



LOCKPORT

WATER SUPPLY CO.

LOCKPORT, N. Y., U. S. A.

CAPITAL LIMIT, \$10,000,000.00.

INCORPORATED UNDER NEW-YORK LAWS, 1886,
CHAPTER 106.

LOCKPORT, N. Y.
1886.

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BUFFALO, N. Y.
ART-PRINTING WORKS OF MATTHEWS, NORTHRUP & CO.
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1886.



PROSPECTUS.

This company is organized by and under Chapter 106 of the laws of the State of New-York, passed in the year 1886. A copy of said act is annexed as a part hereof.

The object of the organization is the supplying of water to the City of Lockport and the inhabitants thereof, and of the vicinity, in the County of Niagara, for municipal, domestic and agricultural purposes, and, in connection therewith, creating a great water-power for manufacturing purposes, by taking water from the Niagara River, at such point between the Village of Tonawanda and the falls of Niagara as may be most convenient, and discharging the spent or surplus water into Lake Ontario, at the Village of Olcott, in said county.

The attention of capitalists, manufacturers and all others interested in the subject of water supply is invited to our scheme, which involves the creation of the most abundant and most reliable water-power in the world, one that will be more economical to maintain and use than any other, and the water whereof will be pure and wholesome, fit for the finest manufacturing or general domestic use—the clear, soft, fresh water of the great upper lakes.

The economy of a water-power to the manufacturer is in exact proportion to the steadiness of its supply and head. An unvarying ten horse-power is vastly more profitable to the user than a so-called ten horse-power that fluctuates from nothing in August and September to twenty horse-power in March and April, as is the



case with most of the water-powers, great and small, of the world. Every manufacturer has learned this from his own experience, or from observation — sadly learned it in many instances.

Our proposed water supply will not be diminished by droughts nor swelled by floods, but will give to each wheel connected with it its full supply of water *the whole time the wheel is allowed to run.*

The steadiness of the flow of Niagara River has been commented on by many writers, but perhaps by none has it been better described than by Anthony Trollope :

“That the waters of Lake Erie have come down in their courses from the broad basins of Lake Michigan, Lake Superior and Lake Huron ; that these waters fall into Lake Ontario by the short and rapid river of Niagara, and that the falls of Niagara are made by a sudden break in the level of this rapid river, is probably known to all who will read this book. All the waters of these huge northern inland seas run over that breach in the rocky bottom of the stream ; and thence it comes that the flow is unceasing in its grandeur, and that no observer can perceive a difference in the weight, or sound, or violence of the fall, whether it be visited in the drought of autumn, amidst the storms of winter, or after the melting of the upper worlds of ice in the days of the early summer. How many cataracts does the habitual tourist visit at which the waters fail him ? But at Niagara the waters never fail. There it thunders over its ledge in a volume that never ceases, and is never diminished—as it has done from time previous to the life of man, and as it will do till tens of thousands of years shall see the rocky bed of the river worn away back to the upper lake.”

And Capt. W. G. Williams, in 1836, in his report to the War Department of the United States, accompanying his survey for a ship canal hereinafter referred to, speaking of the location, says :

“The stupendous peculiarity of its hydraulic advantages needs no comment. I will not attempt to demonstrate what may be

“regarded as a proverb ; it is unquestionable that a greater water-power, and that, too, in its application to practical purposes, can there be commanded than at any other point on the surface of the globe. * * * * The district, of which it is a portion, stands in bold relief by reference both to its central position and the properties required.”

In quantity, steadiness and purity the supply will be peerless. There will be no match for it anywhere else in the world. There are no other great fresh water lakes, and there is but one Niagara.

LOCATION.

The proposed site of this power and water supply is in and near the City of Lockport, in the County of Niagara, State of New-York, U. S. A. (See map No. 1, for general location.) It will extend from a point about a mile west of the city, where the proposed route crosses the line of the N. Y. C. & H. R. R. R., north-easterly into the northern portion of the city, and thence north to Lake Ontario. Its southern extremity will be but twelve miles from Tonawanda, on Niagara River, and its northern extremity at Olcott Harbor, on Lake Ontario, eleven miles north from Lockport, and eighteen miles east from the mouth of the Niagara River. Tonawanda is one of the great lumber ports of the world and too well known to need description. At Olcott is a moderately good harbor at present, with about twelve feet of water. The United States government has built piers, dredged channel, and maintains a lighthouse there. There is ample room for an increase of the harbor facilities when needed, and no doubt but that the government will be ready in the future, as in the past, to do whatever will benefit the commerce of the port.

Distances to some principal points will be as follows : To Buffalo, by Erie Canal, 30 miles, by rail, 25 miles ; to New-York, by canal and Hudson River, 490 miles, by rail, 445 miles ; to Mon-



treah, by Lake Ontario and St. Lawrence River, 330 miles, and to Quebec 490 miles; to Chicago, by great lakes, 900 miles, by rail, 530 miles; to Marquette, by lakes, 720 miles; to Duluth, 950 miles.

The proposed site is also intersected by, or closely contiguous to, many of the great railroads of the country, among which are the New-York Central & Hudson River, the New-York, Lake Erie & Western, the Rome, Watertown & Ogdensburg, the Delaware, Lackawanna & Western, the Pennsylvania, the Lehigh Valley, the Grand Trunk, the Great Western, and the Canada Southern. These, with the multifarious intersecting lines, will give competing routes and close connections in every direction.

We call particular attention to these numerous competing routes, both east and west from this site, embracing water and rail transportation both ways, and confidently assert that no other locality can, or ever will be found combining so many advantages for the establishment of manufactories; and that in all manufactures wherein *power* constitutes a large item of the cost of production, the raw material can be brought to this point, manufactured and the product marketed, more cheaply and economically than at any other point in the United States, or the world; and that this applies especially to manufactures wherein an abundant supply of *pure, soft water* is needed; and the more power and pure water are required in a given case, the greater will be the saving as contrasted with other localities.

On this subject the *New-York Times* of May 31, 1886, speaking of this scheme, said:

"The locality is midway between the seaboard and the grain fields of the West, with the most ample facilities for water and rail transportation. Grain shipped at Duluth, can be unloaded into the mills without more than a single transfer of bulk, and when ground the millers will have choice of two water and a dozen rail routes, in seeking a seaboard or foreign market. Lake Superior copper and iron, Pennsylvania coal

"and iron, and Michigan and Canada lumber can all be brought to this power at the smallest expense."

Another signal advantage of this location is the great fertility of Niagara County. There is no waste land in the county. More than ninety per cent. of all the land assessed outside of the City of Lockport is actually under cultivation, and nearly all of the remainder is necessary woodland. The census statistics show that nowhere else in the country could a large non-agricultural population find an equal variety, abundance, excellence and cheapness of food products; raised, too, right at the factory doors. Some other locality of equal area may grow more of some one product, but Niagara County stands unrivalled in the infinite variety and general excellence of its agricultural productions. All the grains, fruits and roots of the temperate zone, which are used as food are there grown in abundance and perfection.

