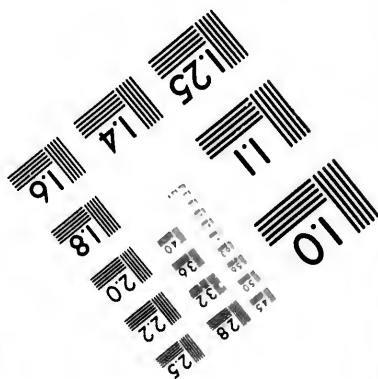
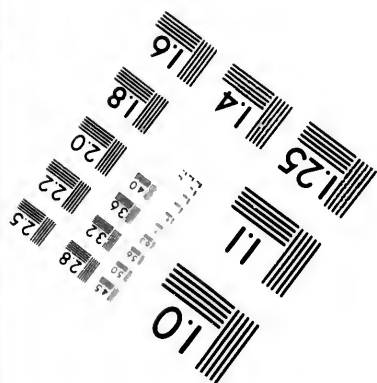
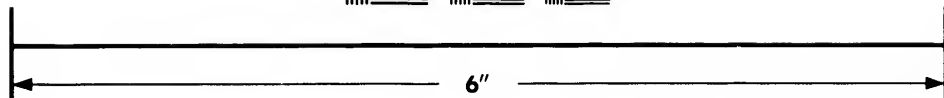
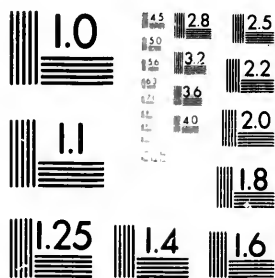


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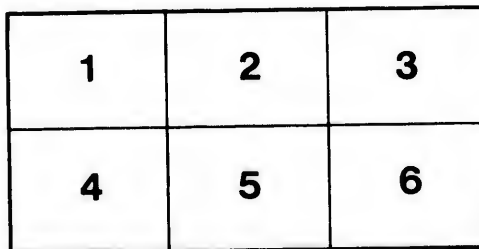
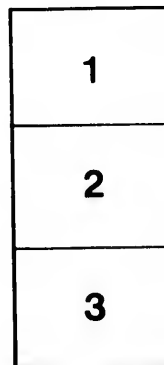
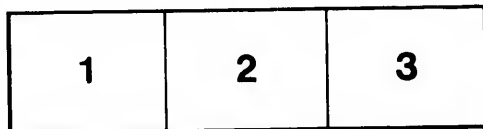
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GIVING A DESCRIPTION

OF ALL THE

OBJECTS OF INTEREST AND PLACES OF RESORT

ON THIS

GREAT INLAND SEA;

WITH AN ACCOUNT OF THE

Cities, Villages and Mineral Locations

ON THE

SOUTH AND NORTH SHORES;

IRON, COPPER, AND SILVER MINES,
STEAMBOAT EXCURSIONS, &c.

WITH A TOWNSHIP MAP

Including the Lake Superior Region and Northern Minnesota.

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1874.

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LAKE SUPERIOR REGION.

TO THE TRAVELLING PUBLIC.

LAKE SUPERIOR and its surroundings constitute one of the grandest and most instructive features of the American Continent, in a physical point of view. Here Nature has been lavish in her gifts to man—affording pure and sparkling waters—a healthy and invigorating climate—useful and precious metals, and various kinds of fish of a delightful flavor, all abounding in this favored region; where Pictured Rocks, mountains, water-falls, islands, bays and varied land and water scenery greet the eye of the observing traveller while passing over this Inland Sea, elevated six hundred feet above the ocean with a depth of about one thousand feet near its centre.

St. Louis River with its Dalles—Pigeon River with its picturesque falls—Kaministiquia River with its bold mountain scenery—Neepigon River with its rapids and falls, abounding in speckled trout of the largest size and in great abundance, together with other streams flowing into Lake Superior, afford most delightful camping grounds and resorts for the seekers of health and pleasure. Most of the smaller streams are alive with brook trout, while the lake itself abounds in white-fish, mackinac trout, siskowit, and other kinds of fish of a superior quality.

The *Iron Mines*, extending along the South Shore, from near Marquette to Lake Michigamme, and beyond, afford ore of the purest quality and in inexhaustible quantities. The *Copper Mines* of Keweenaw Point, running southwest for about eighty miles are the wonder of the world—here is found mass-copper of large size in some localities, and in others copper mixed with quartz, and some in a conglomerate state, such as the Calumet and Hecla Mines—all these mines are accessible and well deserving of a visit. They

are divided into three districts, the Portage District, Keweenaw District, and Ontonagon District, and can be reached from several ports where the copper is shipped to Eastern markets.

The *Silver Mines* along the North Shore, extending from near Pigeon River to the Nepigon River, embracing Thunder Bay District, are almost fabulous as regards their richness and extent. For upwards of one hundred miles, recent explorations indicate the existence of silver ore yielding from one to four thousand dollars a ton of the precious metal. *Gold* is also found in the north-eastern part of Minnesota and in the region west of Fort William, in Canada.

The completion of the *Northern Pacific Railroad* from Duluth, Minn., to the Missouri River, a distance of about four hundred and fifty miles, crossing the Red River of the North, adds greatly to the inducement for pleasure travellers and seekers of health to visit this extended region.

The above knowledge, in connection with Commercial advantages which Lake Superior now possesses, by means of Lines of Steamers and Railroads running towards the east, south, and west, has induced the Compiler to prepare for the use of the Travelling Public a new edition of a useful work, with a TOWNSHIP MAP, forming a complete GUIDE to the LAKE SUPERIOR REGION.

J. DISTURNELL.

PHILADELPHIA, May, 1874.

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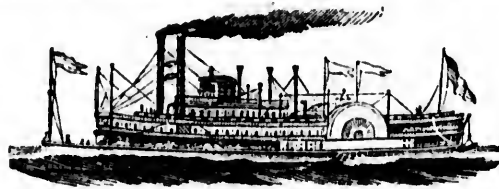
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TO SEEKERS OF HEALTH AND PLEASURE.

Grand Pleasure Excursion for the Season of 1874



—FROM—

**BUFFALO, ERIE, CLEVELAND AND DETROIT,
TO DULUTH AND ST. PAUL,
PASSING THROUGH
LAKES HURON AND SUPERIOR.
To CONTINUE DURING THE SUMMER MONTHS.**

A Daily Line of STEAMERS will run from Buffalo, Erie, &c., to Saut Ste. Marie, Marquette and Duluth,—Connecting with Cars on the Lake Superior & Mississippi Railroad, running to St. Paul, Minn.

FROM St. Paul Steamers run Daily on the Mississippi River, during the season of Navigation, to La Crosse, Prairie du Chien, Dubuque and St. Louis,—Connecting with the Lines of Railroad running to Milwaukee, Chicago and Detroit,—thus furnishing a ROUND TRIP of over *two thousand miles*, by land and water, through one of the most healthy and interesting regions on the Continent.

DULUTH TO BISMARCK, DAKOTA,

VIA

NORTHERN PACIFIC RAILROAD

This new and HEALTH-RESTORING LINE OF TRAVEL, by means of steamers on the UPPER LAKES OF AMERICA affords an extended EXCURSION of 1,650 miles from BUFFALO TO BISMARCK, Dakota—connecting with Steamers on the Red River of the North, and on the Upper Missouri, extending for 1,200 miles. further to FORT BENTON, Montana—forming altogether the

GRANDEST EXCURSION IN THE WORLD.

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ST. LAWRENCE RIVER AND LAKE NAVIGATION

The St. Lawrence navigation extends from the Straits of Belle Isle, near the coast of Labrador (N. Lat. 51° 30', W. Long. 55° 30'), to Duluth, Minn., at the head of Lake Superior, a distance of about 2,500 statute miles, by direct course.

The *Canadian Canals* on this route are the Lachine Canal, 8½ miles; Beauharnois, 11½ miles; Cornwall, 11½ miles; Farran's Point, 1 mile; Rapid Plat, 4 miles; Galops, 7½ miles, (on the St. Lawrence River), and the Welland Canal, (between Lakes Ontario and Erie), 27 miles. Their united length is 71 miles, and total lockage is 537 feet, passing through 54 locks.

The *St. Mary's Ship Canal* 1 mile in length and 18 feet lockage (two locks), avoiding the Rapids and uniting the waters of Lake Huron and Superior, was constructed by a company with the aid of the United States Government. Lake Ontario is elevated 234 feet above the highest tidal flow of the St. Lawrence, at Three Rivers: Lake Erie, 564 feet; Lake Huron, 574 feet; Lake Michigan, 576 feet, and Lake Superior, 600 feet above the ocean.

TABLE OF DISTANCES.

MILES.	PORTS, &c.	MILES.
2,540	STRAITS OF BELLE ISLE,	00
1,870	Mouth Saguenay River,	670
1,730	QUEBEC,	140 810
1,645	Three Rivers,	85 895
1,560	MONTREAL,	85 980
1,551	Lachine,	9 989
1,536	Beauharnois Canal,	15 1,004
1,492	Cornwall,	44 1,048
1,440	OGDENSBURG, N. Y.,	52 1,100
1,402	KINGSTON, Can.,	38 1,138
LAKE ONTARIO.		
1,242	TORONTO,	160 1,298
1,202	Mouth Welland Canal,	40 1,338
1,175	<i>Welland Canal,</i>	27 1,365
LAKE ERIE.		
895	Malden, Can.,	280 1,645
875	DETROIT, Mich.,	20 1,665
800	Port Huron, Mich.,	75 1,740
LAKE HURON.		
570	Point de Tour,	230 1,970
520	SAUT STE. MARIE,	50 2,020
480	White Fish Point,	40 2,060
LAKE SUPERIOR.		
350	MARQUETTE, Mich.,	130 2,190
270	Keweenaw Point,	80 2,270
170	Ontonagan,	100 1,370
86	Bayfield,	84 1,454
00	DULUTH, Minn.,	86 2,540

NOTE.—This distance could be shortened 450 miles by the completion of the proposed *Huron and Ontario Ship Canal*.

Distance from CHICAGO to the Straits of Belle Isle, 2,400; from TOLEDO, Ohio, 1,700 miles, from BUFFALO, 1,365 miles.

Lower St. Lawrence and Saguenay Rivers.

The Trip down the noble St. Lawrence River, passing through the Rapids to the City of Montreal, 160 miles, is one of the most exciting character. The excursion from Montreal to Quebec, 170 miles, is also deeply interesting, passing through Lake St. Peter. The river thus far being from a half to one mile in width.

The Trip from Quebec to the far-

famed Saguenay River, 140 miles, is another deeply interesting excursion, passing Murray Bay, 80 miles; Kamouraska, 100 miles; Riviere du Loup, 120 miles, arriving at Tadousac, 140 miles, where the river is 30 miles wide. At the Watering Places on the Lower St. Lawrence, are several well kept Hotels, being much frequented during the Summer Months.

APPROACHES TO LAKE SUPERIOR.

There are now *six Great Routes* of Travel open to Tourists to and from the Lake Superior country.

The *first* is by the LAKE SUPERIOR LINE STEAMERS. Starting from Buffalo and stopping at Erie and Cleveland, they pass through Lake Erie and enter the Detroit River, stopping at Detroit to land and receive passengers — cross Lake St. Clair, and ascend the St. Clair River to Port Huron, Mich., stopping at Fort Gratiot, where the *Grand Trunk Railway of Canada* crosses the river near Sarnia. The broad waters of Lake Huron are next crossed — passing Saginaw Bay — then St. Mary's River is entered at Point de Tour, passing upwards to the Saut Ste. Marie, and through the Ship Canal to Lake Superior; a distance of about 400 miles from Detroit.

The *second* is by the Canadian route, starting from Toronto and proceeding by *Northern Railway of Canada* to Collingwood, 94 miles; then crossing Georgian Bay and passing through the North Channel and St. Mary's River to Saut Ste. Marie, entering Lake Superior and running along the North Shore. This route affords some of the grandest lake and river scenery imaginable.

The *third* is by the Chicago and Milwaukee Line of Steamers, passing through Lake Michigan and the Straits of Mackinac for a distance of about 400 miles, when the far-famed Island of Mackinac is reached; from thence the steamers run to the mouth of the St. Mary's River, ascending this beautiful stream to Lake Superior; a total distance of 500 miles from Chicago.

NOTE. — The numerous Lines of Railroad, on the East and South, which connect with the above Through Lines of Travel to Lake Superior, make this whole region of country easily accessible to the pleasure traveller or man of business.

The *fourth* is via the *Chicago and North-western Railroad*, running to Green Bay and Escanaba, Mich., and from thence by the *Peninsula Railroad* to Marquette, situated on the South Shore of Lake Superior; a total distance of 431 miles. This route is direct and speedy, passing through an interesting section of country for most of the distance.

The *fifth* is via St. PAUL, passing over the *Lake Superior and Mississippi Railroad* to DULUTH, 155 miles. This route affords an easy access to the Lake Superior region from the South; passing up the noble Mississippi to the head of navigation, — uniting the "*Imperial Lakes with the Father of Waters.*"

The *sixth* is via the *Northern Pacific Railroad*, now completed from Duluth to the Upper Missouri River, a distance of 450 miles. This important railroad, when finished, will extend to Puget Sound, Washington Territory, with a branch running to Portland, Oregon. It now affords a direct line to travel to FORT GARRY, Manitoba. The favorable features of this extended route across the Continent, in a commercial and climatic point of view, cannot be over-estimated, which will afford a speedy and desirable route "*Around the World.*"

Two other Lines of Railroad will soon be completed, affording additional means of reaching Lake Superior, viz.: the *Grand Rapids and Indiana Railroad*, extending from Fort Wayne, Ind., to Old Mackinac, Mich., and the *Wisconsin Central Railroad*, running from Menasha and Portage City, Wisconsin, to Ashland, on the South Shore of Lake Superior.

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LAKE SUPERIOR GUIDE.

Saut Ste. Marie, the capital of Chippewa county, Michigan, and a port of entry, is advantageously situated on St. Mary's River, or Strait, 355 miles N.N.W. of Detroit, being 50 miles above Lake Huron, and 15 miles from the foot of Lake Superior, in N. lat. $46^{\circ} 30'$; W. long. $84^{\circ} 43'$. The Rapids at this place, giving the name to the settlements on both sides of the river, have a descent of 20 feet within the distance of a mile, and form the natural limit of navigation. The *Ship Canal*, however, finished in 1855, on the American side, obviates this difficulty. Steamers and sail vessels of a large class now pass through the locks into Lake Superior, greatly facilitating trade and commerce.

