

Landscape, Townscape and Canalscape on the I. & M. Canal Corridor.” A paper read at the Illinois State Symposium, December 1988.

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Modes of transportation are bound to have an impact on the landscape they cross. Although it may not be so obvious, different methods of transportation have differing impacts on the landscape. This can be seen in the landscapes of two 19th century English landscape artists, John Constable and Joseph Turner. During the 18th century there was a considerable program of constructing canals, so by the time Constable (1776-1836) was painting, they had harmonized with the land becoming almost a natural part of it. This can be seen in Constable's painting *The Leaping Horse*.¹

The railroad was a 19th century innovation and had a different impact upon its environment. It did not really harmonize with the landscape but obtruded upon it. It was the train not the track that epitomized the railroad, in contrast to the canal whose water was more obtrusive than the boats that floated on it. Joseph Turner in his important painting *Rain, Steam and Speed* perfectly captures the way the train dominates and diminishes the landscape.²

The canal becomes the landscape because the canal builders had to fit the waterway into the land. They had to shape the flow of water by means of dikes, dams and diversions so that the canal became the natural waterway. And the canal because of that remains an intrinsic part of the landscape long after it has been abandoned as a waterway. The railroad bed tends to disappear on the prairie rather quickly after its abandonment.³

There is also a canal townscape; the canal town must conform to the engineering needs of the canal and is shaped as long as it exists by the canal that passes through it.⁴ The Illinois and Michigan Canal and the various town plans on its path offers a good example of how canal towns developed from scratch. When the idea of a canal to connect Lake Michigan to the Illinois River was first seriously mapped in the 1820s, there were no towns on or near the canal route. In 1830 a state canal commission was established to try and exploit the large land grant of over 285,000 acres given to the state by the Federal Government. The state hoped that by selling the land it could pay the construction costs. In 1830 they laid out two towns in this unsettled area. One was laid out at the junction of the two branches of the Chicago River with the main branch. This was the original town of Chicago. The other was plotted where the Fox River joins the Illinois and was the original town of Ottawa. The Canal Commissioners advertised lots for sale in these two towns in 1830. The results of both the land auction and the lot auction were disappointing. There was not enough money to start construction, even though the sale had been advertised in the southern part of the state and in the East.⁵ However, after 1830 there was increased land and lot speculation. In 1833 Chicago became a village, and in the same year Joliet, Utica and Marseilles were plotted on the line of the canal by private individuals.

Although the original 1830 plots of Chicago and Ottawa have been lost, copies indicate that the commissioners saw them basically as river towns. The Chicago River, not the Lake, determined the shape of the town. The surveyor for both towns was James Thompson. In both sites there is a central public square and open land along the river banks at the South Branch of the Chicago River and at the Fox and Illinois rivers.

In 1836 the state finally launched the canal project in earnest. It was proposed to borrow money using the increase of land values as a promise of potential return. By that year the speculation in town lots, particularly

in Chicago, was a permanent part of life on the Western Frontier. The form and the peculiarities both silly and serious of the speculative disease were everywhere apparent. Land auctioneers were as numerous as bars, and the din of their drumming was constant in the small town of 4,000. In light of this, the law, passed for the construction of the canal, paid close attention to the sale of town lots. It says:

“The commissioners shall examine the whole route, and select such places thereon as may be eligible for town sites, and cause the same to be laid off into town lots, and they shall cause the canal lands in or near Chicago, suitable therefore, to be laid off into town lots.”⁶

The act also commanded the sale of lots in Chicago and Ottawa on June 20, 1836, two weeks before the first shovel of dirt was turned on the canal. The engineer in the Chicago or Summit level surveyed and plotted the additional acre of fractional section 15, which included for the first time the lake shore in Chicago. In the plot the land East of Michigan Avenue was left clear of development. This was part of a continuing desire to keep the waterfront open as had been done in 1830 along the river front.⁷

Chicago was never intended to be a canal town, as the South Branch of the Chicago River would be used to connect the original town, the modern ‘loop,’ to the canal at Bridgeport. However, the Canal Commissioners had a large influence on the development of the city. By 1836 the original Thompson plot was lost, and so the Chicago village trustees on July 30, 1836, wrote to the Canal Commissioners requesting they define the boundaries of the original town.⁸ In 1837 the State Legislature gave the Canal Commissioners the right to file their own plots without consulting the county surveyor. They could also certify previously filled plots that had been lost, and those documents so certified would be regarded as the official plot for legal purposes.⁹

