



WATER-POWER

AT

NIAGARA FALLS

TO BE SUCCESSFULLY UTILIZED.

. . . .

The Niagara River Hydraulic Tunnel,
Power and Sewer Co.

. . . .

*Its Objects, Facilities and Resources, Inducements
for Manufacturers, etc.*

CIVIL ENGINEERS ON THE PRACTICABILITY OF THE PLAN PROPOSED. REPORT OF THOMAS
EVERSHED, DIVISION ENGINEER OF NEW-YORK STATE CANALS. ENDORSEMENT
OF ELNATHAN SWEET, NEW-YORK STATE ENGINEER AND SURVEYOR.

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BUFFALO:
MATTHEWS, NORTHRUP & CO., ART-PRINTING WORKS,
Office of the "Buffalo Morning Express."
1886.

Niagara Falls to be Utilized.

The idea of employing the great Water Fall at Niagara, not only for furnishing power for a local manufacturing city of the largest proportions, but also for transmitting power to other places through the agency of Electricity, Compressed Air, etc., has been discussed with increasing public interest for many years. No practical attempt to realize this great project has, however, been made till this year, when a company of business men of the Town of Niagara calling themselves "The Niagara River Hydraulic Tunnel, Power and Sewer Company" was organized, and, having been incorporated by act of the New-York State Legislature passed March 31, 1886, (a copy of the act of incorporation is hereto appended) have, in connection with the best engineering skill in the State, applied themselves seriously to the task of directly utilizing the immense power of Niagara River. The great importance of this undertaking, together with the plans and estimates of the projectors, are set forth in the following

PROSPECTUS:

The "Niagara River Hydraulic Tunnel, Power and Sewer Company" has been organized for the purpose of utilizing the enormous power of Niagara River by constructing a subterranean tunnel from the water-level below the Falls, about 200 feet under the high bank of the river, extending through the rock to the upper Niagara River at a point about one mile above the Falls, where a head of 120 feet is obtained. The tunnel thence extends parallel with the shore of the river one and one-half miles at an average depth of 100 feet below the surface of the earth, and at a distance of about 400 feet from the navigable waters of the river, with which it is connected by means of conduits or lateral tunnels, as shown by the accompanying maps.

THE NEED OF RELIABLE WATER-POWER.

It is well known among leading manufacturers in the United States that the water-power heretofore available is steadily diminishing as the country becomes more thickly settled. At many places in the Eastern States it has become necessary to supplement the water-power with steam in order

to be able to run machinery during the entire twenty-four hours, thereby greatly increasing the cost of production. Most of the water-power in use in various sections of the country has been produced by the construction, at great cost, of dams for the storage of water during the dry season. These devices have at times proved inadequate to supply the water required for manufacturing purposes, and at other times, when freshets prevailed, the dams have given way, depriving the manufacturing establishments of power, and inflicting great damage upon the adjacent country. The cost of constructing dams, the unreliability of the water-power, and the isolated location of many establishments on slender lines of railroads where rates are high, owing to a lack of competition, place manufacturers under great disadvantage with those who have the benefit of a *steady power and abundant railroad and other shipping facilities.*

At Niagara *Nature has built an imperishable dam from the solid rock, which she maintains without cost to man,* so that the manufacturer who avails himself of its power is relieved, from the beginning, of all anxiety about his dams ever giving way and causing death and destruction of property. He is also assured *that his mills can never stand idle for lack of water,* because, instead of being dependent upon some slender and fickle stream, he draws his copious supply from the mammoth reservoirs which constitute the Great Chain of Lakes. There will, therefore, be nothing to interrupt the steady flow of the manufacturer's yearly production at the minimum of cost. His means of bringing his products to the consumer are also of the best, as will be seen below.

UNEQUALLED TRANSPORTATION.