The village on the American side is pleasantly situated at the foot of the Rapids, and contains a Presbyterian and a Roman Catholic church, 2 hotels, 8 or 10 stores and storehouses, and about 1200 inhabitants, having increased but slowly since its first settlement by the French in 1668. Many of the inhabitants, Indians and half-breeds in the vicinity, are engaged in the fur trade and fisheries; the latter being an important and profitable occupation, here being taken large quantities of white fish. Summer visitors annually flock to this place and the Lake Superior country for health and pleasure. The *Chippewa House*, a well-kept hotel, on the American side, situated near the Steamboat Landing, and one on the Canadian side of the river, both afford good accommodations.

The scene, as witnessed from the deck of the steamer on passing through the locks, is of the most interesting and exciting character. The Ship Canal—the River—the Islands—the two villages in sight on either side of the stream, and the Indians in their birch canoes, engaged in taking white fish below the Rapids, are all in view at the same time, presenting altogether a magnificent panorama.

Fort Brady, erected in 1823, is an old and important United States military post, contiguous to this frontier village. It commands the St. Mary's River at this point and approach to the Ship Canal.

Early in the present century the American Fur Company established a trading post at the Saut, which was kept up until the year 1848.

The mean annual temperature of Saut Ste. Marie is $40\frac{1}{2}^{\circ}$ Fahr.; Spring, $37\frac{1}{2}^{\circ}$; Summer, 62° ; Autumn, $43\frac{1}{2}^{\circ}$; Winter, 20° ; it being situated near the northern limit of the temperate zone. Immediately to the north, in this latitude, the country is liable to killing frosts during the summer months, owing to the cold influence sweeping down from Hudson Bay, some 300 or 400 miles distant.

The *Marquette*, *Saut Ste. Marie*, and *Mackinac Railroad*, now being surveyed and constructed, will connect the Saut with both Mackinac and Marquette, affording an opportunity to travellers to reach this point at all seasons of the year.

A railroad is also chartered by the Canadian Government to construct a road eastward to Toronto, Montreal, etc.

Saut Ste. Marie, Algoma District, Canada, situated on the opposite side of the river, is a scattered settlement, where is located an old post of the Hudson Bay Company. Here is a steamboat landing, a public house and 3 or 4 stores, a stone court-house and jail, 3 churches, and 600 or 700 inhabitants. Indians of the Chippewa tribe reside in the vicinity in considerable numbers, they having the right to take fish in the waters contiguous to the Rapids. They also employ themselves in running the Rapids in their frail bark canoes, when desired by citizens or strangers — this being one of the most exhilarating enjoyments for those fond of aquatic sports.

The streams flowing into the St. Mary's River and Lake Superior, on the Canada side, are favorite resorts for anglers fond of pursuing the brook trout, which are here taken in large quantities during the summer months.

The country in the rear of this frontier settlement is settled for five or six miles; but a few miles farther to the north commences an endless wilderness, extending north to within the Arctic circle, being sparsely inhabited by Chippewas and roving tribes of Indians.

The primitive appearance of the towns on the American and Canadian banks of St. Mary's River, in connection with their surroundings, are of the most interesting character. The Ship Canal and locks are the only perceptible improvements made during the past century, while the mixed character of the population on the South Shore, consist-

ing of Americans, French, half-breeds, and Indians, in connection with their English neighbors on the opposite side of the river, who are a more aristocratic class, remind one of something foreign to the general appearance of American villages. A steam ferry connects the two settlements.

Nothing but the projected railroads to connect with Montreal and Toronto, on the Canada side, and the railroad to be built from this point to Mackinac and Marquette, on the American side, will wake up these places from their "Rip Van Winkle" slumbers.

TROUT FISHING RESORTS.—In the vicinity of the Saut Ste. Marie are several streams where sportsmen resort for the purpose of taking speckled trout. The nearest points are the *Rapids* on both sides of St. Mary's River, and the small streams between the islands on the Canada side; on the American side, *Crystal Rapids*, two miles below the Saut. On St. Mary's River are several projecting points, from one to five miles below the Saut, where anglers resort. *Garden* and *Root Rivers*, on the Canada side of the river, below the falls, are fine trout streams.

On the North Shore, Canada side, are several fine trout fishing resorts, from fifteen to sixty miles from the Saut, where Indians or half-breeds with their canoes have to be employed, often camping out for several days. *Goulais Bay* and *Batchewanaung Bay*, from twenty to forty miles, are the nearest points. On the latter bay enters Batchewanaung River and Harmony River, both fine trout streams. Then farther northward, some thirty or forty miles, are the Montreal River and the Aguawa River, both celebrated trout streams, where are good boat harbors.

Fort Brady, Michigan, is situated on the southern bank of the Saut Ste. Marie, in 46° 30' north latitude; altitude, 600 feet above the ocean. Mean annual temperature, 40° Fahrenheit.

"The military history of this post extends back to 1750, at which time the French claimed jurisdiction over all the territory north of the Ohio, and sought to establish posts at the more important places, for the purpose of controlling the lakes, and excluding the English as far as possible from obtaining a foothold on Lake Superior, as well as to establish a depot of supplies and afford protection to the traders.

"In 1820 the late Gen. Lewis Cass, then Indian agent for the North-west Indians, made a trip around the lakes, visiting the shores of Lake Superior, and afterwards of Lake Michigan, going as far as Chicago; and when he landed at this place, on his voyage up, the British flag was flying at the head of the rapids, near the termination of the canal. He proceeded in person to haul it down and raise his own in its place. There were nearly two thousand natives and French residents, whose sympathies were intensely Canadian, and consequently this act of his so enraged them that they were on the point of attacking him at once. Through the intervention of a few of the English half-breeds, the Indians were quieted, and the General allowed to go in peace. On his return, however, from his voyage around Lake Superior, Gen. Cass concluded a treaty with the Chippewas, on June 20, 1820, for the purchase of sixteen square miles of land, with a river front extending from a large rock near the national boundary, above the falls, to the Little Rapids, at the head of Sugar Island, *the Indians reserving the right to fish undisturbed.* This purchase constituted the original military district. Its boundary was about three and a half miles along the river, by four and one-third miles deep. This rock still remains

as one of the leading peculiarities on Ashman's Bay, being a large boulder lying in shoal water, about twenty rods from the ship channel, entering the upper end of the canal. In 1822 the Government of the United States determined upon its permanent occupancy, and accordingly Gen. Brady was directed to proceed, in the autumn of that year, to this place, with six companies of infantry, and erect a stockade and buildings.

"This post is considered one of the healthiest on the Upper Lakes, yet Dr. McDougall, in his report in 1837-38 to the Surgeon-General, establishes beyond controversy that want of attention to sanitary science cannot be allowed even in this northern region, except at the most imminent risks."

Fort Brady is at the present time (1873) garrisoned by two companies of the first United States infantry, under the command of Captain Kinzie Bates. Here are a park of artillery, officers' quarters, hospital and barracks, with grounds handsomely situated, overlooking the river and the opposite Canadian shore.

The Indians that have resided in this vicinity for the past one or two hundred years are the Chippewa tribe, a numerous body of peaceful Indians, whose habitations surround Lake Huron on the north, and Lake Superior on both shores, extending westward to the Upper Mississippi River.

St. Mary's Ship Canal. — The enlargement of the Ship Canal by the United States Government commenced in 1871, since when an appropriation of \$1,000,000 has been granted. The capacity of the new lock will be 80 feet wide, 500 feet long, affording 18 feet of water, to be built of stone, in the most substantial manner. Lift of the lock 18 feet, overrunning the Rapids in St. Mary's River. The canal is one mile and a quarter in length, 80 feet wide at bottom, and 100 feet wide on water surface, accommodating vessels

of the largest size navigating the Upper Lakes.

Improvements will have to be made in deepening St. Clair Flats and the St. Mary's River in order to accommodate vessels of a large tonnage. American and Canadian steamers and sail-vessels are almost constantly passing up and down through the locks of the canal during the season of navigation.

Location and General Description of the New Lock.—The axis of the Lock will be parallel to the axis of the present Locks, at a distance of 175 feet; the upper lock gates to be opposite the upper lock gates of the present Locks.

The chamber of the Lock will be 80 feet wide at the coping, and 450 feet in length from quoin to quoin. A set of guard gates will be placed 61½ feet above the upper lock gates, and the walls continued 70 feet above the hollow quoins of the guard gates, including wing buttresses of 2 feet. At a distance of 61½ feet below the lower lock gates, a set of guard gates will be placed, to open down stream; the wall on each side to extend 70 feet below the hollow quoin, for the guard gate, including a wing buttress of 2 feet.

The Lock will have a lift of 18 feet, and a depth of 16 feet of water on the mitre sills at the stage which has been assumed as that of ordinary low water.

Extremes of the water-level on Lake Superior, from June 30, 1872, to June 30, 1873, as measured above the Locks at the St. Mary's Ship Canal.—Highest water, November 27, 1872, 2½ feet above ordinary high water; lowest water, April 10, 1873, 2 feet below ordinary high water. Extreme variation 4½ feet, this being the most remarkable variation on record. The above phenomena was caused by a north-west wind blowing over Lake Superior, and the reverse by a south-east wind.

Opening and Closing of the Ship Canal.

The business of the canal began on the eleventh day of May (1872), and continued, without interruption, until the twenty-sixth day of November of the same year,—six and a half months.

In 1873, the first steamer passing through locks, upward bound, was the Keweenaw, May 11th, followed by other steamers and propellers, while the ice remained in the harbors of Marquette and Duluth for about one month later.

STATEMENT

Of Receipts for each year from the opening of the Canal, June 18, 1855, to the close of the season, November, 1873.

Receipts for 1855, 6 cts. per ton on steamers, etc.....	\$4,374 66
Receipts for 1856.....	7,575 78
“ “ 1857.....	9,406 74
“ “ 1858.....	10,848 80
“ “ 1859.....	16,941 84
“ “ 1860.....	24,777 82
“ “ 1861.....	16,672 16
“ “ 1862.....	21,607 17
“ “ 1863.....	30,574 44
“ “ 1864.....	34,287 31
Receipts for 1865, 4½ cts. per ton on sail vessel.....	22,339 64
Receipts for 1866.....	23,069 54
“ “ 1867.....	33,515 54
“ “ 1868.....	25,977 14
“ “ 1869.....	31,579 96
“ “ 1870.....	41,896 43
Receipts for 1871, 4½ cts. per ton on steamers, etc.....	33,865 45
Receipts for 1872.....	41,232 44
Receipts for 1873, 3½ cts. per ton on steamers, etc.....	44,943 18
Total.....	\$475,486 04

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Principal Places of Resort on Lake Superior and its Vicinity.

1. *Saut Ste. Marie*, with its Rapids, Ship Canal, and trout fishing resorts.
2. *Goulais Bay*, on the Canada side.
3. *Batchewanaung Bay* and River.
4. *White Fish Point* and Fishing Grounds.
5. *Pictured Rocks*—Chapel, Cascade, Wreck Cliff, Grand Portail or Arched Rock, Zebra Cliff, Spirit Cave, Sail Rock, Miners' Castle, etc.
6. *Grand Island Harbor*, and Munising, with its romantic falls, etc.
7. *Marquette*, with its surroundings, the most fashionable resort on the Lake.
8. *Negaunee* and *Ishpeming*, together with Iron Mines—reached by railroad.
9. *Escanaba*, an iron port, favorably situated on Green Bay—reached by railroad.
10. *L'Anse*, a new and flourishing town on Keweenaw Bay—fine sailing and fishing.
11. *Houghton* and *Hancock*—copper mines and smelting works.
12. *Calumet* and *Hecla* Copper Mine, where is a large settlement.
13. *Copper Harbor* and Lake Fanny Hoe, near the end of Keweenaw Point.
14. *Eagle Harbor* and *Eagle River*, where are copper mines.

15. *Ontonagon*—copper and silver mines.
16. *Bayfield* and *Ashland*, fashionable resorts, where boating and fishing can be enjoyed.
17. *La Pointe* and the *Apostle Islands*.
18. *Duluth* and *Superior City*, together with the Dalles of the St. Louis River.

NORTH SHORE.

19. *Isle Royale*, with its copper mines and precious minerals.
 20. *Pigeon River*, and romantic falls, situated on the boundary line.
 21. *Fort William* and *Prince Arthur's Landing*, Canada—silver mines and amethysts.
 22. *Silver Islet*, and Thunder Cape—silver region.
 23. *Nepigon Bay* and River, with romantic scenery and famous trout fishing.
 24. *Island of Michipicoten*, with its rich foliage, fishing, etc.
 25. *Michipicoten Bay* and River, with grand scenery and good fishing.
- All the above places of the South and North Shore are well worthy of a visit. They can be reached by the American or Canadian steamers. Other points of interest can be reached by canoes or sail-boats.

Islands in Lake Superior.

AMERICAN SIDE.

- | | | |
|---------------------------|---------------------------|---------------------------|
| Grand Island and Light. | Manitou Island and Light. | Hermit Island. |
| Wood Island. | Isle Royale and Light. | Stockton Island. |
| Train Island. | <i>Apostle Islands.</i> | Oak Island. |
| Middle Island. | Michigan Island & Light. | Manitou Island. |
| Granite Island and Light. | Outer Island and Light. | Ironwood Island. |
| Huron Islands and Light. | Madeline Island. | Raspberry Island & Light, |
| Traverse Island. | Basswood Island. | and twelve others. |

CANADIAN SIDE.

- | | | |
|------------------|----------------------|-------------------------|
| Parisien Island. | Michipicoten Island. | Welcome Islands. |
| Maple Island. | Slate Islands. | Islands in Thunder Bay. |
| Sandy Islands. | Pie Island. | Pie Island. |
| Montreal Island. | Simpson's Island. | Thompson's Island. |
| Lizard Islands. | Ste. Ignace Island. | Spar Island. |
| Leach Island. | Silver Islet. | Jarvis' Island. |
| Caribou Island. | Porphyry Islands. | Victoria Island. |

STEAMBOAT EXCURSION — South Shore, Lake Superior.

SAUT STE. MARIE, situated on St. Mary's River, or Strait, 55 miles above Point de Tour, on Lake Huron, and 15 miles below Tonquamenon, or White Fish Bay, is a place of great interest to travellers, and the place of embarkation for fishing and pleasure parties, during the Summer months.

