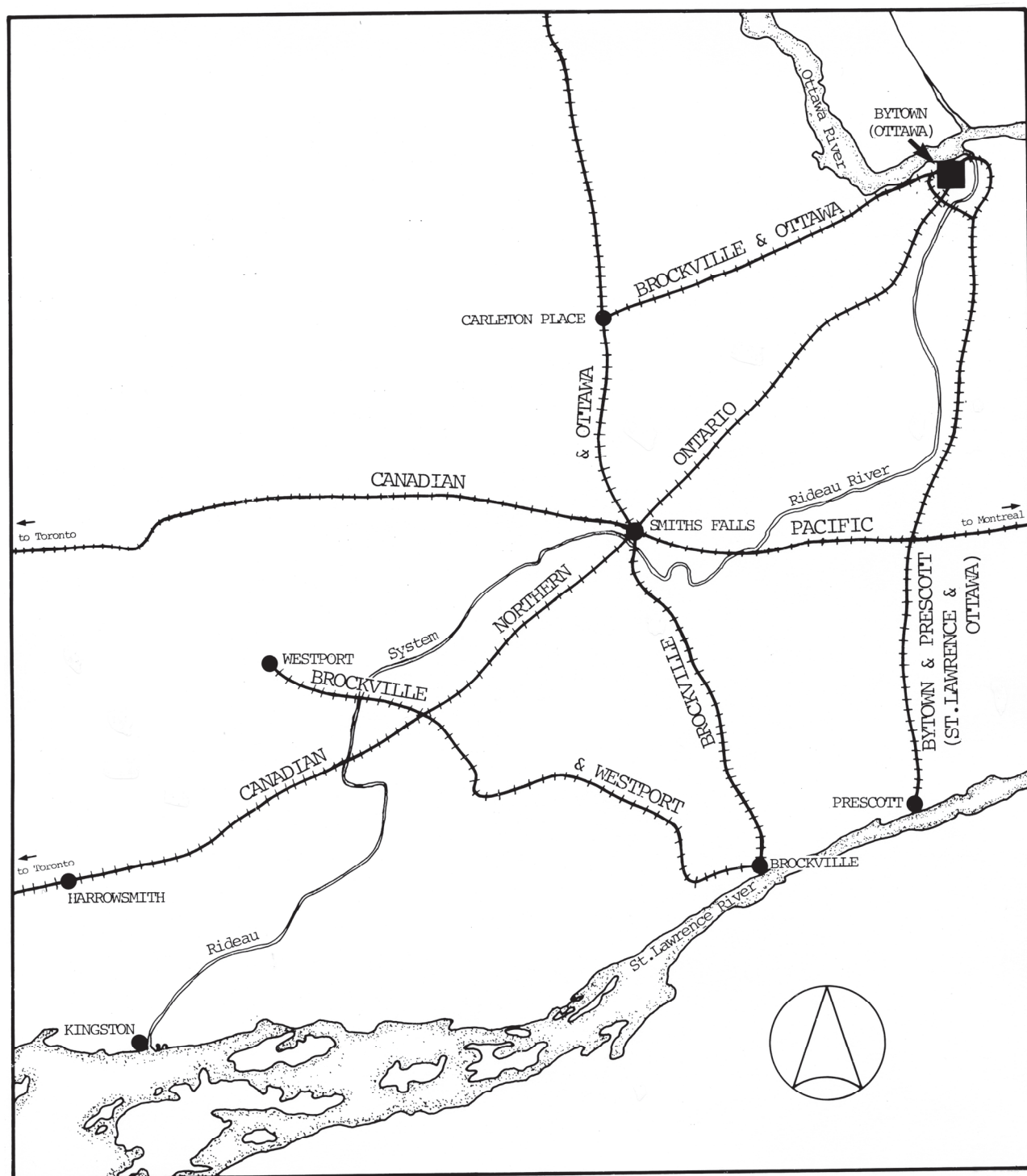
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Map 1. Early trunk roads in the Rideau Region.



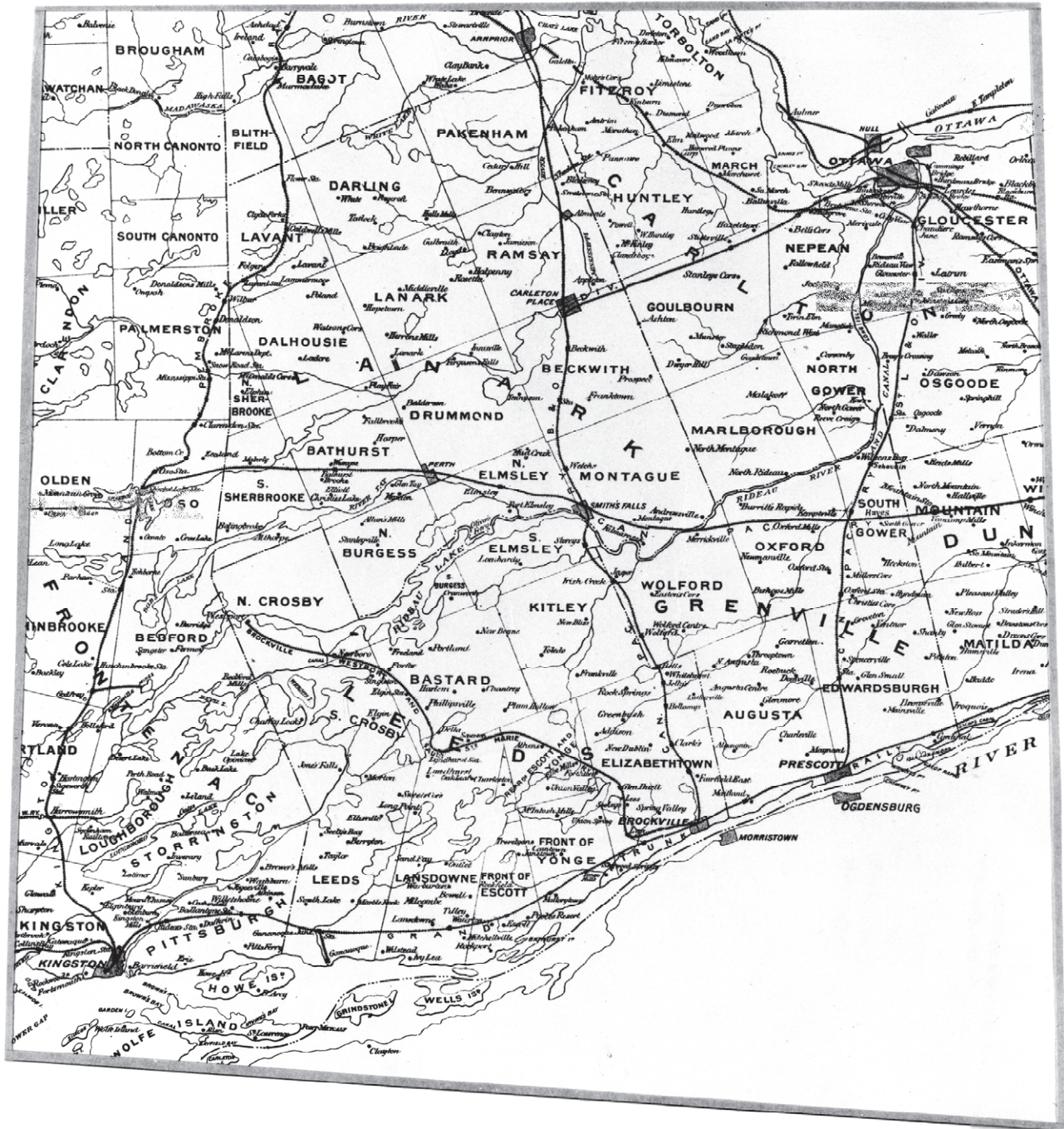
Map 2. Railways in the Rideau Region.



ILLUSTRATIONS

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- 1 Section of 1895 map of Ontario, showing counties, townships and railways in the Rideau region. (*Public Archives of Canada C93598.*)



- 2 The travails of pioneer transportation. Locality and date unknown, it depicts conditions all too common in the last century. (*Public Archives of Canada*, C33693.)

