TWO DAYS AT NIAGARA FALLS

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FOUR-TRACK SERIES.

LL the pictures you may see, all the descriptions you may read of Niagara, can only produce in your mind the faint glimmer of the glow-worm compared with the overpowering beauty and glory of the meridian sun.—J. J. Audubon.





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There is nothing like patient watching and waiting in a place like this. The gazer who sits for hours is sure to be rewarded. It is surprising what sevrets of the thunder cavern were disclosed to me during days of still-watching—disclosed by a puff of wind clearing the spray for an instant, or by the lightest touch of a sunbeam.—Harriet Martineau.



N A SOJOURN of two days at Niagara you can, of course, see a great deal of the wonderful cataract, and will go away with a good general idea of its beauty and majesty—but to see it as all who can should see it, ten days should be spent there, and you would find that every day you would discover new objects of interest, new beauties not before observed, and additional evidences that here is one of the most wonderful of nature's works.

Every American who can do so should visit this greatest of known cataracts, to view which thousands come annually from distant lands, traveling half around the world to see what the citizens of the United States can witness any day. Every American citizen should see it before visiting any foreign land, and no traveler from another country should leave America until this Wonder of Nature has been added to his store of personal experiences.

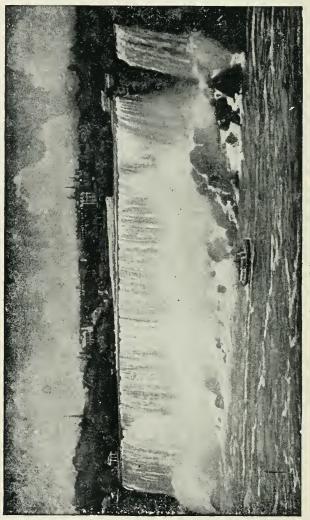
Sir Edwin Arnold, writing of a recent visit, says: "Before me the great cataract of America is thundering, smoking, glittering with green and white rollers, hurling the waters of a whole continent in splendor and speed over the sharp ledges of the long brown rock by which Lake Erie 'the Broad' steps proudly down to Ontario 'the Beautiful.'"

Speaking of the two sections of the Cataract, the Horse-shoe and the American Fall, the same writer says: "Whenever for a time the gaze rests with inexhaustible wonder upon the fierce and tumultuous American Fall, the mightier and still more marvellous Horse-shoe steals its way again with irresistible fascination. Full in front lies that wholly indescribable spectacle at this instant. Its solemn voice—an octave lower than the excited, leaping, almost angry cry of fervid life from the lesser cataract—resounds through the golden summer morning air like the distant roar from the streets of fifty Londons, all in full activity."



American Fall from Canada Side.

It is through these the Deity still speaks to man; yet what can inspire more awe of Him, more reverence, and more love, than the contemplation of thy falling waters, great Niagara!— Capt. Marryat in "Travels in America."



These distinctive qualities—the great variety of the indigenous perennials and annuals, the rare beauty of the old woods and the exceeding love iness of the rock foliage—I believe to be the direct effect of the Falls and as much a part of its majesty as the mist-cloud, and the rainbow.—Frederick Law Olmstead.

Years since Anthony Trollope wrote:

"Of all the sights on this earth of ours which tourists travel to see—at least of all those which I have seen—I aminclined to give the palm to the Falls of Niagara. In the catalogue of such sights I intend to include all buildings, pictures, statues and wonders of art made by men's hands, and also all beauties of nature prepared by the Creator for the delight of His creatures. This is a long word; but, as far as my taste and judgment go, it is justified. I know no other one thing so beautiful, so glorious, and so powerful."

What Can I See in Two Days

AT NIAGARA FALLS?

Arriving on the NEW YORK CENTRAL & HUDSON RIVER RAILROAD you are within a few blocks of the great Falls. You can walk in a very few minutes to any hotel in town. You can ride for 25 cents in one of the Miller & Brundage Coach Co.'s Omnibuses.

GO FIRST TO YOUR HOTEL, arrange for your accommodations, that they may be all ready for you on your return. Don't listen to the importunities of hack drivers to drive you all around for a small sum. You will be sorry if you do. Others have tried it. If you want to drive, secure one of the Miller & Brundage carriages, and you will not be over charged.

Here is a suggestion for your

FIRST DAY'S TRIP.

MORNING.— Walk about Prospect Park and cross the bridge to Goat Island; thence to Luna Island, the Three Sister Islands, etc., etc. Our map will show you just where to go.

AFTERNOON.— Drive or walk over New Suspension Bridge to Canada, Dufferin Islands, and obtain panoramic view from the top of the hill back of the Canadian Free Park.

And this for the

SECOND DAY.

MORNING.—Take the Observation Train on the New York Central & Hudson River Railroad—trains leave every hour—riding in cars open on the river side for seven miles, through the wonderful canon of the Niagara River—a series of views unequalled for grandeur and beauty elsewhere in the world. A steamer runs from Lewiston, the foot of the Rapids, to Niagara-on-the-Lake, the mouth of the River, giving 14 miles' sail, affording views of Brock's Monument, Queenston Heights, Fort Niagara and other historic points.

AFTERNOON.—Walk again to Prospect Park and take the Inclined Railway down the bank to the "Maid of the Mist" landing, then take the boat—it is considered perfectly safe, an accident never having occurred—and you will obtain an adequate idea of the awful power and grandeur of the matchless cataract......