The United States census of 1880, in relation to Niagara County, shows as follows: Area, 500 square miles; population, 54,173; number acres assessed, 304,907; number farms, 4,344; acres, improved land, 269,401; value of farms, \$25,274,043; value of farming implements, \$1,172,270; value farm productions sold in 1879, \$3,845,518; value live stock on hand June 1, 1880, \$2,100,907; number horses, 14,665; number milch cows, 12,171; number other cattle, 8,635; number sheep, 33,231; number swine, 17,258; wool, pounds, 178,910; milk sold or sent to butter or cheese factories in 1879, gallons, 302,019; butter made on farms in 1879, pounds, 1,359,762; cheese made on farms in 1879, pounds, 43,419; wheat, bushels, 866,531; Indian corn, bushels, 833,226; oats, bushels, 751,549; barley, bushels, 495,541; potatoes, bushels, 438,982; hay, tons, 53,567; orchard products sold in 1879, value, \$784,945. Besides the foregoing, there was an infinite variety and immense quantity of other products, as buckwheat, rye, beans, peas, grapes, honey, maple sugar and syrup, sorghum, poultry, eggs, small fruits, berries, and all kinds of garden



vegetables, all of which enter into the daily consumption of every family, and which can be found nowhere else in such quantity and perfection as in this favored county. The foregoing item of orchard products is more than *ten per cent.* of the entire product of the State for that year, while the area of the county is about *one per cent.* of the area of the State. In wheat the county was only second to Monroe County, which has an area of 720 square miles. The census of 1870 also credits Niagara County with 961,303 bushels of wheat, and it was then only exceeded by Monroe County.

The location is moreover peculiarly healthy. There is no predominating disease. The prevailing winds are west and south-west; south or southeast winds being rare. Cyclones and hurricanes are unknown. The great lakes, Erie and Ontario modify the temperature so that the extremes of heat and cold are less variant than in other sections; to this is largely ascribed the general good health of the locality. The nosological chart published by the Smithsonian Institute gives the greatest immunity from epidemic diseases in North America to a narrow strip of land, beginning about fifteen miles east of Rochester, N. Y., and extending west to St. Catharines, Ont., including the City of Lockport, and locality of our proposed work therein. During twenty-five years last past Lockport has had but one severe visitation of sickness, which was the only epidemic that ever prevailed there. Typhoid and typhomalarial fevers are for the most part importations from elsewhere; measles, small-pox and scarlatina when present, are usually in the mildest form and readily controlled. Pulmonary disease is phenomenally rare, and intermittent, remittent and continued fevers are infrequent. The average death rate of the City of Lockport for the past ten years, as shown by actual count of the interments in the several cemeteries, has been 1 in 110 per year, or $\frac{1}{110}$ of one per cent. How many other cities in this or any other country can show a *death rate of less than one per cent. per annum?*

TOPOGRAPHY.

The maps Nos. 2 and 3 show the levels and falls at different points along the proposed route. They are taken from actual surveys of the route for a ship canal — one by Capt. Williams, heretofore mentioned, in 1835, and one by David E. E. Mix, Esq., of Batavia, N. Y., under private patronage, in 1854, and show in detail the surface advantages Nature offers for our scheme. (The locks shown are not material; but we preferred to show true copies of the originals.)

The water level of Lake Erie is 330 feet higher than Lake Ontario. Niagara River descends about $10\frac{1}{2}$ feet from Buffalo to Tonawanda. From Tonawanda to the head of the rapids (see map 1) about a mile above Niagara Falls, the river is a broad, smoothly-flowing stream, with moderate current and low banks. Opposite Tonawanda, Grand Island divides the river into two channels, each of which varies from one-half to three-fourths of a mile in width, and is a noble river of itself, Tonawanda being on the east shore of the east channel. The river at Buffalo and in the gorge below the falls is subject to considerable variations in height, in times of severe and long-continued winds from the east or west, owing to their effect upon the water surface of Lake Erie; but at this point below Tonawanda the maximum variation is less than three feet, owing to the great width of the river, and to the fact that the greater portion of the descent from Lake Erie is at the rapids opposite and near Buffalo. The ordinary level of the river here is the lower level; the water may rise above, but rarely or never falls below it, and ordinarily the variation is not noticeable. From Tonawanda to Niagara Falls the course of the east branch of the river is nearly west, so that Tonawanda is nine miles east and three and one-half miles south of Niagara Falls, and is twelve miles southwest from Lockport. Starting from the river at Tonawanda, or thereabouts, and proceeding north towards Lake Ontario, the



surface of the land is found to rise gradually until the "Ridge" (so called) is reached, about ten miles north from Tonawanda (see map 1), the land there being from 90 to 100 feet higher than the river. From the crest of the ridge the land descends abruptly to the north from 275 to 325 feet, and from thence descends gradually a further distance of about 100 feet to Lake Ontario, which is about ten miles north from the Ridge. This Ridge runs easterly and westerly nearly parallel with Lake Ontario (see map 1) and divides Niagara County into two tables or plateaus, the south being from 225 to 300 feet higher than the north plateau. The crest of the Ridge is considerably lower at and near Lockport than farther west, and is there also cut through, or broken, by two ravines or depressions, one of which, in the city, is in part occupied by the great combined locks of the Erie Canal; the other branches from the first near the northwest angle of the city, and runs southwest a distance of about two and one-half miles, terminating at the lands of the N. Y. C. & H. R. R. R. (near "B," on Maps 2 and 3).

Now, starting from Niagara River at any point below and within five miles of Tonawanda, and proceeding northeasterly to the head of the latter ravine (which is the only "ravine" hereinafter mentioned), a distance of about twelve miles (see Map 2), the land is found so nearly level that its highest point is only forty-four and one-tenth feet above the river level, and the average elevation above the river, taken each quarter mile, is, for the first nine miles, 17 feet, and for the next three miles 34½ feet, and for the whole distance from river to ravine is only 21½ feet. From the head of the ravine to its foot proper, at Levalley's Flat (see B to D, Map 2, and "Gulf," Map 3), a distance of about two and one-half miles, there is a fall of 220 feet. The northeasterly portion of this ravine is much deeper than its southwesterly portion, and on both sides, for its entire length, the banks lie in easy slopes and benches, and offer peculiar and striking facilities for the carrying out of our proposed work. From Levalley's Flat to Lake Ontario (D to C, Map 3), a distance of eleven miles, is a further descent of

112 feet, and for about two-thirds of this distance the Eighteen Mile Creek, which runs almost due north from Levalley's Flat to Lake Ontario, furnishes a broad natural channel, with banks from ten to sixty feet high, to conduct surplus or spent water to the lake. These banks gradually increase in height as we proceed north until we arrive within half a mile of Olcott, when their height gradually diminishes. The land on both sides of the stream extends back from its banks as flat and level as a prairie except as it gradually inclines towards the lake.

Observe that the work will be all cutting; there will be little or no embankment required anywhere, thus avoiding a common source of danger in kindred enterprises; also, that the great requisite of plenty of room for factories, yards, and operatives' residences can be had as well as abundant water-power.

Such a combination of natural advantages can be found nowhere else. Nature has done nearly all of the work, and it only remains to shape and modify the surface so as to lead the water where we want it; and we unhesitatingly and confidently assert that more water-power, with ample area for mill-sites, yards, etc., can be secured right here on this route than anywhere else in the world, for the same money.

THE WORK, ETC.