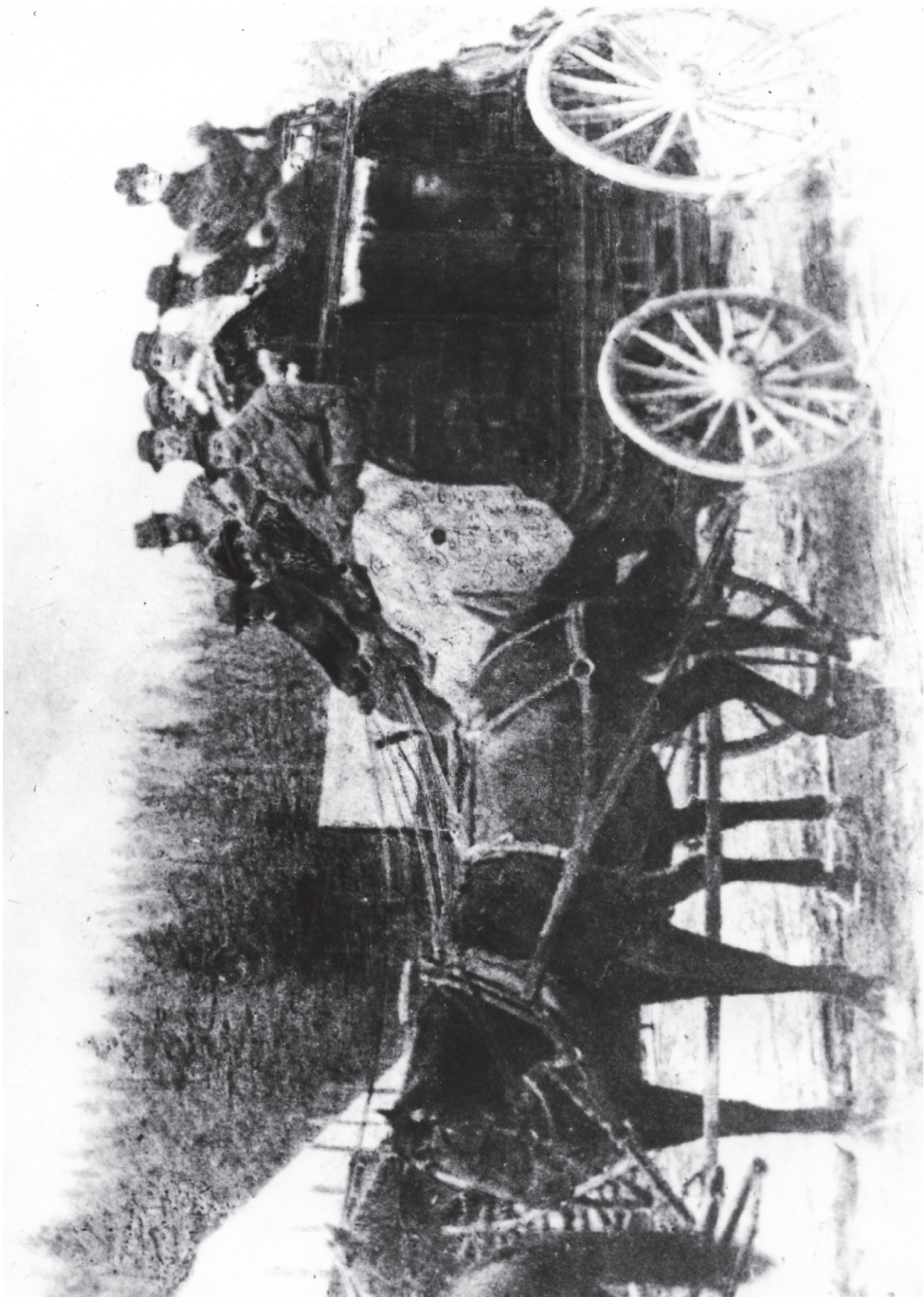


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- 3 Combination wagon-sleigh, n.d. (*Public Archives of Canada, PA60967, John Boyd Collection.*)



- 4 Stage-coach, n.d. (*Public Archives of Canada, PA 61688.*)



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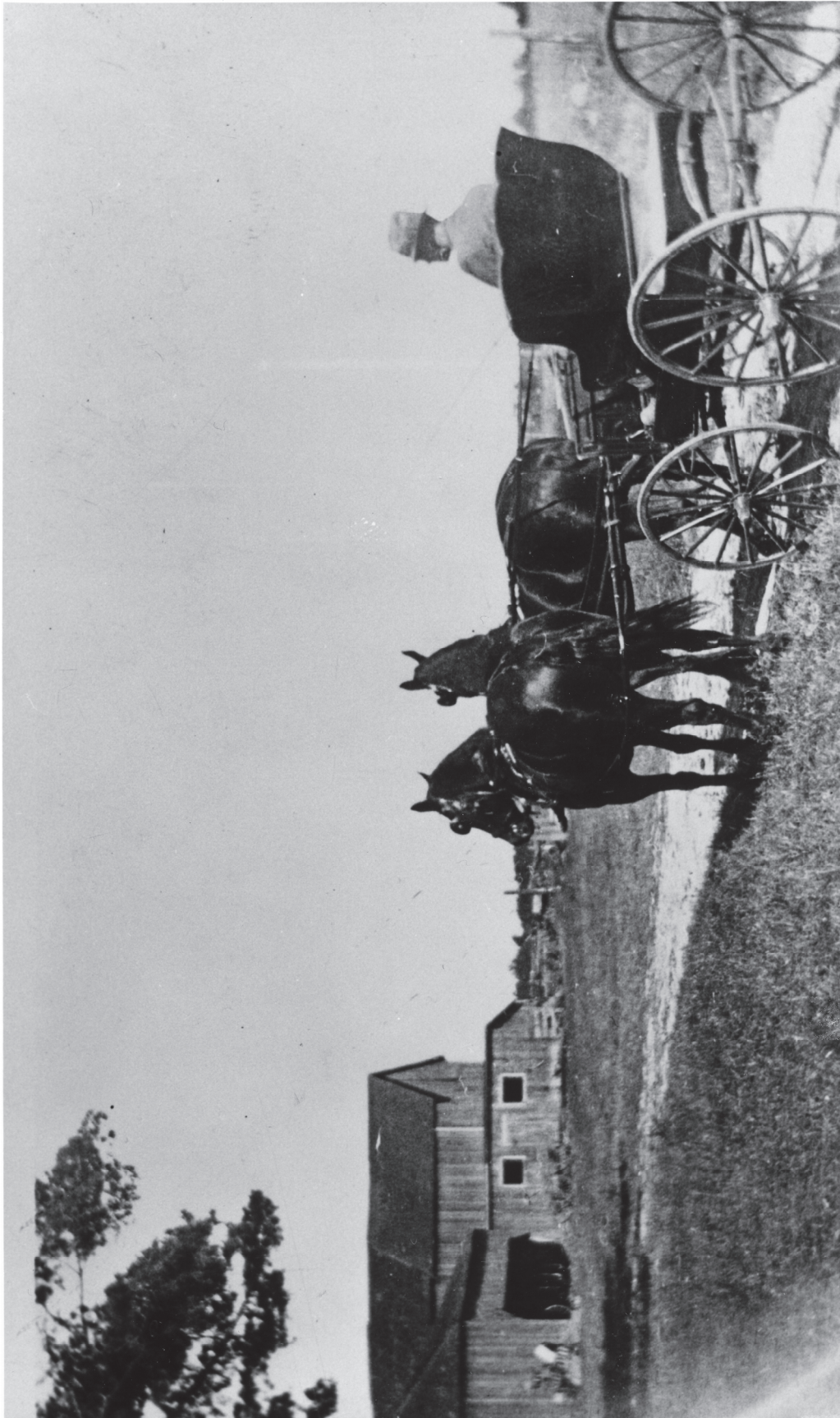
- 5 Four-horse Stage, 1899. This fits the conventional notion of the stage-coach, but many were much cruder vehicles, in the nature of wagons fitted with seats. (*Public Archives of Canada*, 82904.)



