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HISTORICAL REPORT

ILLINOIS AND MICHIGAN CANAL

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HISTORICAL REPORT ON THE ILLINOIS & MICHIGAN CANAL

This report is submitted in response to Mr. Wirth's request dated December 3, 1936. It is not in any sense an exhaustive study, but is based upon an examination of secondary accounts and a survey of the Reports of the Canal Trustees and Commissioners. A visit was made to the Canal offices at Lockport, where Mr. John F. Nichols was more than courteous and placed the original minute-books at the writer's disposal. It was not considered advisable to take the time to study these carefully in preparing the present report, but several of the earlier volumes were consulted.

The pictures submitted as illustrative material are either snapshots taken by personnel of the camps on the canal or by the writer, or are reproductions of prints which have appeared with printed narratives or are now in the Lockport office.

The building of a ship canal connecting the upper Illinois River with Lake Michigan was forecast as early as 1673 when Louis Joliet reported, after traversing the Chicago Portage with Father Jacques Marquette, that "it would only be necessary to cut a canal through half a league of prairie to go in a bark by easy navigation from Lake Erie to the Gulf of Mexico". (Quoted in Robert Knight and Lucius Zench, Location of the Chicago Portage Route of the Seventeenth Century, -- Chicago, 1918.)

The Chicago Portage route was a line of travel that was frequently used by explorers and fur traders during the years that followed. In

1810 Peter Porter, representing the State of New York in the United States Congress proposed that the Federal Government participate in the establishment of a system of canals linking the Great Lakes and the Mississippi, and emphasized the relative ease with which the Illinois and Michigan section could be constructed. The enthusiasm that was felt for the scheme found expression in the St. Louis Inquirer about 1814.

"The connection between the Lake and the Illinois is a point which will fix the attention of the merchant and statesman. They will see in it the gate which is to open the northern seas into the valley of the Mississippi and which is to connect New York and New Orleans by a water line which the combined navies of the world cannot cut off. Never did the work of nature require so little aid from the hand of art to complete so great a design." (Quoted in Memorial by the Sanitary District of Chicago to Congress regarding the Deep Waterway to the Mississippi, -- Nov. 12, 1902.)

The military uses of the waterway were clearly demonstrated during the war of 1812, and in the treaty concluded with the western tribes on August 24, 1816 the Indians yielded their title to a strip of land along the proposed route. Shortly thereafter Major Stephen H. Long, R. Graham, and Joseph Philips visited the region and submitted reports to the War Department proposing the construction of a canal.

Soon after Illinois became a state, the legislature approached the canal question and secured from Congress a grant of land sufficient for the right of way and extending 90 feet on either side. In 1823 a Board of Commissioners was created and the following year Colonel Justus Post and Colonel R. Paul surveyed five possible lines, estimating the costs

of construction at from \$639,542.78 to \$716,110.71. An effort was made to secure the aid of engineers who had worked on the Erie Canal, but without success. DeWitt Clinton, Governor of New York, wrote to the canal commissioners expressing his interest in the project, but he was unable to spare any of his men to assist in making the proposed survey.

The financial problem was not one easily to be solved by a newly organized state. In 1825 a private concern, the Illinois and Michigan Canal Company, was incorporated, capitalized at \$1,000,000. The firm failed, however, to dispose of its stock, and it was not until two years later, in 1827, that an additional grant of land by Congress, comprising alternate sections for a distance of five miles on each side of the proposed canal, made possible plans for definite action. Even then the canal commissioners encountered great difficulty in raising money, for the proceeds of land sales were disappointingly small and eastern capitalists hesitated to make substantial loans with canal lands as security. Sales reported for the year 1830 amounted to only \$18,924.83, and on January 29, 1833 James T. Stapp, auditor, reported that 10,746 17/100 acres had been sold for the sum of \$14,405.83. One hundred and twenty-four lots in the town of Chicago brought \$4,367. (James W. Putnam, Illinois and Michigan Canal, p. 19 n., -- Chicago, 1918; Report of the Canal Commissioners for the year 1900, p. 87.