We propose to construct a canal from a point on the river below Tonawanda (about as indicated on Map 1; thereby saving nearly three-fourths of a mile in distance, as contrasted with the line on Map 2) to the ravine, and then to conduct the water along both sides of the ravine, and the slopes and benches convenient thereto; on the easterly side, to and into the City of Lockport, and thence, as may be deemed most advantageous, and on the westerly side through the Town of Lockport; keeping the water up on the hillsides as far as desired, and discharging it into the Eighteen Mile Creek or other convenient water channel.



We are advised by competent engineers, who have been over and examined the ground thoroughly, and inspected the maps and profiles of Williams and Mix, that the conformation of the surface from the head of the ravine, offers extraordinary facilities for using the water over and over again on this portion of the route, and that there are many miles of excellent sites for manufacturing factories that can be easily reached and supplied with water.

From Levalley's Flat it is proposed to straighten the creek (see Map 3) and make a new channel about three and one-half miles long, which will strike the creek channel at a point below the East Branch, from whence the natural channel will amply suffice to conduct all surplus and spent water a distance of about seven and one-half miles farther, to Lake Ontario, at Olcott. The fall in this three and one-half miles is about fifteen feet, and in the seven and one-half miles is ninety-six feet. It is perfectly feasible to keep the water up, along the banks on both sides of this creek, for this whole last distance, taking off water where desired, or to divide the ninety-six feet fall into three falls, of thirty-two feet each; and the power so obtained will equal in value, and be in every respect as desirable as the power in and about the ravine southerly from Levalley's Flat, except, possibly, as to the purity of the water.

We call attention, too, to the perfect control we would have over the water. Probably a bulk-head or lock at the river would be prudent and desirable; but one bulk-head in the solid rock at the head of the ravine, where the prism of the canal would be rectangular, and the requisite strength easily and cheaply secured, would perfectly protect and regulate the 220 feet fall, and all mills, etc., on and below that part of the line, as when closed, if the water rose on its southerly side higher than the river level, it would flow southwest *to the river and run out*. The only stream to provide for, south of the ravine, would be Sawyer's Creek, which could be let into the canal, or carried over or under it. (Maps 1 and 2.) While north of the ravine the only streams would be the east branches of the Eighteen-Mile Creek;

of these, one would run into the channel at Levalley's, and the other (East Branch, proper,) could either be taken into the canal as a feeder, or confined to the bed of the main creek. (See Map 3.) All these are small streams and there are no others, except "wet weather" surface drainage.

Many engineers have looked this ground over at different times and have invariably concurred in the statement that the quantity of steady power to be obtained is practically unlimited, and that the work is all unusually simple in character, presenting no engineering problems or difficulties whatever, and this, we submit, is plainly shown by the maps and details we present.

SOIL, ROCK, ETC.

From the river to the ravine, twelve miles, the work is entirely cutting; no embankment anywhere, and until the Harmany Farm, in the southeast corner of the Town of Cambria (see Map 1), a distance of about eight and one-half miles, is reached, it is believed only earth excavation will be found. From that point to the ravine at the N. Y. C. & H. R. R. R. rock will be met, gradually rising to the surface at the head of the ravine. Along the sides of the ravine the side channels and other work will be cutting and mostly rock work. We are considering the feasibility of iron pipes on this part of the work. From Levalley's, north, the three and one-half miles channel will probably be earth-cutting only. The side channels along the creek will be almost wholly earth-cutting. If any embankment is required it will be but for very short distances in places, and of inconsiderable height.

These statements as to earth and rock are based upon said surveys, and statements of our local engineers and surveyors, and of persons living along, and who have dug wells on or near the line of the proposed work, and the individual knowledge of our trustees; and we believe them to be substantially correct.



The upper rock constituting the greater portion of that to be removed before reaching the head of the ravine is encrinal limestone, lying in strata, quarrying easily, with good beds and faces, and is an excellent building stone of great strength and durability; this has a depth of from ten to fifteen feet. Below it lies the Niagara shale, of little or no value for building purposes. Below the shale lies Medina sandstone, also an excellent building stone. If any rock is met along the Eighteen-Mile Creek it will probably be of a shaley nature, of no value but easy to excavate.

BUILDING MATERIALS.

Limestone, sandstone, bricks, hydraulic cement, quick lime and sand, all of excellent quality, can be procured in unlimited quantities right on the line of the work.

For lumber of all kinds and dimensions, the Lockport and Tonawanda markets are available. If desired, it can also be procured in Canada and unloaded at Olcott.

There is no point in the United States where mills can be erected cheaper or better than at Lockport, and this is also true of mansions for the owners or cottages for the operatives.

ESTIMATES, Etc.

The magnitude of the work we have left for future determination. We have gathered such information as we deemed necessary for the enlightenment of interested parties, but only present figures as approximations, although they are the work of skilled and careful engineers. It is well understood that the greater the dimensions of the waterway and plant in the first instance, the less will be the cost of construction and maintenance per horsepower.

9,000 HORSE-POWER

Would require a canal from river to ravine 30 feet wide on top, 6 feet on bottom, and 8 feet deep, with fall of 1 foot per mile. Estimated cost, \$1,350,000.00.

Interest on cost, at 6 per cent.,.....	\$81,000.00
Annual expenses,.....	10,000.00
	<u>91,000.00</u>

9,000 H. P., at \$10.00 rental per annum,..... 90,000.00

Or nearly the 6 per cent. over expenses.

25,000 HORSE-POWER.

Canal 51 feet on top, 9 feet on bottom, 14 feet deep, with fall of 10 inches per mile. Estimated cost, \$1,760,000.00, and to produce H. P. 25,856.

Interest on cost, at 6 per cent.,.....	\$105,600.00
Annual expenses,.....	10,000.00
	<u>115,600.00</u>

25,856 H. P., at \$10.00 rental,..... 258,560.00

Net income over interest and expenses,..... \$142,960.00

50,000 HORSE-POWER.

Canal 78 feet on top, 33 feet on bottom, 15 feet deep, with fall of 6 inches per mile. Estimated cost, \$2,500,000.00, and to produce H. P. 52,000.

Interest on cost, at 6 per cent.,.....	\$150,000.00
Annual expenses,.....	10,000.00
	<u>160,000.00</u>

52,000 H. P., at \$10.00 rental,..... 520,000.00

Net income over interest and expenses,..... \$360,000.00



The foregoing computations do not include the power obtainable below or north of Levalley's Flat, but are upon the power between the head of ravine and the fiat—the 220 feet fall. (B to D on Maps 2 and 3.)

Further estimates are unnecessary at this time; and we only add that it is entirely feasible to bring over this route, and to this point, any greater quantity of water that may be desired. *That a canal with an average width of 200 feet, and depth of 20 feet, is estimated to yield upon this same site 363,636 horse-power.*

Our estimates are chiefly based upon computations made and published by I. H. Woolson, E. M. of School of Mines, Columbia College, New-York, and Birdsill Holly, Esq., of Lockport, N. Y.

Our rental figure of \$10.00 per horse-power per annum is only assumed as a basis for comparison. It is far below the rental value of first-class water-power throughout the United States, and new leases of such power can only be had at rates varying from \$25.00 all the way to \$100.00 and upwards per horse-power per annum. We have endeavored to learn the rates at present charged at other places, and believe them to be as follows: Lockport, N. Y., \$16.67; Niagara Falls, N. Y., \$25.00; Cohoes, N. Y., \$25.00 and upwards; Rochester, N. Y., \$25.00 and upwards; Passaic, N. J., \$33.33; Paterson, N. J., \$36.00; Trenton, N. J., \$37.50 to \$50.00; Hamilton, O., \$25.00 to \$45.00; Middletown, O., \$30.00; Franklin, O., \$30.00; Dayton, O., \$25.00 to \$30.00. We do not name the great New England water-powers, or Minneapolis, in this connection, because we cannot learn that there is any considerable amount of available power unoccupied at any of those points. In nearly all of the above places, too, the regulations and restrictions of the power companies are such as to add largely to the actual annual cost of the power to the occupant, making it greater than we have stated.