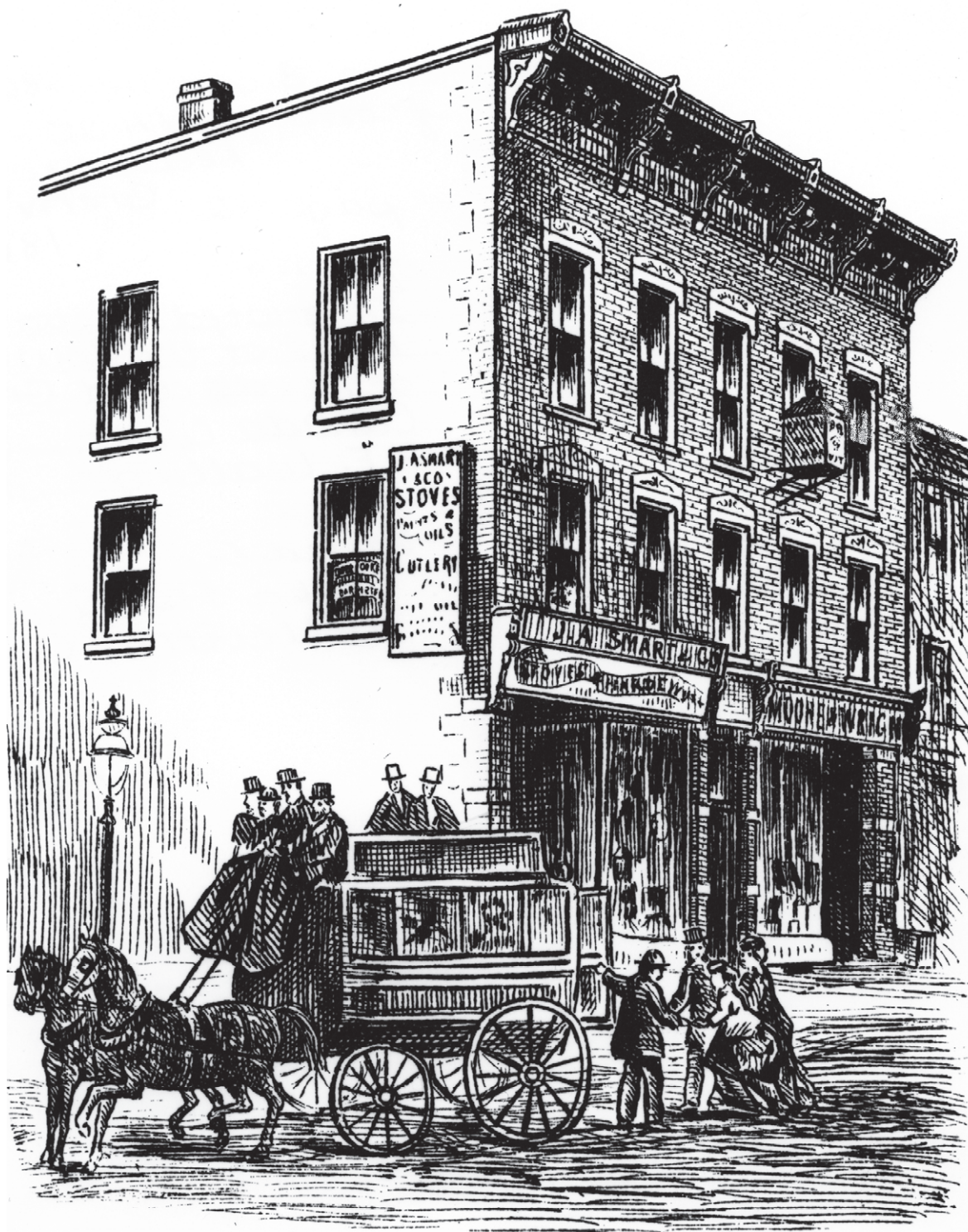
- 6 Hotel bus, Carleton Place, circa 1910. (*Public Archives of Canada, C29320.*)



- 7 Farm buggy, near Almonte, n.d. The popular precursor of the automobile in rural districts; a common sight lined up at country and village stations as late as the early 1930s. (*Public Archives of Canada, C38651.*)

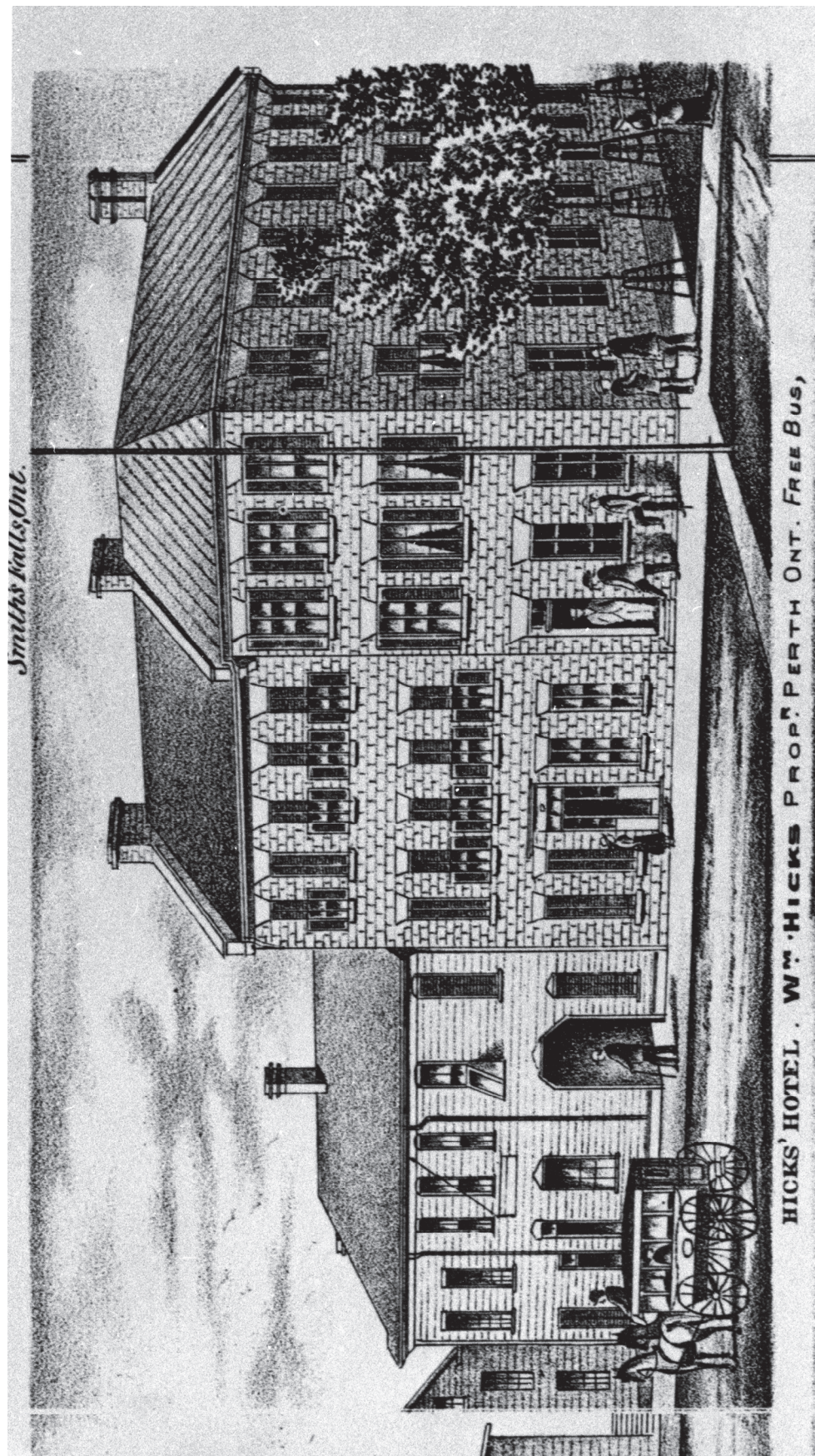


- 8 Etching of a street scene in Brockville, showing a two-horse stage-coach. (*Public Archives of Canada, C97612.*)