From this point is afforded a grand view of the Rapids and Islands lying in the river, while the scene is usually enlivened by seeing Indians taking white fish by means of scoop-nets.

On leaving the Ship Canal, on the upward trip, a beautiful stretch of the river is passed before arriving at POINT AUX PINS, 7 miles, situated on the Canada side. Here is a good steamboat landing and a desirable place for fitting out fishing parties. *Waiska Bay* is next entered, being an expansion of the river of about 5 miles in length — *Round Island Light* is seen on the south.

Iroquois Point and Light, on the American side, and *Gros Cap*, on the Canada side, are next passed, 15 miles from the Saut. The latter is a bold promontory, rising 500 or 600 feet above the water.

Tonquamenon, or *White Fish Bay*, is now entered, presenting a wide expanse of water, being about 25 miles long and as many broad, with a depth of 300 or 400 feet. Here a scene of wonder is presented to the view from the deck of the steamer — *Parisien Island*, attached to Canada, is passed on the right, while the highlands toward the north rise to the height of 800 or 1,000 feet.

Goulais Bay and *Batchewanaung Bay*, being famous resorts for trout fishing, are seen toward the north-east, and in the far distance can be discerned *Mamainse Point*, where are found copper ore and other metals, being the commencement of the mineral region.

WHITE FISH POINT AND LIGHT, 40 miles from the Saut, is another object of great interest to the mariner.—LAKE SUPERIOR, stretching about 460 miles in a north-west direction, with an average width of about 100 miles, here presents a grand appearance from the deck of the passing steamer. It lies 600 feet above the sea, its greatest depth being 900 feet, extending 300 feet below the level of the ocean; estimated area, 32,000 square miles. Nearly two hundred creeks and rivers are said to flow into the lake, a few of which are navigable for steamers from 2 to 20 miles. Its principal affluents are the St. Louis River, Pigeon River, Kaministiquia River and Nepigon River.

"Father of Lakes! thy waters bend
Beyond the eagle's utmost view,
When, throned in heaven, he sees thee send
Back to the sky its world of blue.

"Boundless and deep, the forests weave
Their twilight shade thy borders o'er,
And threatening cliffs, like giants, heave
Their rugged forms along thy shore."

On passing White Fish Point the American steamers usually run near the South Shore of the Lake, having the land continually in sight along the *Upper Peninsula of Michigan*, extending westward to near the Apostle Islands, a distance of about 400 miles, passing in their course around Keweenaw Point.

Running along the coast from White Fish Point, westward, for about 50 miles, the shore presents high sandy bluffs, with no harbor or place of refuge for the mariner, although the mouths of Two Hearted and Sucker Rivers are passed.

GRAND MARAIS HARBOR, 45 miles west of White Fish Point, with 9 fathoms within the bar, would be rendered a secure and commodious harbor by the construction of a canal, or dredging for a short distance inland. "The harbor

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is about 2 miles long, and is from 500 to 1,000 yards in width. The western or largest portion is a mile and one-half in length, and lies parallel with the shore of the Lake, with only a narrow strip of sand beach between. In many cases this is but a few rods wide, and at no point is it more than ten feet higher than the water. The eastern or further end curves inland, and is a full half mile in width. The entrance to the harbor is about five-eighths of a mile in width, and is over a bar where there is from four to eight feet of water at all times. This bar is very narrow, is composed of about 6 feet of sand resting on a clay and gravel bottom, and, to all appearance, never changes in shape under any circumstances. From the formation of the coast but very little change is likely to be made by the action of the waters of the lake, even were cribs built out, and we should not anticipate any trouble from the filling in of the channel. This will not certainly occur from any sedimentary deposit, by reason of a current out of the harbor, there being no perceptible one, only two or three small streams emptying into the harbor, and the whole of them put together not carrying water enough to drive a single saw. The harbor, which might perhaps more appropriately be called a small lake, *will safely hold our entire lake marine.* The water inside deepens very rapidly, and once over the bar, vessels will lie in ten fathoms at one-half their length from the shore. So bold, indeed, are the shores, that a steamer could lie close enough for her gang-planks to reach from her decks to the land."

In all the navigation on Lake Superior, there is none more dreaded by the mariner than that from White Fish Point to Grand Island, and this is especially the case late in the season, when the fall storms make navigation the most hazardous, and the heaviest and most valuable freights are on transit. This coast is ex-

posed to every wind that blows from the Lake, the sweep being of its full width and length, and there is not at present a single place where a landing can be made, or a lake steamer or vessel run for safety, in the whole distance of 80 odd miles. The entire coast is made up either of the towering cliffs at the western end, the bleak hills of sand at the Sauble Banks, coming down to the water's edge and offering no landing, except for a small boat in pleasant weather, or the dull low beach beyond—stretching away for nearly 50 miles farther, with one single insignificant creek—the Two Heart River—that a Mackinac boat can possibly enter if in smooth water, excepting always the harbor of Grand Marais—to which there is no entrance for large vessels. This beach is strewed with wrecks from the Pictured Rocks to White Fish Point.

Point Sable, 10 miles farther, is elevated 300 feet above the Lake, but affords no harbor in its vicinity, although two small streams enter from the south. Off this point soundings have been made, showing a depth of 120 fathoms, or 720 feet.

The PICTURED ROCKS, 18 miles west of Point Sable, constitute one of the greatest wonders of Lake Superior, extending along the coast from the Chapel some 8 or 10 miles to Miner's Castle. The principal objects of attraction are the *Arched Rock*, or *Grand Portail*, and *Sail Rock*, which can be seen distinctly from the passing steamer. The former is a bold promontory where is an excavation, worked by the waves, extending about 200 feet under a bluff, which juts out into the waters of the Lake. The Pictured Rocks can be seen to the best advantage, from a distance, when there is a favorable sunlight effect, or by a close view, which is obtained by coasting along the precipitous rocks in a small boat, during calm weather. For upwards of 100 miles the coast on the South Shore

presents an almost unbroken wilderness. The soil on the summit of the cliffs is tolerably good, as indicated by maple trees.

Miner's River, at the mouth of which stands a bold promontory called *Miner's Castle*, is a beautiful clear trout stream, falling into the lake over rapids.

Sand Point, 10 miles east of the *Pictured Rocks*, is at the eastern side of *Grand Island Harbor*, one of the most secure bodies of water to be found on the South Shore. Here Lake Superior has its greatest width, it being about 150 miles to *Nepigon Bay*.

MUNISING, 2 miles farther, being 90 miles west of *White Fish Point*, is the first landing or settlement lying on the South Shore. For the whole of this distance the mariner is threatened with shipwreck in stormy weather, which usually occurs during the spring and autumn months. At *Munising* is a small settlement, and a good hotel for the accommodation of visitors desirous of fishing and visiting the *Pictured Rocks*.

The *Schoolcraft Furnace* is located a short distance west of *Munising*, where is a small stream entering the bay, on which is a fine fall of water.

ONOTA, 6 miles farther, is a new settlement, where is located *Bay Furnace*. This is the county-seat of *Schoolcraft county*.

GRAND ISLAND, 8 miles long and 4 miles wide, surrounded by bold shores, being elevated 300 or 400 feet, is a fine piece of land, being for the most part heavily wooded with hard and soft wood timber. Its shores are famous for its fisheries and romantic scenery. Here is a small settlement on the south end of the island; on the north end stands a lighthouse, erected on a high point of land, being distant 38 miles east of the *Marquette Light*. "The cliffs on the north bank are broken by the waves into picturesque caverns, pillars, and arches of immense dimensions." — *Bayfield*.

Wood Island is a small body of land lying a short distance west of *Grand Island*.

Train Point, 6 miles west of *Grand Island*, is a most romantic headland. *Train Island*, 4 miles farther, is another picturesque body of land.

Laughing Fish Point, 16 miles west of *Grand Island*, is a rocky projection, where may be witnessed fine scenery.

Sable River, *Fish River*, *Chocolate River*, and *Carp River* are all small streams flowing into the Lake between *Laughing Fish Point* and *Marquette*.

HARVEY, situated at the mouth of the *Chocolay*, is a small village, 3 miles east of *Marquette*, where is located a blast furnace.

On the completion of the *Marquette, Saut Ste. Marie and Mackinac Railroad*, now being constructed, this whole section of country along the South Shore will be accessible to tourists. Numerous small streams will be crossed, abounding in brook trout.

Steamboat Excursion from Marquette to Grand Island,

A steamer runs from *Marquette* to *Grand Island*, *Munising*, etc., passing through *Grand Island Harbor*, affording a delightful steamboat excursion. Several islands are passed, and the steamer runs to within a few miles of the famous *Pictured Rocks*. A good hotel is located at *Munising*, on the main land, opposite *Grand Island*, where is convenient steamboat landing.

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Marquette, the chief city of the Upper Peninsula, the county-seat of Marquette Co., and a port of entry, is advantageously situated on the south shore of Lake Superior, in N. latitude 46° 32', W. longitude 87° 33', having a mean annual temperature of 40° Fahr. The harbor, formed by the Bay of Marquette, is safe and commodious, being protected from all but north-east winds: when blowing in that direction, vessels are obliged to anchor off the shore for safety. The United States Government have erected substantial piers, or breakwaters, for the further protection of the numerous steamers and sailing vessels which frequent the harbor, taking, annually, an immense amount of iron ore and pig metal to the eastern ports on Lake Erie. A Lighthouse stands on a point of land immediately north of the anchorage, as a guide for mariners.

The settlement of Marquette was commenced in July, 1849; in 1855, on the completion of the Ship Canal at the Sant Ste. Marie, commenced the shipment of iron ore to the Eastern markets. In 1859 it was incorporated as a village, and as a city February, 1871, being now governed by a Mayor, Recorder, and Common Council. It contains a court-house and jail; a public hall; 1 Episcopal, 1 Presbyterian, 1 Baptist, 1 Methodist, and 1 Roman Catholic church; a union high school and 3 ward schools; several hotels and taverns—the *North-western Hotel*, the *Coles House* and *Tremont House*—the former favorably situated, overlooking the lake. There are also several well-kept private boarding-houses, 3 banks, 30 or 40 stores and storehouses, 1 printing-office, besides a large foundry, a rolling-mill and blast furnace, and machine shops and factories of different kinds. Population in 1860, 1665; in 1870, 4000; now, 6000. Gas-works and water-works are in operation—the latter affording an abundant supply of pure water taken from Lake Superior.

There are four extensive piers, arranged for the transshipment of iron ore and pig metal, on which the railroad trains deliver and receive a great amount of freight. Here is the terminus of the *Marquette, Houghton and Ontonagon Railroad*, passing along the south shore of Lake Michigan, to be extended westward to L'Anse and Ontonagon, and connect with the other railroads running south and west. The *Peninsula Railroad of Michigan* also unites with the above road, extending to Escanaba, on Green Bay, 65 miles.

This flourishing Lake City is closely identified with the extensive Iron Mines in the vicinity, being from 12 to 30 miles distant, situated on an elevated ridge, some 700 or 800 feet above the waters of Lake Superior, being known as the *Iron Mountain*. There are now about fifty mines extensively and profitably worked, being owned by separate companies—the Jackson Iron Company, the Cleveland Iron Company, and the Lake Superior Company having separate docks for the shipment of iron ore.

The drives from Marquette to Harvey, 4 miles, running along the beach; to Mt. Menard, 2½ miles, and to Collinsville and Forrestville, are all worthy of attention. The boating and sailing in the Bay of Marquette, and to the islands and mouths of several creeks or rivers, where good trout fishing is to be found, is a favorite source of amusement.

Negaunee, Marquette County, Michigan, 12 miles west of Marquette and 62 miles north of Escanaba, is situated on the line of the *Marquette, Houghton and Ontonagon Railroad*, at its junction with the *Peninsula Division* of the Chicago and North-western Railroad. It is in the immediate vicinity of the *Iron Mountain*, and is a flourishing village of about 3500 inhabitants. Here are situated the *Jackson Mine*, the *McComber Mine*, the *Grand Central*, and the *Negaunee Mine*;

also the *Pioneer Furnaces*, worked by the Iron Cliffs Company, altogether giving profitable employment to several hundred workmen.

The village contains a town hall, 2 railroad depots, 3 churches, 2 hotels—the *Ogden House* and *Jackson House*,—4 banks, 30 or 40 stores, and 1 steam saw-mill. Thousands of strangers annually visit these celebrated mines within a range of 25 miles, now producing altogether upwards of 1,000,000 tons of ore yearly, most of which is shipped from Marquette, Escanaba, and L'Anse to Eastern markets.

There are several Iron Furnace Companies in the vicinity of the Mines, which produce annually a large amount of pig metal of a superior quality. The amount produced in 1873 was 71,507 tons. This industry must rapidly increase with the product of the mines.

Ishpeming, situated on the line of the Marquette, Houghton and Ontonagon Railroad. Three miles west of Negaunee is another flourishing mining town, where is located the Cleveland Mine, the Lake Superior Mine, Barnum Mine, New York Mine, New England Mine, Williams Mine, Winthrop Mine, and the Pittsburg and Lake Angeline Mine. The village contains a town hall, 3 churches, 2 banks, a hotel, and 20 or 30 stores, besides a foundry and machine shop and several fine residences. Population about 5000, most of whom are employed in the different Iron Ore Mines.

Beyond Ishpeming, on the line of the railroad, are situated *Winthrop*, 3 miles, *Greenwood*, 3 miles, *Clarksburg*, 4 miles, *Humboldt*, 1 mile, and *Champion*, 4 miles, before arriving at *Lake Michigamme*, situated 34 miles west of Marquette.

Champion Furnace and Mine, 32 miles from Marquette. Here is a mining settlement containing about 2000 inhabitants. The mine is located about one mile south-west of the furnace, where is a

large deposit of red and black oxides of iron ore; a part of the ore is taken to the furnace and made into pig iron, the balance being sent to Eastern markets via Marquette.

Michigamme, Marquette County, Michigan, is a new mining town handsomely situated at the west end of Lake Michigamme, 38 miles from Marquette and 25 miles from L'Anse, both shipping ports, and in the immediate vicinity of the Michigamme iron range, where several mines are already opened. In June, 1873, this town was destroyed by fire, the inhabitants having to flee for their lives, the surrounding woods being also on fire. The new town was immediately rebuilt, and upwards of one hundred stores and dwellings erected within a few months, now presenting a lively appearance. Here is a large steam saw-mill and an iron furnace being erected, contiguous to the Michigamme iron mine.