CITY, ETC., WATER SUPPLY.

In this connection, the franchise of supplying the City of Lockport and citizens of Niagara County with pure and wholesome water should not be lost sight of, as a handsome revenue therefrom can undoubtedly be speedily realized. The water-works of the city were designed for fire protection only, the system being the celebrated "Holly" system of direct pressure from central pumps. The water therefor is taken from the Erie Canal, and is deemed unfit for general domestic use, but is used to some extent by citizens in manufactories, stables, water-closets, street sprinkling, and watering lawns and gardens. The water supply for domestic use is now chiefly procured from wells and cisterns, but these are a constant care and expense, and the citizens generally are anxious for the introduction of the Niagara water. Lockport now has a population of about 17,000, which is rapidly increasing; and the rate of increase will certainly be accelerated by this enterprise, when consummated; and when the city pipes are filled with pure and wholesome water its use for domestic purposes must soon become general and yield a handsome revenue. Companies organized for this purpose alone are profitable in other and smaller places less favorably situated, and we believe this branch of our enterprise will prove a source of substantial profit to the company.

DOCKS, WHARFAGE, Etc.

Another source of large revenue can easily be made available. The lumber docks at Tonawanda are overcrowded; more room is imperatively required than can now be obtained. The proposed canal would readily supply several miles of extremely valuable water front for lumber-piling and general wharfage, without any



detriment to the manufactories, the nearest of which would be miles away to the northeast.

SALE OR LEASE OF POWER.

If the proposed power is created and made available can it be sold or leased to actual occupants? The answer to this question must be an indirect one, as a simple Yes or No will not suffice.

Consider that the population of the United States is steadily increasing in an accelerating ratio from year to year. In round numbers it was, in 1850, 23,000,000; in 1860, 31,000,000; in 1870, 38,000,000; in 1880, 50,000,000; and is now estimated at 58,000,000. The wealth of the country is increasing in a still more wonderful ratio. In 1860 it was \$16,159,616,068, and in 1880 it was \$43,642,000,000. And our manufactures show a like progress: in 1860 they were \$1,800,000,000; in 1880, \$5,300,000,000. There is no reason to doubt that this increase of wealth, population and manufactures will continue. The amount of capital comparatively idle, and eagerly seeking investment in legitimate manufacturing enterprises was never so large as now, and is constantly increasing. Consider, too, that while steam-power has the great advantage over water-power of easy adjustment and use everywhere, yet, of the whole power used in manufacturing in the United States in 1880 36 per cent., and in the great State of New-York over 48 per cent., and in many of the States over 50 per cent., and in some States over 75 per cent., was water-power. This shows conclusively that where water-power is available steam cannot compete with it in economy for manufacturing purposes—a fact well known but which the above figures taken from the census of 1880 clearly prove. Consider, too, that at the chief water-powers of this country, nearly all the presently available power is already occupied, as appears to be the case at Minneapolis, Minn. (25,000 H. P.); Lawrence, Mass. (11,000 H. P.); Lowell, Mass. (11,845 H. P.); Holyoke, Mass. (12,260 H. P.); Manchester, N. H.

(12,000 H. P.); Lewiston, Me. (12,000 H. P.); Bellows Falls, Vt. (8,000 H. P.); Cohoes, N. Y. (7,000 H. P.); Rochester, N. Y. (6,442 H. P.); besides the many smaller powers that might be named, all of which are fully or nearly occupied. Consider, too, the superiority of the proposed power over all other powers of the world in purity, quantity, uniformity of supply and economy of use and maintenance. We quote again from the *New-York Times*:

“Lake Erie and all the great upper lakes would be the mill-pond for this power, the Niagara River the head-race and Lake Ontario its tail-race. The supply of water can never be diminished by drought. No spring floods or freshets will tear away the dams—for there will be no dams. The supply of water will be uniform, uninterrupted and practically unlimited. In this respect the power will be unrivalled.”

Consider, too, the location, in the very middle of the path of commerce, between the great West and the Atlantic Ocean, with the incidents of lowest freights and ready shipping. Consider, too, the wonderful fertility of the surrounding country, its freedom from sickness and elemental calamities, and the abundance and cheapness of building materials.

Upon these premises we submit that the expectation and conclusion, in the light of human experience, is well founded and reasonable, that such a power, so located, and having the natural advantages we have shown this would possess, would, when offered to manufacturers, be taken up and occupied with a rapidity, and to an extent hitherto unknown in the history of kindred enterprises.

CHARTER.

We annex our charter. It was carefully prepared, in view of the magnitude and far-reaching results to ensue from the carrying out of our plans. In order to ensure success in the great



work it was necessary to ask for a broad and liberal franchise; and the Legislature of the State of New-York, comprehending the situation, and foreseeing the public benefits to accrue not only to the citizens of Lockport and Niagara County, but to the State and country, promptly enacted the statute, which confers on this company the broadest and most complete corporate franchise ever granted by the State to a water company.

We ask an attentive perusal of its provisions by all, that all may see that the duties imposed are liberally offset and lightened by the powers and benefits conferred.

From its first introduction in the Legislature it received the earnest support of Hon. Lewis P. Gordon, of Lockport, Member of Assembly, to whom our thanks are due and hereby tendered for his labors in its behalf.

A D D E N D A .