The *facilities for transportation* afforded to the mills locating upon the sites of this company *have no equal in the world.* The mill sites are fixed upon the Niagara River at a point above the Falls navigable for vessels. Hence, vessels passing through the great Western Chain of Lakes can come down the Niagara River with their loads of lumber, grain, coal, etc., and unload them on the wharves and docks of the mills and factories. Canal boats can also receive and discharge freight at the mills, as the Niagara River connects with the Erie Canal at Tonawanda, only seven miles distant. The tracks of the New-York Central; West Shore; Erie; Grand Trunk; Rome, Watertown & Ogdensburg; Lehigh Valley, and Michigan Central Railways; adjoin and run parallel with the proposed tunnel and the entire plot of mill sites of the company, with provision for sidings to each mill site. The Delaware, Lackawanna & Western Railroad has surveyed a route contiguous to the property of the company, and will undoubtedly lay its track soon.

FREIGHT RATES

To the seaboard and all points east and west are now made by the railroads from Niagara Falls and Suspension Bridge upon the basis of *about one-half*

the through competitive rates from Chicago and other western points to the East. This is favorable to those locating here, and places the manufacturer in a position to compete successfully with manufacturers of any locality in the United States.

The advantages which Niagara Falls offers to manufacturers may then be briefly summarized as follows:

1st. *Cheap, never-failing water-power*, enabling goods to be made at the minimum of cost.

2d. *Cheap and varied transportation*, enabling both the raw material and finished product to be moved at the least expense.

Located midway between the great producing regions of the West and the more thickly populated sections of the East, with its yearly increasing export trade, what better point could be found for a great manufacturing city?

POWER FROM NIAGARA FALLS BY ELECTRICITY.

It is conceded by leading practical electricians that it would be entirely practicable now to light the City of Buffalo (distant 20 miles) with power furnished by Niagara Falls, and the opinion is rife among scientific men that ways will be found in the near future for transmitting this power to much greater distances and for using it in many new ways. Should this be done, the unlocking of this great natural store-house of power, which is proposed in this Prospectus, will bear an importance not exceeded by any private or public work in the State. It cannot fail to interest everyone. An application has already been received from a manufacturer of Birmingham, Eng., for an opportunity to test his apparatus for conveying power by means of Compressed Air.

PRACTICAL PROGRESS MADE.

Since the incorporation of the "Niagara River Hydraulic Tunnel, Power and Sewer Company," on March 31, 1886, *sufficient land along the river has been secured, surveyed and apportioned into mill sites fronting on the river and on the line of the proposed tunnel with ample streets and dockage, affording facilities for approach by rail or water, to accommodate 238 mills of 500 horse-power each, or 119,000 horse-power in all, which is the engineers' estimate of the capacity of the tunnel proposed to be built. Some idea of the magnitude and value of this power may be formed when it is stated that it far exceeds the combined available power in use at Holyoke, Lowell, Minneapolis, Cohoes, Lewiston and Lawrence, and that it can be constructed at an expense not to exceed one-tenth of the outlay for the development of the power at the places designated.*

COST OF CONSTRUCTION.

Based upon our engineer's estimate (see his report appended), which has been examined and approved by several eminent engineers, the entire cost of the tunnel, including lands, docks, conduits, cross tunnels, etc., is as follows: 238 mill sites, varying from 75 x 200 to 200 x 400 feet each, have been laid out, with streets 100 feet wide between the rows of mill privileges, and with also a 100-foot reserve between the rows of lots in the rear, for railway sidings, and to each site is allowed 500 horse-power, with conduit and cross tunnel, bringing the water within fifty feet of each lot. Fifty or more of these lots can be made accessible for lake and canal vessels.

Net cost of land, average of \$3,000 per lot.	\$ 750,000
1 tunnel.	1,212,108
24 cross tunnels.	448,430
4 shafts.	38,700
12 raceways.	329,927
12 bulkheads.	12,200
Masonry and gates controlling sluices.	27,500
Timber in cribs.	45,000
Slope walls.	90,000
Contingencies.	46,135
Total cost.	\$3,000,000

To pay 5 per cent. on this amount to stockholders it is necessary that only thirty privileges of 500 horse-power each be utilized. Fifteen thousand horse-power at \$10 each equals \$150,000, or 5 per cent. on \$3,000,000.

If 30 rentals will pay 5 per cent. upon the entire stock, it follows that 60 rentals will pay 10 per cent., 120 rentals 20 per cent. And when the 238 are used the yearly income of the company will equal 40 per cent. on the capital stock.