Armed with these powers, the canal officers would have a determining impact upon the towns along the canal. Also, the sale of town lots was initially very encouraging. The auction on June 20, 1836, in Chicago found lots running well above the evaluation made before the sale. The Chicago sale brought in \$1,522,545.¹⁰ But in 1837 the effects of a depression began to be felt all across the country, which tended to cool the speculative fever. In 1838 Canal Commissioners Thornton and Fry report:

“The sixth section of the act on March 2, 1837, empowers the board of commissioners to sell such parts of the canal lands in the township in which Chicago is situated, and alternate lots in La Salle and other towns along the canal route as might be necessary to produce the sum of 1 million dollars. Under this authority, and since the last session of the Legislative, a few alternate lots have been sold in Lockport, Ottawa and in La Salle, but more with a view of founding the towns and preventing individual property owners from superseding that of the State, than for the purpose of present revenue. The financial embarrassment of the Union for nearly the last two years will satisfactorily explain that no other property has been sold.”¹¹

In 1839, although construction costs were increasing, again the Canal Commissioners did not bring either land or lots on the market.

“But no part of the lands have been brought into market. The continued derangement of the pecuniary affairs of the country, and especially of the Canal, would not in the opinion of the Commissioners allow any kind of real estate to sell at fair prices. The consequence is that not only farm lands, but town lots have been withheld from sale.”¹²

By 1840 seventy-six purchasers of Chicago lots, such as W.B. Ogden, were petitioning the Canal Commissioners for not only a moratorium on payments, but a reduction of the 1836 original price at auction.¹³

To obtain maximum prices for lots in the newly founded towns laid out by the Canal Commissioners, and in addition to older towns it was proposed not only to build a transportation waterway but also a means of supplying water power in such quantities as to encourage manufacturing along the canal. Since at that time it was anticipated that water would be drawn directly from Lake Michigan, the increased cost of construction would be more than repaid by increased lot prices. William Gooding, Chief Engineer, reported:

“The value of waterpower here (Lockport) and at other points upon the canal, by drawing a supply of water directly from lake Michigan, can be fully appreciated after a season of such severe drought as the past. The Des Plaines River and many other considerable streams of the country have been nearly dried up, and probably three-fourths of the watermills throughout a large portion of the United States have been standing still for the last three months. But had this canal been completed, there would have been, during the season past, an unusual supply of water, as the surface of the lake has been nine feet four inches above canal bottom, or three feet four inches higher than was originally calculated upon for the supply.”¹⁴

Because of the desire to get maximum prices for State lots, and to build up State developed towns, the plans for the canal entailed expenditures over and above the basic cost of building a canal. These costs included the supply of water power necessary to encourage and support manufacturers and other commercial enterprises using the canal.

There were two principle towns wholly owned by the State that canal officials were particularly concerned about. One was Lockport, where the Canal headquarters was located, and the other was La Salle, the terminus of the Canal. Since the original plan for the canal included cutting through the Chicago portage so no lock would be needed between the lake and Lockport, there would be an unlimited supply of water there. At Lockport there is the sharpest drop on the canal – forty feet in three miles – hence there were great hopes for development at Lockport. In 1836 William Gooding, the Chief Engineer, reports that the water power developed there would be “...sufficient of itself to build up a large manufacturing town, without a lock or other impediment separating it from Chicago.”¹⁵ The terminus of the Canal is at La Salle; this location frustrated the hopes of speculative town developers at Utica and Rockwell who plotted sites on the Illinois River where they hoped the canal would end. At both Lockport and La Salle, extensive developments were planned, such as a hydraulic basin, steamboat channel, central basins and other improvements that were built. Thus, the canal would give to these towns a shape, their streets a direction that they still have today. In each case the existing character of the landscape was shaped and modified to obtain the ends desired. Rivers were diverted from their natural beds and outlets into the canal, a basin was dug to connect it to the Illinois River, and canal towns were built.

There were towns already plotted in 1836, such as Joliet and Ottawa. In both these towns the Canal officials made additions on State-owned land. In these additions improvements were made to increase water power which would improve the value of the State lots. As the Chairman of the Canal Commission wrote in 1849, this caused criticism.