The walk about Goat Island at Niagara Falls is probably unsurpassed in the world for wonder and beauty. Charles Dudley Warner.

I threw myself on the earth, feeling that I was unworthy to look at the great Falis. * * * Gradually I came to know by my own feelings that Niagara is indeed the wonder of the world, and not the less wonderful because time and thought must be employed in comprehending it. — Nathaniel Hawthorne.

What Will it Cost Me to see

NIAGARA FALLS?



Here is what it will cost the First Day:

MORNING: When you walk to Prospect Point and about Goat Island you behold and visit the following:

PROSPECT PARK.
AMERICAN FALLS,—SIDE VIEW.
AMERICAN RAPIDS.—FRONT VIEW.
GOAT ISLAND BRIDGE.
BATH ISLAND.
BATH ISLAND BRIDGE.
LUNA FALLS.
LUNA ISLAND.
BIDDLE STAIRCASE.
HORSE-SHOE FALLS.—SIDE VIEW
TERRAPIN POINT.
HERMIT'S CASCADE.
ISLAND BRIDGES.
THREE SISTER ISLANDS.

LITTLE BROTHER ISLAND

and

all these are

ABSOLUTELY FREE!

THIS IS THE IMPERIAL GIFT OF THE EMPIRE STATE TO MANKIND.

Vour morning's pleasure has not cost you one cent!

We felt curselves attracted by the surpassing loveliness of Niagara. The gulf below was more imposing than we had expected to see it but it was Italian in hue and softness, amid its wildness and grandeur. Not a drop of the water that fell down that precipice inspired terror; for everything appeared to us to be filled with attraction and love.—James Fenimore Cooper in "The Oak Openings."

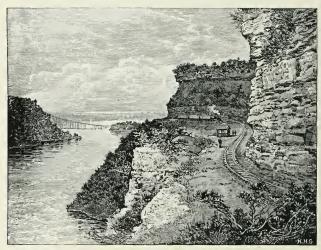


You can then cross to the Canadian side on the new Suspension Bridge for 25 cents for the round trip, over and back, and walk through Canadian Free Park, which is called "Queen Victoria Jubilee Park." Here are a part of the views you will have a chance to enjoy:

American Falls, front	vie	V.)	
Horseshoe Falls, from	t vie	ew.				
Canadian Rapids, from	it vi	iew				
Ramblers' Rest						All these are
Inspiration Point						1 1 1 1 1
Split Rock					>	also absolutely
Rainbow Ramble						FREE.
The Flower Gardens.						
Recreation Lawn						
Table Rock						

The small fees charged to points of interest other than those heretofore named, considering the convenience and protection afforded, seem to be just and reasonable. The appended list will show ordinary charges:

Round trip on Steamer Maid of the Mist (landing in	
Prospect Park), including rubber suit,	\$0.50
New Suspension Foot Bridge, Niagara Falls to Canada and	
return; each person (carriage 25 cents extra),	25
Hydraulic Elevator (at Horse-shoe Falls, Canadian Side),	. 50
Old Suspension Bridge and return (no carriage toll),	. 10
Whirlpool Rapids Park, Inclined Railway, Canadian Side,	. 50
Whirlpool Rapids Park Elevator (American Side),	. 50
Niagara Gorge and Lewiston on New York Central Obser-	
vation train, giving splendid view of the Niagara	
Gorge and Whirlpool Rapids below the Falls, for the	
round trip from Niagara Falls to Lewiston and return,	.25
Same trip, including ride on Steamer from foot of the rapids	
to Niagara-on-the-Lake and return, 14 miles' sail on	
the river, giving views of Brock's Monument, Queens-	
ton Heights, Fort Niagara and other historic places,	
from Niagara Falls and return,	. 50

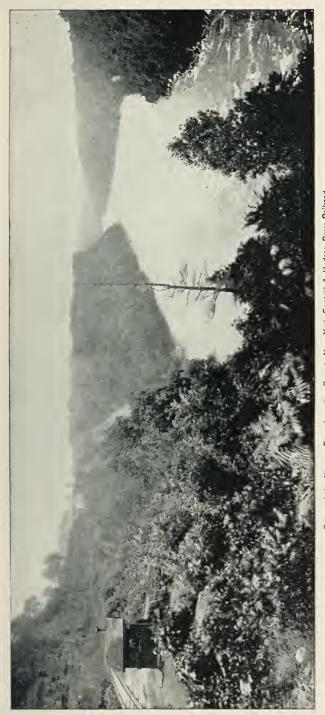


Niagara Gorge and Lake Ontario, from the New York Central Observation Trains.

You can obtain all the most desirable views of the Falls without any extra expense whatever; and since the establishment by The Miller & Brundage Company of a regular omnibus and carriage transfer business at the Falls the old "Hack" extortion has been practically abolished.

The railroad facilities for going to or leaving Niagara Falls from or to the East, West, North, or South are very ample. All the fast trains pass through or have connections to or from the Falls. The New York Central has a union ticket office in the Cataract House block for the accommodation of its patrons.

On the New York State Reservation there is a carriage service similar to that in Central Park, New York. The drive through the Park, with a stop off at all principal places of interest, is only 25 cents for the round trip.



Gerge of the Niagara River, Lewiston Branch, New York Central & Hudson River Railroad.

I think, with tenderness, of all the lives that opened so fairly there the hopes that reign in the glad young hearts, the measureless tide of joy that ebbs and flows with the arriving and departing trains. Elsewhere there are carking cares of business and of fashions, there are age and sorrow and heart-break, but here only youth, faith, rapture. — W. D. Howeils in "Their Wedding Journey."