In 1834 a traveler in the west spoke disparagingly of the state's ability to finish the project:

"The State of Illinois," he wrote, "judging from the progress already made, will not complete the canal for half a century. The want of capital here is so great as almost to seal up every outlet for enterprise, though they present themselves on every side, and our eastern capitalists are so completely ignorant of the prodigious resources of this region that it will be long ere this defect will be supplied." (H. L. Ellsworth, Illinois in 1837, p. 138, -- Philadelphia, 1837.)

The observation did not underestimate the difficulty of the task. The canal was not finished until fifteen years later. When it finally stood completed it represented a national, even an international, effort in which the savings of capitalists in New York and Boston, and in

England, the enterprise of eastern contractors, and the brawn of eastern and Irish laborers were all important factors.

During the early thirties the canal project was held up because of a counter-proposal to build a railroad. It was finally decided, however, to persist with the original plan, and by an act of the Legislature, passed on January 9, 1836, the canal commission was reorganized and the faith and credit of the state was pledged in support of a loan to cover the cost of construction.

The projected canal was slightly less than 100 miles long. Its cross-section measured 60 feet at the water level and 36 feet at the bottom. Water to a minimum depth of 6 feet was to be maintained. The revised plan of 1845 called for sixteen locks to lift a boat from the level of the river at LaSalle to the lake level at Chicago. The largest lock was the one at Bridgeport, which measured 220' x 20'. The others were 105' x 17 $\frac{1}{2}$ ', and accommodated boats of 140 tons, as compared with the 240-ton craft that plied the Erie Canal.

Actual digging did not begin until July 4, 1836. The event was the occasion of a big celebration which has been recorded as follows:

"The beginning of the canal was celebrated July 4, 1836, by nearly the whole city of Chicago going up to Bridgeport on the small steamer George W. Dole, towing two schooners. Dr. Wm. B. Egan delivered the address and the Hon. Theophilus W. Smith began the ditch by throwing out the first shovelful of earth." (Quoted from the Report of the Canal Commissioners for the Year 1900, P. 210.)

It is not to be wondered at that the canal commissioners encountered numerous difficulties in the course of the construction work. The engineering problems were perplexing ones, especially to contractors who had

not had experience in similar work elsewhere.

The major cut through the divide at Summit was not an easy assignment. It was originally planned that the floor of the canal at this point should be at a low level which would allow the Chicago River to drain out of the lake into the canal. This scheme, to be sure, aroused apprehension in many minds. No less a person than Thaddeus Stevens had visions of Lake Michigan disappearing into the Gulf of Mexico.

"If you open a communication to it from the lake to furnish water for the river," he protested, "you will drain the lake and find nothing but dry land." (Lyman E. Cooley, Lakes and Gulf Waterway, p. 4, — Chicago, 1891.)

It was the cost of the work occasioned by the rocky character of the earth and not the theoretical objections that brought about a change in the plan from the original deep cut to one several feet higher than the lake level. Locks were put in at Bridgeport and four steam pumps supplied the necessary water from the lake. These pumps together had a capacity of 6,000 cubic feet per minute, which was adequate, after the Calumet feeder was finished. Without the latter source of supply, the porous quality of the soil made it difficult to maintain the desired depth of water. In the late sixties the city of Chicago, faced with the problem of disposing of its sewage, completed the deep cut project that the canal commissioners had abandoned. In 1872 the work was finished and the Bridgeport locks were removed.

Lower on the line of the canal engineers were hard pressed to find dirt for the necessary embankments. At Joliet the canal had to be put across the Des Plaines River in the pool of a dam. On the lower division aqueducts had to be built to carry it over the Aux Sable, Fox, and Ver-

milion* rivers. Feeders had to be constructed at several points to maintain the canal level, and in some sections a lining was required to prevent undue loss by leakage. Pumping the ditch dry while digging was not always easy, and seasonal floods were the cause of considerable delay.

In addition to these technical problems there was the difficulty of finding competent contractors and of securing the necessary labor, equipment, and supplies. William Gooding's report of the work done in the year 1836 stated that contractors could hardly find men to build their shanties, and that barrows, tools, carts, and teams were very scarce. (Commissioners Report, pp. 129, 158, 173,-1900.) A year later the situation had improved, a considerable number of laborers having come to Chicago from eastern cities and from Canada. At the end of August, 1832, 2,193 men were employed on the line. The eastern division worked 55 teams and 960 men through the summer. The number fluctuated with the season, for the men were of the migratory type, who headed south with the first frost, not to return until spring.