“It is the interest of a large number of citizens, who have settled or intend to settle on the line of the canal, to have the land and waterpower sold early and at low prices; and a strong disposition has been constantly manifested by a

few to throw obstacles in the way of building up State towns, and creating manufacturing power, which they view and denounce as an opposition to individual enterprise. But the true policy of the State, like that of her citizens, is to sell her property to best advantage, and where she has improved it to claim the benefits of improvement, without regard to selfish complaint....¹⁶

Another source of discontent with this policy was the almost inevitable rivalry and jealousy between towns. This is seen from letters and editorials in the Joliet Signal between 1847 and 1850. In 1847 "Justice" of Hickory Creek complains that Gooding says a fall of twenty feet at Lockport will supply sufficient water power for 30 run of stone, while ten feet of fall at Joliet will only supply power for twelve run of stone, which he claims is just propaganda for the state town, Lockport, where Gooding resides.¹⁷ Another letter in 1847 from "Jake Utica" of Kankakee says Gooding and others working for the canal build up, "...Lockport, the El Dorado of all their fond hopes."¹⁸ "Long Jimmy" of Thorn Creek has a similar complaint in 1848.¹⁹ In 1850 an editorial in the Joliet Signal goes back to Lockport's thirty run of stone and Joliet's 12, adding "...true, the canal officers, most of them residents of Lockport, have squandered thousands to build a basin so that they might have waterpower there; yet anyone who is acquainted with such matters must see by examination, that the power here is much the surest and the best."²⁰

The pressure on the Canal officials to sell off land and quickly raise money was always resisted even though the financial difficulties faced by the state and the canal between 1839-1848 intensified the demand for quick sales. The law stated that most of the lots and lands were to be retained until the canal was completed. In 1845 because of financial difficulties, control of the canal shifted from the State to a Board of three Trustees. Two were appointed by the bond holders, and one by the Governor. The Board borrowed sufficient money to finish the canal. One of the first things the Board did in 1845 was to hire a land agent, E.S. Prescott. Prescott was able to increase the sale of town lots after the canal was completed in 1848.²¹ The Trustees insisted that the lots be sold at or above their confirmed valuation. In the 1850s when sales were brisk in and around Chicago, if the other town lots didn't come up to snuff, they were withdrawn.²²

By the 1850s another transportation development with a large government land grant came upon the Illinois scene. This was the Illinois Central Railroad. It was natural that they would turn to I. and M. Canal personnel to help in selling their lands and lots. In 1853 Prescott was approached by David Neal, a leading figure in the railroad and subsequently in the railroad land sales. Prescott reported: "...Mr. Neal is as desirous as anyone that I should relieve him of the perplexities of town making, for he doesn't think he has the 'knack' at the business."²³ Prescott would eventually turn the offer down because the railroad, he felt, was trying to bring too much land on the market before the railroad was completed. His experience with the canal made him mistakenly believe this couldn't be done.²⁴ Interestingly, Neal soon acquired the 'knack' of town making putting together a plot on a north-south axis with common street designations split down the middle by the railroad. The plot was used for thirty-three towns on the Illinois Central line planned by David Neal's Land Associates.²⁵ In contrast to the railroads, canal towns were shaped by geographic features and by the changes in landscape made by the canal builders. In addition, there was no rush to sell lots, and their sale continued at a varying rate throughout the 19th century. The railroad tended to have uniform town plans and quick sales.

That the canal was wise in its lot sale practice is indicated by some figures of 1852. Since 1845, 62% of the 6,384 lots then laid out had been sold. The amount received was \$1,015,000, yet the total lot evaluation was \$974,364. The sale of town lots had brought in more actually and comparatively than the land sales, of which less than 50% had been sold by that year.²⁶

In order to appreciate the varied townscapes of the canal towns along the Illinois and Michigan Canal, I will look at four towns: Lockport, Joliet, Ottawa and La Salle. Two of these towns were plotted by the Canal

officials in 1837, while Joliet and Ottawa were laid out in 1833 and 1830 respectively. However, in both of these latter towns the canal made significant changes to make the State additions to the older original town attractive to manufacturers.