*Lake Michigamme** is a most beautiful sheet of water, studded with several wooded islands, while the shore is very irregular, presenting many points and indentations of lively appearance. It abounds in fish of various kinds, affording fine sport for the angler. It is fed by Michigamme River, the outlet flowing into the Menominee, which enters Green Bay. In this vicinity deer and other game abounds. West of the lake is an unexplored wilderness, heavily timbered, and where iron is supposed to abound.

* Lake Michigamme, called by the Indians "*Ma-she-ga'me*" (large lake). The Ojibwas classify lakes into three kinds: *Sa-ga-e'ga*, small lake; *Ma-she-ga'me*, large lake; and *Git-che-ga'me*, great lake. This last is applied to the "Great Lakes" indiscriminately, and to the ocean.

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Marquette to L'Anse,

Via *Marquette, Houghton, and Ontonagon Railroad.*

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56	Morgan.....	1 7
55	Eagle Mills.....	1 8
52	Carp.....	3 11
51	NEGAUNEE.....	1 12
48	ISHPEMING.....	3 15
44	Saginaw.....	4 19
42	Greenwood.....	2 21
38	Clarksburgh.....	4 25
37	Humboldt.....	1 26
32	Champion.....	5 31
26	MICHIGAMME.....	6 37
24	Spurr Mine.....	2 39
16	Sturgeon.....	8 47
10	Summit.....	6 53
7	Palmer.....	3 56
0	L'ANSE.....	7 63

The *Marquette, Houghton and Ontonagon Railroad*, completed 63 miles, commences at Marquette and runs westward by an ascending grade to Negaunee, 12 miles, where it connects with the *Peninsula Division* of the Chicago and North-western Railroad; both roads here first strike the iron range of Lake Superior. Ishpeming, 3 miles farther, is the centre, at present, of the iron mining interest, from whence immense quantities of iron are sent to Eastern markets. At Humboldt, 26 miles from Marquette, runs a branch railroad, 9 miles in length, to the Republican and Kloman iron mines. Champion, 31 miles, and Michigamme, 37 miles from Marquette, are important stations; the latter situated on the shore of Lake Michigamme. The road continues onward by an ascending grade to the Summit, 1167 feet above Lake Superior, then descends more than one hundred feet to the mile to L'Anse, situated at the head of Keweenaw Bay.

Escanaba, the county-seat of Delta County, Michigan, is an important lake port, favorably situated for the shipment of iron ore, on Little Bay de Noc, the north-western arm of Green Bay, in lat. 45° 36' N., long. 87° 06' W., having a mean annual temperature of 41° Fahr. It is the terminus of the *Peninsula Division* of the Chicago and North-western Railroad, being 358 miles north of Chicago, and 74 miles south of Marquette, by railroad. It was first settled as a village in 1863, and now numbers about 2000 inhabitants, and is fast increasing in wealth and population. Here are a bank, 3 churches, 15 stores, 4 hotels, and a number of fine residences. It is destined to become a favorite resort during warm weather. The *Tilden House* is handsomely situated, facing the bay, with pleasure-grounds attached. Escanaba is favorably situated for manufacturing purposes, here being already in operation an extensive furnace, erected in 1872 at a cost of \$225,000, machine shops, etc. The Ore Dock at this place is very large and commodious, from whence is annually shipped several hundred thousand tons of iron ore to Eastern and Southern markets. Steamers and sail-vessels run between this port and Chicago; also, to ports on the Lower Lakes during the season of navigation.

At the entrance to Little Bay de Noc stands a light-house, where is a large and well-protected harbor. Here usually may be seen a large number of vessels taking in loads of iron ore and pig metal.

At *Day's River Station*, 13 miles north of Escanaba, the railroad track crosses a fine trout stream. Here farming is successfully prosecuted, the soil producing fine crops of hay, oats, rye, wheat, potatoes, and other garden vegetables, the first frost here being in the latter part of September, and the last in the early part of May. Strawberries, raspberries, whortleberries, and cranberries here grow to perfection.

Pleasure Excursion — Marquette to Houghton.

There are but few if any more pleasant or interesting trips than from Marquette to Houghton and return by way of lake and rail. A steamer of a small class leaves Marquette every evening at 6.30, and affords passengers a delightful night voyage to Houghton. Her accommodations are ample for comfort, and her officers very efficient in the discharge of their duties. The line steamers of a larger class also run to and from Houghton and Marquette. A day at Houghton and Hancock, with quarters at the Douglass House, can be spent in pleasure or business, as circumstances may require. The copper mines in the vicinity of the towns are well worthy of a visit.

On the return, the steamer Ivanhoe can be taken at 8 o'clock in the morning from Houghton, making the trip—a most delightful one in all respects in favorable weather—to the bright and promising town of L'Anse, which has fair prospects of becoming an iron metropolis of considerable importance. Here we are transferred to the Marquette, Houghton and Ontonagon Railroad, and whirled across the greatest iron region in the world, passing Lake Michigamme and numerous iron mines. Resident citizens should not neglect to make this trip as often as they need recreation, and the tourist will miss the most interesting portion of the Lake Superior journey if he does not include this in his programme.

HOTEL ACCOMMODATION.

By an increase of hotel accommodation, affording good fare at reasonable rates, this whole section of country would be made a great summer resort. Here pure air and water, with an invigorating climate, can be enjoyed by the invalid and seeker of pleasure.

Stannard's Rock.

This dangerous rock, or reef, lies east of the track between Marquette and Keweenaw Point, distant 30 miles east-south-east, and in a calm time was invisible. Recently the United States Government have located thereon a beacon 33 feet above water. It has a base of cut stone 9 feet in diameter and 8 feet high, surmounted by a wrought-iron shaft, with a ball and cage on the top painted red. To the northward and westward of the beacon a rocky reef extends 30 by 320 yards—least water, 2 feet. One thousand and four hundred feet west of the beacon are two detached rocks with 8 feet of water. The soundings in proximity to the beacon and reef are from $3\frac{1}{2}$ to 10 fathoms. Bottom, rock and gravel. Vessels should not approach the beacon to the northward nearer than three-fourths of a mile.

Marquette to Portage Entry.

On leaving Marquette for Portage Entry or Keweenaw Point, both distant 70 miles; the steamer runs north to Granite Island, 12 miles; from thence N. by W. 58 miles to Keweenaw Point. If steering for Portage Entry, N.W. by W., 13 miles from Granite Island to Big Bay Point. Big Bay, Salmon Trout River, and the Huron Mountains lie to the west; the headlands and the mountain scenery here present a fine appearance. *Huron Islands* and Light are 22 miles farther, running N.W. by W. This is a rocky group of islands and dangerous to navigation. Huron Bay and Point Abbaye are passed on the southwest; the steamer running 23 miles west to Portage Entry; to Houghton, 14 miles farther.

On the south lies *Keweenaw Bay*, a fine expanse of water, extending 20 miles to its head, where is a new and thriving settlement. Here is also a Methodist and Roman Catholic Mission on the opposite sides of the bay.

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Huron Bay, lying east of Keweenaw Bay, and south-west of Huron Islands, is land-locked, affording a most secure harbor, being 14 miles long and a good depth of water. In this bay is situated the new town of *Fairhaven*, being the outpost for the Huron Bay Slate Quarries, located $4\frac{1}{2}$ miles from the bay, in Township 51, Range 31. A tram railway is being constructed to extend from the mines to the steamboat landing. The soil on the shore of Huron Bay is a sandy loam, very deep, warm, and rich, producing good crops.

Arvon, Houghton County, Michigan, is a new location, where is found slate of a good quality, and iron ore. It is situated on Dashing River, which empties into Huron Bay, Lake Superior. In this vicinity is a slate belt hundreds of feet in width, and is considered inexhaustible. This slate and iron will be shipped from Huron Bay, the present season, to Eastern and Southern markets.

L'Anse, Houghton County, Mich., is a new town favorably situated at the head of Keweenaw Bay, where is a long pier and steamboat landing, also a commodious ore dock for the shipment of iron ore. It is surrounded by picturesque scenery, overlooking the Bay of L'Anse and adjoining shores. The harbor is one of the finest on the whole chain of lakes, being perfectly protected and secure in all weather. The water power of Fall River, here emptying into the bay, is ample to drive a large amount of machinery, being suitable for blast furnaces and mills of every kind. Large deposits of iron ore are found within eight or ten miles, while a few miles southward is located the Spurr Mountain and Michigan Iron Mine, producing magnetic ore of a high standard. At L'Anse are two churches, a public school-house, a bank, two hotels, and one of a large class in the course of construction, a blast furnace, a public warehouse, fifteen stores, a brewery, a saw-mill, and machine-shops.

The *Marquette, Houghton and Ontonagon Railroad*, 63 miles in length, terminates at L'Anse, forming, in part, a through line of travel to Green Bay and Chicago. Steamers of a large class run to this place from ports below; and a steamer runs daily to and from Houghton, 30 miles, forming, with the railroad, a through line of travel to Marquette.

A *Methodist* and *Roman Catholic Mission House* are both situated about four miles north of L'Anse, on opposite sides of the bay, where are Indian settlements numbering several hundred souls.

On Fall River, and at the head of L'Anse Bay, is good trout fishing; the latter can be approached by row-boats, starting from the landing at L'Anse.

Portage River and *Lake* are navigable for steamers of a large class, by means of an artificial channel running through to the lake for about 7 miles. The lake is next entered, and soon Houghton and Hancock come into view, being distant 14 miles from Lake Superior, by the circuitous channel. Here are extensive copper mines, which are profitably worked by a number of mining companies.

Houghton, Michigan, the county-seat of Houghton County, and a port of entry, is situated on the south side of Portage Lake, 14 miles above Portage Entry, and 10 miles from Lake Superior, lying on the north-west. By means of a river improvement and ship canal, steamers can run through Portage Lake into Lake Superior on both sides of Keweenaw Point—thus forming one of the most capacious and secure harbors of the Upper Lakes, it being land-locked and protected by high hills on both sides. The settlement of Houghton was commenced in 1854, and incorporated as a village in 1861. It now contains a courthouse and jail; 1 Episcopal, 1 Methodist, and 1 Roman Catholic church; 1 bank;

4 public houses, the *Douglas House* and the *Butterfield House* being the most frequented by visitors; 12 or 15 stores and several extensive warehouses; Houghton Copper Works or Rolling Mill, capital \$250,000; 2 large stamp-mills, using steam power; 2 steam saw-mills; 2 breweries, and several other manufacturing establishments. The population of the town is estimated at 2000. This flourishing mining town, lying on a side-hill rising 300 or 400 feet, is identified with the copper mines in its immediate vicinity. There are several mines worked to a large extent, besides others of less note, which will, no doubt, soon be rendered productive. The mineral range of Keweenaw Point, some 4 to 6 miles in width, extends through all this section of country, being as yet only partially explored. The Isle Royal, Huron, Portage, Atlantic, Sheldon, and Columbian are the principal mines worked on the south side of the lake.

PORTAGE LAKE is an irregular body of water, about twenty miles in length, extending nearly across Keweenaw Point to within two miles of Lake Superior. Steamers and sail-vessels drawing 12 feet can pass through Portage Entry, and navigate the lake with safety. This body of water was an old and favorite thoroughfare for the Indians, and the Jesuit Fathers who first discovered and explored this section of the country. A canal of two miles in length would render this portage route navigable for steamers and sail-vessels navigating Lake Superior, thereby reducing the distance over 100 miles. During the winter months the atmosphere is very clear and transparent in the vicinity of Houghton, and all through Keweenaw Point; objects can be seen at a great distance on a clear day, while sounds are conveyed distinctly through the atmosphere, presenting a phenomenon peculiar to all northern latitudes. This is the season of health and pleasure to the permanent residents.

Hancock, Houghton County, Michigan, is situated on the north side of Portage Lake, opposite to the village of Houghton, with which it is connected by a steam ferry. The town was first laid out in 1858, and now contains about 2000 inhabitants, including the mining population on the north side of the lake, its sudden rise and prosperity being identified with the rich deposit of native copper, in which this section of country abounds. The site of the village is on a side-hill rising from the lake level to a height of about 500 feet, where the opening to the mines is situated. Here is 1 Congregational, 1 Methodist, and 1 Roman Catholic church; 2 banks; 2 public houses; the *Sumner Mine* and stamping-mill; a number of stores and warehouses; 1 steam saw-mill, 1 barrel factory, 1 foundry and machine-shop, and other manufacturing establishments. In the vicinity are 4 extensive steam stamping-mills, worked by the different mining companies—the Quincy, Pewabic and Franklin.

The *Portage Lake Smelting Works* is an incorporated company, turning out annually a large amount of pure merchantable copper. The business of the company consists of fusing and converting the mineral into refined metal or ingots, for manufacturing purposes.

Mineral Range Railroad, 11 miles in length, is finished to Calumet.

The *Portage Lake and River Improvement Company* was chartered in 1861, for the improvement of Portage River, entering Keweenaw Bay, 14 miles below Houghton. An entrance was cut from the bay into the river, 14,000 feet long, 100 feet wide, and 12 feet deep, and a pier built out into the bay on the east side of the channel entrance. The channel of the river was also dredged so as to give a depth of 11 feet into Portage Lake, thus enabling the largest class of lake steamers to land at the wharves in Houghton and Hancock.

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Portage and Lake Superior Ship Canal.

— This important work was commenced in 1868 and finished in 1873, at a cost of about \$2,500,000. Its length is 2½ miles, with piers 600 feet in length, extending out into Lake Superior on the north, affording a safe entrance for downward bound vessels. The canal is 100 feet wide, 15 feet deep, with banks rising from 20 to 35 feet above the water. At its southern entrance into Portage Lake, 8 miles above Houghton, it runs through a low marshy piece of ground, then enters the lake about half a mile wide. Below Houghton it connects with the Portage Lake and River Improvement, 14 miles in length, making the distance across from lake to lake, 24 miles.

Steamboat Excursions. — By means of the *Ship Canal* connecting Portage Lake with Lake Superior, 10 miles north-west of Houghton, and the *Portage Lake and River Improvement*, running 14 miles east of Houghton, is afforded most delightful steamboat excursions during the summer months.

On the upward trip the steamers run through the Lake, about half a mile in width, and then enter the Ship Canal, 2½ miles in length, passing on to the broad waters of Lake Superior, where is presented a wide expanse of pure waters and billowy waves.