Land Titles.—Niagara Falls are located in what is known as the Mile Strip—a strip of land one mile in width along the whole length of the American Bank of the Niagara River, reserved by the State of New York in its early sales, and sold by the State about 1800. According to the State divisions, there were 107 lots in this strip, lot No. 42 being located at the Falls.



Land Purchases.—After the freedom of the United States had been recognized, a dispute arose as to who should own that part of Western New York lying West of Seneca Lake. Commissioners finally gave New York the jurisdiction and Massachusetts the ownership. The land was first sold to Phelps & Gorham, and as they failed to fulfil their agreement, Robert Morris acquired it, and afterwards sold the Western part to the Holland Land Company, though the Mile Strip was not included in any of the above sales. The part purchased by the company is known as the Holland Land Purchase.

Many visitors err greatly in their calculations in regard to the methey ought to pass. They come hundreds of miles and then hurry away before they have time to get any full or distinct impression. The object of the visit is lost. Visitors ought to spend at least a week, and then they will begin to feel regret at leaving.—Horatio Parsons.

The sylvan perfume, the gayety of the sunshine, the mildness of the breeze that stirred the leaves overhead, and the bird-singing that made itself felt amid the roar of the rapids, and the solemn, incessant plunge of the cataract, moved their hearts and made them children with the boy and the girl who stood beside them,—who stood for a moment and then broke into joyful wonder."—W. D. Howells in "Niagara Revisited."



Before Leaving Niagara Falls the tourist should not fail to visit Toronto, the Queen City of Canada. Taking the New York Central train in the morning, the traveler has a magnificent view of the Niagara Gorge, one of the finest scenes in the world, the route lying close to the river and presenting picture after picture of wondrous grandeur. After a ride of half an hour one of the boats of the Niagara River Line is taken at the end of the rapids, a beautiful sail of seven miles on the lower Niagara follows, views of Brock's Monument, Queenston Heights, the Rapids, and the charming scenery of the high banks of the river follow one another in rapid succession. After passing Fort Niagara you steam forth on Lake Ontario and a two hours' sail brings you to Toronto, the most English city of America, where the traveler has some six hours to view the various sights.

The return steamer leaves at 4.45 P. M., and the traveler is back in his hotel at the Falls for dinner. It is a pleasant way to spend a day, and no one should visit the Falls without taking in this most interesting trip. For those who cannot give the day, a small steamer connects at Lewiston every hour with the observation trains of the New York Central, giving a pleasant sail on the river as far as Lake Ontario and back. Tickets and all information can be had at office of New York Central, Cataract House.

To paint the glories that come and go upon the falling, rushing waters, the artist must dip his brush in the rainbow, and when he done his best he will not be believed by those who have not seen his subject with their own eyes.—Joseph Hatton in the "Art Journal."



Niagara the Photographers' Paradise.—Of all the summer resorts, in fact, of all known places, not one furnishes one-half the advantages and opportunities to the photographer that Niagara does. Here almost every conceivable class of natural scenery, excepting marine views, can be obtained, and the photographer can try his hand at innumerable descriptions of water views; of the broad quiet river above the Falls; of the rippling cascade; of the sweep of the rapids above the Falls, as they rush past directly in front of him; of the numberless views near by and at a distance of the Falls themselves; of the foam-covered river below the Falls; of the rapids as they dash along 200 feet below the high bank to the whirlpool; of the great maelstrom itself, and again of the rapids rushing through the narrow defile below the cliffs to the broad waters of Lake Ontario.

Of woodland scenery there is no lack—from the unique and grand scenery of the virgin forest on Goat Island, and the gems of small islands around it, to the scenes along the river bank; while for him who seeks by the aid of a kodak to photograph the evermoving and changing tide of humanity, Niagara offers unsurpassed opportunities.

HAVING PASSED TWO DAYS, you are now ready to appreciate the fact that TEN rather than Two DAYS will be too short to worthily see the wonders of Niagara; in fact, you must study it, and that takes time.

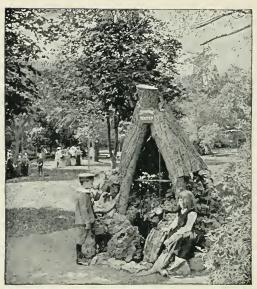


The Name.—The word Niagara is a household word all over the world. It is applied only to the locality, and is to-day the synonym for the ideal waterfall. It is of Indian origin, for the Indians once inhabited all this country, and much of the nomenclature of Western New York is traceable directly to them. Niagara is supposed to be borrowed from the language of the Iroquois, and means "The Thunderer of the waters." It was the name of a tribe, for it was an Indian custom to call their tribes from the most important natural feature of the country they inhabited, or to give the tribal name to such feature. Thus the names of the Onondagas, Hurons, Cayugas, Senecas and Oneidas are each kept alive by the name of a river or a lake; while the Mohawk River recalls the greatest warrior tribe of all, and Lake Erie the name of one of the weaker tribes. The River and the Falls were the chief features of the Niagaras' country, and their chief village bore the same name.

As a favorite place of Resort.—Did you ever stop to consider why so many people visit Niagara? Look at the reasons.

The Falls are an object of wonder to all, and one never tires of gazing at them. The surrounding scenery is unique and wonderful. The Rapids and Whirlpool are ever new and ever changing. The climate is cool, bracing, and healthful. Fishing in the river, both above and below the Falls, is excellent.