CAPITAL STOCK.—RULES GOVERNING SUBSCRIPTIONS.

The plan adopted for subscriptions to the capital stock is as follows: There will be issued 30,000 shares of stock of \$100 par value each, and no *payment or assessment of any kind is to be called for until the whole capital stock is subscribed*, which will insure the building and completion of the tunnel and consequent development of the mill sites, insuring ample earning capacity for the money subscribed. This assures the success of the enterprise and is strictly fair to the subscribers.

In order to avoid any risk to stockholders, and prevent abuses and to render the stock fixed and valuable forever, it is made one of the conditions of subscription, and so expressed on the face of each certificate, that *no bonds shall be issued nor mortgages given upon any rights, privileges, franchises or property of this company, except with the unanimous consent of the stockholders*. In other

words, the *stock* shall represent and cover *completely, the property, real estate and franchises of this Company.*

The \$200,000 capital stock of this company, authorized by its charter, having already been subscribed in full, books for subscription to increase the capital stock to the sum of \$3,000,000, as also authorized by its charter, are now open at the following places:

The Cataract Bank, Niagara Falls, N. Y.
 Manufacturers and Traders' Bank, Buffalo, N. Y.
 Drexel, Morgan & Co., New-York City.
 Kidder, Peabody & Co., Boston, Mass.,
 And in Europe.

CHARLES B. GASKILL, *President.*
 FRANCIS R. DELANO, *Treasurer.*
 MYRON H. KINSLEY, *Secretary.*
 GEORGE N. MILLER, *Ass't Secretary.*
 W. CARYL ELY
 J. FRASER GLUCK, *Attorneys.*
 THOS. EVERSLED, *Engineer.*

NIAGARA FALLS, N. Y., August, 1886.

REPORT OF
THOMAS EVERSHED, C. E.

DIVISION ENGINEER OF NEW-YORK STATE.

To the President and Trustees of the "Niagara River Hydraulic Tunnel Power and Sewer Company," of Niagara Falls, N. Y.

GENTLEMEN :

I would respectfully submit the following suggestions for your consideration of a plan for the construction of a town plat or arrangement of lots, streets, mill-races, wharves and railroad tracks above ground on the bank of the Niagara River above Port Day, in the Town of Niagara, County of Niagara and State of New-York, for the purpose of forming a town composed wholly of mills, factories and workshops, to be operated by the waters of Niagara River, by means of turbine wheels or other devices. And of a main and lateral tunnels below ground which shall serve as tail-races to the said mills, factories and workshops.

The town plat to be laid out between the said Niagara River and the tracks of the New-York Central and Erie Railroads.

It shall be laid out with streets running as near as may be at right angles to the course of the river and the New-York Central Railroad tracks.

Every other one of these streets shall be of such width as will allow of a raceway or conduit for the passage of the water from the river to supply the factories with power and to allow the usual traffic by teams, and also with proper sidewalks leading to the factories which shall front on these streets.

The intervening streets, which will be at the rear of the buildings, shall be of sufficient width to allow of tracks belonging to the different railroads and the necessary switches leading into the yards of the various industrial establishments, as well as teaming thereto.

The conduits or raceways shall be of such widths and depths as will furnish at all times the necessary quantity of water to supply the wheels located thereon, and they shall extend out into the river to a point at which the requisite depth is to be obtained.

Permanent embankments shall be made out into the river, economizing the material derived from the construction of the tunnels and raceways therefor.

These embankments shall be finished off at the outer end with crib work, running up and down the river in such a way as to form wharves for the landing of vessels navigating the river, and to protect the different raceways from floating ice.



T O W N O F N I A G A R A

C O U N T Y

N I A G A R A

M A P
O F
M I L L S I T E S

O F T H E
N I A G A R A R I V E R H Y D R A U L I C T U N N E L
P O W E R A N D S E W E R C O .

S P E C I A L
M I L L S I T E S

The marks marked
three arrows indicate
the location of the
tunnel.