On the downward trip, bound for L'Anse or Marquette, the steamer runs east for a few miles, and then enters an expanse known as Dollar Bay — then enters the wide waters of Portage Lake, by some called Boot-Jack Lake, from its peculiar shape, resembling a human leg and foot, where enters the outlet of Torch Lake, a romantic sheet of water. Passing downward through Portage River, a winding stream, you soon pass *Edgerton's Landing*, and enter Keweenaw Bay or Lake Superior. Here is a long pier, a beacon light, and light-house. Proceeding southward, a beautiful expanse of

water is passed over before arriving at L'Anse, a new and flourishing town, situated at the head of the bay, where is a well-kept Hotel. Here is found good fishing and boating, affording fine sport for anglers and pleasure seekers.

Calumet, Houghton co., is an important copper mining settlement, situated 12 miles north-east of Hancock, containing a population of about 3,000 inhabitants. Here is located the Calumet and Hecla Mine, one of the most productive copper mines in the world. In the vicinity are situated the Allouez, Kearsarge, and Schoolcraft Mines.

The Houghton *Mining Gazette* says: "The history of copper mining in the new and old world fails to record anything approaching a similar richness to that of the *Calumet and Hecla Mine* of Houghton county, Lake Superior, and, in its progressive developments under ground, one is confined to the ejaculation, 'wonderful!' The total mineral product of the Calumet and Hecla Mine for the year 1873 foots up the enormous figure of 11,551 tons." Other Copper Mines of nearly equal value are located on the Mineral Range, extending from Portage Lake to Copper Harbor.

The *Mineral Range Railroad* runs through Calumet from Hancock, toward the extreme end of Keweenaw Point. A railroad also runs to the company's Stamp Mills, located on Torch Lake, from whence large amounts of copper ore are annually shipped.

On resuming the outward trip for Keweenaw Point and Copper Harbor, the former 50 miles distant, the steamer runs north-east 50 miles to Manitou Island Light. This stretch presents a fine view of Mount Bohemia and Mount Houghton, as well as the head-lands along the coast.

BETE GRISE BAY and **LAC LA BELLS** are beautiful bodies of water, the latter

being connected with the bay by means of a canal. In the vicinity of the lake are veins of copper ore of a rich quality. This place should be improved, and made a resort for seekers of health and pleasure. It is in the immediate vicinity of Mount Houghton, and of several fine trout streams.

KEWEENAW POINT is a bold projection jutting out into Lake Superior, and one of the most remarkable features of this Inland Sea. It may be said to extend 60 miles from S.W. to N.E., with an average width of 15 miles. For this distance, and beyond, the region is celebrated for rich copper mines, producing yearly large quantities of copper, which is shipped to eastern markets.

MANITOU ISLAND, situated in $47^{\circ} 25'$ N. lat., is a desolate island, on which is located a light-house to guide the mariner approaching Keweenaw Point. Gull Rock is an Islet lying between Manitou Island and Keweenaw Point, on which is situated a light-house; the steamers usually running between this light and the main land.

Copper Harbor, Mich., is situated near the extreme end of Keweenaw Point, in N. lat. $47^{\circ} 30'$, W. long. 80° ; the harbor, although somewhat difficult to enter, is one of the best on Lake Superior, being distant 250 miles from Saut Ste. Marie, and about the same distance from Duluth, lying on the direct route from Marquette to Isle Royale and Silver Islet. The village contains about 200 inhabitants, a church, a public house, and two or three stores, and the Clarke Copper Mine. This harbor is destined to rise in importance as the commerce of the Lakes increase.

Fort Wilkins, formerly a United States Military Post, is situated a short distance from the steamboat landing, where is a beautiful Lake called *Fanny Hoe*. In the vicinity are copper mines, which have been extensively worked, and are

well worthy of a visit. Steamers often run direct from this port to Silver Islet, on the North shore, 75 miles distant.

The course pursued in running from Copper Harbor to Ontonagon, 85 miles, is about S.W. by W., passing Agate Harbor, Eagle Harbor, Eagle River, and the north entrance to Portage Lake, where a Ship Canal is constructed. This part of the trip around the South Shore is uninteresting, so far as scenery is concerned. The ground rises to a moderate height, presenting no object of interest for a number of miles.

Eagle Harbor, 16 miles west of Copper Harbor, is a secure steamboat landing, with a light-house at its entrance. In the village are 2 churches, a hotel, several stores and store-houses, and about 500 inhabitants. The town was first settled in 1845. This is the shipping-port for several copper mines in the immediate vicinity; the Amygdaloid, Central, Copper Falls, Delaware, Pennsylvania, and Petheric mines.

Eagle River, 10 miles farther west, is the county town for Keweenaw county, situated at the mouth of a stream of the same name, where is a small harbor. Here is a court-house and jail, a church, a hotel, 4 stores, and several store-houses. It is the outlet for several rich copper mines, producing mass and stamped copper. The celebrated Cliff mine, the Phoenix, the North American, the St. Clair, and the Eagle River mine, are the principal mines in operation. The *Mineral Range Railroad*, running from Hancock, when completed, will extend to this place. The mouth of the *Lake Superior Ship Canal* is passed about 20 miles south-west of Eagle River, where is a small settlement.

On the north side of Keweenaw Point, in the distance, are seen the high lands which form the rich copper range of this region, extending S.W. for about 80 miles.

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Ontonagon, Ontonagon co., Mich., 336 miles from the Saut Ste. Marie, is situated at the mouth of the river of the same name. The river is about 200 feet wide at its mouth, with a sufficient depth of water over the bar for steamers. The village contains 3 churches, a good hotel, smelting works, 2 steam tanneries, 1 grist-mill, 2 steam saw-mills, and 10 or 12 stores and store-houses, and 800 inhabitants.

In this vicinity are located the Minnesota, the National, the Rockland, and several other productive copper mines. The ore is found from 12 to 15 miles from the landing, being imbedded in a range of high hills traversing Keweenaw Point from N.E. to S.W. for about 100 miles. Silver is here found in small quantities, intermixed with the copper ore, which abounds in great masses.

The *Silver Mines*, situated on Iron River, 12 or 15 miles west of Ontonagon, are attracting great attention.

A good plank road runs from Ontonagon to near the Adventure Mine, and other mines, some 12 or 14 miles distant, where commences the copper range of hills.

The *Marquette, Houghton and Ontonagon Railroad*, and the *Oshkosh and Ontonagon Railroad*, are both in progress of construction, and when completed will afford great facilities to this section of country. The distance from Ontonagon to Isle Royale, attached to Michigan, is 60 miles, and to the mouth of Pigeon River, Minn., is about 70 miles.

Rockland, Ontonagon county, situated 13 miles south-east of Ontonagon, is a flourishing mining village. In the vicinity are located the Minnesota, National, Rockland, and Superior Copper Mines. The Minnesota Mine was formerly the most productive mine on Lake Superior, producing large quantities of mass copper, but is now eclipsed by the Calumet and Hecla.

The **PORCUPINE MOUNTAIN**, lying 20 miles west of Ontonagon, is a bold headland that can distinctly be seen at a great distance, rising some 1,300 feet above the lake surface.

Michigan Island and Light, lying 60 miles west of Ontonagon, is the next object of interest. This is the easternmost of the group of islands known as the **APOSTLE ISLANDS**; they consist of some 20 islands of different sizes, most of which are uninhabited, being for the most part clothed with forest trees of a small growth. *Madeline Island*, the largest of the group, is in part cultivated. These islands are all attached to Ashland county, Wisconsin.

The names of the Islands, as designated on the Government chart, are as follows: Michigan (Light), Madeline, Basswood, Hermit, Stockton, Oak, Manitou, Outer (Light), Cat, Ironwood, South Twin, North Twin, Otter, Rocky, Bear, Devil, Raspberry (Light), York, Sand, Eagle, and Steamboat. Good anchorage and protection from all winds can be found anywhere within the Apostle Islands, with a depth of water from six to twenty fathoms.

Chaquamegon Bay and Point, situated south of Madeline Island, form a capacious harbor, at the head of which is situated the town of Ashland.

La Pointe, 78 miles west of Ontonagon, situated on the south end of Madeline Island, the largest of the *Apostle Islands*, is one of the oldest settlements on Lake Superior; it was first peopled by the French Jesuits and traders in 1680, being 420 miles west of the Saut Ste. Marie, which was settled about the same time. The mainland and islands in this vicinity have been for many ages the favorite abode of the American Indian, now lingering and fading away as the country is being opened and settled by the white race.

The village now contains 200 inhabitants, most of whom are half-breeds and French. Here is an old Roman Catholic church, and a Methodist church; 2 hotels, 2 stores, and several coopering establishments for the making of fish barrels. The harbor and steamboat landing are on the south end of the island, where may usually be seen fishing-boats and other craft navigating this part of Lake Superior.

Wheat, rye, barley, oats, peas, potatoes, and other vegetables are raised on the island. Apples, cherries, gooseberries and currants are raised in the gardens at La Pointe. The wild fruits are plums, cranberries, strawberries, red raspberries, and whortleberries. The principal forest-trees on the island are maple, pine, hemlock, birch, poplar and cedar.

Bayfield, capital of Bayfield Co., Wis., is favorably situated on the southern shore of Lake Superior, 80 miles east of its western terminus, and 3 miles west of La Pointe, being 80 miles west of Ontonagon. The harbor is secure and capacious, being protected by the Apostle Islands, lying to the north-east. The town plot rises from 60 to 80 feet above the waters of the lake, affording a splendid view of the bay, the adjacent islands and headlands. Its commercial advantages are surpassed by no other point on Lake Superior, being on the direct route to St. Paul, Minn., and the Upper Mississippi. Here are situated a Presbyterian, a Methodist, and a Roman Catholic church, 2 hotels, 4 stores, 2 warehouses, 1 steam saw-mill, and several mechanics' shops. Population in 1870, 400.

LA POINTE BAY, on the west side of which is situated the port of Bayfield, is a large and safe body of water, being protected from winds blowing from every point of the compass. The shores of the islands and mainland are bold, while the

harbor affords good anchorage for the whole fleet of the lakes.

The Indian Agency for the Chippewa tribe of Indians residing on the borders of Lake Superior, have their headquarters at Bayfield.

Ashland, Ashland Co., Wisconsin, is most favorably situated at the head of Cha-qu-me-gon Bay, 18 miles south of Bayfield and 70 miles east of Superior City, by proposed railroad route. The town is located on a level table-land, elevated about thirty feet above the waters of the bay, having a depth of 12 or 15 feet. It is regularly laid out on streets running parallel to the water's edge for a distance of two miles, and presents a fine appearance. Here are erected three docks or steamboat landings and a long railroad dock, 4 warehouses, 16 stores, 2 churches, 6 hotels or taverns, 2 steam saw-mills, 1 sash, door and blind factory, and 1 printing-office and weekly paper, the *Ashland Press*. The village contains about 1,000 inhabitants. A small steamer runs daily between Ashland, La Pointe and Bayfield, while larger steamers stop on their upward and downward passage from Duluth, Minn. The harbor is one of the largest and safest on Lake Superior.

The *Wisconsin Central Railroad* terminates at Ashland, extending southward to Menasha, Wis., 240 miles, there connecting with railroads running north, south and east, forming in part a through line of travel to Milwaukee, Chicago, etc. Here are the headquarters of the Northern Division of the above railroad, where will be erected machine-shops, etc.

Houghton Point, 9 miles south of Bayfield, and the same distance north of Ashland, is a delightful location, where is being formed a settlement for permanent residence. Here it is intended by the proprietor, F. Prentice, Esq., to erect a Summer Hotel for the accommodation

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of visitors resorting to Lake Superior for health and pleasure. A steamer stops daily at the landing on the route between Bayfield and Ashland.

The *Penoka Iron Range*, lying 25 miles south of Ashland, is an immense deposit of magnetic ore of a rich quality, extending 30 or 35 miles east and west, elevated from 800 to 1,200 feet above Lake Superior. The line of the railroad runs through this range, and the iron ore will be shipped from Ashland. The Iron Mining Companies already formed are the Ashland Iron Company, Magnetic Iron Company, La Pointe Iron Company, and the Wisconsin Iron Mining and Smelting Company.

The three northern counties of Wisconsin bordering on Lake Superior are *Ashland*, including the Apostle Islands, *Bayfield* and *Douglas*. These counties are but sparsely populated, but will, no doubt, rapidly increase when the railroads now in progress of construction shall be completed from Duluth and Superior City to Montreal River, and thence to Marquette, Mich., also, the proposed railroads running south to different points from Ashland.

Numerous small streams flow into Lake Superior, rising in the northern portion of the above counties, while the southern portion is drained by the St. Croix River and Chippewa River, flowing south into the Mississippi River. On the borders of the latter streams there is an immense amount of pine timber and much good farming land, producing wheat, oats, potatoes and other vegetables. The lumbering business and fishing are at the present time the main support of the inhabitants.

The principal streams flowing into Lake Superior from Wisconsin are Montreal River, Bad River, White River, Fish River, Pike's River, Sand River, Siskowit River, Brule or Burnt Wood River, and Nemadji River.

Odanah, Ashland Co., is an Indian village situated on Bad River, 4 miles from the lake. At this place is established the *Odanah Mission*, where are two churches, a Presbyterian and Roman Catholic, a school-house and a number of dwellings. Here are good farming lands, being cultivated by the Indians under the direction of the government farmer.

Muskeg or *Bad River* rises in the southern part of Ashland County, and flows northerly through the Penoka Iron Range into Lake Superior, affording good water contiguous to the mines. The valley contains much good farming land, and abounds in timber of different kinds.

Montreal River, forming in part the boundary between the States of Wisconsin and Michigan, enters Lake Superior some 10 or 12 miles east of Bad River.

THE APOSTLE ISLANDS.—The following description of these romantic islands is copied from *Owen's Geological Survey of Wisconsin, etc.*

"When the waters of Lake Superior assumed their present level, these islands were doubtless a part of the promontory, which I have described as occupying the space between Chaquamegon Bay and Brule River. They are composed of drift-hills and red clay, resting on sandstone which is occasionally visible. In the lapse of ages, the winds, waves, and currents of the lakes cut away channels in these soft materials, and finally separated the lowest parts of the promontory into islands, and island-rocks, now twenty-three in number, which are true outliers of the drift and sandstone.

"At a distance they appear like mainland, with deep bays and points, gradually becoming more elevated to the westward. '*Ile au Chêne*,' or *Oak Island*, which is next the Detour (or mainland), is a pile of detached drift, 250 or 300 feet high, and is the highest of the group.