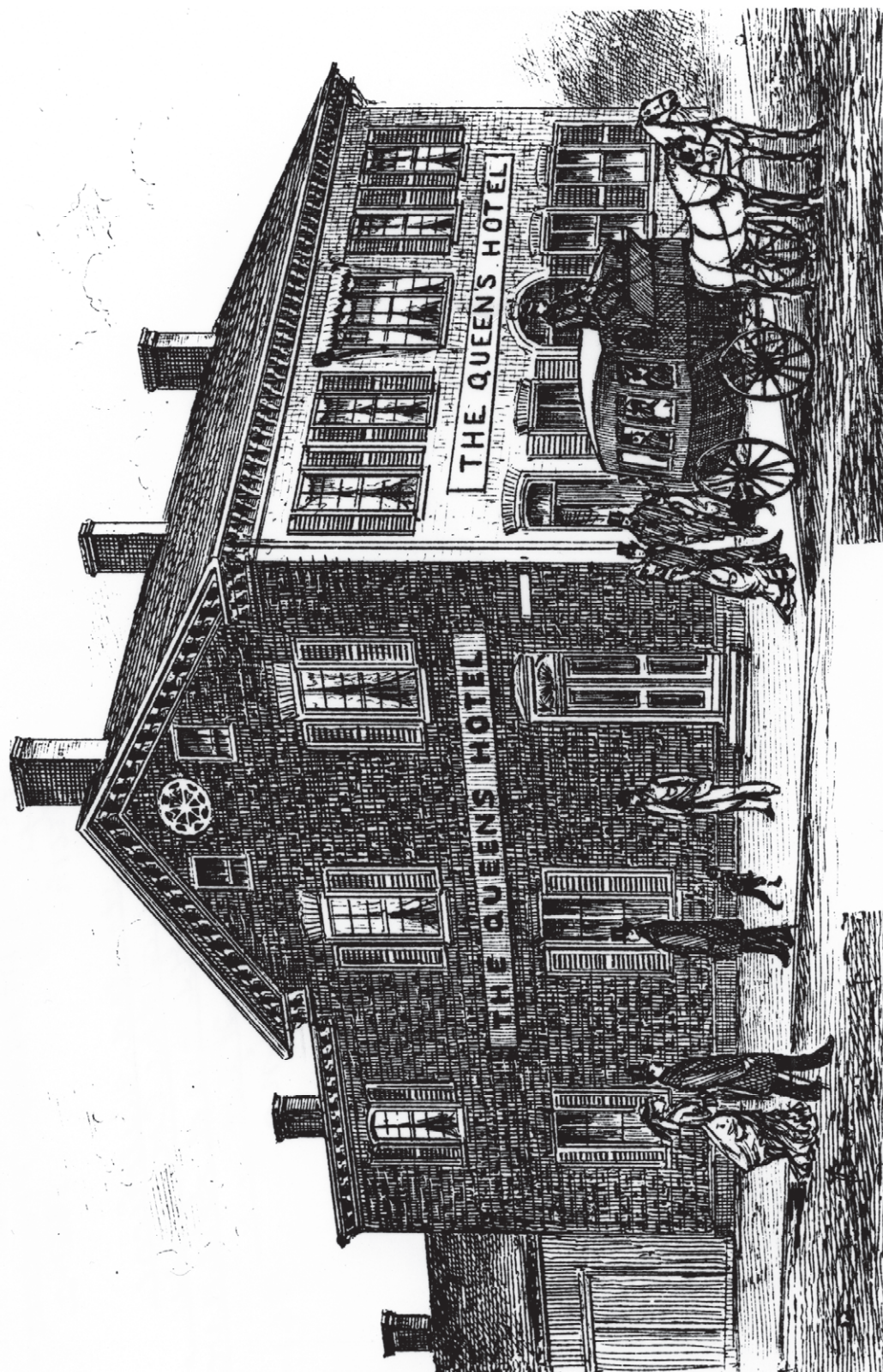
J. A. SMART'S STORE, BROCKVILLE

- 9 A Perth hotel, with stage-coach in foreground. (*Public Archives of Canada, C73204*).



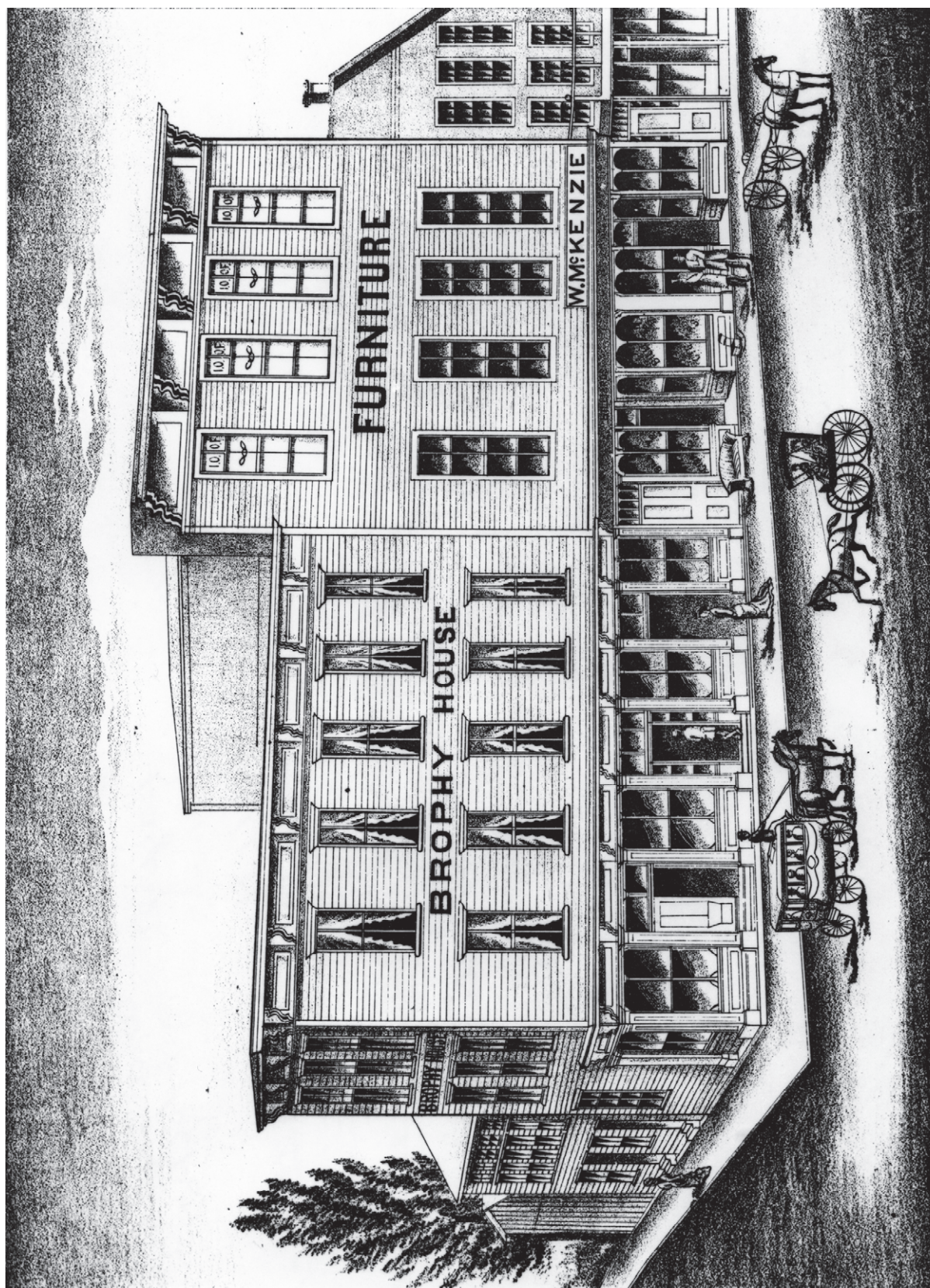
- 10 Sketch of Queen's Hotel, Prescott, showing stage-coach foreground.
(*Public Archives of Canada, C97613.*)

THE TOWN HALL, PRESCOTT



THE QUEEN'S HOTEL, PRESCOTT

- 11 Brophy House, Gananoque. Note the stage coach left foreground and buggy centre foreground. (*Public Archives of Canada, C97611.*)



BROPHY'S HOTEL, GANANOQUE.