V I L L A G E O F
N I A G A R A

P O R T D A Y

N I A G A R A

C h a n n e l
C h a n n e l
R I V E R

N



The main tunnel from its mouth, which shall be at a point immediately north of the State reservation below the great falls to a point where the first mills can be erected above Port Day, I would recommend to be constructed with an area equivalent to a tolerably smooth tunnel of circular form of twenty-four (24) feet in diameter.

Its mouth shall be located as low as high water below the falls will permit. It shall have a descent from a point half a mile above Port Day to its mouth of one in one hundred, or $52 \text{ and } \frac{80}{100}$ feet per mile.

Above Port Day the tunnel will gradually diminish in size, in accordance with the number of mills which have yet to empty their tail-waters into it, until at the upper end it will be of the same area as the cross tunnels which flow into it at that point.

The lateral or cross tunnels which shall receive the water from the different wheel-pits and discharge the same into the main tunnel, shall be of such size, and shall be located as shall best serve the requirements of the mills above them and the general ground plan of the town plat.

The bottom of these cross tunnels shall be so much above the main tunnel that they shall at all times be drained and accessible whenever the mills on that particular cross tunnel are not running.

The pits for the wheels shall be located in such a manner as to suit the particular requirements of the business to be carried on in the factory to which they belong, and shall conform to the general arrangement of the town plat.

The bottom of said pits shall be at such heights above the cross tunnels that work can be done in them at the same time the rest of the mills on that cross tunnel are in operation.

If the amount of water which will pass through a tunnel of twenty-four (24) feet in diameter, having a descent of one in one hundred, is used economically under heads ranging from one hundred and twenty-four feet to seventy-nine feet, through turbine wheels of the latest patterns, it will give a result equal to one hundred and nineteen thousand horse-power; or, in other words, is equal to two hundred and thirty-eight factories of five hundred horse-power each.

One has but to glance at this location, at the noble river on its front and the railroads in its rear, to see its perfect adaptability to the purpose here intended.

Here is a stream of which one can say its surface height is always the same, and whose waters are of the purest quality.

Here will be no dams to break away, causing loss of life and devastating the country below.

Here no summer drought can cause a stoppage of wheels and busy hum of industry, to the loss of profit to the employer and of daily bread to the employed.

Here the manufacturer who erects his building may do it with a certainty that his work will go on uninterruptedly three hundred and sixty-five days in the year.

If the tunnel were to be begun to-day he could begin his workshop to-morrow, with the utmost faith that when both were completed he could start

his machinery, and that if any stoppage occurred it would not be the fault of the ever-ready river, of the conduit which brought the water to his wheels, or of the tailrace which took it away, for they will be blasted out of the solid rock, and, like it, be imperishable.

Although for certain kinds of business, dependent on local custom for its support, steam may be the best, inasmuch as the fuel can be taken to the exact point at which the industry is to be carried on, yet for very many pursuits, where the materials used come from various sources and the articles manufactured are to be distributed all over the world, cheap water-power will always be sought for.

That cheap power this company will be able to give the manufacturer.

I have made out below a statement of the cost of running machinery by steam and water for one horse-power per year, as used in relatively large quantities, and as the latter power is leased in various localities in the Northern and Eastern States.

Mr. Cowles, of Rochester, gives the cost of running one horse-power by steam in that city at thirty-nine dollars per year.

Mr. Holly, of Lockport, gives, with coal at \$4.00 per ton, the cost of running one horse-power at forty-six dollars per year.

Messrs. Poole & Hunt, of Baltimore, give the cost to be about six-tenths of a cent per hour with coal at \$5.00 per ton, or forty-five dollars per year for one horse-power. And others about the same.

For rental of steam power in Boston \$175.00 per year per horse-power is received. At Lowell the lowest is \$100.00, with rooms. The Central Pacific Mill, with 1,000 horse-power, prefers to pay \$60.00 per horse-power for water to using steam.*

The following prices are charged for water-power for one horse-power per year:

	Hours per day.	Dollars.
Paterson, N. J.	24	\$37 50
Birmingham, Conn.	12	20 00
Mayanunk, Pa.	24	56 25
Dayton, O.	10	38 00
Wameset Dam	11 ¼	48 25
Lowell, Mass.	10 to 11 ¼	20 00
Lawrence, Mass.	10 to 11 ¼	20 00
Cohoes, N. Y.	10 to 11 ¼	20 00
Holyoke, Mass.	10 to 11 ¼	20 00
Lockport, N. Y.	24	16 66
Rochester, N. Y.	24	25 00

I would recommend that this company charge a price so low that it will be sure to prove an inducement to manufacturers to lease power.