During the forties a systematic effort was made to get laborers by securing agents in New York, Boston, and Montreal. Among the Minutes of the Trustees under the date July 23, 1846, the following resolution is to be found:

"Whereas it has been represented to the Board of Trustees that men are very scarce upon the line of the canal; and the number is daily diminishing, And that without strenuous efforts are made to procure a sufficiency of hands to prosecute the work, that delay in the completion of the work must ensue, therefore Resolved: That the Executive Committee be authorized to employ suitable agents in New York, Boston & Montreal to

give laborers such information in reference to the condition of the work and the want of an increase in the force upon the same as may induce unemployed persons seeking for labor to repair to the line of the canal; and that the said committee be authorized to take such additional steps to secure the object in view as in their judgment they may consider necessary."

Many essential materials were lacking, "among which were iron and steel for manufacturing their tools and machinery, gun-powder for blasting rock, chains and cordage for their pumps, cranes and railways, and staple provisions for the winter sustenance of their workmen." (Commissioners Report, 1900, p. 144, quoting from Annual Report of Canal Commissioners submitted 12/13/38.)

Believing that the embarrassments experienced by the contractors were genuine and unavoidable, the commissioners gave them such assistance as they could. They felt that a reliance upon private merchandising establishments in a new country would invite extortion and monopoly, and therefore built a state warehouse at Lockport for the purpose of supplying the contractors' needs at fair and uniform prices. (Commissioners Report, 1900, p. 144.) They recognized the contractors' inability to finance extensive operations over any considerable period, and accordingly made credit arrangements covering amounts due for equipment and supplies. Not all materials had to be brought in from the east, however. There was no lack of good stone, useful for foundations, bridge abutments, aqueduct piers, and lock walls. Inexhaustible lime beds were found along the line from Lockport to the Little Vermilion River, and a furnace and mill for processing it was established at Lockport by a Canadian firm who had previously manufactured for the St. Lawrence canals. Good stone cutters and

masons were scarce, however. Timber was to be had for the cutting on lands along the line of the canal. As for supplies and food stuffs, ever increasing quantities were produced on the farms nearby.

The commissioners' records support the conclusion that contractors of all sorts, good, bad, and indifferent, tried their hand at digging. Complaints appear that some of them were inefficient and that others would take a contract only at exorbitant rates. Other men, however, quoted reasonable rates and were ingenious in devising machinery to cope with special difficulties.

"Messrs. Greenwood and Bishop (contractors for sections 13, 14, and 15) have erected a steam engine for pumping," so runs an early report, "which is more than adequate to discharge the water from their work under the most unfavorable conditions." (Commissioners Report, 1900, p. 163.)

The life of the canal laborer followed the ordinary pattern cut out by the unattached man seeking his fortune on the frontier. So long as there were not too many of his type available he drew good wages, \$20 to \$30 a month and board (a C.C.C. income at least). By 1843 wages had dropped to \$16 a month.

Men were subject to the usual run of accidents, perhaps a few more, the outstanding injuries being broken bones received in quarrying operations. Sanitary conditions were typical of the frontier, and the plagues of fever that took their toll on the lowlands throughout the middlewest were more severe where laboring groups were concentrated. Sickness was sufficiently widespread to cause the men on the line to raise funds for the construction of a hospital, a project which the canal commissioners looked upon with approval. The suggestion was made to the legislature

that the structure might very properly be built upon state property at La Salle. (Commissioners Report, 1900, p. 173.)

A large number of the men who came west to work on the canal were Irish and stories are still told along the line of the canal of the different gangs and the rivalry that existed between them. These hands stuck together clannishly and had little use for crews working on other sections. Occasionally an outfit would journey some miles to visit a neighboring town. Such visits were never dull, for someone was always spoiling for a fight, and once he started something everyone joined in with gusto.

The construction towns that sprang up along the canal resembled those that were built during the sixties and seventies on the lines of the transcontinental railways. Life was rough and disorders frequent. Drunkenness was common despite an attempt made by the canal commissioners to prohibit the sale of liquor on the right of way. Although well-intentioned, such efforts were vain, since authorities found it impossible to control the sources of supply.