W. MCKENZIE'S
FURNITURE STORE.

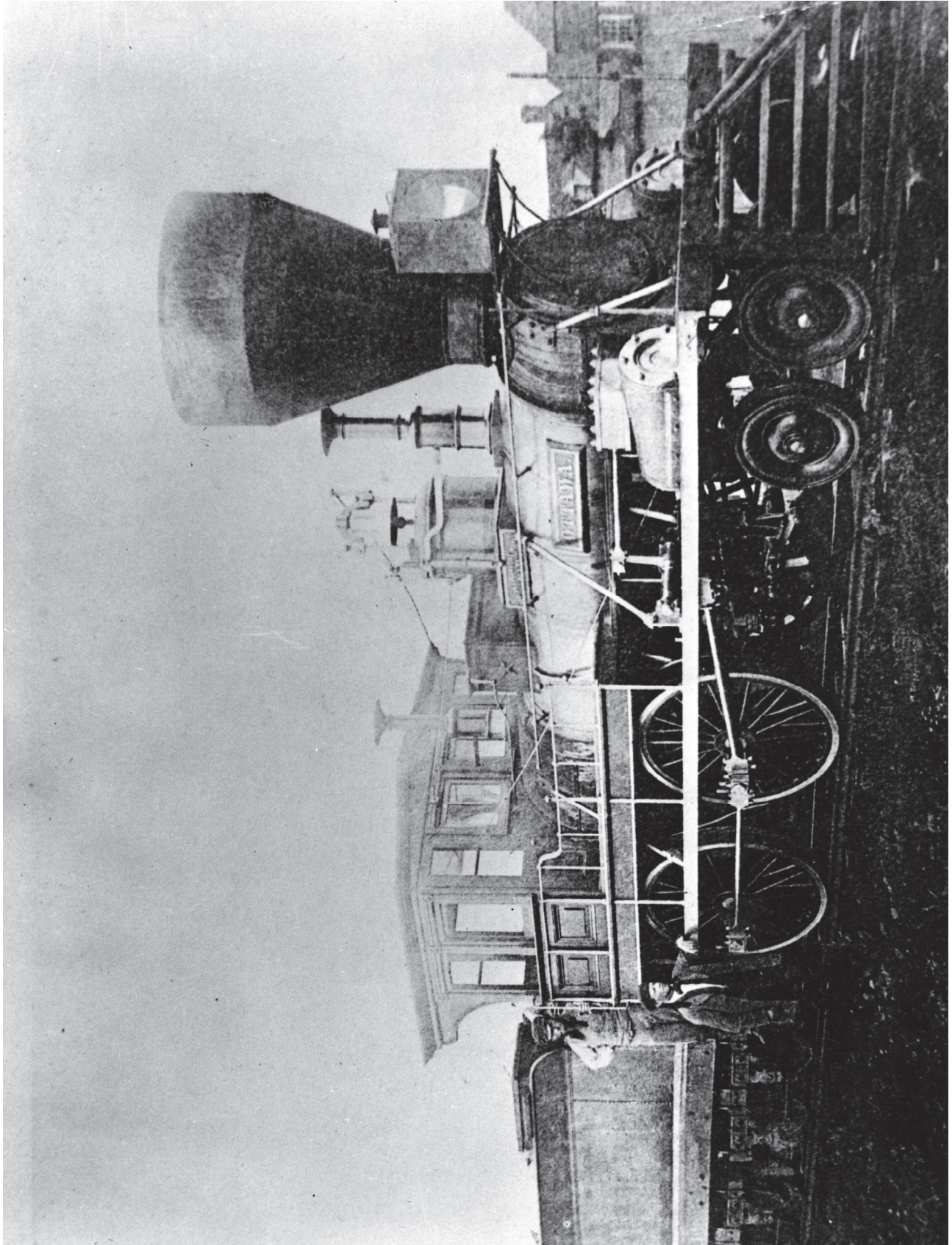
- 12 Kingston market scene, circa 1900, featuring farm wagon used to bring produce to market. (*Public Archives of Canada, C379.*)



- 13 Smiths Falls street scene, n.d., but in the horse-and-buggy era, illustrating the type of dirt and/or gravel road surface general in the last century. (*Public Archives of Canada*, 8811.)



- 14 The Ottawa, Bytown and Prescott Railway, 1862. The Ottawa, a 4-4-0 or American type locomotive, was the second locomotive bought by the Bytown and Prescott Railway. The 4-4-0 was the most popular locomotive on American railways until late in the 19th century. (*Public Archives of Canada, C5288.*)

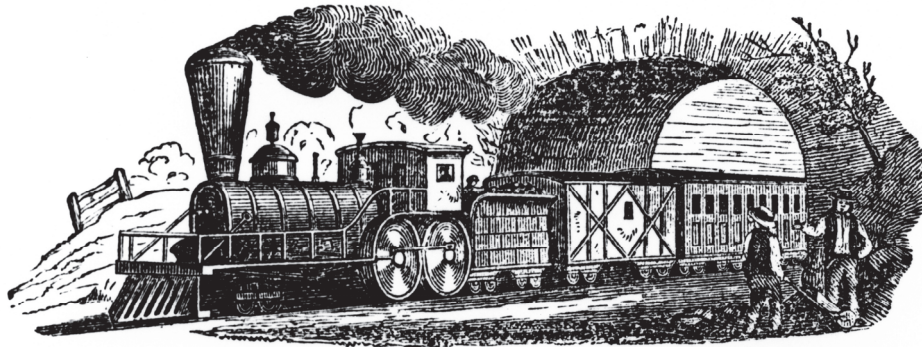


- 15 Advertisement for Ottawa and Prescott Railway. (*County of Carleton and Ottawa City Directory for 1864-65*), [Toronto, 1864].)

iv.

RAILWAY ADVERTISEMENTS.

OTTAWA AND PRESCOTT



RAILWAY.

JOSEPH MOONEY, *Secretary & Treasurer.*

ROBERT BELL, *President.*

B. FRENCH, *Superintendent.*

TWO PASSENGER TRAINS DAILY EACH WAY,

Leaving Ottawa at 7 A.M. and 1.30 P.M., connecting at JUNCTION with the GRAND TRUNK RAILWAY Trains going East and West, and at PRESCOTT with the

Royal Mail and American Line of Steamers,

FOR ALL PORTS EAST AND WEST;

Also, with the N. O. R. R. and R. W. & O. R. Trains leaving Ogdensburgh

FOR

NEW YORK AND BOSTON.

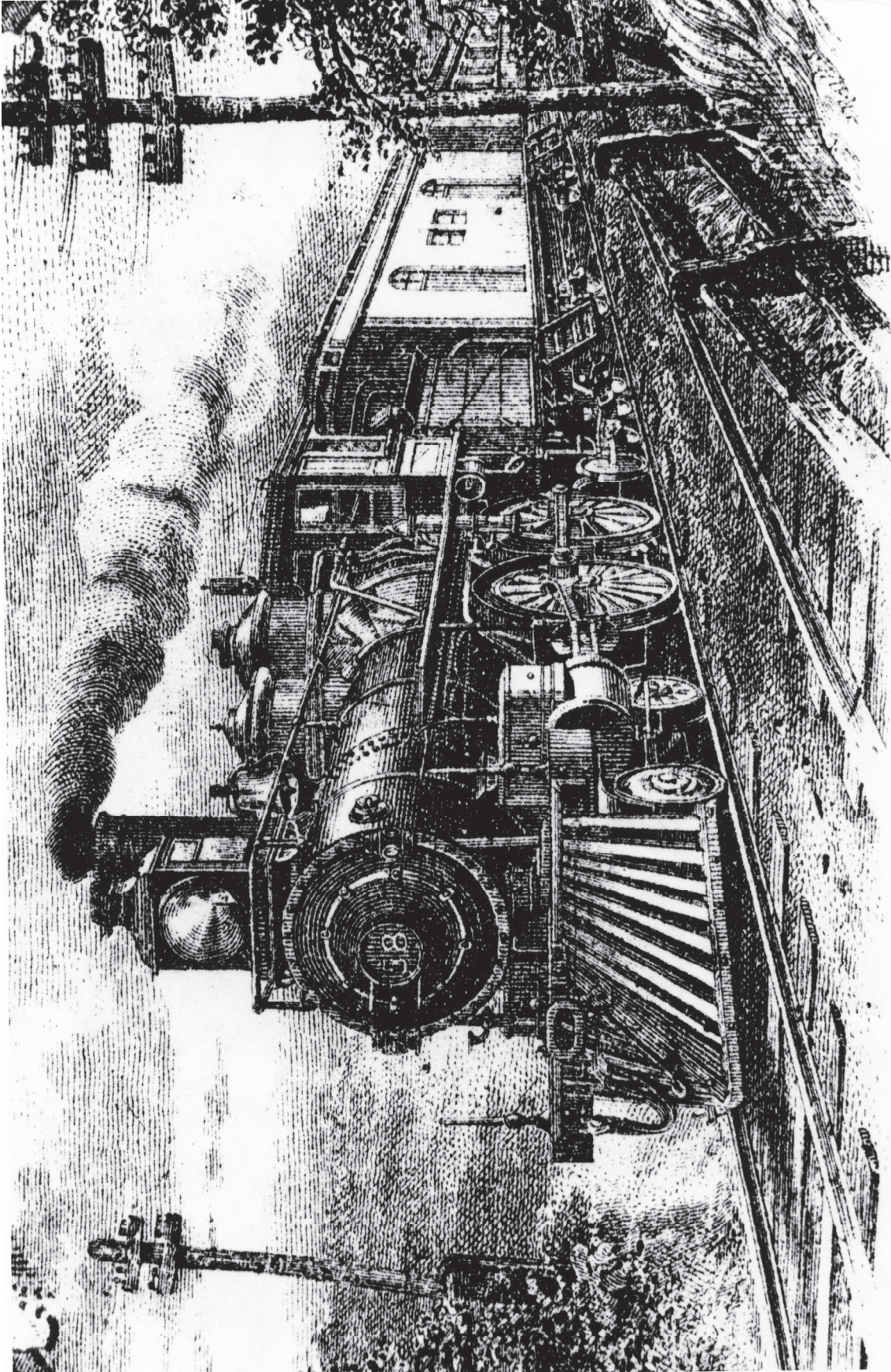
RETURNING :

Will leave PRESCOTT at 6.45 A.M. and 1.30 P.M., on arrival of all connecting Lines, and arrive in OTTAWA at 10.15 A.M. and 4 P.M., connecting with Steamers for Ports on the Upper and Lower Ottawa River.