I am of the opinion that ten dollars per year per horse-power, to be used twenty-four hours per diem, will effect this, and at the same time afford the capitalists holding the stock of the company ample returns for their money.

* From Samuel McElroy's pamphlet in relation to water-power at Niagara Falls, read before the Western Society of Engineers, September 1, 1885.

invested, notwithstanding the length of time which must elapse before the whole amount of power can be rented.

This is only about one-quarter what is charged elsewhere, as shown above.

ESTIMATE OF COST.

1 tunnel.	\$1,212,108
24 cross tunnels.	448,430
4 shafts.	38,700
12 raceways.	329,927
12 bulkheads.	12,200
Masonry and gates controlling sluices.	27,500
Timber in cribs.	45,000
Slope walls.	90,000
Contingencies	46,135
	\$2,250,000

Respectfully submitted,

THOMAS EVERSHERD, C. E.

ROCHESTER, July 1, 1886.

OFFICE OF THE STATE ENGINEER AND SURVEYOR,
ALBANY, N. Y., July 19, 1886.

CHAS. B. GASKILL, ESQ., PRESIDENT "NIAGARA RIVER HYDRAULIC
TUNNEL, POWER AND SEWER CO.," NIAGARA FALLS, N. Y.

Sir,—I have examined the plans, computations and estimates forming part of the report to you of Thos. Eversherd, Esq., upon the details of a method of utilizing a very extensive water-power at Niagara Falls by the construction of main and lateral tunnels which shall serve as tail races to a large group of manufacturing establishments.

The general plan of the enterprise impresses me as the most comprehensive and economical scheme possible for using, on a grand scale, the almost unlimited hydraulic resources of Niagara.

These plans have been very intelligently elaborated, and the estimates for constructing the main and lateral tunnels and for the shafts, conduits, bulkheads and docks, are, in my opinion, amply sufficient to insure their completion at a rapid rate and in a thorough manner.

The advantages of the location are not overstated by Mr. Eversherd, and may be briefly summarized to consist of an exhaustless supply of pure water, at a practically constant head, solid and durable rock, containing all the tunnels, shafts and conduits, and furnishing solid and imperishable foundations for all the structures and a nearly uniform surface of the proper elevation of the lands you have secured for the site of a manufacturing town to be developed by this enterprise.

Very respectfully yours,

ELNATHAN SWEET,

State Engineer and Surveyor.

ACT OF INCORPORATION.

TEXT OF THE BILL.

CHAPTER 83.

AN ACT—To incorporate the Niagara River Hydraulic Tunnel, Power and Sewer Company of Niagara Falls, New-York, passed March 31, 1886, three-fifths being present.

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

SEC. 1. Myron H. Kinsley, Charles B. Gaskill, Thomas V. Welch, Henry S. Ware, Thomas Evershed, Michael Ryan, W. Caryl Ely, James Fraser Gluck. and all such persons as are or may hereafter be associated with them, are constituted a body corporate and politic by the name and style of the "Niagara River Hydraulic Tunnel, Power and Sewer Company of Niagara Falls, New-York," for the purpose of constructing, maintaining and operating, in connection with the Niagara River, an hydraulic tunnel or subterranean sewer, for the public use of sewerage and drainage as hereinafter specified, and for furnishing hydraulic power for manufacturing purposes in the town of Niagara, in the county of Niagara.

§ 2. This corporation shall have power to construct, maintain and operate its said tunnel or sewer through and under the streets, avenues and highways of the village of Niagara Falls and such other villages as may be situated along the line of said tunnel or sewer by obtaining the consent of the local authorities of such village or villages, subject to such reasonable regulations as the said local authorities may prescribe ; provided, however, that the said corporation shall permit the said village or villages to use the said tunnel or sewer for the purpose of draining or sewerage said village or villages at such reasonable rates and upon such conditions as may be agreed upon by said corporation and said local authorities ; and provided further, that the power herein granted shall not in any sense be construed as permission to cross, intersect or infringe upon any part of the lands of the State Reservation at Niagara.