The laboring man was at a disadvantage on the canal, as everywhere, in that he was not self-sustaining and could not support himself on the products of the soil as the farmer did. When wages were high he had spending money; when wages fell, either in rate of pay or in real value, he was helpless. This was particularly true in the years following the panic of 1837, when the state was on the verge of bankruptcy and currency was seriously debased. The following protests describe the plight of

the wage-earner in those hard times:

"April 4, 1838.

"Gentlemen

"It is my oppinion and the oppinion of my neighbors the poor labouring man on the line of Canal is very much Imposed on by the Contractors of that line as I see it in Different Cases dayly in the first place they work hard for low wages and are then Paid with wild Cat money which of Course is about fifteen pr ct loss to the poor now at this time they Cannot Buy provisions for that money from the farmers and then if a poor man goes back to the Contractor's Store they will Charge near Double the value for any of their Commodities so Gentlemen if the poor mans wages the price of provisions and the Conduct of these Infernal Contractors are all compared together you may plainly See and understand that it is Impossible for Aman of family to live by his poor days wages. on this very day I have known a poor of Eight in family take a one Dollar Bill of that wild Cat money to his contractors Store and offer it for 1 Bushel of potatoes and Could not have them the farmer Came round offered his for Sale at 5 Shillings by Getting Good money and Would not take such money and you may Plainly See the life a poor man has on these lines

So I hope Gentlemen you will be So kind as to take this into Consideration in favor of the Poor these lines do not Come from a Canaler But from

"Aman of Conscious"

(Original letter in the archives of the Illinois and Michigan Canal at Lockport.)

Years dragged on and progress in excavation was disappointingly slow. The financial embarrassment of the state reacted upon the canal project and work on the ditch was finally suspended in March, 1843. Two years later digging was resumed, after new financial arrangements had been made. By an Act of February 21, 1843 the Governor was authorized to negotiate a loan of \$1,000,000, the amount estimated to complete the canal with a "shallow cut" at Summit. Payment of the loan was secured by a deed of trust, and the canal and all its property were turned over to three trustees, one of whom spoke for the state while the other two represented the

bond holders. A recapitulation of the loan account shows that European subscriptions amounted to something more than \$1,000,000, or about two-thirds of the total. New York investors contributed some \$400,000, while Illinois subscribers held \$160,000 worth of canal bonds. (Trustees' Minutes, vol. 2, p. 45.)

Under this plan new contracts were signed. The pause in operations resulted in a deterioration of the unfinished right of way and many repairs had to be made. Sickness and floods delayed the work, but at last, in April 1848, the last section was finished. On the 24th of that month the trustees made the following entry in their minute-book:

"A communication in writing was received from the Chief Engineer dated this day stating that the canal is 'so far completed as to be navigable order', that the first boat which had passed over the Summit level of the canal was called the Gen'l. Fry of Lockport, Capt. Forber and that she made her first trip from Lockport to Chicago on the 10th Inst. That the first boat which had passed through the entire length of the canal from the Illinois River at La Salle to Chicago arrived at this place yesterday (23rd inst.) and that it is called the 'Gen'l Thornton' of La Salle, Capt. Mills, that others are on the way, etc."

For the trustees the game was just begun. The canal had cost nearly six and one-half million dollars; it must be made to pay for itself. Thus the story in the ensuing years is a chronicle of the management of a going concern.

The actual handling of the traffic on the waterway was the most obvious of the trustees' responsibilities. No less important were the sale of land along the canal and the leasing of power-sites. The combined income from these sources of revenue was enough to pay the cost of construction within twenty-five years. On April 30, 1871 the trustees turned over to the state a cash balance of \$95,742.41, and the trust was dissolved.

The operation and maintenance of the canal called first for the hiring of personnel and the acquisition and care of necessary equipment. The permanent payroll at first was short. A general superintendent was employed at \$2,000 and three assistants, at \$600, who were placed in charge of repairs. Two collector-inspectors handled offices at Chicago (\$1,000 per year) and La Salle (\$600) respectively, and other inspectors were stationed at Morris and Lockport (\$200 per annum each). Lock tenders at the locks along the line were paid \$300 a year, and the engineer in charge of the two pumping engines at Bridgeport received \$2.50 a day. The wages of the two assistant engineers was \$1.75 while four firemen earned a dollar a day. (Trustees Minutes 2:271, 5/5/48.)