Lockport was considered very important to the canal officials, it was located on that place on the line of the canal that was the same elevation as Lake Michigan, hence the end of the summit division. Between Lockport and Joliet, about five miles, the land drops forty feet, the largest drop on the line of the canal. As already noted, the canal officials were very optimistic about Lockport and its economic prospects given the large potential water power there. The town was laid out on spacious lines. It is located on the east edge of the Des Plaines valley. The canal is built above the river, and most of the town is above the canal. The major street, State Street, is 100 feet wide; there appears to be no other thoroughfare that broad on the canal line. As in other towns, the canal here was wider than its usual 60 feet. In Lockport it was 120 feet wide. The original plot of the town was done in 1836 by a surveyor named Winkler. The town plan included a public square, two market squares and land set aside for a college. There was no public land set aside for canal use. For this reason the plan was never filed. In 1837 a new survey was done, by law then, it did not have to be certified by a county surveyor. A canal engineer, John Prescott, did this survey.²⁷ It was much more canal centered; the public square was moved closer to the canal, and two public landings were located on the canal north and south of Ninth Street, the access road to the town from the west. The public landings would define the business district. The market squares and college areas were dropped. But in both plans the town's streets had instead of a north-south orientation, one that paralleled the canal. The first substantial building in the town²— there were some abandoned log cabins— was the canal headquarters, now the Will County Historical Society Museum. Across State Street from this, two houses were built for the Canal Commissioners. Also, in 1837 on the banks of the canal at the north end of the public landing, a stone warehouse was built to store materials that contractors would need. Besides the direct connection to the canal and its construction, these buildings were designed to draw settlers to the town. By the time the canal was finished in 1848, the south end of the public landing was set off by a large stone grain warehouse or elevator built by Hiram Norton on the canal right-of-way.

The crowning feature of the Lockport Canalscape was a hydraulic basin designed to draw to the town numerous manufacturers.²⁸ This did not turn out to be as important as originally thought. In 1845 the State's financial exigencies required the abandonment of the "Deep Cut" that would have reversed the flow of the Chicago River and draw Lake Michigan water down to Lockport. The "Deep Cut" would have to wait until 1871. Instead of ample water, in 1848 water on the Summit level was in short supply until 1853. By that year a feeder canal from the Little Calumet at Blue Island brought sufficient water into the canal at the Sag. Hiram Norton, the principal manufacturer at Lockport, used more water power and paid more for it than anyone else on the canal.²⁹

The last significant feature of the canal in Lockport was Lock Number 1. This lock was built so its excess water flow could be used to drive machinery.³⁰ In Lockport the enthusiasm for the canal was great, but as usage declined and its smell increased, misgivings developed. In 1905 the President of the Lockport Woman's Club wrote:

“When one looks upon the long vista of years that have elapsed since Lockport was evolved from the primeval forests of the region it seems almost incredible that Lockport has not progressed more rapidly. When you think of the beautiful hills and high bluffs on which the town is located, it would seem an ideal spot for a modern town, but there are several reasons why people have not cared to locate here, chief among which is the Illinois and

Michigan Canal. The disagreeable odor has been widely talked of as a menace to health."³¹

The writer went on to urge that the old canal be converted into a pathway for the latest thing, the automobile. It should be made into a scenic drive from Chicago, she assured her readers, which would bring in business and tourists.

The next town, below Lockport, was Joliet, which became the largest town on the canal after Chicago. Joliet was first plotted on the east side of the Des Plaines River on a grid street pattern on a north-south axis. This was done by James B. Campbell in 1833. He called his speculative venture 'Juliet' after a hill located near the town named by Joliet for himself, but called 'Juliet' in 18th century maps for some incomprehensible reason. In 1833 the west side of the river was plotted also, but its grid pattern paralleled the river, which forms the dominant feature of the town.³² Since in 1837 these two areas were outside State-owned land, the canal officials plotted an area west of the river and north of West Joliet. A ten-foot dam raised the level of the river, and a wide basin was constructed on the canal, running northeast of the dam. The dam, located on Jackson Street, also had a 10-foot, lift lock on its west side. Since this was on the State's addition to Joliet, most of the water power was here. South of the dam the river and the canal were the same for about a mile. There a smaller dam and a guard lock of two-foot lift, enabled the canal to leave the river entirely. The State had made Joliet a canal town in spite of itself. Though much changed, to this day the waterway divides the city, and frazzles the nerves of its motorists when tows and barges block east-west traffic with raised bridges. Though four railroads and one Interstate Highway cross the town, the waterway dominates it.

Fifty miles west of Joliet is Ottawa, like Joliet, a county seat. This town was laid out originally in 1830 by the same surveyor as Chicago. The original town, like Chicago, had a public square in the center of the plot. In Ottawa the court house is located there and in Chicago's Public Square, the Cook County building. In 1836 as in Chicago, the Canal Commissioners were requested to redraw the original plot which was lost and to certify it. Outside the original town, in 1837 the canal officials made additions that would make Ottawa a canal town. They succeeded in supplying water power to their addition by a number of engineering arrangements. The canal entered the town at a higher level than the town because it crossed the Fox River by means of an aqueduct. In about the middle of the town a feeder from the Fox River entered the canal; also at that point a south running Lateral canal moved south, then north, to flow into the Fox River at its mouth. The Lateral canal had one lock with water power facilities.