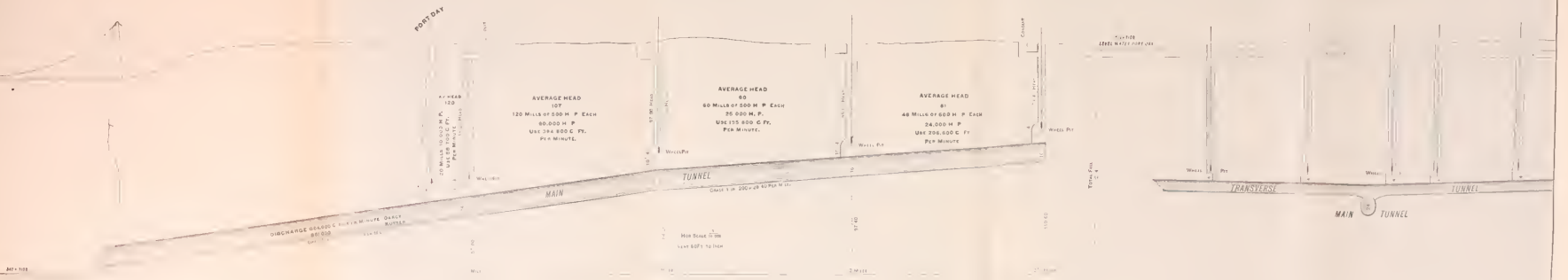
§ 3. The capital stock of said corporation shall be \$200,000, divided into shares of \$100 each, and the said corporation is hereby empowered to increase the said capital stock from time to time as the necessities of the corporate business shall require, but only as hereinafter specified, and not to exceed \$3,000,000.

§ 4. The said capital stock may be increased by a vote of a majority of the stockholders in number and representing a majority of the stock of said corporation, at a meeting thereof convened for that purpose. Notice of such meeting shall be given to every stockholder by depositing in the post-office, properly addressed to his last known place of residence, and postage prepaid, at least five days before the time fixed, a written or printed notice stating the time, place and object of such meeting, and a statement of such increase shall be filed in the office of the Secretary of State and of the Clerk of the County of Niagara within ten days after such action.

§ 5. Books of subscription for the capital stock of said corporation shall be opened under the direction of the trustees hereinafter named, subject to such rules and regulations as they



ELEVATION SHOWING HEADS ON WATER WHEELS EVERY HALF MILE, AND NUMBER OF POWERS DEVELOPED OF 500 HORSE POWER EACH.



207-112

shall prescribe. And the stock shall be considered personal property, and shall be assignable and transferable on the books of the Company.

§ 6. The concerns of said corporation shall be managed by nine Trustees who shall be stockholders, a majority of whom shall be citizens of this State, and who shall hold their office for one year and until others are chosen in their places. Said Trustees shall be annually elected by the stockholders at such time and place as shall be directed by the by-laws of the Company; and public notice of the time and place of holding such election shall be published not less than ten days previous thereto in the newspaper published nearest to the place where the operations of said company shall be carried on; and the election shall be made by such of the stockholders as shall attend for that purpose, either in person or by proxy. All elections shall be by ballot, and each stockholder shall be entitled to as many votes as he owns shares of stock in said company. And the persons receiving the greatest number of votes shall be Trustees. Vacancies may be filled in such manner as may be provided for by the by-laws of said company. The first election of Trustees of said company shall be held on the first day of June, 1886.

§ 7. The Trustees of such company shall have power to make such prudential by-laws as they shall deem proper for the management and disposition of the stock and business affairs of such company, not inconsistent with the laws of this State, and prescribing the duties of officers, artificers, and servants that may be employed for the appointment and election of all officers, and for carrying on all operations within the objects and purposes of such company.

§ 8. There shall be a President of such company, who shall be designated from the number of the Trustees, and also such subordinate officers as the company by its by-laws shall designate, who may be elected or appointed and required to give such security for the faithful performance of the duties of their office as the company by its by-laws may require.