Repairs were necessary each season along the canal and the annual reports of the trustees and later the canal commissioners contain state-

ments of the amounts of money expended on them and the number of days that were lost through the enforced closing of different sections.

In the year 1875 navigation was maintained uninterruptedly from April 15 to November 28, except for five days in July, when the Morris level had to be drained in order to cut out an excessive growth of water grass, and three days in November when one span of the Kankakee aqueduct broke down, necessitating the closing of the Dresden level. Expenditures on ordinary repairs varied from \$33,000 to \$54,000 during the first quarter century of operation. (Commissioners Report, 1873, p. 25).

The canal was, of course, closed entirely during the winter months. From 1848 to 1900 the number of open days in a season ranged from 184 to 336, averaging about 240. Usually it opened about the first of April

and closed in the latter part of November. In 1865 as many as one hundred barges assembled in the river basin at La Salle, awaiting the opening of navigation.

As the years passed deterioration accounted for an increasing item in each season's expenditures. Wooden bridges rotted and were replaced by iron ones. Lock gates were repaired or renewed, and aqueducts were rebuilt. For a time after the deep cut had been completed, difficulty with slides was experienced in the stretch below Bridgeport. The channel was dredged out and piles were driven near the bank. Planks and brush were placed behind them to prevent undue washing. Pile drivers and dredges were important units in the stock of canal equipment, and several boats were fitted with sleeping quarters and tool rooms in order that repair crews might be transported quickly and conveniently to points that required attention. In the Commissioners' Report of 1874 (p. 27) the following items representing repairs were enumerated:

12 new lock gates	\$3,150.00
7 new bridges	4,677.63
Protection of bank at Dayton	3,000.00
Break on Dresden level	460.50
Summit level, dredge piles	13,106.16
Pile driving machine	<u>275.00</u>
	\$24,669.29

Dredge Used on the Canal
(From a picture loaned by John Walter.)

A code of rules comprising more than a hundred paragraphs was drawn up governing the protection and use of the canal. In this code the procedure of registering boats and collecting tolls was minutely prescribed. A speed limit of $4\frac{1}{2}$ miles per hour was imposed, except where the canal was walled, and directions were given regarding the color and position of running lights. Annoying traffic situations were anticipated so far as possible, such as questions of right of way when two boats passed each other. Steamers were required to stop their propellers when passing over the tow lines of another boat.

Several rules were designed to keep the canal banks in good condition, and the stream itself free from obstructions. Digging which might result in injury to the shoreline was strictly forbidden, as were private

wharves and unauthorized devices for taking water. No animals were to be driven on the tow path and no dead animals (perhaps the commissioners had worn-out mules in mind) or "hay, straw or manure or any other litter" were to be dumped in the water. No one save canal hands were to manipulate locks or waste-gates. (Rules and regulations, 1886.)

A number of different types of boats were used on the Illinois and Michigan waterway. The simplest type was the barge, propelled through the canal by a mule walking along a tow path on the bank.

In later years two of these barges would be pushed or towed by a steam canal-boat which carried a cargo of its own as well.

By 1876 twenty-two steam freighters were in use and owners claimed for them greater speed and lower costs. Two of the better boats were operated by the Singer & Talcott Stone Company of Lemont and the Norton Milling Company of Lockport and Chicago. The Talcott boat made 82 round trips between Lemont and Chicago (50 miles per trip) from May to November 1876.

Further refinements in canal-boat design followed with the introduction of the steel hull. Looking toward the day when the locks in the canal would be enlarged, ingenious boat-builders constructed some of these ships with a transverse seam amidships that would make it possible to insert an additional mid-section, should it be desired. Another improvement of interest was the tunnel stern which insured efficient propeller action in a shallow-draft boat.