Niagara is a favorite resort for the botanist and the geologist, because of the facilities it affords them for study and collection. It is the centre of a region famed in history, especially during the early Indian wars and the war of 1812. It is a place where the sightseer finds new views continuously, and it is also a place where those desiring a quiet visit can thoroughly enjoy themselves, surrounded by beauties of scenery unobtainable elsewhere.



In the Park at Niagara.

The Hotels at Niagara Falls are first-class, centrally located, and their charges are reasonable; and no more interesting place can be found on this continent in which to spend a season of rest and recreation.

The Cataract House, adjoining the State reservation, and directly opposite Goat Island, is one of the old and well-known hotels at the Falls, and one of the best hotels in the State. Mr. J. E. Devereux is the capable and popular manager. The Cataract will remain open this season until November.

The Clifton House is most delightfully located. From its magnificent, broad, Oriental verandas a full view of the Falls and the best and most striking view can be had. It is open from May to November, and is remarkably well kept. Mr. George M. Colburn, the proprietor, is very well known, and has long been in charge of this beautiful house.

The International Hotel is another of the old and favorably well-known hotels at Niagara, opened this season, May 3d, and will be open until December. Its own magnificent private park opens directly upon the State reservation; the rapids, beautiful islands, and American Falls are in plain view and only a minute's walk from its verandas. Mr. A. H. Gluck is the proprietor. Terms, \$4.00 per day, \$21.00 per week.

Prospect House, formerly on the Canadian side, D. Isaacs, owner and manager. A new and strictly first-class, transient hotel. Admirably located, close to the Falls and Rapids. Accommodates 100—50 rooms, 7 parlors—rooms en suite or single. Open all the year. A quiet, lovely house. Many distinguished foreigners and Americans make the Prospect House their head-quarters while at the Falls.

Brides and bridegrooms were everywhere. Nobody reads at Niagara. There is a grand open book before you, a book whose pages are infinite, whose lore is untold, and whose teachings eternal.—George Augustus Sala.



Geological.—Within the memory of men now living the Falls have receded 100 feet. This naturally prompts the question, Where did the retrocession begin? Geologists tell us, and their answer is accepted as conclusive, at the mountain near Lewiston. The whole waters of the lakes there foamed over this dam, which was several miles in width. This accounts for the shells, etc., which have been found on Goat Island, it having been submerged; also for the shells found on the land along the river up stream—shells which enabled Lyell, Hall and others to prove that the Niagara once flowed through a shallow valley.

Total Fall of Niagara.—In its course the Niagara River falls 336 feet, as follows: From Lake Erie to the Rapids above the Falls, 15 feet; in the Rapids, 55 feet; at the Falls, 161 feet; from Falls to Lewiston, 98 feet; from Lewiston to Lake Ontario, 7 feet.

Goat Island was, in ancient times, one of the favorite burying grounds of the Indians, and yet preserves traces of their funeral rites. It was particularly revered as the spot where chiefs and noted warriors were buried.

It has long been a favorite resort of botanists, who declare that they have found on it over 400 different species and kinds of plants and trees. It is also said that it contains a greater number of valuable species of the vegetable kingdom than the same area in any explored portion of the world. It is covered with a grand old "forest primeval," containing many trees now withered and

Niagara is not simply the crowning glory of New York State, but it is the highest distinction of the Nation and of the continent of America. No other like gift of Nature equally holds the interest of the world, or operates as an inducement for men to cross the sea.—New York State Commissioners. From their Report on the Preservation of the Scenery of Niagara Falls, 1880.



Rock of Ages and Cave of the Winds.

decayed, but which have stood sentinel over this scene for hundreds of years. This is an almost unique bit of virgin forest, and it has been the policy and pride of its owners to thus preserve it.

A Fine Place for Conventions.—As a desirable place at which to hold conventions or meetings Niagara Falls cannot be excelled. Its world-wide reputation, its location so near the center of population of the country, its ease of access for those residing in the Dominion of Canada, its situation from a railroad st. adpoint, with direct connections to all parts of the continents, and especially its ample hotel accommodations for all classes, combine to make it an excellent place for such meetings.

He hath girt

Thy terrible forehead with His radiant brow.

I see thy never-resting waters run.

And I bethink me how the tide of time

Sweeps to eternity.

- From the Spanish of Maria José Heredosia, translated by William Cullen Bryant,



"The enormous flow of the pure water of Lake Erie over the great Falls keeps the air of Niagara pure, cool and healthful, and makes it one of the most desirable of all the American health and

pleasure resorts."-Buffalo Express.

The Heart of Niagara,





"Niagara appears not terrible, but divinely and deliciously graceful, glad and lovely—a specimen of the splendor of water at its finest—a sight to dwell and linger in the mind with ineffaceable images of happy and grateful thought, by no means to affect it either in act or seeing, or to haunt it in future days of memory with any wild reminiscences of terror or of gloom."—Sir Edwin Arnoid.

Red Man's Fact.

RADITION tells us that the Indians living near the Falls used annually to offer, as a sacrifice to the Great Spirit of Niagara, the fairest maiden of the tribe, sending her over the Falls in a white canoe which was decked with fruits and flowers. The honor of being chosen as the heroine of this human sacrifice was eagerly coveted by the Indian maidens.