Madeline, 'Wau-ga-ba-me' Island, is the largest (on which lies La Pointe), being 13 miles long, from north-east to south-west, and has an average of 3 miles in breadth. "Muk-quaw" or *Bear Island*, and "Eshquagendeg" or *Outer Island*, are about equal in size, being six miles long and two and a half wide.

"They embrace in all an area of about 400 square miles, of which one-half is water. The soil in some places is good, but the major part would be difficult to clear and cultivate. The causes to which I have referred, as giving rise to thickets of evergreens along the coast of the lake, operate here on all sides, and have covered almost the whole surface with cedar, birch, aspen, hemlock, and pine. There are, however, patches of sugar-tree land, and natural meadows.

"The waters around the islands afford excellent white fish, trout, and siskowit, which do not appear to diminish, after many years of extensive fishing for the lower lake markets. For trout and siskowit, which are caught with a line in deep water, the best ground of the neighborhood is off Bark Point or 'Point Ecorce' of the French. Speckled or brook trout are also taken in all the small streams.

"That portion of the soil of the islands fit for cultivation, produces potatoes and all manner of garden vegetables and roots in great luxuriance. In the flat, wet parts, both the soil and climate are favorable to grass, and the crop is certain and stout. Wheat, oats, and barley do well on good soil when well cultivated.

"In regard to health, no portion of the continent surpasses the Apostle Islands. In the summer months they present to the residents of the South the most cool and delightful resort that can be imagined, and for invalids, especially such as are affected in the lungs or liver, the uniform bracing atmosphere of Lake Superior produces surprising and beneficial effects."

On leaving Bayfield for Duluth, the steamer runs northward to Oak and Raspberry Islands, then westward, passing within sight of both shores of the lake, which here contract to 20 or 30 miles in width, narrowing as you approach the mouth of St. Louis River, where stands a light-house and Superior City — Duluth being situated at the head of Minnesota Point, some six miles farther. Here a grand view is presented, taking in both the Wisconsin and Minnesota shores — the former is low and wooded, while the latter rises by a steep ascent some 300 or 400 feet above the water's edge for a considerable distance.

The North Shore of Lake Superior, attached to the State of Minnesota, extends N.E. by E. about 150 miles, from Duluth to Pigeon River and Isle Royale. This coast is highly interesting, with occasional good harbors, — Agate Bay, Burlington Bay, Encampment Island, Beaver Bay, and Good Harbor Bay affording the best landings. The land in many places is elevated and clothed for the most part with evergreens, such as pine, spruce, hemlock, etc.

The **City of Superior**, the county-seat of Douglas County. It is in N. lat. 46° 38'; W. long. 91° 03'; mean annual temperature 40° Fahr. It is advantageously situated on the south side of the Bay of Superior, formed by the Minnesota and Wisconsin Points; between these points is the entry to the harbor through which is discharged the waters of the St. Louis and the Nemadji Rivers; the former being one of the largest tributaries of Lake Superior. The United States Government recently made an appropriation of \$189,000, which, in the opinion of competent engineers, is sufficient to make the harbor of Superior what it was by nature designed to be, — one of the finest harbors on the continent; it is seven miles in length and

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three-fourths of a mile in width, affording a sufficient depth of water for the largest class of Lake Steamers.

Superior was surveyed and laid out in June, 1854, rapidly increasing in population until the year 1857; since that period it has slowly increased in numbers, there now being about 1,200 inhabitants. Here is a court-house and jail, four churches, one hotel (the *Avery House*), ten stores and store-houses, three steam saw-mills, one steam planing-mill and sash factory, one printing-office, one tannery, and several mechanic shops. The fisheries off the Minnesota and Wisconsin Points are extensively and profitably carried on, where are annually taken large quantities of white-fish, mackinac trout, and siskowit. This town, favored by natural advantages, is destined soon to have railroad facilities. A road is already projected to pass eastward from Duluth, across Rice's Point, toward the Straits of Mackinac, and another to approach Superior from the south-east.

Minnesota Point is a strip of land jutting out into the Lake some seven or eight miles, on the end of which is a light-house, to guide the mariner into the Bay of Superior.

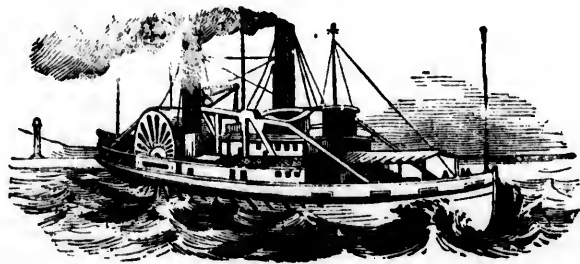
Duluth, St. Louis Co., Minn., a city and port of entry, is most advantageously situated at the head of Lake Superior, near the mouth of the St. Louis River, in N. lat. 46° 38', W. long. 92° 10', being elevated 600 feet above the Ocean, the ground rising in the rear to the height of 300 feet. Mean annual temperature, 40° Fahr. It is distant from Buffalo, *via* the Great Lakes, 1,200 miles, and from Quebec, *via* the St. Lawrence River, 1,750 miles; from St. Paul, by railroad, 155 miles, and from Chicago, 565 miles; from the Red River of the North, 252 miles; from the Upper Missouri River, 450 miles, and from Puget Sound, by the proposed line of the *Northern Pacific Railroad*, 1,750 miles; making the dis-

tance across the Continent, by Railroad and Steamer, with one transshipment, 3,500 miles. This distance can be shortened 500 miles by the proposed International Route through Canada.

This City, in four years, has increased from a small village to a flourishing mart of commerce. It is now an incorporated City with an active population of about 4,000 inhabitants, being governed by a mayor and board of aldermen. The streets are wide and regular, crossing each other at right angles. Within the past three years nearly fifteen miles of streets have been opened, affording ready access to all parts of the town. A breakwater is completed nearly 500 feet from the shore, behind which are located the docks of the Lake Superior and Mississippi Railroad and the grain elevator. Alongside the docks vessels can lay in perfect security during the severest gales. The Citizens' dock, 40 feet in width, and extending 600 feet into the Lake, is completed, affording ample accommodation for steamers and other lake craft. The Ship Canal through Minnesota Point, which affords access to the inner harbor in the Bay of Duluth, has been completed, disconnecting the point with the mainland. This canal will be 1,200 feet in length and 250 feet wide, and afford 14 feet of water. The Union Improvement and Elevator Company have finished an elevator with a storage capacity of 500,000 bushels of grain, and capable of unloading twenty cars per hour, and of handling 10,000,000 bushels during the season of navigation. There is also erected three extensive warehouses, being about 600 feet long by 60 feet wide. Granite is found in large quantities in and about Duluth. The machinery for dressing this stone is now on the ground, and the buildings necessary for its working have been erected. This trade will, no doubt, become large and important, as the stone is well adapted for building purposes.

Here is a United States land-office, a court-house and jail, 6 churches of different denominations, 4 public schools, a public library and reading-room, and a Young Men's Christian Association; 3 banks, 3 printing-offices, a foundry, machine shops, 3 steam saw-mills, 2 planing-mills, and several other manufacturing establishments; numerous stores for wholesale and retail purposes; 3 hotels, the *Clark House* and *Bay View House* being situated near the Railroad and Steamboat landings. The buildings of all kinds now number about 700, some of them being first class brick structures.

An extensive and magnificent view is afforded from the top of the *Granite Quarry*, within the limits of Duluth, elevated about 100 feet; it is of the most grand and interesting character imaginable when taking in all surroundings. Looking eastward on the right hand lies St. Louis Bay and Rice's Point; in front is seen the beautiful Bay of Superior, Minnesota Point, and the City of Superior in the distance; while on the left hand is seen the City of Duluth, the inner and outer harbor, and the broad waters of Lake Superior extending eastward as far as the eye can reach, here and there being visible lake craft of different dimensions, while the moving train of cars at your feet present altogether a sight unequalled in any other part of the country. The future of this grand prospect it is hard to conceive, when here will be centred two rival cities numbering their tens of thousands of inhabitants, and the surrounding waters alive with commerce.



HARBOR IMPROVEMENTS.

A breakwater has been built by the Lake Superior and Mississippi Railroad, at a cost of about \$85,000, and the necessarily accompanying docks, about \$60,000 more; a Citizens' Dock, in the nature of an outside harborage, costing nearly \$50,000; the Ship Canal through Minnesota Point, constituting a safe and reliable entrance for the Inner or Bay Harbor, costing the city over \$100,000.

The *Dyke*, extending from Rice's Point to Minnesota Point, was finished in March, 1872; it gives to Duluth an inner harbor in the bay of two square miles, the expense of which was \$40,000.

RAILROADS.

Here commences the *Lake Superior and Mississippi Railroad* and the *Northern Pacific Railroad*, the one running to St. Paul, 155 miles, the other being completed to Bismarck, on the Missouri River, 450 miles, connecting with the Upper Mississippi River and the Red River of the North.

STEAMBOAT LINES.

Lines of steamers run from Buffalo, on Lake Erie, and Chicago, on Lake Michigan, about 1,200 miles, to Duluth. Steamers also run from Collingwood and Sarnia, Canada, to Duluth, altogether carrying large numbers of passengers and an immense amount of freight to and from the lower lake ports. Steamers also run from Duluth to Ontonagon, Houghton and Marquette, landing at the intermediate ports on the South Shore.

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Mariner's Guide to the Upper Lakes.

LIGHT-HOUSES ON LAKE HURON.

1. *Fort Gratiot*, 43° N. lat., situated at the head of St. Clair River, Mich.; elevated 82 feet. Marks entrance from Huron into St. Clair River, Goderich, Canada, N.E. by N. 63 miles.

2. *Point aux Barques*, 41° 1' N. lat., on eastern side of entrance into Saginaw Bay; elevated 88 feet. Thunder Bay Island light, N. by W. $\frac{1}{4}$ N., 74 miles.

3. *Charity Island*, at the mouth of Saginaw Bay; elevated 45 feet. Saginaw Bay light-house S.W. $\frac{3}{4}$ S., 35 miles.

4. *Tawas*, on Ottawa Point, north-west shore of Saginaw Bay, Mich.; elevated 54 feet. Charity Island light bears S. 15 $\frac{1}{2}$ miles.

5. *Sturgeon Point*, on the western shore of Lake Huron, 24 miles south of Thunder Bay Island; elevated 69 feet. Point aux Barques light, S.S.E. $\frac{1}{4}$ E., 54 miles.

6. *Thunder Bay Island*, 45° 2' N. lat., north side of entrance to Thunder Bay, Mich.; elevated 59 feet. Sturgeon Point light, S. by W. 23 miles. Great Duck Island, Canada, N. by E. $\frac{1}{2}$ E., 43 miles.

7. *Presque Isle*, about 25 miles north-west of Thunder Bay light; elevated 123 feet. A coast light on the northern point of the Peninsula. The Detour light bearing N.N.W. $\frac{1}{4}$ W., 48 miles.

8. *Spectacle Reef*, situated to the eastward of the entrance to the Straits of Mackinac, in Lake Huron; elevated 32 feet. Bois Blanc light-house W. by N., 14 miles; Mackinac Island (Fort Holmes), W. by N. $\frac{3}{8}$ N., 24 miles; Detour light-house N.E. $\frac{1}{2}$ N., 16 $\frac{1}{2}$ miles.

9. *Cheboygan*, on the mainland opposite Bois Blanc Island; elevated 37 feet. Marks entrance into the south channel of the Straits of Mackinac. Old Fort Mackinac on the main, N.W. by W. $\frac{1}{4}$ W., 17 miles.

10. *Bois Blanc*, on the north side of Bois Blanc Island, in the Straits of Mack-

inac; elevated 53 feet. The Detour light bearing E.N.E., 26 miles. Fort Mackinac W.N.W. $\frac{1}{2}$ W., 9 $\frac{1}{2}$ miles.

11. A Light-house is to be erected at Mackinac Island, and one is erected near Old Mackinac, in the Straits of Mackinac, at the entrance to Lake Michigan.

12. *Detour*, 45° 57' N. lat., situated at the mouth of the River St. Mary, Lake Huron, Mich.; elevated 75 feet. Marks entrance from Lake Huron into St. Mary's River. Island of Mackinac 30 miles west. Saut Ste. Marie, 55 miles N.N.W. Presque Isle light S.S.E. $\frac{1}{2}$ E., 47 $\frac{1}{2}$ miles.

LIGHT-HOUSES ON LAKE SUPERIOR.

1. *Round Island*, 46° 26' N. lat., situated in White Fish Bay, near entrance to St. Mary's River; elevated 50 feet. Light on square stone tower, rising from the keeper's dwelling. A guide to and from the entrance to Lake Superior.

2. *Point Iroquois*, on south shore of White Fish Bay; elevated 72 feet. The light is on a red brick tower, connected with the keeper's dwelling. Parisien Island, N. by W. $\frac{1}{2}$ W., 12 miles. White Fish Point, N.W. $\frac{3}{4}$ N., 25 miles.

3. *White Fish Point*, 46° 46' N. lat., on White Fish Point, Mich.; elevated 76 feet. Iron pile structure. A guide to and from White Fish Bay, at the S.E. extreme of Lake Superior. The southwest point of the shoal off Caribou Island, Canada, bears N.W. $\frac{1}{2}$ W., 55 miles; Manitou Island, W.N.W. $\frac{1}{4}$ W., 131 miles; Montreal Island, Can., N. by E., 37 miles.

4. *Big Sable*, at Big Sable Point, on the south shore of Lake Superior, between White Fish Point and Grand Island, distant 19 miles from Grand Portal (Pictured Rocks), 27 miles to Grand Island light, and 60 miles from Marquette.

5. *Grand Island*, on north point of

Grand, on a high bluff; elevated 205 feet. Stannard Rock Beacon, N.W. by N. $\frac{1}{2}$ N., 50 miles. Manitou Island light, N.W. $\frac{3}{4}$ N., 73 miles. Marquette light, W. $\frac{1}{4}$ S., 33 miles.

6. *Grand Island Harbor*, — a guide through the eastern passage to the anchorage at Grand Island Harbor and the wharf at Munising; elevated 34 feet.

7. *Grand Island Harbor*, (front light,) on the mainland at west entrance to Grand Island Harbor; elevated 23 feet. Front light in wooden tower. Rear light on keeper's frame dwelling. These lights are a guide for entering the west channel. With the north point of Wood Island, bearing W. $\frac{3}{4}$ of a mile, and the lights in range, steer S. by E. $\frac{1}{2}$ E., 5 miles, toward the range lights.