Passengers traveled on steam packets, the fastest of which ran the length of the canal in from 20 to 24 hours. These boats carried only passengers and light baggage, and during the fifties charged a fare of four dollars. Other boats carried furniture and merchandise, traveling more slowly and asking a lower passenger fare. Families with a large amount of luggage and little money rode on freight and line boats. If we are to place our trust in a contemporary Emigrant's Guide, packets left Chicago and La Salle several times daily and the better ones afforded passengers a fair degree of comfort. It was said that the canal route was preferred to the Ohio River by many vacationists journeying to eastern summer resorts. (Daniel S. Curtiss, Western Portraiture and Emigrant's Guide, p. 62, — New York, 1852.)

It was expected that the principal revenue derived from canal tolls would come from freight receipts. An examination of the toll lists compiled in 1848 reveals an enumeration of 145 categories of goods ranging alphabetically from ale, agricultural implements and beeswax, through pitch, paper, rags, and resin, to vinegar, whiskey, and white lead. The commodities transported in any considerable quantities, however, were relatively few in number. Lumber from the Great Lakes and finished merchandise from the east passed down the canal to the growing towns in the interior. In exchange, the canal and Illinois River farms sent large quantities of grain and other agricultural products to Chicago for distribution or shipment to eastern cities. Sugar, molasses, coffee, and other tropical products passed north and east from New Orleans and St.

Louis markets. (Putnam, Illinois and Michigan Canal, p. 100.) Lime, cement, sand, building stone, and salt for Chicago packing houses were also significant items. Iron manufacturers had dreams of bringing iron ore from Missouri to the Illinois coal fields, and agitated for deepening of the lower channel of the Illinois River, but the exploitation of the range mines in Minnesota shifted the supply routes to the Great Lakes. The iron works at Joliet did contribute, however, to the traffic on the canal.

Toll charges were levied in 1848, (1) on boats: 3 to $3\frac{1}{2}$ cents per mile; (2) on passengers 4 mills per mile, and (3) on commodities: 3 to 15 mills per mile for each 1,000 lbs. The larger number of items were charged from 6 to 10 mills. Lockage charges were also imposed. These tolls were found to be too high and were later substantially reduced.

The reduction was brought about in large measure by competition with the railroads. The completion of the line across the state to Rock Island in 1884 and the development of the Illinois Central System in succeeding years meant that rail and water routes paralleled each other for considerable distances. Until the middle seventies the canal continued to make money. It supplied some interior districts which the railroad did not reach, and the rapid expansion of business meant that the canal showed profits despite the fact that the railroads carried the larger part of the increase in volume of trade. It is of interest to note that the canal commissioners made special rates in individual cases where it was necessary to get the business. In 1889 a shipment

of 110 tons of railroad iron was allowed to go at the special rate of 2 mills per mile because shippers would pay no more. (Trustees Minutes, vol. 3, p. 22.)

After 1878 receipts from tolls fell behind expenditures and the canal began to be a losing venture. Various causes were cited in the reports to account for the discouraging record. In 1873 a falling off in tolls was attributed to the lack of storage space for grain in the Chicago elevators. In 1885 a strike of quarrymen at Lemont, Lockport, and Joliet had a direct effect on the amount of stone shipped. In 1890 strikes in the building trades in Chicago affected shipments of materials. But throughout the latter decades of the century there were repeated complaints of the "fierce competition" of the railways. The latter companies refused to cooperate with the canal lines by establishing joint terminal facilities, and did what they could to discourage the transhipment of freight. This often took the form of heavy elevator charges and discriminatory rates against shippers using the canal. In the last analysis it was railway competition that accounted for the annual deficits in the canal accounts.

The people of Illinois have nevertheless agitated persistently for the improvement of the canal and the deepening of the Illinois River channel. The reason is to be found in the fact that although the waterway operated "in the red", it depressed railway rates to a degree that made it worth the necessary subsidy. In 1876 the rate on corn by river and canal from Henry to Chicago, 120 miles, was 4 cents per bushel, while

the railroad charged 4.5 cents. The railroad rate from Tickilan to Chicago, 123 miles, on a non-competitive route was 6.83 cents. (Putnam, Illinois & Michigan Canal, p. 121.) A similar influence was exerted in other instances.

Canal conventions held at Rock Island, Ottawa, and Chicago during the sixties and seventies were partly anti-monopoly meetings which protested the high tariffs of rail carriers. The same motive was behind the agitation in Congress which finally resulted in the construction by the Federal Government of the Hennepin Canal from Bureau to the Rock River. The historical thread is a continuing one which can be traced down to the completion of the new ship canal in 1933.