On one occasion the daughter of the chief was selected. Her father betrayed no feeling, but as the white canoe, guided by his daughter's hand, reached the rapids, he leaped into a canoe and followed her, nearly overtaking her and meeting his death a few moments afterwards.

White Man's Fancy.

ODERN fancy portrays the 6 real spirits of the Indian maidens sacrificed to the spirit of Niagara in days gone by as idealized into the Maiden of the Mist: a mythical and typical maiden, dwelling at the base of the Falls, and continuously both by day and night disporting herself in the ever rising and never failing clouds of mist or spray, awaiting and greeting the spirits of those victims (some unfortunate by accident, and some more unfortunate by suicide) who from time to time yield up their lives to Niagara, or as the Indians pronounced it,

"Ni-a-ga-ra, the Thunderer of Waters."



A River Drive at Niagara

All the pictures you may see, all the descriptions you may read of Niagara, can only produce in your mind the faint glimmer of the glow-worm compared with the overpowering beauty and glory of the meridian sun. — J. J. Audubon.



THE WHITE MAN'S FANCY - The Maiden of the Mist

"There is nothing more translucently green, nor more perennially still and lovely than Niagara the Greater. At this her awful brink the whole architrave of the main abyss gleams like a fixed and glorious work wrought in polished aquamarine or emerald."
— Sir Edwin Arnold.



THE RED MAN'S FACT - The Maiden's Sacrifice.

The first effect—the enduring one—of the tremendous spectacle of Niagara was peace. Peace of mind, tranquility, calm recollections of the dead, great thoughts of eternal rest and happiness; nothing of gloom or terror. Niagara was at once stamped upon my heart, an image of beauty, to remain there changeless and indelibly until its pulses cease to beat forever.—Charles Dickens.

NIAGARA IN WINTER.

Frozen Niagara.—Those three distinguished artists, summer, autumn, and winter, produce totally different treatments of this great subject of Niagara, when their turn comes for sittings. Perhaps they do not vary more than Church, Bierstadt, and Reginald Coxe, would on the same theme.

It is worth one's while to run down to the Falls of a winter's day. Summer and autumn use only water-colors. So they cannot go over the surroundings and bring them into unison with the foreground. But winter calls in the aid of that well known sculptor, old ice, and his graceful and gifted daughters who make such remarkable studies in snow. And between them the effects are quite startling, for the whole landscape responds to the central mystery, "the smoke of whose torment ascendeth forever."

But it is only once in the course of a few years that this occurs. This winter is one of those favored occasions. Residents in New York or the milder South can have but little idea of the Arctic display in the gorge of the Niagara this season.

The day of our visit was mild and somewhat out of tune with the icy glory, but it made examination more endurable. One needed an alpenstock, for the tramp was like a Swiss tour, while the trail over the ice fields reminded of Dr. Kane's adventures.

It is quite likely that nowhere in the State can such gigantic exhibitions of the power of cold be found as here. The two main features of frozen Niagara, are the Ice Bridge so-called, and the White Mountains. The first-named is a field of ice, which some say is fifty feet thick, reaching from side to side of the river, and extending to near the Suspension Bridge, a long distance. This is not smooth and level like ordinary river ice. It is a rough, rolling country, with seams, fissures, and hillocks. A winding road creeps in tortuous way through it, by which a passage was easily made on that particular afternoon on foot to Canada. Quite a little village of rough houses has sprung up on this line of travel. The inhabitants, being off the lands of the States or of Great Britain, seem to have adopted the Volapuk language. For example, one of the signs reads "Tee and Kofe." These people deal in photographs, beef tea, and various articles of diet for tourists and hurried bank officials.

The White Mountains lie immediately in front of the American Falls, in exactly the relative position of a cow-catcher to an engine, at much the same distance and shape. They are spray-dashed



continually, so that no open trail can be established, new ice forming rapidly. Placing the feet in the heel holes of others half-filled already with ice, you can ascend mid clouds of vapor, and get face to face with that monster known as the American Fall. Of course, he resents the familiarity, and has swept the intruder into the cauldron below, where seethe the waters 250 feet deep, hungry to devour him.

In the rapids are seen great blocks of ice, each alone by itself, rocking up and down like ships fore and aft in a heavy sea.

But at the foot of the Falls lie, like huge seals large as churches, smooth-backed and slimy, the other class of ice that forms the mountains. They are of the color of dead-finish, milk-white marble. At other times they have a vitreous glaze like the inside of a porcelain kettle. Then again they crouch like great puffy elephants. From the side walls of the gorge depend massive sta-

lactites of ice of a bluish-white tint. On some of the mountains are patches of a most peculiar wart-like nature, or resembling vast kidneys. Then there hangs down two long curls like white coral.

Frozen Niagara is a great kingdom in itself-an annex to

the vegetable and mineral worlds. At the hour of departure it was sunset. Another element of grandeur was added. Rose lights changing to flame colors illumined the wild waste of waters, foams, cataracts, and ice architecture, as well as the white-winged gulls soaring in the mist. Yet how quiet. So little noise was there from all this majestic power that it seemed as though the vision must be one of the mind and not of the eye. - Rev. Samuel T. Clarke.