8. *Marquette*, 46° 32' N. lat., situated on the north point of Marquette Harbor; elevated 77 feet. Stannard's Rock Beacon, N. $\frac{3}{4}$ E., 43 $\frac{1}{2}$ miles; Grand Island Light, E. $\frac{1}{4}$ N., 34 miles.

9. *Granite Island*, on Granite Island, 12 miles N.W. of Marquette; elevated 93 feet. Keweenaw Point, N. by W. $\frac{1}{2}$ W., 48 miles; Stannard's Rock, N. by E. $\frac{1}{2}$ E., 32 miles.

10. *Huron Island*, on the West Huron Island, off Huron Bay; elevated 197 feet. Manitou Island light, N. by N.E. $\frac{3}{4}$ E., 37 miles; Traverse Island, N.W. by W., 14 $\frac{1}{2}$ miles. Portage Entry light, W. 20 miles.

11. *Portage River*, near mouth of Portage Entry, western shore of Keweenaw Bay; elevated 68 feet. Manitou Island light, N.E. $\frac{1}{2}$ E., 50 miles. To Houghton and Hancock, *via* Portage Lake, 14 miles; to head of Ship Canal, Lake Superior, 23 miles.

12. *Portage Range*, (front light,) on prolongation of cut from Keweenaw Bay; elevated 21 feet. Guide into Portage River. Front light on wooden tower. Rear light on keeper's dwelling.

13. *Manitou*, on the east point of Manitou Island. Iron pile structure, con-

nected with keeper's house; elevated 81 feet. Stannard's Rock, S.E. 23 $\frac{1}{2}$ miles; the east point of Isle Royale, N.W. $\frac{3}{4}$ N., 66 miles.

14. *Gull Rock*, on a rocky islet between Manitou Island and Keweenaw Point; elevated 50 feet. Tower and keeper's dwelling connected, built of Milwaukee brick. A guide through the passage between Gull Rock and Keweenaw Point.

15. *Copper Harbor*, 47° 28' N. lat., situated on the eastern point to the entrance to Copper Harbor; elevated 65 feet. Tower and keeper's dwelling connected. S.W. point of Isle Royale, W.N.W., 68 miles; Passage Island, (route to Silver Islet,) N.N.W. $\frac{1}{4}$ W., 58 miles; Saut Ste. Marie, E.S.E., 200 miles.

16. *Copper Harbor Range*, (front light,) on Fort Wilkins reserve; elevated 22 feet. To guide vessels into Copper Harbor.

17. *Eagle Harbor*, on the west point of the entrance to Eagle Harbor. Light on keeper's dwelling; elevated 47 feet. The north point of the outer or easternmost of the Apostle Group, W. by S. $\frac{1}{4}$ S., 105 miles.

18. *Eagle River*, near the entrance to Eagle River, south shore of Lake Superior. Light on keeper's dwelling; elevated 61 feet. Michigan Island light, W.S.W. $\frac{3}{4}$ W., 100 miles.

19. A Light-house is to be erected at the entrance to the Portage Ship Canal, on the south shore of Lake Superior.

20. *Ontonagon*, 46° 52' N. lat., at mouth of Ontonagon River; elevated 47 feet. House and tower of Milwaukee brick. The S.W. point of Isle Royale, N. $\frac{1}{4}$ E., 67 miles.

21. *Michigan Island*, on the southern point of Michigan Island, the most eastern of the Apostle Group, Wisconsin; elevated 129 feet. A guide through the passage between Madeline and Michigan Islands, to Bayfield and La Pointe. Ontonagon, E., 56 miles.

22. A Light-house is erected on the

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Outer Island of the Apostle Group of Islands, to guide mariners to the head of Lake Superior, distant 80 miles S.W. of Isle Royale, and about 90 miles E. of Duluth.

23. *La Pointe*, on Chaquamegon Point, the south-eastern entrance to La Pointe Harbor, and to the northward of Ashland and southward of Bayfield; elevated 42 feet. Light on keeper's dwelling, painted white.

24. *Raspberry Island*, on the south-west point of the island, one of the Apostle Group; elevated 77 feet. A guide between the Main and Raspberry Island, and to Bayfield.

25. *Minnesota Point*, 46° 46' N. lat., situated at the head of Lake Superior, mouth of St. Louis River; elevated 50 feet. A guide into Superior Bay and Duluth. The S.W. point of Isle Royale, N.E. by E. $\frac{3}{4}$ E., 150 miles; Silver Islet, Canada, N.E. $\frac{3}{4}$ E., 180 miles.

26. *Duluth*, on the end of the south pier of Duluth, Minn.; a guide into the canal or inner Bay.

Table of Distances,

AT WHICH OBJECTS CAN BE SEEN ON THE LAKES AT DIFFERENT ELEVATIONS.

Height in feet.	Distances in miles.	Height in feet.	Distance in miles.
10	4.184	100	13.221
20	5.916	150	16.208
30	7.245	200	18.702
40	8.366	300	22.917
50	9.354	400	26.450
60	10.246	500	29.583
70	11.067	600	32.406
80	11.832	800	37.418
90	12.549	1000	41.883

Statute miles.

EXAMPLE. — Detour Light, 75 feet high, visible..... 11.456

Add for height of observer's eye, on deck 10 feet..... 4.184

Distance of Light..... 15.406

Duluth to Isle Royale and Pigeon River.

The trip along the North Shore of Minnesota to the mouth of Pigeon River and Isle Royale, which lies opposite, is one of great interest. The harbors, headlands, islands, and objects of interest are numerous. Then the inside passage along the Canada shore, passing several islands, is still more interesting, until you enter Thunder Bay, when the scene is by far more grand and imposing — having in full view Pie Island, M'Kay's Mountain, and Thunder Cape, the latter rising 1350 feet in height, with almost perpendicular walls.

GRANITE POINT and KNIFE RIVER are passed 18 miles N.E. of Duluth, near where is the settlement of *Buchanan* and *Isle aux Roches*.

AGATE BAY, 25 miles, and *Burlington Bay*, 2 miles farther, are much frequented

by tourists. Starting from Duluth or Superior City, a small steamer runs frequently to these harbors during the summer months, carrying parties of pleasure.

ENCAMPMENT ISLAND and RIVER, 35 miles from Duluth, is another interesting locality. Here the shores are remarkably bold and precipitous, rising from 800 to 1000 feet above the water.

BEAVER BAY and SETTLEMENT, 18 miles farther, is a small village inhabited mostly by Germans. Here the shore presents a rugged appearance, with high lands rising in the background.

The *Palisades*, 6 miles farther, presents a grand appearance from the water's edge. The rock rises to the height of over 300 feet, presenting perpendicular columns. *Baptism River*, 2 miles, is a

mountain stream, rising in an eminence called Saw-Teeth Mountains.

The numerous rivers and creeks falling into Lake Superior along the North Shore, from Duluth to Fort William, Canada, for a distance of about 180 miles, are generally rapid streams of moderate length. They are mostly pure water, abounding in speckled trout and other kinds of fish. In the rear it is almost an unbroken wilderness, although supposed to be rich in minerals of different kinds,—copper, iron, silver, and gold,—the latter being found in the vicinity of Vermillion Lake, lying in a north-easterly direction some fifty or sixty miles.

Petit Marais and the mouth of *Manitou River* are next passed. *Two Islands River* is named from two beautiful islands which lie off its mouth.

Temperance River, another romantic stream, rising in Carlton's Peak, is thus named owing to its having no bar at its mouth. This locality should become a favorite resort for invalids and others seeking health and pleasure. Here are a succession of waterfalls of great beauty, some only 200 or 300 feet from the Lake shore.

GOOD HARBOR BAY, 100 miles N.E. of Duluth, is a safe harbor, as its name implies. *Terrace Point*, *Rock Island*, and *Grand Marais* are all in sight, while small streams flow into the lake, alive with speckled trout.

GRAND MARAIS HARBOR, Minn.—This harbor is located on the north shore of Lake Superior, about 115 miles east of Duluth. It is the only large and secure harbor between Duluth and Grand Portage, a distance of about 150 miles. The harbor is of elliptical shape, and is 2500 feet long by 1400 feet wide. The mouth of the harbor is 1000 feet wide; the depth, at the entrance, 24 feet, with a rock bottom. After entering the harbor the depth increases, and the bottom is composed of gravel and boulders.

GRAND PORTAGE BAY and *Island*, 40

miles farther, is a place of considerable resort. Here is an Indian village and Reservation, where is a Roman Catholic Mission, a block-house, and some 12 or 15 dwellings. From this point commences a portage route to Pigeon River, Rainy Lake, and Lake of the Woods.

Waus-wau-Goning Bay is a beautiful expanse of water, encircled in part by highlands, rising to the height of 1000 feet, and several beautiful wooded islands. From this bay to the south end of Isle Royale, the distance is 20 miles.

PIGEON BAY and RIVER, forming the north-west boundary between the United States and Canada, is well worthy of a visit. The bay contains several beautiful islands and islets, where is excellent fishing. *Pigeon River Falls*, situated about half a mile above the landing, are exceedingly grand and imposing. Here the water falls about 90 feet, almost perpendicular, into a chasm, then rushes through a gorge into the bay.

PARKERSVILLE is a small settlement situated at the mouth of the river, where also is to be seen Indian huts and wigwams constructed of birch bark. This place, no doubt, is soon destined to become a place of resort during the summer months; it is situated about 150 miles N.E. of Duluth.

Isle Royale, Houghton Co., Mich., being about 45 miles in length from N.E. to S.W., and from 6 to 12 miles in width, is a rich and important island, abounding in copper ore and other minerals, and also precious stones. The principal harbor and only settlement is on *Siskowit Bay*, being on the east shore of the island, 50 miles distant from Eagle Harbor, on the main shore of Michigan.

The other harbors are Washington Harbor on the south-west, Todd's Harbor on the west, and Rock Harbor and Chippewa Harbor on the north-east part of the island. In some places on the west

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are perpendicular cliffs of green stone, very bold, rising from the water's edge, while on the eastern shore conglomerate rock or coarse sandstone abounds, with occasional stony beach. On this coast are many islets and rocks of sandstone, rendering navigation somewhat dangerous. Good fishing-grounds abound all around this island, which will, no doubt, before many years, become a favorite summer resort for the invalid and the

sportsman, as well as for the scientific tourist.

SISKOWIT LAKE is a considerable body of water lying near the centre of the island, which apparently has no outlet. Other small lakes and picturesque inlets and bays abound in all parts of the island. Hills, rising from 300 to 400 feet above the waters of the lake, exist in many localities throughout the island, which is indented by bays and inlets.

Trip along the South Shore of Lake Superior.

On leaving DULUTH by the American steamers bound for Marquette and the Saut Ste. Marie, the boat pursues an easterly course until the Apostle Islands are reached, about 60 miles distant—the Minnesota and Wisconsin shores being both in sight. The first island passed, on the right, is called Steamboat Island; then comes in succession Sandy Island, York Island, and Raspberry Island; on the latter there is a light-house. Oak Island is passed on the left, it being a large, elevated, and wooded body of land; then comes Hermit's Island and Bass Island; on the latter there is a valuable stone quarry of red sandstone. Here the view is most beautiful in fine weather, there being in full view a number of islands, altogether numbering twenty, of different sizes, of which Madeline Island is the largest, where is located, on its south end, *La Pointe*, an old settlement.

BAYFIELD, Wis., 80 miles east of Duluth, by water, is the first regular landing. The hotel accommodations are good, and no place on the shores of Lake Superior affords greater inducements for the seeker of health and pleasure. Boating, sailing, and fishing can be enjoyed during the summer months.

ASHLAND, situated 18 miles south of Bayfield, with which it is connected by a steam-ferry, as well as *L. Pointe*, and a new landing at Houghton Point, all

add to the attractions which *Cha-quamegon Bay* and its vicinity affords to tourists. For a healthy climate, pure water, good fishing, and an agreeable class of inhabitants, no part of the lake exceeds the above favored localities. From Ashland, the *Wisconsin Central Railroad* runs south through Northern Wisconsin to Menasha, Milwaukee, etc.

On leaving Bayfield, proceeding eastward, the steamer usually runs between Bass Island and Madeline Island, passing Presque Island, toward Michigan Island, where there is a light-house. There are also several other islands in sight, which usually present a most lovely appearance from the deck of the passing steamer. After leaving the Apostle Islands, the steamer runs direct for Ontonagon, 60 miles, passing the *Porcupine Mountains*, and the Silver Region near the mouth of Iron River, a beautiful stream entering the lake about 15 miles west of Ontonagon. Proceeding eastward, the steamer either passes through Portage Ship Canal or sails around Keweenaw Point to Houghton, Marquette, etc.

On leaving Marquette the steamer usually runs direct for White Fish Point, 130 miles, passing Grand Island and the *Pictured Rocks*, all being in sight from the deck of the steamer. Distance from Duluth to Saut Ste. Marie, passing around Keweenaw Point, 560 miles.



SAUT STE. MARIE — FROM AMERICAN SIDE.

LOSSING-BARRITT.

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LAKE SUPERIOR — NORTH SHORE.

Trip around the North Shore of Lake Superior.

MADE ON BOARD THE CANADIAN STEAMER CHICORA, July, 1873.

On leaving the mouth of the *Ship Canal*, above the Rapids of St. Mary's River, a beautiful view is presented from the deck of the steamer. The Rapids and the settlements on both sides of the river appear to advantage, while a lovely stretch of the stream above is passed over before arriving at

POINT AUX PINS, Ont., 6 miles above the Rapids. Here is a convenient steamboat landing, a store and a few dwellings, being handsomely situated among a grove of small pine trees. Fishing parties can here be fitted out with guides and canoes for fishing and exploring the North Shore.

WAISKA BAY, an expanse of the river, is next entered, extending westward to Point Iroquois. Here may be seen an Indian settlement on the South shore.

GROS CAP, 15 miles from the Saut, lies on the Canada side directly opposite Point Iroquois, forming prominent landmarks to the entrance of Lake Superior. This bold headland consists of hills of porphyry rising from 600 to 700 feet above the waters of the lake. "Gros Cap is a name given by the *voyageurs* to almost innumerable projecting headlands; but in this case appropriate, since it is the conspicuous feature at the entrance of the Great Lake."