The first thirty years of operation represent the period of greatest importance in the history of the Illinois & Michigan Canal. It was important in two respects: (1) in encouraging the settlement and growth of the Des Plaines-Illinois Valley, and (2) in contributing to the rise of Chicago as a major distributing center. Professor A. C. Cole writes as follows of the effect that the opening of the canal had upon the development of the upper Illinois Valley:

"As a result of the canal traffic the entire upper river valley experienced a tremendous awakening. Lockport became a bustling town of large freighting and boat-building interests, and Joliet, Ottawa, La Salle, and Peru shared in the general prosperity." (Illinois Centennial History, vol. 3, page 29, -- Chicago, 1918.)

The influence of the new waterway was distinctly felt at such lower river towns as Peoria. An Emigrant's Guide published shortly after the

canal began operating reported that the settlement there grew to three times its former size in five years, and that the influx of people resulted in a rise in rents. Small houses brought six to seven dollars a month, while store-rooms and shops along the wharf were worth from \$250 to \$500 a year. (John Regan, Emigrant's Guide to the Western States of America, pp. 378-9, -- Edinburgh, 1852.)

It will be noted below that the shipping interests benefited somewhat at the expense of the meat-packers, since animals were shipped alive to Chicago in increasing numbers. The number of hogs slaughtered in Peoria declined from 25,000 in 1851 to 18,000 in the following year. (Regan, Emigrant's Guide, p. 333.)

Joliet soon became a lively town of 3,000, characterized by one traveler as "not a place of much beauty" but "a smart place for business". He reported a large woolen factory run by waterpower, the first he had seen in the country. (Diary of Daniel Storer, Jan. 9, 1850. A copy is in the collections of the Minnesota Historical Society.) Other mills were soon put in operation, and quarries began to ship building stone of a superior quality.

An enthusiastic Irish settler, who had bought a farm near the canal and apparently wanted neighbors, wrote back to the home country: "In Lockport are to be found all the arrangements and conveniences which are to be met with in such towns as Wexford or Waterford." (Regan, Emigrant's Guide, p. 356.)

By 1860 the census schedules showed Lockport with a population of 2,822 and Joliet with 7,104. Channahon, an intermediate locking point

from which grain was shipped, reported a population of 911 persons. Utica had 992, and Ottawa was a thriving town of 6,541.

A comparison of census figures compiled in 1850 and 1860 for Will and La Salle counties gives other evidence of development. The total population for Will County which included the back country as well as the towns of Lockport, Joliet, and Channahon rose from 18,703 in 1850 to 29,264 in 1860. During the same period the population of La Salle county (including Ottawa and Utica) advanced from 17,515 to 25,585. The acreage of improved land in Will county increased during the decade from 102,578 to 243,066, while in LaSalle county the corresponding figures were 93,098 and 240,463. A further index of activity was the increase in the number of horses reported. In Will county the figure for 1850 was 3,474; for 1860, 8,965. In La Salle county the number of horses reported increased from 4,494 to 9,912. A number of these animals were used on the canal.

In La Salle county in 1860 seventeen flour mills did a business of \$792,662 and employed 78 men, while five coal firms reported an industry amounting to \$206,250 which employed 282 men. In Will county seven milling establishments employed 31 men and earned \$461,500. Three quarrying firms hired 138 men and did business amounting to \$58,048. The establishments engaged in tanning leather or making shoes employed a total of 65 men and turned out \$117,950 worth of goods.

It has already been noted that shipments of grain and agricultural products constituted an important group of items transported over the Illinois canal. They were especially significant in contributing to

Chicago's rise to a position of commercial prominence. In 1845 grain shipments for Chicago amounted to 133,000 bushels. In 1848, after the opening of the canal, shipments exceeded one million bushels. For 1850 the figure was 1,531,000 bushels. (Percy W. Bidwell and John I. Falconer, History of Agriculture in the Northern United States, p. 307, -- Washington, D. C., 1925.)

A similar gain was made in meat packing. Before the opening of the canal Alton, Beardstown, and Peoria were the important packing towns in the West, while Cincinnati handled a large part of the business on the Ohio River. In 1850 Chicago outstripped the other Illinois points in the number of hogs packed, and by 1862 had passed the half-million mark and was leading Cincinnati as a packing center.