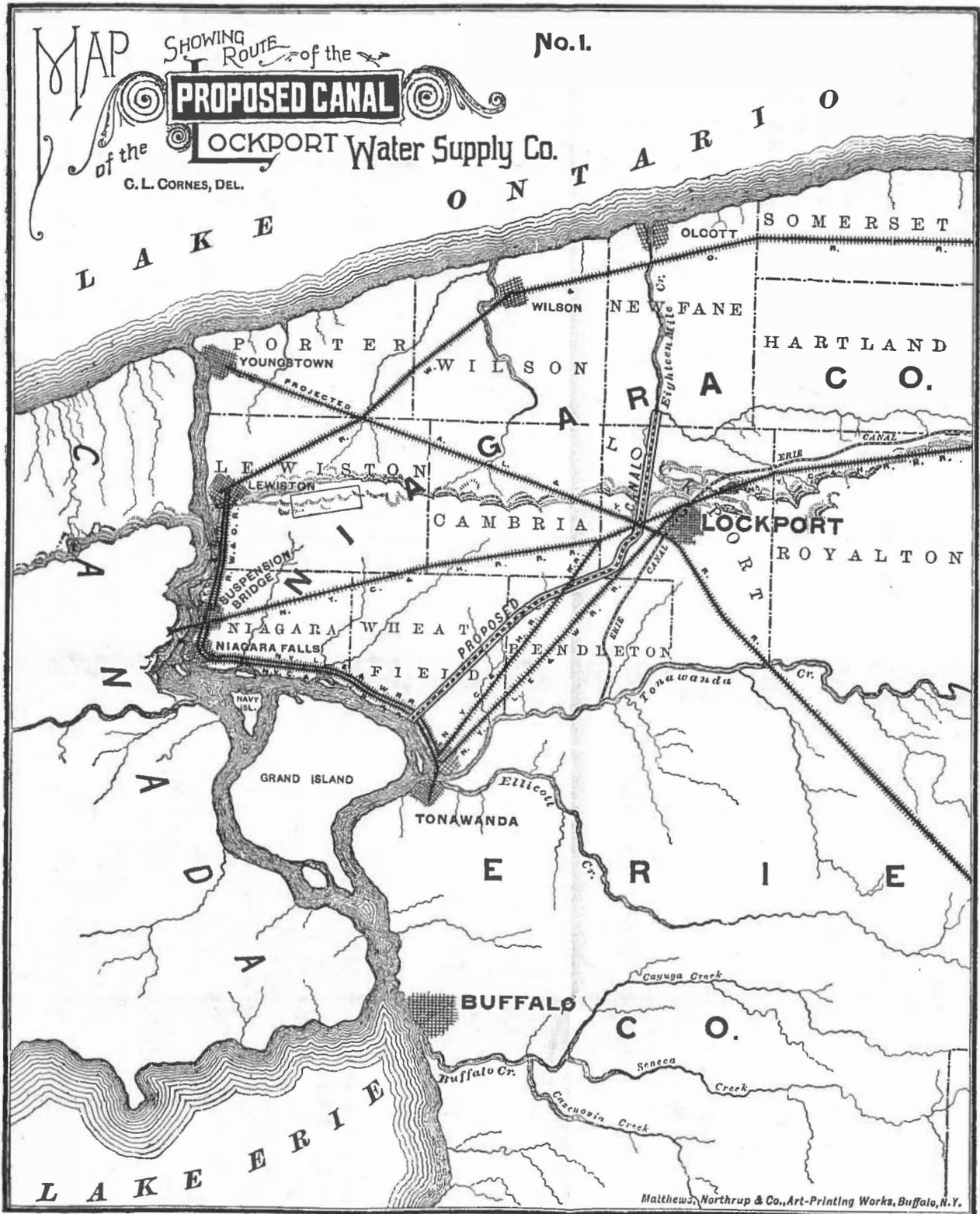
After the above was in type, we learned that Stephen F. Gooding, Esq., C. E., of Lockport, had, in 1867, surveyed this same route for a canal, under orders from the War Department, and he kindly permitted an inspection of his profiles, maps, etc. His line began at Olcott, and from thence to the head of the ravine his survey substantially agrees with our Map 3; but from the head of the ravine to the river he located a more favorable line, his highest elevation above the river being only 41 feet; his average elevation from river to ravine is only $19\frac{4}{5}$ feet; average elevation for first nine miles from river is only $15\frac{2}{5}$ feet, and for next three miles $33\frac{4}{5}$ feet; the line terminating on the river at the same point as Mix's survey, but diverging from Mix's line (Map 2)

between the river and ravine. Mr. Gooding is of opinion that the line proposed by us, starting from the river about one and one-half miles below "A" on our Map 2, and substantially as shown on our Map 1, will be still more economical than the line located by him, being about three fourths of a mile shorter and the cutting no deeper. Of course, the exact line must be finally located by a survey for the special purpose, but these former surveys are of value in that they all show the entire practicability and simplicity of the proposed work.



MAP SHOWING ROUTE of the
PROPOSED CANAL
 of the **LOCKPORT Water Supply Co.**
 C. L. CORNES, DEL.

No. 1.

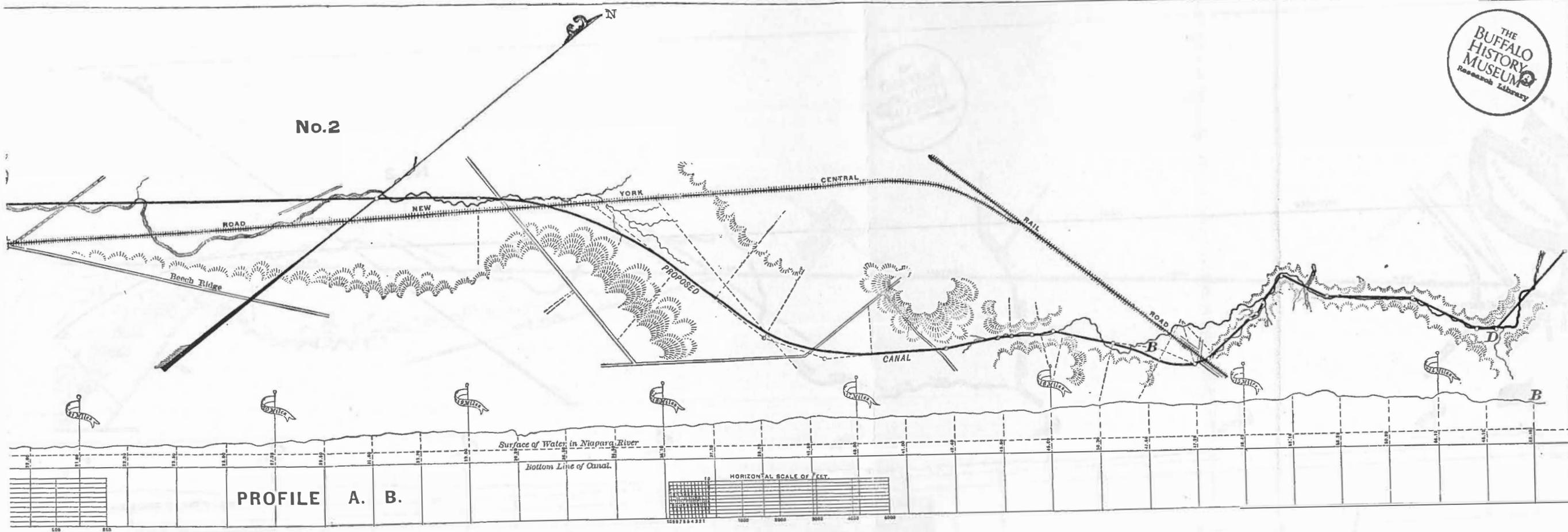


Matthews, Northrup & Co., Art-Printing Works, Buffalo, N.Y.