- 16 St. Lawrence and Ottawa Railway Station, MacTaggart Street, Ottawa,
n.d. (*Public Archives of Canada, C957.*)

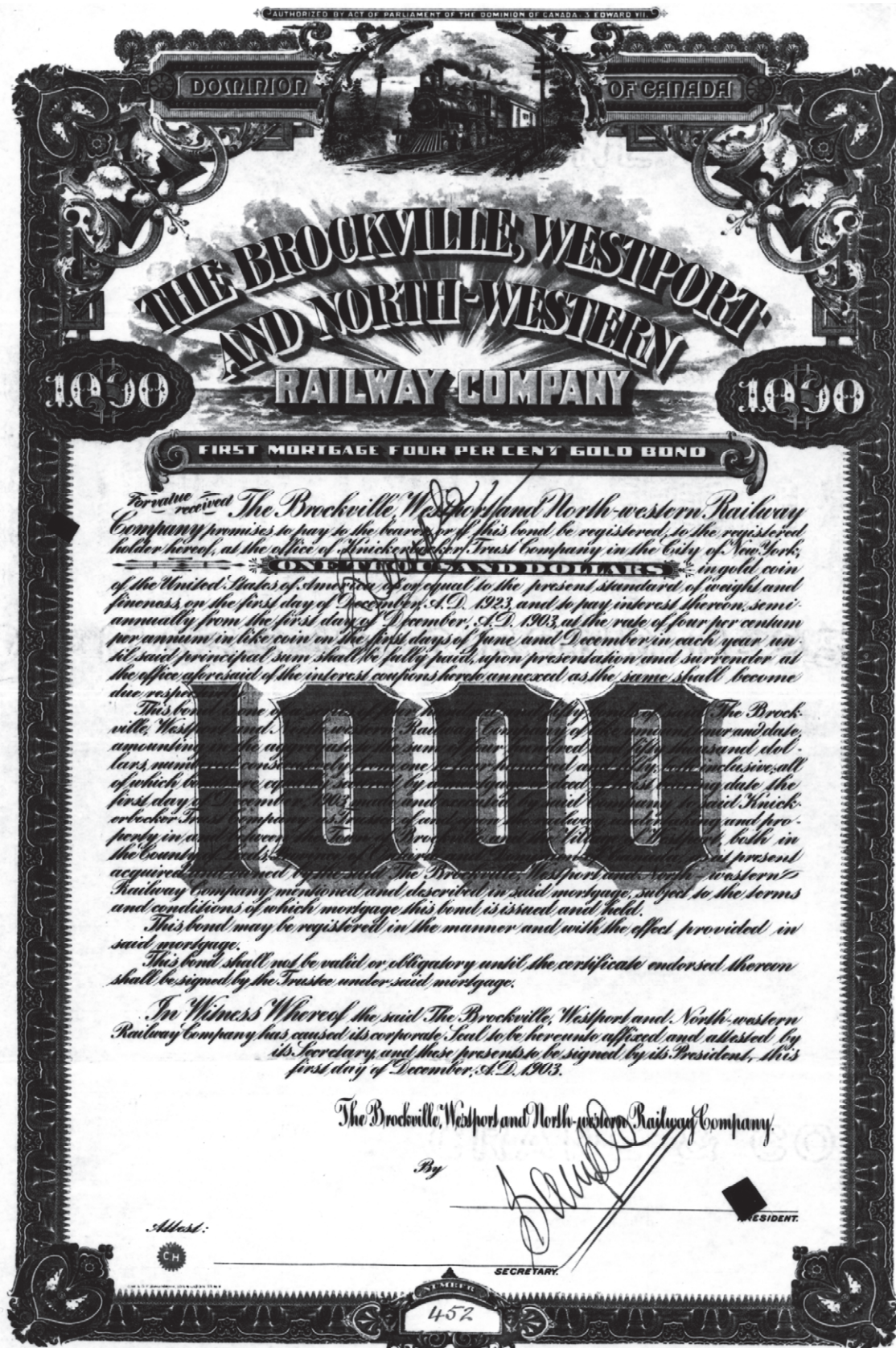


- 17 Sketch of a Brockville and Westport passenger train, n.d. (*Public Archives of Canada, C97709.*)



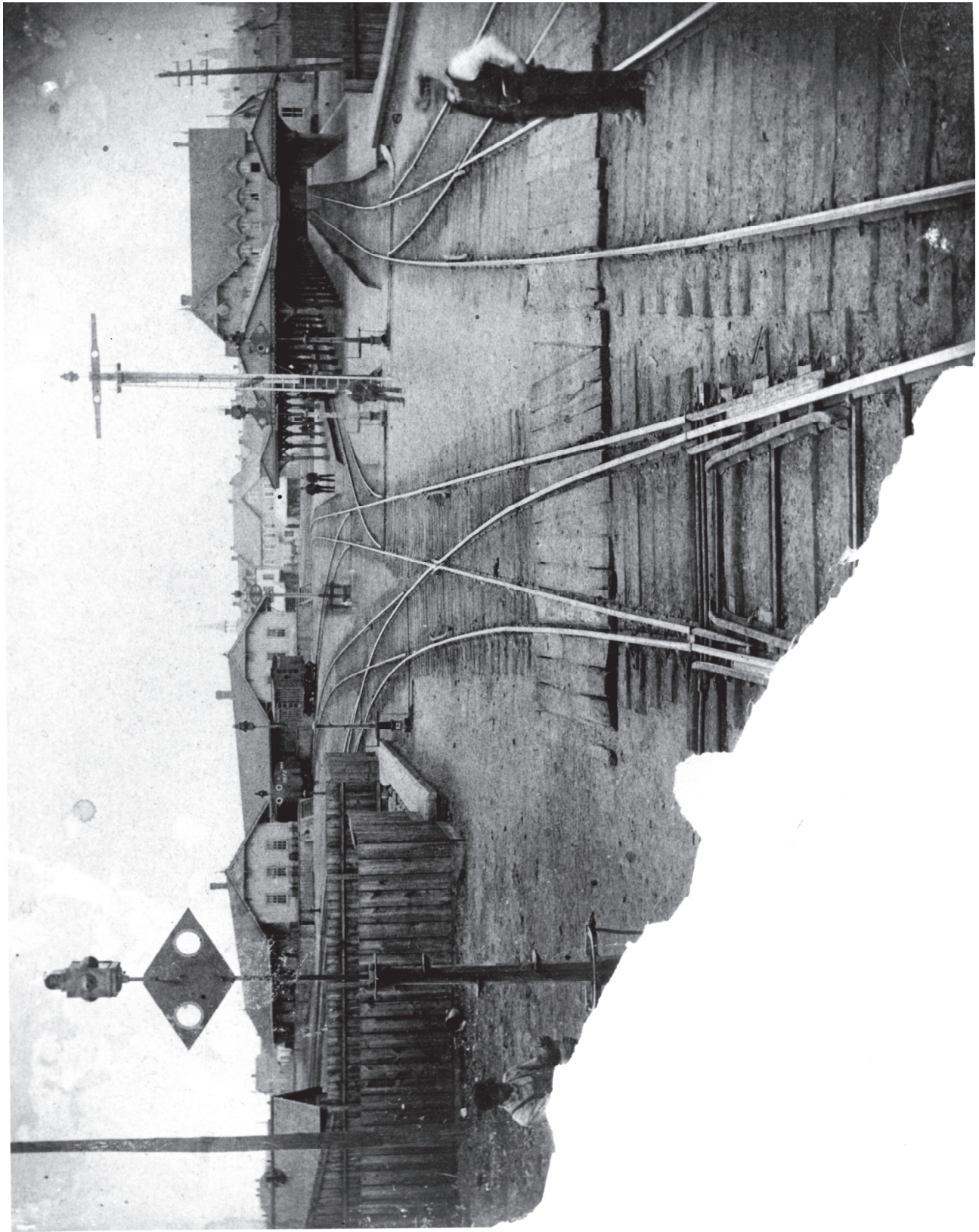
18(a) and (b) \$1,000 Bond Brockville, Westport and North-Western Railway Co., due 1st Dec. 1923. (Public Archives of Canada C98545.)