The commercial activity stimulated by the canal contributed to a speculative business in land, particularly in town lots both in Chicago and in the towns along the waterway. A traveler who visited the site of Peru in 1837 reported: "One humble tenement is all it boasts." He went on to say, however, that a wealthy Pennsylvanian had bought up a considerable tract anticipating a boom when the canal opened. (Quoted in Ellsworth, Illinois in 1837, pp. 135-6.) The Irishman who described Lockport with such enthusiasm cautioned his friend, in 1850, that in all probability he would be unable to buy land within five miles from town without paying a high price for it. Certainly the canal trustees did their best to dispose of their property. An entry in their proceedings under the date of May 10, 1848 indicates that advertisements were placed in leading papers all over the country. The list of cities included Boston, Springfield, New York, Buffalo, Detroit, and Chicago; Washington, Cincinnati, St. Louis, and New Orleans; as well as Galena, Quincy, Alton, and local points on the

canal. In the first three years of operation land sales amounted to \$1,001,407. From June 26, 1845 to June 30, 1871 lands and lots were sold to the value of \$4,706,482,68. (Putnam, Illinois and Michigan Canal, p. 77.)

Realizing that speculative business sometimes had the effect of discouraging settlement, the canal commissioners attempted to attract settlers who would live on the land they bought, and sought to promote community life in the canal towns by granting land for possible buildings, such as court houses, schools, and churches. Nevertheless, in municipal areas, and particularly in Chicago, land holders looked upon their holdings, not as homes, but as investments. Corner lots favorably situated were coveted by the city's earliest residents, and they have not failed to bring a rich return to their owners. On the other hand, several towns that were laid out on paper were never populated, and have remained "ghosts" to the present day. Kankakee, laid out where the river of that name joins the Des Plaines, is an example.

One important source of profits, the ownership of power sites, the canal trustees kept in their own hands. In 1875 five commercial firms had power leases for which they paid an annual rent. Norton & Co., millers at Lockport, paid \$2,677 for water used for power. G. W. Hyde and Lorenzo Sanger used power from dams at Joliet; S. D. Sprague paid \$200 for rights at the DuPage Dam, and the Ottawa Hydraulic Company paid \$750 for water power derived from the canal. In view of the scramble which has taken place at promising natural power sites, the state policy of twenty-year leases is not without significance.

Mention has been made of the movement started after the Civil War to improve the Illinois system of inland waterways. The Hennepin canal, completed by the Federal Government in 1907, had the effect of supplementing the Illinois and Michigan Canal, by joining it with the Rock River and the Mississippi. The Sanitary and Ship Canal, built by the Sanitary District of Chicago, and opened in 1900 from Robey Street, Chicago, to Lockport, had the opposite effect of throwing out of service the parallel section of the Illinois and Michigan waterways. The remaining section of the old canal has been rendered obsolete by the canalization of the Des Plaines River from Lockport to Ottawa, completed in 1833, which permits large freighters to pass all the way to the Illinois River.

The historic waterway is thus described. The administrative offices are still open at Lockport where a small force handles real estate problems, devoting themselves mainly to the task of keeping a clear title in the state to the old channel and the 90' strip. This is done in compliance with the terms of the original land grants which stipulate that the right of way shall be so maintained that it can be made navigable at any time, should the Federal Government require it.

Although abandoned for commercial purposes the canal has not by any means lost the scenic beauty upon which the travelers of generations ago have commented. The aesthetic attractions of the stream, particularly the lower part of it, were called to the attention of "tourists" in the travel guide of the fifties. Daniel Curtiss was especially enthusiastic:

"The combination of those singular and varied features of nature and art at this point--rugged bluffs, gentle slopes, shady vales, fertile, cultivated prairies, and dashing streams, with the smooth, regular, and walled Canal--altogether render this one of the most delightful locations for healthy atmosphere and beautiful prospects on the whole route from Chicago to St. Louis." (Western Portraiture, p. 63.)

Present day tourists are no less appreciative of the beauties of the region, and they, as well as the inhabitants of the towns through which the canal line passes, will benefit by the park development program that is being carried out.

Charles M. Gates.

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

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