"I have seen the Falls in all weathers and in all seasons," savs Bayard Taylor; "but to my mind the winter view is the most beautiful. I saw them when a hundred cataracts of ice hung from the cliffs on either side, when the masses of ice brought down from Lake Erie were together at the foot, uniting the shores with a rugged bridge, and when every twig of every tree and bush on Goat Island was overlaid an inch deep with a coating of solid crystal. The air was still, and the sun shone in a cloudless sky. The green of the fall, set in a landscape of sparkling silver, was infinitely more brilliant than in summer, when it is balanced by the trees, and the rainbows were almost too glorious for the eye to bear. I was not impressed by the sublimity of the scene, nor even by its terror, but solely by the fascination of its won-



Luna Island Bridge in December.

derful beauty. With each succeeding visit, Niagara has grown in height, in power, in majesty, in solemnity; but in winter I have seen its climax of beauty."



The increase in facilities for travel, and in the number of people who use these facilities, which has characterized the last few years, renders the functions of the Tourist Agent of considerable importance. Every season thousands of tourists are scattered throughout the country in search of health or recreation, for whom arrangements have to be made, and information collected and presented in an intelligible form. Then there is such a variety of choice among the charming Summer Resorts of America, and so many available routes for tourist travel, that to select and advantageously arrange an appropriate tour is by no means an easy task. For fifty years Thomas Cook & Sons have arranged thousands of tours annually, and from their long and intimate connection with the principal Railroad and Steamboat Companies of America, can furnish complete and reliable information and advice. Chief American Office, 261 Broadway, New York.

When the real energies of Niagara have been recognized and the relation between those energies and the might of terrestrial gravity is understood, the mind must be awed by the stupendous significance of Niagara.—Richard A. Proctor, In "Science," 1886.

THE GREAT NIAGARA TUNNEL.

FTER all that has been said and written regarding the utilization of Niagara, and after all the wild and wonderful schemes which have been advanced for this purpose, the adaptation of this immense natural power to the uses of mankind is about to be accomplished in the most rational and natural way imaginable; i. e., by applying to the

problem the same treatment that would be applied to any other water-power upon the well-known hydraulic precedent which has governed the use of water-powers for years.

The sudden change of level in the Niagara River at Niagara, N. V., constitutes a most magnificent water-power. It is a natural dam over whose crest is discharged the surplus water of the most magnificent series of mill ponds in the world, comprising Lake Superior, Lake Michigan, Lake Huron, Georgian Bay and Lake Erie, a total of \$7,600 square miles of reservoir surface, into which is drained 241,235 miles of watershed, a territory double the area of Great Britain and Ireland. With this immense reserve the level of the river is practically constant, and it simply remains to work the water from the level of the river above the Falls to that of the rapids below in such a manner as to utilize the energy of its descent to control a source of power which shall be constant year in and year out and every day in the year, at no expense beyond the maintenance of the machinery of transformation and transmission, and the interest on its cost.

The ordinary method of dealing with a water-power is to construct a canal from above the dam or fall to a point on the river bank below, but still at the higher level, and thence to discharge the water through a water-wheel to the lower level of the river below the Falls through a short tunnel or tail race. To a small extent this plan has been already applied to the water-power at Niagara by a company, who have constructed a canal from a point on the river near Port Day, through which is taken sufficient water to run a few mills situated along the bank of the river below the reservation, the fall or head at the mill being more or less according as the provision has been made for discharging the water at a higher or lower level; but in no case is more than a fraction of the power due to the height of the fall utilized. In the case of Niagara public sentiment demands, and justly so, that the majestic and picturesque grandeur of the Falls shall be left unimpaired by the proximity of mills, factories and other evidences of a prosaic and

utilitarian age; and any scheme for the utilization of Niagara upon any extensive scale must, to obtain public sanction, be one which shall be capable of accomplishment without detracting from the beauty and grandeur of the Falls, either by the erection of unsightly buildings or any form of mechanism in the vicinity of the Falls themselves, or the diversion of any considerable proportion of the water from its leap over the precipice.



Note.—This represents the mouth of the tunnel, which is a little north of the new Suspension Bridge and about 160 feet below the surface of the ground on the American side—it can be plainly seen from the bridge.

The flow of the Niagara River at the Falls equals 12,785,455 cubic feet total flow per minute, or about 213,000 cubic feet per second. Measurements by the Lake Survey Board indicate the average flow of the river to be 265,000 cubic feet per second, and from records kept, a rise in the height of water of one foot above the Falls will by actual measurement raise it 17½ feet below.

The scheme proposes to bring the differences in level in a vertical plane not by the construction of a long canal from the river to below the Falls and a short tail race to the lower river as is usually done, but by the opposite method of a long tail race from a point below the Falls back to a point upon the river above, where the power can be advantageously utilized, and a short canal to convey the water from the river to that point.

A tunnel 29 feet in height and 18 feet in width is to be excavated from a point on the river bank just below the foot bridge on the American side and carried back along the line indicated in the plan, over 200 feet beneath the village of Niagara Falls, commencing at such a level that 14 of the 29 feet in height of the mouth of the tunnel are submerged, and extending with a rising grade of seventenths of one per cent. to a point about a mile and a fourth above the Falls where it will still be about 165 feet below the level of the river. Here a canal will be built directly over the line of the subterranean tunnel, and drawing water from the river will discharge it with a head of 166 feet into the tunnel below through water wheels, situated approximately as shown in the small sketch. The available head upon the wheels will, however, it is expected, be only about 120 feet, the remainder being necessary to discharge the water through the tunnel.