§ 9. It shall be lawful for the Trustees to call in and demand from the stockholders respectively all such sums of money by them subscribed at such times, and in such payments or installments as the Trustees shall deem proper under the penalty of forfeiting the shares of stock subscribed for, and all previous payments made thereon if payment shall not be made by the stockholders within sixty days after a personal demand or notice requiring such payment shall have been published for six successive weeks in the newspaper nearest to the place where the business of the company shall be carried on as aforesaid.

§ 10. The said company may acquire title to land for the purpose hereinbefore specified, in the same manner specified and required in and by the act entitled "An act to authorize the formation of railroad corporations, and to regulate the same," passed April second, 1850, and the acts amendatory thereof and supplemental thereto, so far as the same are applicable, and may construct, operate and maintain its said tunnel, conduits or sewers for the purposes of said company as hereinbefore specified or under the waters of the Niagara river, provided they are so laid as not to interfere with the navigation of the same.

§ 11. Said company shall possess the general powers and privileges and be subject to the liabilities and restrictions contained in title third, chapter eighteen of the first part of the Revised Statutes, and the provisions of section six, article first, title two, chapter thirteen, of the first part of the Revised Statutes, shall apply to the same.

§ 12. 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 payments 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.

§ 13. 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 said company.

§ 14. Said company shall annually, within twenty days from the first day of January, make a report which shall be published in some newspaper published in the town or village where the business of said company is carried on, which will state the amount of capital, and of the proportion actually paid in and the amount of its existing debts, which report shall be signed by the President and a majority of the Trustees, and shall be verified by the oath of the President or Secretary of said company and filed in the office of the Clerk of the County of Niagara; and if said company shall fail so to do all the Trustees of the company shall be jointly and severally liable for all the debts of the company then existing, and for all that shall be contracted before such report shall be made.

§ 15. The corporate existence of said company shall be fifty years.

§ 16. This act shall take effect immediately.

STATE OF NEW-YORK, / ss.
OFFICE OF THE SECRETARY OF STATE, /

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.

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NIAGARA RIVER

HYDRAULIC TUNNEL, POWER AND SEWER CO.

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OFFICERS AND TRUSTEES.

CHARLES B. GASKILL,	PRESIDENT.
<i>(President of Cataract Milling Co., President of the Village of Niagara Falls.)</i>	
HENRY S. WARE,	1ST VICE-PRESIDENT.
<i>(Of Hardwicke & Ware, Buffalo, and International Hotel Co., Niagara Falls.)</i>	
MICHAEL RYAN,	2D VICE-PRESIDENT.
<i>(Merchant, and Director Cataract Bank.)</i>	
FRANCIS R. DELANO,	TREASURER.
<i>(President Cataract Bank, President International Hotel Co.)</i>	
MYRON H. KINSLEY,	SECRETARY.
<i>(Superintendent Niagara Falls Silver Plating and Manufacturing Works.)</i>	
GEORGE N. MILLER,	ASSISTANT SECRETARY.
<i>(Assistant Supt Niagara Falls Silver Plating and Manufacturing Works.)</i>	
HON. W. CARYL ELY,	ATTORNEYS.
<i>(Ex-Member of Assembly.)</i>	
JAMES FRASER GLUCK,	ATTORNEYS.
<i>(Of Law Firm of Greene, McMillan & Gluck, Buffalo.)</i>	
THOMAS EVERSHED,	ENGINEER.
<i>(Division Engineer, New-York State.)</i>	
HON. THOMAS V. WELCH,	TRUSTEE.
<i>(Supt. State Reservation at Niagara, Ex-Member of Assembly.)</i>	
HON. PETER A. PORTER,	TRUSTEE.
<i>(Member of Assembly, Proprietor "Niagara Falls Gazette.")</i>	
A. AUGUSTUS PORTER,	TRUSTEE.
<i>(U. S. Commissioner, and Attorney at Law.)</i>	
HON. BENJAMIN FLAGLER,	TRUSTEE.
<i>(Ex-Collector of Port of Suspension Bridge.)</i>	

WATER-POWER



AT NIAGARA FALLS.

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