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- 19 Broad Street CPR Station, Ottawa, *circa* 1890. (*Public Archives of Canada, C4848.*)



- 20 Entrance to CPR Broad Street Station, Ottawa, n.d. (*Public Archives of Canada, 8676.*)



- 21 Arrival of the first Canadian Northern train, Ottawa, 5 Dec. 1909.
 (*Public Archives of Canada, C30310.*)



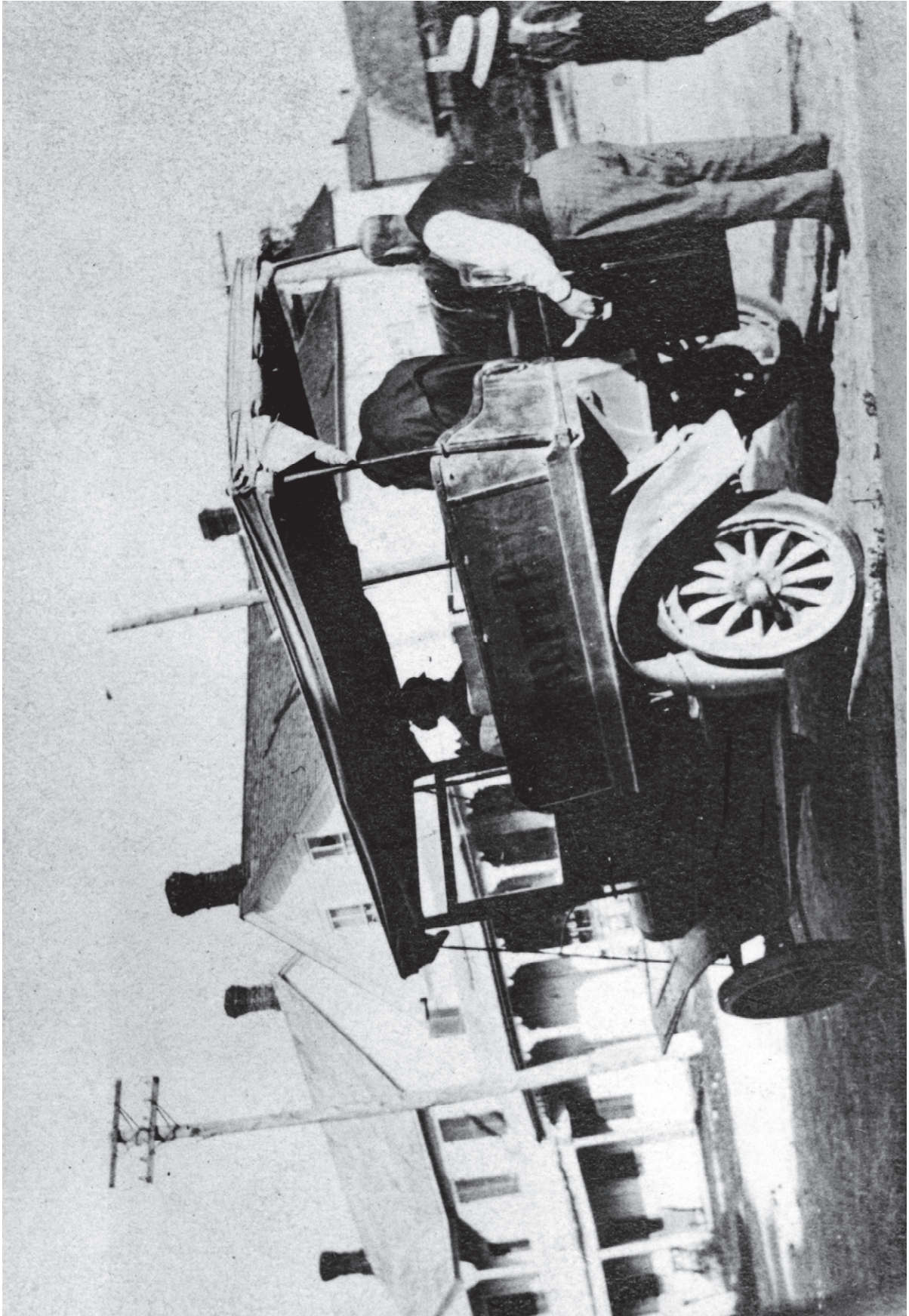
22 Ottawa Union Station, n.d. (*Canadian Pacific Railway Co.*)



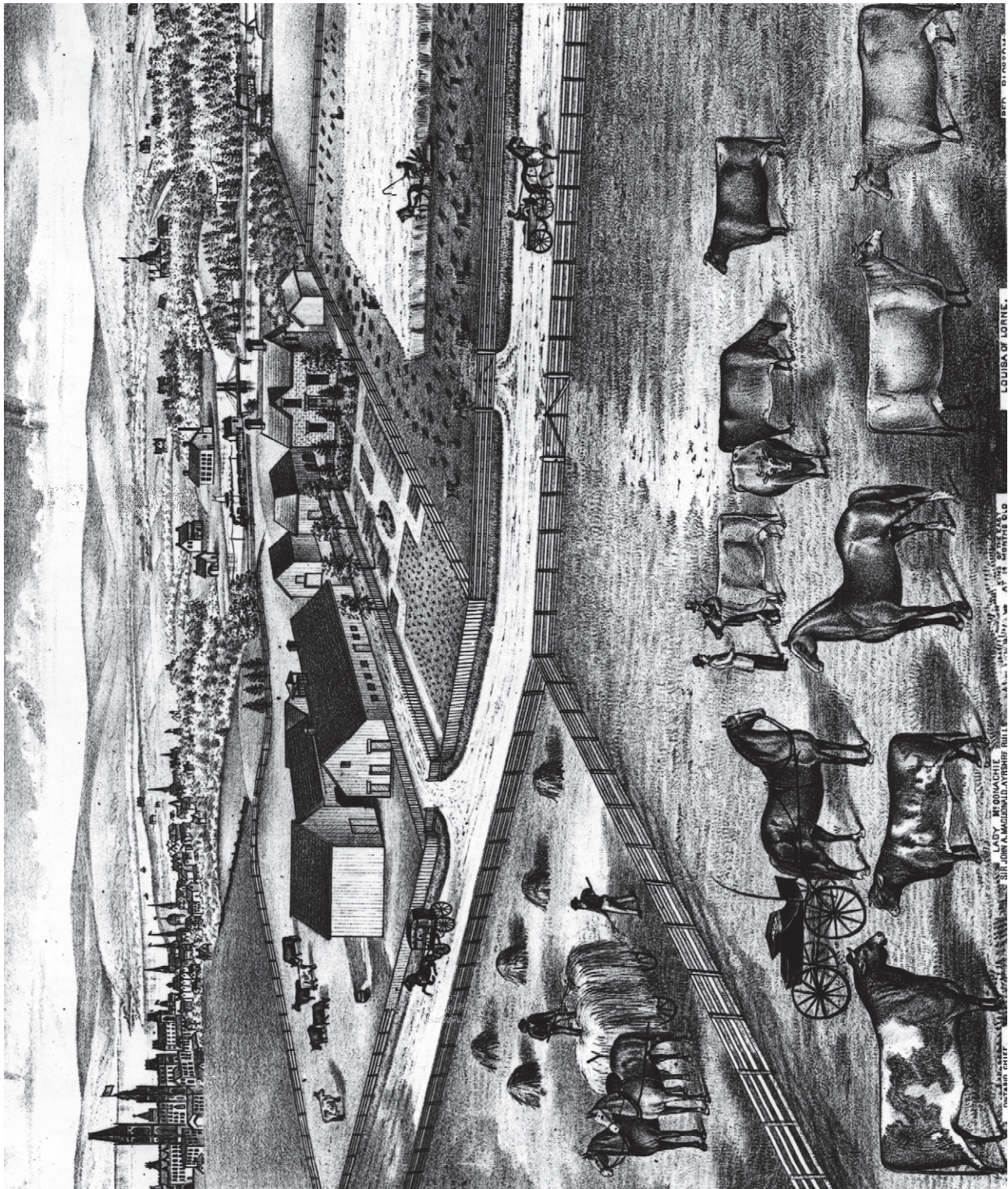
- 23 Rideau Canal and Ottawa Union Station, n.d. A familiar sight until recent years. (*Canadian Pacific Railway Co.*)