The power developed by the wheels will be transmitted by rope drives or any other approved form of transmission to mills situated upon the banks of the canal above, far away from any interference with the picturesqueness of the Falls and at a point where the river is navigable for the great lake steamers, bringing the mill sites into direct communication by water with every port upon the lakes, and via Buffalo or Tonawanda with the Erie Canal. The site is also directly in the line of important railroads, and it is expected that with the practically unlimited power which will be made available, there will develop here a manufacturing city of far greater magnitude than any which owe their existence to the water-powers of the eastern rivers.

The extensive level plain above the reservation has every advantage for the development of a large manufacturing centre. It is already adapted to the erection of buildings without expensive blasting and grading; its climatic conditions are such as are best adapted to an industrial population; the grain fields of the west, the mines of the north and the coal fields of the south are within easy reach and unlimited power is directly at hand.

And what will be the diminution in volume of the river by the generation of this immense power—a power which, available day and night, is equal to over five times that of Lowell, Lawrence and Holyoke combined?

One horse-power requires the expenditure of 550 foot pounds per second; 120,000 horse-power would require 66,000,000 foot pound per second. One cubic foot of water weighs $62\frac{1}{2}$ lbs. and in falling 120 feet will develop 7,500 foot pounds. Assume that 80 per cent. of this can be realized, one cubic foot of water will develop 6,000 foot pounds and to develop 120,000 horse-power will require

 $\frac{66,000,000}{120,000}$ = 11,000 cubic feet of water per second. The Lake

Survey Board estimates the average flow to be 265,000 feet per second. To develop the power would therefore require 11-265ths or a little more than four per cent, of the total flow, an amount scarcely perceptible at the Falls. This estimate is based on the assumed diversion of all the water that the tunnel will convey. The amount taken at first will be much smaller. The whole amount would operate 240 mills of 500 horse-power each. — Power-Steam.



Niagara Rapids from the Islands

The Satisfactory Way. The execution of this little book was entirely turned over to The Matthews-Northrup Co., of Buffalo, N.Y. They furnished everything for it except the reading matter. The result is submitted as a good example of the wisdom of having work of this kind done as a whole by a firm which takes all the responsibility and guarantees satisfaction, in every particular.

Thorough specialists in railroad work, The Matthews-Northrup Co. stand equally high in every other branch. They furnish the best value for the money in every kind of engraving, printing, or binding. You will find their imprint everywhere. They would like to have you ask any of their customers whether it is not true that it pays to get work done at a Complete Art-Printing Works.

Tonawanda, on the Niagara River, between Buffalo and Niagara Falls, is noted the world over as being, with possibly one or two exceptions, the largest lumber port in the United States, more lumber being handled there than from any other point. The Tonawanda Lumber Company is located directly upon the Niagara River, and is one of the largest firms doing business at this rapidly growing and busy town. They have a magnificent dock and very extensive lumber grounds, saw mills, planing mills, etc. New York Central trains pass this Company's mills, and they can be seen from the car windows, giving passengers an idea of the great amount of business transacted by them.

Buffalo is the second city in the Empire State, and one of the most beautiful in the country. It is only 21 miles from Niagara Falls.

The Hotel Iroquois is a magnificent fire proof structure, located at the corner of Main and Eagle streets, in Buffalo; is exactly in the business centre of the City and within a few minutes' walk of the railroad stations. Messrs. Woolley and Gerrans, the proprietors, who are very well and favorably known, also manage the Grand Union Hotel at Saratoga. The Iroquois is a favorite stopping place for tourists and other travelers, and is conducted on both the European and American plans. This hotel is a very convenient place for holding meetings and conventions, having parlors and rooms suitable for this purpose.

The Queen's Royal Hotel is delightfully located at Niagara-on-the-Lake at the mouth of the Niagara River where it empties into Lake Ontario, and directly opposite Fort Niagara where three companies of infantry from the regular army are quartered, together with their very fine band. The Queen's is one of the most delightful places that can be found to enjoy a vacation. Messrs. McGaw & Winnett are the proprietors; they also own and manage the Queen's Hotel at Toronto, which is a sufficient guarantee to all who know them, as to its being well kept in every way. Niagara-on-the-Lake is reached by way of Lewiston, taking observation trains, or other regular trains of the New York Central from Niagara Falls and boat from Lewiston. The trains of the Michigan Central, Niagara Division, also run to Niagara-on-the-Lake, as well as the steamers of the Niagara Navigation Company from Toronto.



The "Day Line" Steamers.—The journey up and down the famous Hudson is undoubtedly the most interesting and picturesque inland voyage in the United States. Its attractions are perennially charming, and the point of view afforded by the palatial steamers, "New York" and "Albany" of the Day Line, is an ideal one. These magnificent boats, being designed for day service and tourist purposes only, carry no freight whatever save personal baggage of passengers. Thus the lower forward decks and other desirable points of view are open to passengers, and the fittings and accommodations of the craft throughout are sumptuous. Veritable pleasure boats, every suggestion of toil is banished from their decks, and the holiday atmosphere, engendered by external circumstances and a happy purpose, is thus subtly maintained.

As a delightful link in the chain of a holiday tour between Niagara Falls and the metropolis, the voyage up or down the Hudson River upon one of these boats is commended to the public.

Perfect Protection.—The Hall Signal Company, with offices at No. 50 Broadway, New York, is the leading manufacturer of Manual and Automatic Block Signaling Apparatus in the United States. The signals of their manufacture have stood long and severe tests, and are now in use on many of the leading lines of American railways. The New York Central & Hudson River Railroad, after the most thorough experiments extending over several years, are using this company's system of Automatic Block Signals and their Highway Crossing Signals.