There were also mills at a hydraulic basin where this Lateral canal ended and emptied into the Fox River. This State addition had two public squares and two public landings on the Lateral canal. As Canal Commissioner Thornton wrote in 1838:

"Strengthened and cultivated as her natural advantages now are, it is admitted by all intelligent observers that Ottawa must soon become an important manufacturing city, creating a vast amount of business for the canal, defusing incalculable benefits through an extensive scope of country, and remunerating the State, by increased value of property, more than three-fold the amount of additional expenditures."³³

Besides this Lateral canal, a street was named 'Post' and another one 'Paul' after the duo that in 1824 first mapped the canal route. Today the I. and M. Canal is dry in Ottawa; the Fox River feeder and the Lateral canal are filled in, yet, the public squares are used as an open public square, and the old public landing is occupied by a public library.

The last town on the canal is La Salle. It, like Lockport, was to be a key town on the canal. It was not to be principally a manufacturing town, but a canal port and a railroad link. The railroads were to be the Illinois Central connecting the town to the northern part of the State and the southern part, and the Rock Island going from La Salle west to the Mississippi. The town lies above the canal. On the canal were two locks in close proximity that lowered the canal boats into a steamboat basin dug back from the Illinois River. From there boats could be towed down to the Mississippi River. Between these two locks was a basin whose banks were designed for warehouses so that goods could be moved to the railroads.³⁴ The plan was that the railroad would come down almost to the canal. Suffice it to say that when the Illinois Central and the Rock Island were built, they were not oriented to the canal at all. The streets of La Salle had names associated with the canal. There was a Gooding Street, a Bucklin Street named after the canal engineer of 1834, a Wright Street named after Judge B. Wright, the premier American canal engineer of the 1830s who did work on the I. and M. as an advisor.

Besides these four towns, there were a number of other towns on the canal that subsequently disappeared. The last town I want to consider is one of these vanished towns called “Des Plaines.” It was not on the Illinois and Michigan Canal, but it was close to it on the Calumet feeder near its mouth by Saganeski swamp north of Lemont. The site was considered very valuable as it was believed in the 1830s and 40s that Indiana would build an Erie and Michigan Canal which would connect with the Calumet River, and then boats from the I. and M. Canal could connect via the Calumet Feeder to over 1,000 miles of canal in Indiana and Ohio.³⁵ The town was located on a piece of land that was created out of a swamp by diverting the channel of the Des Plaines River. Its plot of 1840 is a square grid iron on a north-south axis cut in half by the Calumet Feeder. It is almost like a railroad town. In any case, Indiana didn’t build the Erie and Michigan Canal and Des Plaines didn’t flourish. It had disappeared by 1860.

Canal towns on the I. and M. Canal were laid out in practical ways to take advantage of the natural and man-made amenities. There was no simple grid plan that could be put down anywhere, the only exception is Des Plaines. The canal planners always paid attention to public uses when laying out these towns, all of them had a public square. Besides being concerned about the way the towns were laid out, the canal engineers were concerned about public access to the waterway. The idea always that great growth would occur tied to the canal. If the growth didn’t occur, at least on the large scale originally conceived, nevertheless, these plans can still be seen even when the canal has virtually disappeared.

FOOTNOTES

1. The picture is also called “Dedham Lock,” see p. 120, Clark, Kenneth: Looking at Pictures, Holt, Rinehart and Winston, New York 1960.
2. Gage, John: Turner “Rain, Steam and Speed” The Great Western Railway, New York, 1972.
3. It was clear to early Illinois political leaders that a canal was differently structured economically than a railroad. When Governor Duncan was in Congress, he argued that while the canal was publicly owned by the State, the boats on it could be owned by even the smallest farmer, and hence it could not be a monopoly. The railroad was structured so that road and the rolling stock were jointly owned by the railroad, and hence it was inherently monopolistic. In 1840 the Canal Commissioner Fry argued the same against those who even then were proposing a railroad instead of a canal.
See – “Report of the Committee on Canal and Canal Lands” Report No. 546, 53rd Congress, First Session, House of Representatives, June 23, 1834.

“Report of the Committee on Canal and Canal Lands,” Report of the Canal Commissioners of Illinois to Governor John R. Tanner, December 1, 1900, Springfield, 1901, p. 192.