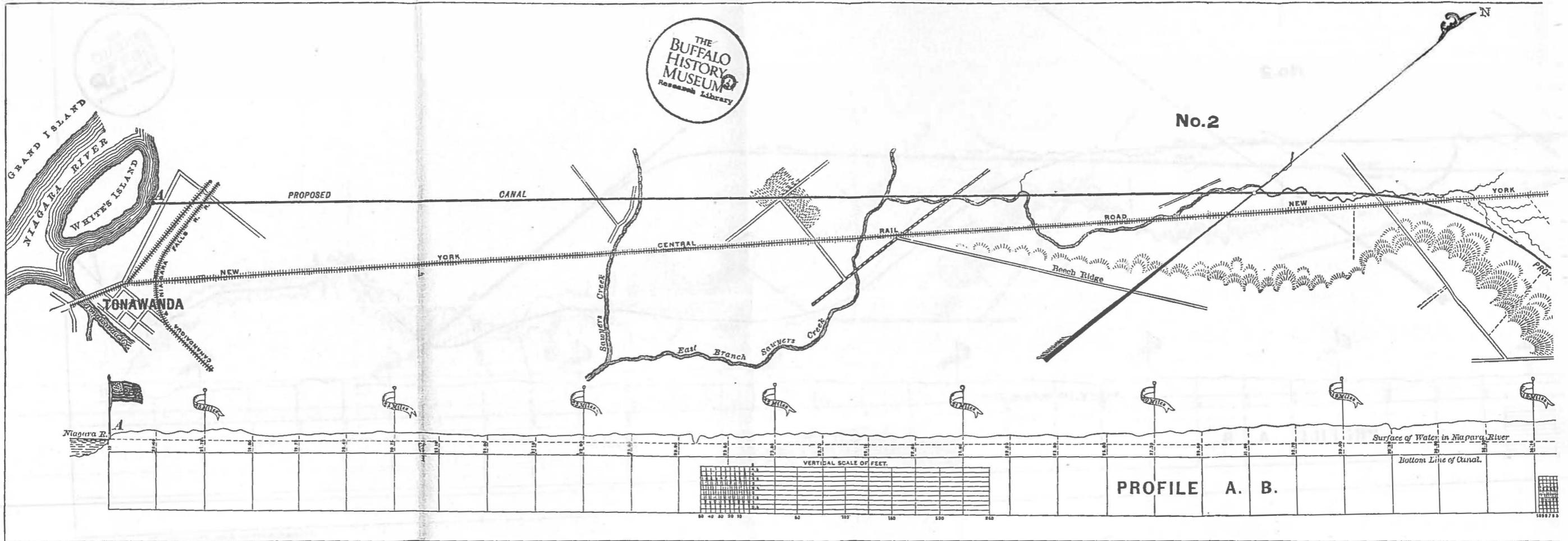




No. 2



PROFILE A. B.

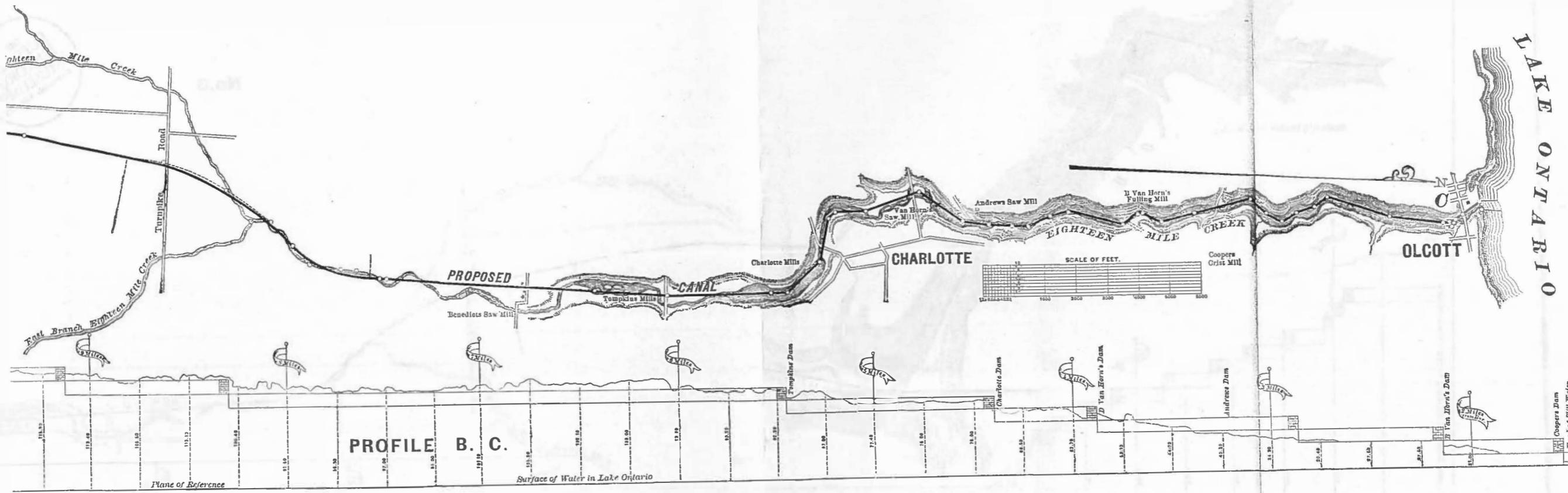


No. 2

PROFILE A. B.



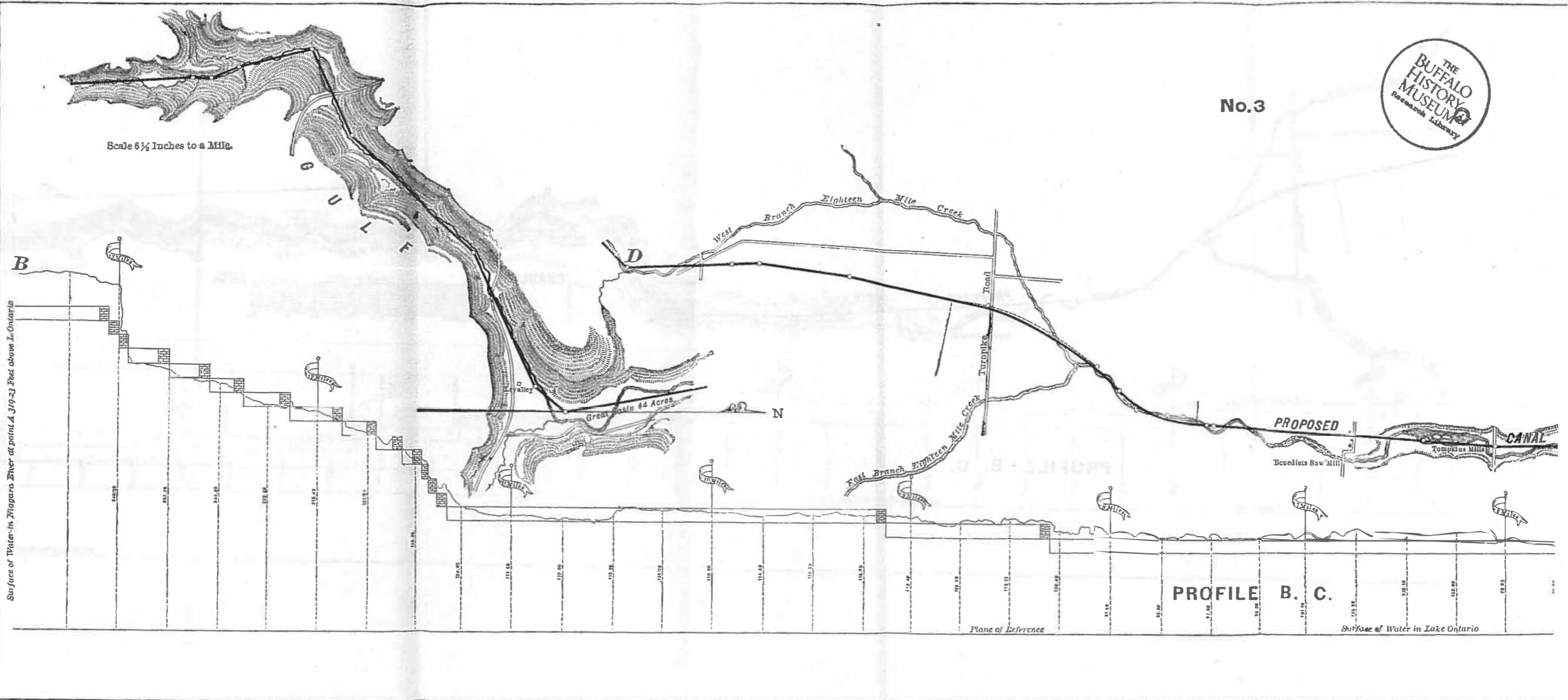
No. 3





No. 3

Scale 6 1/2 Inches to a Mile.