Tourists should remember that from New York to Niagara Falls via the New York Central the time is 9 hours and 25 minutes, and the fare is 9 dollars and 25 cents.

For several of the beautiful illustrations contained in this book we are indebted to the kindness of Mr. J. F. Gluck of the International Hotel, and to Mr. Peter Porter of the Cataract House, Niagara Falls.

TRAIN SERVICE.

Over 40 trains daily arrive at and depart from Niagara Falls over the New York Central & Hudson River Railroad, the great 4-track trunk line between the East and the West, and the only line having a passenger station in the City of New York.

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Days should be spent here in deep and happy seclusion, protected from the burning heat of the sun and regaled by lovely scenes of nature and the music of the sweetest waters, and in fellowship, at will, with the mighty Falls. Long, long I stayed, but all time was too short. I went, and I returned, and know not how to go!—Rev. Andrew Reed.

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during the season of summer tourist travel between the East and West, to STOP OVER AT NIAGARA FALLS for a period not exceeding ten days.

This arrangement will undoubtedly be appreciated by all patrons of "America's Greatest Railroad."

Under the new plan travelers by the "Great Four-Track Trunk Line" will have ample opportunity to see the World's Greatest Cataract without incurring additional expense for railroad fare.

In order to avail themselves of this privilege, passengers will deposit their railroad tickets (if limited) with the Ticket Agent of the New York Central & Hudson River R. R. at Niagara Falls Station immediately on their arrival at that point, the Agent giving a receipt for the ticket.

At the time of the resumption of the journey the passenger will deliver his receipt to the Agent, and will be furnished with a continuous passage Ticket from Niagara Falls, which will enable him to complete his journey.

The stop-over privilege will be granted (not to exceed ten days) to East-bound passengers holding first-class limited tickets, reading via the New York Central & Hudson River R. R., to Syracuse and points East and North thereof, sold at Toronto, Hamilton, St. Thomas, Ont., or Dunkirk, N. Y., or points west thereof, and to West-bound passengers holding first-class limited tickets, reading via the New York Central & Hudson River R. R., sold at Syracuse, or East and North thereof, and destined to or beyond Toronto, Hamilton, St. Thomas, Ont., or Dunkirk, N. Y., except that on tickets to points east of Boston and New York on the east, and west of Chicago, St. Louis and Cincinnation the west, the length of stop-over will be regulated by the extreme limit of the ticket.

Honor to Whom Honor is Due.

HE passenger equipment of the New York Central & Hudson River Railroad is acknowledged to be the FINEST IN THE WORLD, and it is only fair to give credit to those who have aided in establishing its peerless standard of excellence.

SCHENECTADY LOCOMOTIVES.

HE passenger engines are the most powerful and at the same time the fastest in the world. They haul the EMPIRE STATE EXPRESS and the other fast trains of the New York Central, and are the wonder of mechanical engineers everywhere. They are built by the Schenectady Locomotive Works, Schenectady, New York.

THE BARNEY-SMITH DINING CARS.

THE Dining and Buffet Cars, which add so much to the luxury of a journey via the New York Central, and which are models of artistic car building, combining all the very latest devices for the convenience and comfort of the traveler, are built by the Barney-Smith Manufacturing Company of Dayton, Ohio.

THE GILBERT PASSENGER COACHES.

HE new Standard Passenger Coaches of the New York Central, with twelve-wheel trucks, high back seats, upholstered in the finest plush, large windows and enclosed lavatories, are believed to be the finest now in use on any railroad in the world. Some of these coaches are 70 feet long, with a seating capacity of 72 passengers. They are built by the Gilbert Manufacturing Company of Troy, N. Y.

PINTSCH SYSTEM OF GAS LIGHTING.

HE Pintsch System of Gas Lighting, recognized as the most perfect light, adopted by the great railways of America and Europe, gives a steady, soft yet brilliant light, free from offensive odors, enabling a person to read during the evening with perfect ease. It is undoubtedly the most satisfactory method of car illumination ever introduced. The gas is compressed and stored in reservoirs underneath the car. The Safety Car Heating and Lighting Company system of Heating by Hot Water Circulation from Steam is used on through trains and Palace Cars

GOULD COUPLER AND PLATFORM.

HE passenger coaches, sleeping, dining and buffet cars of the New York Central are all equipped with the Gould Coupler and Platform, which is considered the strongest and safest device of its character in use, contributing largely to the safety of passenger trains. Built by the Gould Coupler Manufacturing Company of Buffalo, N. V.

WAGNER PALACE CARS.

The beginning of the Summer season of 1892 all the through trains of the New York Central will be equipped with new and magnificently-appointed Wagner Palace Cars, directly from the shops of that company, at Buffalo.

They will contain all the latest and best improvements known to the car builders' art, and will be equipped with the Perfected Wagner Vestibule which, patented and used exclusively by the Wagner Palace Car Company, is superior in all respects to any other form of vestibuling device

No other company approaches the New York Central in the number, speed and elegance of its passenger trains.

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WO HUNDRED AND EIGHTY YEARS AGO, after traversing the Hudson River from its mouth to Albany, and carefully noting the grandeur and beauty on either side of this magnificent highway of nature, Hendrick Hudson wrote these words:

"It is as beautiful a land as one can tread upon."



HE HIGHLANDS OF THE HUDSON,"
as seen from the Trains of the
New York Central & Hudson River R. R.







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