4. Kimmerly, David, The Creation of a Canal Landscape: The Impact of the Hocking Canal on Settlement of the Hocking River Valley, 1840-1870. Unpublished Masters Thesis, Ohio University, Oxford, Ohio, 1983.

5. In the 1830 auction lots in Chicago sold for \$4362 and those in Ottawa for \$183; more was obtained from land sales than town lot sales.

Op. Cit., Campbell, James A., Treasurer, “The Canal Fund in Accounts Current, 1830,” Report of the Canal Commissioners to Governor Tanner 1900, p. 81.

6. Ibid., “Act Authorizing the Canal, January 9, 1836,” Report of the Canal Commissioners, p. 107.

7. Jenne, Daniel C., “Report of the Chief Engineer on Canal Land Sales, 1878,” Annual Report of the Canal Commissioners 1878, Springfield, 1879, p. 56.

See also, Wille, Louis, Forever Open, Clear and Free, “The Struggle for Chicago’s Lakefront, Henry Regnery, Chicago, 1972, p. 23.

8. Op. cit., Report of the Canal Commissioners 1900, p. 255

9. Ibid., p. 140

10. “Account of the Sales of Lots in the Town of Chicago, sold by William Montgomery by Order of the Canal Commissioners,” 1836, Mss. Lewis University Canal Archives

11. “Annual Report of the Canal Commissioners, Message of the Governor transmitting the Report of the Board of Commissioners of the Illinois and Michigan Canal to the Legislature of Illinois, December 13, 1838, Vandalia, 1839, p. 151.

12. “Report of the Canal Commissioners December 10, 1839,” Fourth Annual Report of the Board of Commissioners of the Illinois and Michigan Canal, December 1839, Springfield, 1840, p. 60.

13. “Petition of Diverse Citizens of Chicago Concerning Lots in Said Town,” November 13, 1840, Lewis University Canal Archives.

14. Op. cit., Gooding, William, “Report to the Board of Commissioners,” Fourth Annual Report, pp. 19-20.

15. Op. cit., “The Board of the Canal Commissioners 1836,” Report of the Canal Commissioners 1900, pp. 116-117.

16. Ibid., Thornton, W. E., “Annual Report of 1840,” Report of Canal Commissioners 1900, p. 188.

17. Joliet Signal, March 8, 1847.

18. Joliet Signal, August 21, 1847.

19. Joliet Signal, February 22, 1848.
20. Joliet Signal, July 30, 1850.
21. Swift Letter of June 3, 1848, Swift Mas. Chicago Historical Society.
22. E. S. Prescott to Captain Swift, November 21, 1852, Swift Mas. Chicago Historical Society.
23. E. S. Prescott to Captain Swift, October 29, 1853, 1853 to 1855. Autograph Letters to Captain Swift, Swift Mas. Chicago Historical Society.
24. Gates, Paul W., The Illinois Central Railroad and Its Colonization Work, Johnson Reprints Corp., New York, 1968, pp. 149-150.
25. Ibid., Rees, John, The Making of Urban America, Princeton University Press, 1965, p. 127; 389-393.
26. Report of the Trustees of the Illinois and Michigan Canal for the Year Ending November 30, 1852, H. R. 13, pp. 99-100.
27. Will County Directory for 1859-1860, John Bailey, Chicago, pp. 66-67.
28. Op. cit., Gooding, William, "Report to the Board of Commissioners, December 10, 1838," Report of the Board of Commissioners 1838, p. 19.
29. Report of the Canal Commissioners to His Excellency J. M. Palmer, Governor of Illinois, December 1, 1872, Springfield, 1872, p. 27.
30. See - Lamb, J. M., I. and . Canal Locks, Illinois Canal Society, Lockport, Illinois, 1981.
31. Goodnoh, Mary, "Possibilities of Lockport," Lockport, Illinois, Past, Present and Future, Lockport Woman's Club, 1905, Lockport, p. 2.
32. Op. cit., Jenne, Daniel, "Report of the Chief Engineer," Report of the Canal Commissioners 1878, pp. 48-49.
33. Op. cit., Report of Canal Commissioners 1838, p. 12.
34. Op. cit., Gooding, William, "Engineers Report of 1836," Report of the Canal Commissioners 1900, p. 126.
35. Op. cit., Gooding, William, "To the Board of Commissioners," Report of the Canal Commissioners 1838, p. 18.