Surface of Water in Niagara River at point A 370.23 Feet above L. Ontario

B

BUFFALO

D

N

PROFILE B. C.

PROPOSED

CANAL

Plane of Reference

Surface of Water in Lake Ontario

LAWS OF NEW-YORK.

BY AUTHORITY.

[Every law, unless a different time shall be prescribed therein, shall commence and take effect throughout the State, on and not before the twentieth day after the day of its final passage, as certified by the Secretary of State. Sec. 12, title 4, chap. 7, part 1, Revised Statutes.]

CHAPTER 106.

AN ACT to incorporate the Lockport Water Supply Company.

PASSED April 8, 1886; three-fifths being present.

The People of the State of New-York, represented in Senate and Assembly, do enact as follows:

SECTION 1. John Hodge, William McRae, James Jackson, Jr., Birdsill Holly, Willard T. Ransom, Jesse Peterson, Charles Whitmore, Harvey F. Gaskill, William S. Camp, Eugene M. Ashley and Washington H. Ransom, of the City of Lockport, in the State of New-York, and such other persons as they may associate with them under the provisions of this act, shall be and are hereby constituted a body corporate by the name of "Lockport Water Supply Company." The principal office of said company shall be in the City of Lockport.

§ 2. The capital stock of said company shall be fixed by the directors thereof, not exceeding the sum of ten millions of dollars and shall be divided into shares of one hundred dollars each.

§ 3. The persons named in the first section of this act shall be the first directors of said company, but in case any thereof shall fail to become stockholders in said company within one month from and after the organization of the company, and filing the duplicate certificates thereof as hereinafter pre-



scribed, his office shall thereupon be deemed vacant, and be filled as hereinafter provided. Each director shall be a stockholder of the company, and shall hold his office until his successor is chosen. In case of a vacancy in the office of director by death, resignation or ceasing to be a stockholder, such vacancy may be filled until the next annual meeting by the board of directors. The board of directors may remove all officers by it appointed, and appoint others in their respective places, and may fill all vacancies in office for the unexpired portion of the term. If, at any time an election of directors shall not take place on the day hereby appointed the company shall not for that cause be dissolved, but an election may be held on any other day in the manner herein provided. The first election of directors under this act shall be held on the first Tuesday in June, eighteen hundred and eighty-seven, and on the same day in each year thereafter, at such hour and place in the City of Lockport, as the board of directors may designate, upon a notice therefor, to the stockholders, stating the time and place and object of such meeting, which notice shall be published in at least one daily newspaper in the City of Lockport, for the three successive weeks next preceding the day of such election, and a copy of such notice shall be mailed to each stockholder of the company, at least three weeks previous to the date of said meeting, addressed to him at his last known place of residence, and the postage thereon prepaid. At such election each stockholder personally or by proxy shall be entitled to cast one vote for each share of stock held by him thirty days previous to the date of said election. A majority vote of the ballots cast shall be necessary for the election of each director.

§ 4. There shall be eleven directors of said company, who shall constitute the board of directors. The board of directors shall elect a president, a vice-president, a secretary, a treasurer, and such other officers of the company, and appoint such agents, as they may deem necessary. As soon after the passage of this act as can reasonably be done, said directors shall meet and elect the officers aforesaid, and fix and determine the amount of the capital stock, the number of shares thereof, and shall thereupon make, sign and acknowledge before some competent officer, duplicate certificates, which shall refer to this act, and recite the name of the company, the names of the members and their several residences, the amount of the capital stock, and the number of shares thereof, and the location of the office of the company. One of said duplicates shall be immediately filed in the office of the Secretary of State, and the other in the office of the County Clerk of Niagara County.

§ 5. The board of directors shall have power to make by-laws and rules consistent with the general laws of the State, for the government of said company, its officers and agents, and the control and management of its affairs,

business and property, and from time to time change the same; and may require from the stockholders payment of all sums of money by them subscribed, at such times and in such proportions as may be deemed proper, under the penalty of a forfeiture of their respective shares and all payments thereon; first giving notice of each call therefor, by publication of a notice thereof in at least one daily newspaper printed in the City of Lockport, for the thirty successive days next preceding the date for which such call is made, and a copy of such notice shall be mailed to each stockholder, to be affected by said call, at least thirty days before the date for which the same is made, addressed to him at his last known place of residence, and the postage thereon prepaid.

§ 6. The stockholders of said company shall be severally individually liable to an amount equal to the amount of the stock held by each of them respectively, for all debts and liabilities of the company, until the whole amount of the capital stock so held by said stockholders, respectively, shall have been paid in, and a certificate or certificates showing such payment shall have been filed in the office of the County Clerk of Niagara County. The president and a majority of the trustees within thirty days after the payment of the last installment of the capital stock, shall make a certificate stating the amount of the capital stock so fixed and paid in, which certificate shall be signed and sworn to by the president and a majority of the trustees, and they shall, within thirty days, record the same in the office of the County Clerk of Niagara County. The stockholders of said company shall be jointly and severally individually liable for all debts that may be due and owing to all their laborers, servants and apprentices for services performed for such company.

§ 7. Except as herein otherwise provided, said company shall possess the powers and be subject to the restrictions and liabilities prescribed in title three of chapter eighteen of part first of the Revised Statutes, so far as the same are applicable thereto.

§ 8. The purposes for which said company is incorporated are the supplying pure and wholesome water to the City of Lockport and the inhabitants thereof, and to any other of the cities, towns or villages which now are or hereafter may be within the County of Niagara, and the inhabitants thereof, and the accumulating, conducting, storing, selling, leasing, furnishing and supplying water for fire, sanitary, municipal, domestic, manufacturing or agricultural purposes.

§ 9. Said company is authorized and empowered to supply to any of the cities, towns or villages aforesaid, or the inhabitants thereof, pure and wholesome water for the purposes aforesaid, or any thereof, at such reasonable rates and cost, and on such conditions to consumers as may be agreed upon; and



any city, town or village aforesaid, by its authorities, may contract with said company for the supplying and delivery of pure and wholesome water for fire, sanitary or other public purposes; such delivery may be through pipes and hydrants or otherwise as may be agreed upon in the special case, and in the City of Lockport such contract may include the operation, supervision, management and ordinary repairs of the water-works of said city, as the same now exist or hereafter may be extended, on such terms and conditions not violative of the charter of said city, as may be agreed upon. The amount by any city, town or village aforesaid (except the City of Lockport), agreed to be paid therefor, shall be annually raised, levied, assessed and collected in the same manner as other expenses of such city, town or village are or may be raised, and when collected shall be kept separate from other funds of such city, town or village, and be paid over to said company by said authorities according to the terms and conditions of the contract in the special case; and in the City of Lockport such amount shall be raised and paid in the manner provided in and by the charter of said city; provided, however, that no such contract shall be made for a longer period than ten years; and provided, that in towns where there shall be an incorporated village, constituting a part only of such town, no tax shall be levied upon property within the village limits for the purposes of this act, except in pursuance of a contract between the authorities of such village and said company.