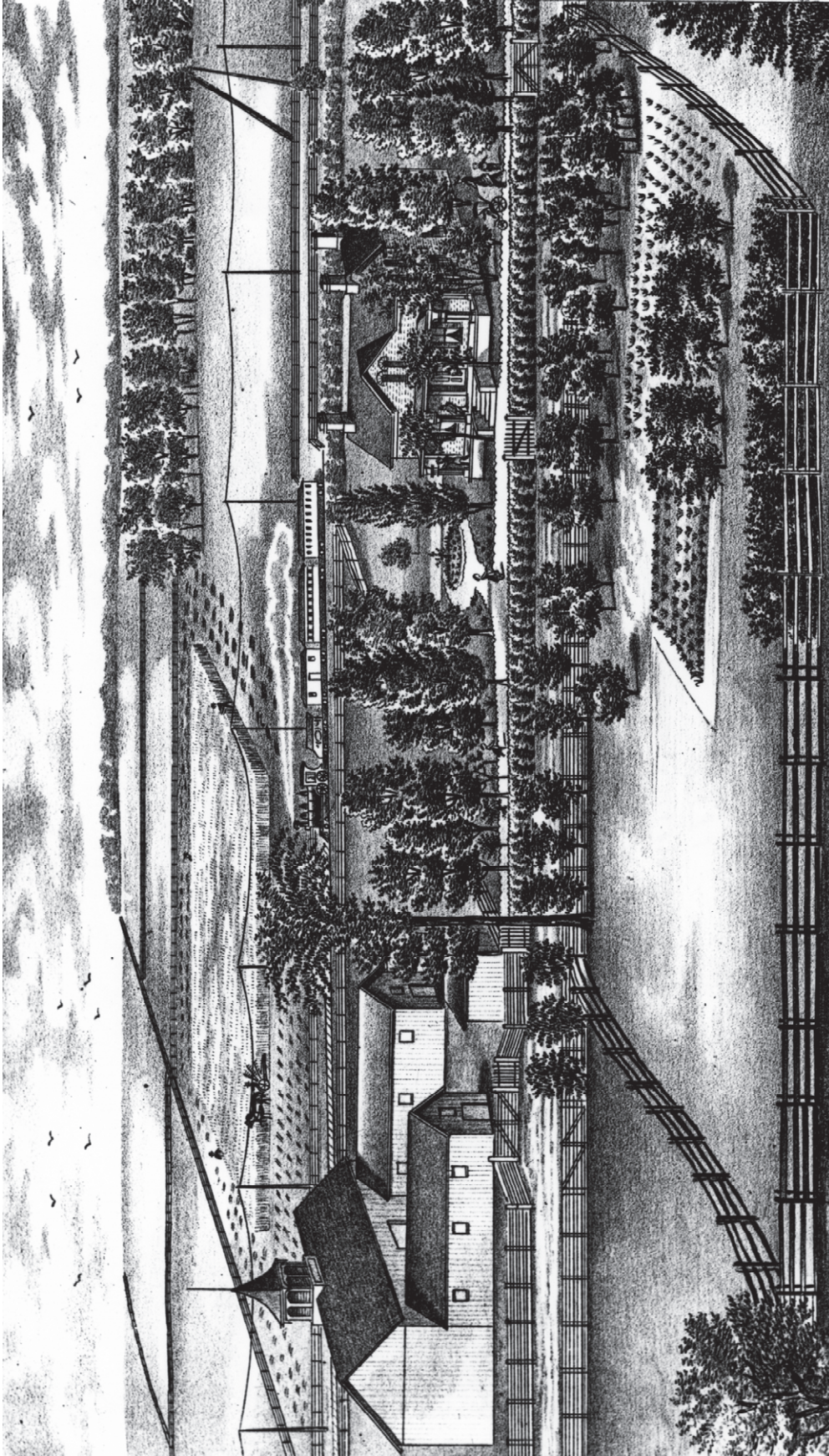
- 24 The Ottawa-Metcalfe bus, Metcalfe 1916. The crude beginnings of motor coach or bus transportation. (*Public Archives of Canada, 103911.*)



- 25 Overland Transport in the 1870s. (*Public Archives of Canada, C106956.*)

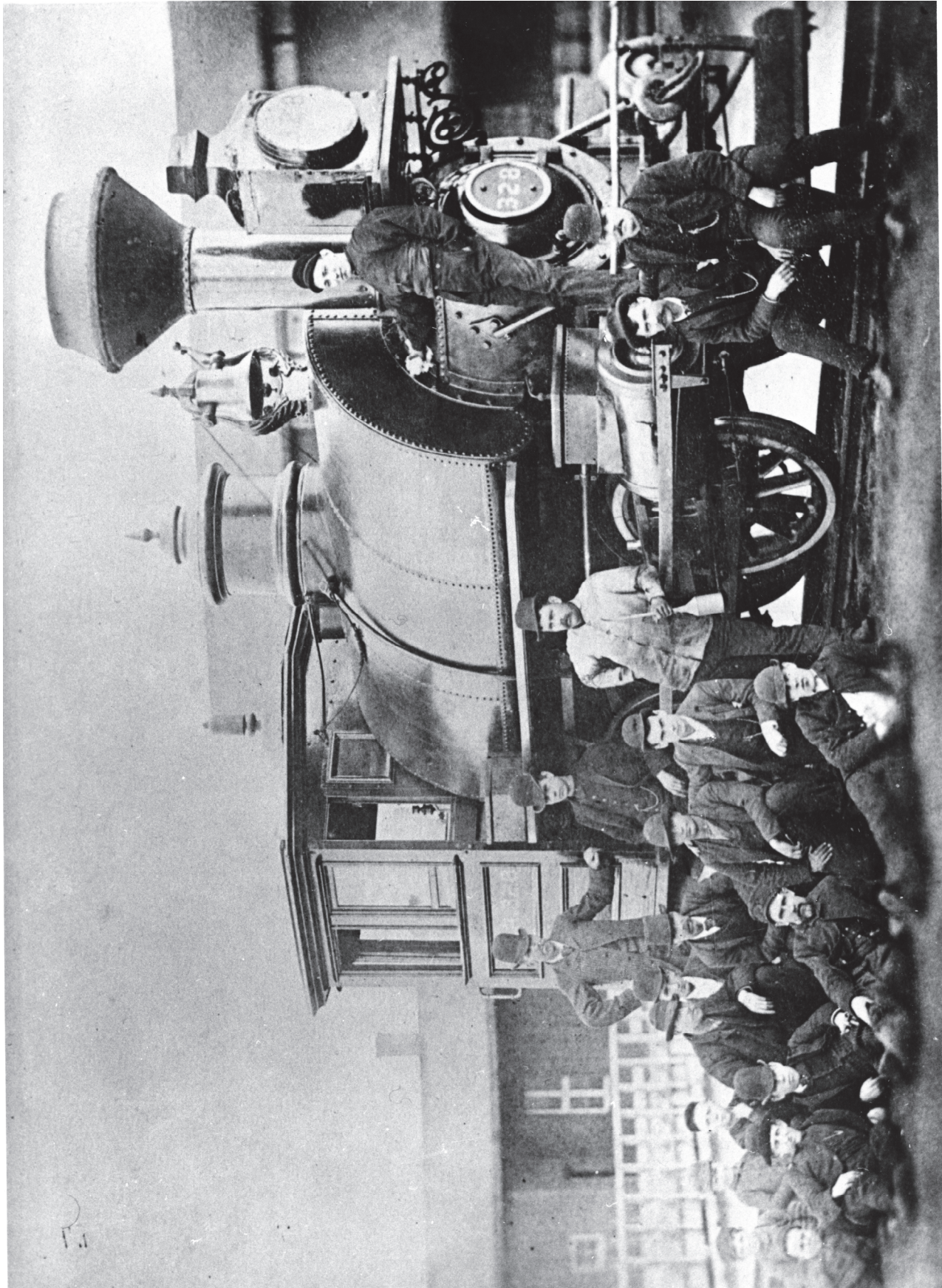


- 26 Railway passing Hurdman residence near Ottawa, 1879. (*Public Archives of Canada, C106954.*)



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- 27 St. Lawrence and Ottawa's *Little Portland* engine, circa 1873.
(*Public Archives of Canada*, C2605.)



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- 28 St. Lawrence and Ottawa Railway engine *Lady Lisgar*, 1879. (*Public Archives of Canada*, C5287.)