§ 10. Said company may, for the purposes of its incorporation, take water from the Niagara River at such point or points between the mouth of the Tonawanda Creek and the east line of lot number fifty-two of the mile reserve (so called), as may be most convenient; and may intercept and divert the flow of waters from lands of riparian owners, and from persons owning or interested in waters which are or may be necessary for the purposes of said company; and may prevent the flow or drainage of noxious or impure waters or matters from the lands of others into any canal, raceway, reservoir or other work of said company; and may alter, straighten, deepen, obstruct or increase the flow of water in streams or water channels, intersecting or connecting with, or contiguous to its works or any thereof; and may discharge water into Lake Ontario, or into Eighteen Mile Creek, or other stream or streams, at such point or points, and in such quantity and manner as may be most convenient and advantageous; and may build, erect, construct, dig and lay any canals, raceways, ditches, locks, piers, inlet piers, cribs, bulkheads, dams, gates, sluices, reservoirs, aqueducts, conduits, pipes, culverts or other works, machinery or buildings of every kind and description whatsoever, that may be necessary, proper and convenient for its said purposes, or any thereof, in said river, or upon any land by it held as hereinafter provided.

§ 11. Said company may enter upon and use the ground or soil under any street, highway, road, railroad land or public ground (except Erie Canal lands) within said county, for the purposes aforesaid, and may, when necessary, change the location or surface grade of any street, highway or road; and such right shall be continuous for said purposes, including the relaying, repairing, altering or extending its works; provided, however, that in cases where the open canal, or other open work of said company, shall cross any street, highway, road, public ground or railroad land, said company shall construct, and at all times thereafter maintain, suitable and proper bridges over its said work where such bridges are rendered necessary by the construction of its said work; and in cases when its pipes or other covered work shall be laid under the surface of any road, street, highway, public ground or railroad land, the surface thereof shall be made and kept suitable for public travel and as nearly as may be as it was before said work was done.

§ 12. Said company may take lands, waters or easements therein, by gift, devise or purchase, and shall have all the rights, powers, privileges and duties in relation to the taking, acquiring and holding lands, waters, easements and rights (except lands or waters of the Erie Canal), necessary for its purposes, by condemnation proceedings or otherwise, which are conferred by chapter four hundred and twenty-three of the laws of eighteen hundred and eighty-five, upon the corporations therein specified, proceeding in the manner therein prescribed as nearly as may be, except that the petition shall show that the provisions of this act have been complied with by said company.

§ 13. Orders under which lands, waters, easements or rights shall be acquired in condemnation proceedings may be recorded in the books wherein deeds are recorded by the county clerk of Niagara County, and be indexed under the name of said company as grantee, and under the name of the person or persons from whom acquired as grantors; and such records shall have the same force and effect as the records of conveyances under the laws of this State.

§ 14. Said company, by any of its officers, agents or servants, may, for the purposes aforesaid, enter upon and survey any lands in Niagara County. Before beginning condemnation proceedings to acquire any lands, waters, easements or rights therein, or entering upon or using any thereof, except such as shall have been acquired by gift, devise or purchase, said company shall cause a survey and map to be made of the lands, waters, easements and rights therein, intended to be taken and acquired by condemnation proceedings, by and on which the land, water, easement, or right therein, of each owner and occupant shall be designated, which map shall be signed by the president and secretary of said company, and be filed in the Niagara County clerk's office. Said map may be amended by said company as to any parcel or parcels of land at any



time before the appointment of commissioners of appraisal in condemnation proceedings to acquire such parcel, or parcels, or any easement or right therein, by filing in said county clerk's office a new or further map, signed as aforesaid, together with a notice stating in substance that the map then on file has been amended as shown by said new map, and thereupon the said new map shall have the force and effect of the map so amended, and the map so first filed shall be deemed superseded as to the lands described or affected by said amendment, except so far as it relates to proceedings then already had and done. Whenever said company shall deem it necessary to acquire any additional lands, waters, easements or rights therein, it shall, before beginning proceedings to acquire the same by condemnation, cause to be made a like survey and map, which shall be authenticated in like manner, and filed in said county clerk's office, showing such additional lands, waters, easements or rights therein, intended to be taken, and designating the land, water, easement or right therein, of each owner and occupant separately, as far as may be.

§ 15. Said company shall have power to borrow money for the construction of its works; and to issue bonds and mortgage its property and franchises to secure payment of the same; and may from time to time increase or diminish its capital stock to any amount not in excess of the limit fixed by section two of this act, which the directors may deem sufficient and proper for the purposes of the company, by an affirmative vote of stockholders owning not less than two thirds of the capital stock then subscribed for, at any meeting of the stockholders duly called, and the signing and acknowledging before some competent officer, by stockholders owning not less than two thirds of the stock as aforesaid, of duplicate certificates showing the amount of the capital stock of the company, the amount to which it is to be increased or diminished, and the amount of the capital stock owned by each of the persons signing the certificates; one of said duplicates shall be filed in the office of the said county clerk, and the other in the office of the Secretary of State, and when so filed the capital stock shall be increased or diminished to the amount specified in such certificates; provided, however, that if the amount of the debts and liabilities of the company exceeds the amount to which it is proposed to reduce the capital stock, such amount of debts and liabilities shall be satisfied and reduced until it shall not exceed such diminished amount of the capital stock; and, until the debts and liabilities are actually and in good faith so reduced, such proceedings for the diminution of the capital stock shall be void and of no effect.

§ 16. All water rents authorized by this act to be established and charged, except those charged against a city, town or village, for municipal purposes, shall be a lien upon the premises on or in which the water shall be used, and

may be collected of the person or persons contracting therefor, or liable to pay the same, or such lien may be enforced in the manner provided by law.

§ 17. The word "authorities" as used in this act shall be construed to mean for cities, the common council, water board or other competent charter authority, as the case may be; for villages, the board of trustees and supervisor of the town wherein said village is situate; for towns, the supervisor, justices of the peace, town clerk and commissioners of highways.

§ 18. If the work of said company be not actually and in good faith commenced within five years from and after the date of the passage of this act, the corporate powers hereby granted shall cease and determine.

§ 19. Any person who shall willfully or maliciously destroy, injure or interfere with any canal, raceway, ditch, lock, pier, inlet pier, crib, bulk-head, dam, gate, sluice, reservoir, aqueduct, conduit, pipe, culvert or other work, machinery, building or property of said company, or who shall willfully or maliciously do any act which shall injuriously affect, or tend to injuriously affect, the water of said company, or the supply, or quantity, or regulation thereof, shall be guilty of a misdemeanor, and may be punished by fine or imprisonment, or both fine and imprisonment, in the discretion of the court, and shall forfeit and pay to said company, or to any person or persons injured thereby, treble damages, besides the costs of the action, to be recovered in any court having jurisdiction.

§ 20. This act shall take effect immediately.

STATE OF NEW-YORK, }
Office of the Secretary of State, } ss.

I have compared the preceding with the original law on file in this office, and do hereby certify that the same is a correct transcript therefrom and of the whole of said original law.

FREDERICK COOK,
Secretary of State.