Immediately north of Gros Cap lies GOULAIS BAY and GOULAIS POINT, another bold highland which is seen in the distance. *Goulais River* enters the bay, affording, in connection with the ad-

jacent waters, good fishing-grounds—the brook or speckled trout being mostly taken in the river. Here is an Indian settlement of the Chippewa tribe.

TAQUAMENON BAY, lying to the westward, is a large expanse of water, being about 25 miles long and as many broad, terminating at *White Fish Point*, 40 miles above Saut Ste. Marie.

PARISIEN ISLAND is passed 30 miles from the Saut, lying near the middle of the above bay, being attached to Canada.

MAPLE ISLAND, 20 miles above Gros Cap, is a small wooded island lying near the shore. SANDY ISLANDS, 5 miles farther, are a low group of islands lying off

BATCHEEWANAUNG BAY, a large and beautiful sheet of water which receives a stream of the same name, being famed for trout fishing. Here is an Indian settlement, and a village where is a large steam saw-mill. On *Corbay Point*, at the entrance to the above bay, stands a lighthouse.

MAMAINSE POINT, (*Little Sturgeon*), lying opposite *White Fish Point*, is another bold headland, where is a fishing station and a few dwellings. It is about 55 miles from the Saut, and was formerly a copper mining location, but has been abandoned. Here is a good harbor and steamboat landing.

Some 12 or 15 miles north of Maimainse Point are located, on MICA BAY, the old Quebec Copper Mining Company's Works, at present abandoned, owing to their being found unproductive. Still

farther north, skirting Lake Superior, is to be found a vast *Mineral Region*, as yet only partially explored.

MONTREAL ISLAND and RIVER, 25 miles north of Mamainse, afford good fishing-grounds. Here is a harbor exposed to the west winds from off the lake, which can safely be approached when the winds are not boisterous.

Aguawa River, 30 miles from Mamainse Point, affords a good harbor, where is a trading post and good fishing.

LIZARD ISLAND and LEECH ISLAND, some 10 miles farther northward, are next passed, lying contiguous to the mainland.

CAPE GARGANTUA, 45 miles north of Mamainse, is a bold headland. On the south side is a harbor protected by a

small island. From this cape to the island of Michipicoten the distance is about 30 miles.

The steamers bound for Prince Arthur's Landing usually run direct for *Michipicoten Island*, lying 70 miles northwest of Mamainse Point; but when bound for *Michipicoten Harbor* they sail along the eastern end of the lake, passing several small islands and headlands.

This portion of Canada is as yet an almost unbroken wilderness for several hundred miles around Lake Superior. With the exception of a few scattered Hudson Bay Co's. Posts, there are no settlements until you reach the vicinity of Silver Islet or Thunder Bay, two or three hundred miles distant.

Coasting along the North Shore of Lake Superior.

There are *two* modes of reaching St. Ignace Island and the mouth of Nepigon River, if bound on a pleasure excursion to the far-famed fishing-grounds on the North Shore of Lake Superior, where speckled trout, varying from one to eight pounds, can be taken in large quantities.

The *first* plan and mode of conveyance is that of hiring a birch canoe of from 18 to 20 feet in length, with two Indians, or half-breeds, as voyageurs, for which service there is usually a charge of five dollars a day. Then lay in tents and a supply of provisions for two or more weeks, according to the length of the intended trip. After this is accomplished, embark on one of the Canadian steamers running direct for the mouth of the Nepigon River; then land and commence your canoe sailing or paddling until you reach the desired fishing-grounds. Here land and spread your tents for a time, alternately fishing, cooking, eating and sleeping, as you may desire.

This is a truly independent style of travelling and living, combining health,

pleasure and economy. The party may consist of two, four, or more persons besides the two guides. You have nothing to annoy you except the rainy weather or mosquitoes, which are at times very numerous and hungry, often attacking the sportsman in a fierce manner. The best mode of avoiding these pests, is to camp on a point of land and clear away all the underbrush; then build a smudge-fire and take your comfort, regardless of the buzzing outside world.

The *second* mode is to hire a Mackinac sailing-boat with oars, and lay in your provisions; hire your crew of two Indians, and set sail from the mouth of the Ship Canal above the Saut Ste. Marie, or any other point from which you may choose to depart, if bound for the North Shore or mouth of the Nepigon. The supplies for this excursion are usually obtained on the Canadian side, either at the *Saut* or at *Point aux Pins*, 7 miles above, where is a good landing and camping-ground.

Starting from above the Rapids with a fair wind, *Gros Cap*, 15 miles, is soon

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reached; opposite Iles Point Iroquois, the "Pillars of Hercules" of Lake Superior, being the true entrance to the lake. You next pass *Goulais Bay*, Maple Island, Sandy Island, and enter *Batchewanaung Bay*, where is found good fishing-grounds and abundance of brook trout in the streams which enter here.

Proceeding northward, *Mamainse Point*, 50 miles distant from the Saut, is passed. From thence the voyager coasts along the North Shore toward Michipicoten Harbor, proceeding westward toward *Nepigon Bay* and River.

Michipicoten Harbor and River, 120 miles north of the Saut Ste. Marie, situated in N. lat. $47^{\circ} 56'$, W. long. $85^{\circ} 6'$, affords a safe anchorage, being surrounded by high hills. Here is established a Roman Catholic mission, and an old Hudson Bay Company's post, from whence diverges the river and portage route to James's Bay, some 350 miles distant. The shore of the lake here tends westward toward *Otter Head*, about 50 miles distant, presenting a bold and rugged appearance.

MICHIPICOTEN ISLAND (the *Island of Knobs or Hills*), 65 miles from Mamainse Point in a direct course, running in a north-west direction, lies about 40 miles west of Michipicoten Harbor. This island, 15 miles in length and 6 miles wide, may be called the *gem* of Lake Superior, presenting a most beautiful appearance as approached from the southward, where a few picturesque islands may be seen near the entrance to a safe and commodious harbor, which can be entered during all winds. Nature seems to have adapted this island as a place of resort for the seekers of health and pleasure. Within the bay or harbor a beautiful cluster of islands adorns its entrance, where may be found agates and other precious stones; while inland is a most charming body of water, surrounded by wooded hills rising from 300 to 500 feet

above the waters of Lake Superior. The shores of the island abound with greenstone and amygdaloid, while copper and silver mines are said to exist in the interior of great value. The fisheries here are also valuable, affording profitable employment to the hardy fisherman of this region. As yet, but few houses are erected on the shores of this romantic island, where, sooner or later, will flock the wealthy and beautiful in search of health and recreation, such as are afforded by pure air, boating, and fishing and hunting.

The fish taken in this part of the lake are mostly white fish, siskowit, Mackinac trout, and speckled trout, the former being taken by gill-nets.

On the mainland are found the carabou, a large species of deer, bears, foxes, otters, beavers, martins, rabbits, partridges, pigeons, and other wild game. The barberry, red raspberry, and whortleberry are also found in different localities.

CARIBOU ISLAND, lying about 25 miles south of Michipicoten, near the middle of the lake, is a small body of land attached to Canada. It is usually passed in sight when the steamers are on their route to Fort William.

Otter Head, 60 miles north-west of Cape Gargantua, is one of the best natural harbors on Lake Superior, where is to be seen grand and romantic scenery. *Otter Island*, lying to the north of the harbor, is a bold piece of land. In this vicinity are supposed to be rich deposits of iron, tin, and other minerals.

Pic River, 40 miles farther, is a fine stream, entering the lake from the north. Here is an old Hudson Bay Company's Post and a settlement of Indians. *Pic Island*, lying 20 miles to the westward, is next passed, also the mouths of several small rivers.

Slate Island, 25 miles farther west, lies out in the lake, about 12 miles from shore. Here is the widest part of Lake Superior, being about 160 miles from

shore to shore, being nearly due north of Marquette.

Wilson's Island, 20 miles west, lies within a few miles of the mainland, which is bold and rugged.

Salter Island, a few miles farther west, is a small island, affording fine scenery.

Simpson's Island, 40 miles west of Slate Island, is an important body of land, which, no doubt, contains valuable minerals.

St. Ignace Island, the largest and most important of the Canadian Islands, has long been famed for its supposed mineral wealth. Copper, silver, and lead are said to be found on this island. Here the land rises to a great height in some places, while the shores are bold and rugged. On the west end there is a convenient steamboat landing, being distant 30 miles from the mouth of Nepigon River.

On approaching *Nepigon Bay* the steamer runs between Simpson's and Salter Island, the former being a large and rugged body of land, while the highlands on the main coast are of an equally high and rugged character, presenting a mountainous appearance.

NEPIGON BAY is about 30 miles long and 20 miles wide, containing several beautiful wooded islands, the largest being *Verte Island*, lying near the middle of the bay, with lesser islands as the mouth of the river is approached.

Nepigon River, the "Ultima Thule" of the angler, is a bold and dashing stream, falling 300 or 400 feet within the distance of 22 miles. There are alternate rapids and expansions, with high, rugged hills for most of the distance to the foot of Lake Nepigon. Those who are in the habit of visiting this stream from year to year represent it as one of the most wild and charming retreats on the Continent, where health and sport can be obtained during the summer months, affording almost endless enjoyment to the angler and sportsman.

Red Rock is the name of the settlement at the mouth of the river, where is a convenient steamboat landing, a store and storehouse, a few dwellings and Indian wigwams, surrounded by cleared lands. This is an Hudson Bay Company's Post, where goods and Indian curiosities are sold. Here parties intending to fish for trout in the river disembark, and by means of birch canoes, paddled by Indian guides, they ascend the stream, often proceeding to Lake Nepigon, passing over several portages on their route.

No words can faithfully describe the wild beauties of this region of country, surrounded by rugged hills, dashing streams, placid lakes, water-falls, and rapids. Here brook trout of a large size are taken in fabulous numbers, and of a delicious flavor. No place on the Continent of America exceeds this romantic spot, which will ever afford sport to the angler and seekers of pleasure.

Nepigon River—Its Rapids and Lakes.

COPIED FROM REPORT OF ROBERT BELL, C. E.

The Nepigon River empties into the head of Nepigon Bay, which is the most northern point of Lake Superior, (48° 45' N. lat.) The water is remarkable for its coldness and purity, and is the largest stream flowing into the lake. The general upward course of the Nepigon is due north, the length of the river being 31 miles. Four lakes occur in its course, between which are rapids and falls. The lowest, Lake Helen, is only one mile from *Red Rock*, a Hudson Bay Company's post, at the head of Nepigon Harbor. At the outlet of this lake the river is very narrow, apparently about 100 yards wide, with a very swift current, flowing between banks from thirty to fifty

feet high. Lake Helen, which runs due north, is about eight miles long and one mile wide. For six miles above the lake the river has a width of about five chains, with deep water, and a moderately strong current. Here the river makes a sharp bend to the right, and is broken by a slight chute at Camp Alexander. At a quarter of a mile above this point the Long Rapids begin, and continue for two miles. Here is a portage that leads to the foot of Lake Jessie. This lake, which is three miles long, and studded with islands, is separated from Lake Maria, immediately above it, and two and a half miles in length, by "The Narrows," six or eight chains wide, in which there is a strong current.

A very high west-facing cliff of columnar trap approaches the river from the south-westward, at the head of Lake Maria, and runs from this point, in a tolerably straight course, all along the east side of the river to Lake Nepigon. Cedar Portage, two miles above the lake, is 250 yards long. A mile and a quarter above it there is another portage of fifty yards over an island in the middle of the river. Three-quarters of a mile above Island Portage the One-Mile Portage begins. At rather more than one mile from the head of this portage the river breaks in a white, foaming chute, which separates Lake Emma from the lower level. This lake is nearly four miles long. Between it and the point at which the river leaves Lake Nepigon, a distance of six miles, four principal rapids occur, the lowest of which is seen where the river enters the northern extremity of Lake Emma. Four miles more, in a north-westerly course, brings us to the head of Lake Hannah, from which Flat Rock Portage, one mile in length, carries us to the shore of Lake Nepigon.

The following list shows the levels in ascending the river, and the height of Lake Nepigon above Lake Superior :

RAPIDS, PORTAGES, ETC.	Feet.
Current between Red Rock and Lake Helen.....	2
Current in river from Lake Helen to Camp Alexander.....	6
Chute at Camp Alexander.....	4
From the last to Long Portage.....	8
Rapids at Long Portage.....	137
Current in the Narrows, between Lakes Jessie and Maria.....	1
Current from last lake to Cedar Portage.....	1
Cedar Chute.....	10
Current from Cedar Chute to Island Chute.....	1
Island Chute.....	7
Current from the Island to the One-Mile Portage.....	2
Rapids of One-Mile Portage.....	45
Current from One-Mile Portage to White Chute.....	1
White Chute.....	6
Current between Lakes Emma and Hannah.....	1
Rise from last lake to Lake Nepigon (Flat Rock Portage).....	81
Lake Nepigon* above Lake Superior	313

WATERS OF THE NEPIGON.

"Good water is a luxury that cannot be over-estimated. In this respect, the sportsman angling for trout on the Nepigon is favored above all others. He has always before him a never-failing supply, so remarkable for its coldness and its purity that even those who have drunk of it habitually for years cannot but speak of it whenever they taste its refreshing waters. Its temperature is too cold for bathing, and a morning ablution brings a rosy glow to the cheeks that the fairest belle might envy."

* *Nepigon*, the name by which the lake is known, is a contraction of an Indian word signifying "Deep Clear-water Lake." It is about 70 miles long and 50 miles wide, being deeply indented by large bays, having a coast-line of upwards of 500 miles, and numerous islands, numbering upwards of one thousand.

Nepigon River, Rapids, and Lake.

"The Nepigon," says HALLOCK in his *Fishing Tourist*, "is a noble stream, with waters cold and clear as crystal, flowing, with a volume five hundred feet wide, into a magnificent bay of great extent. This bay is surrounded by long undulating ranges of hills, rugged precipices, huge bluffs, and lofty hills more or less wooded with evergreens, interspersed with deciduous trees, and filled with islands of all sizes and every variety of outline.

"The first rapids on the river occur about a quarter of a mile above the landing at Red Rock, and are a mile in length. They can be run by canoes with safety, while a portage road passes along the shore. There are fifteen rapids or chutes in all, and at each there is the best of trout fishing. Three miles below the head of the river are the Virgin Falls, 25 feet high. Altogether the scenery is the wildest and most diversified imaginable, and constantly presents changes of the most enchanting character. Above the falls the river widens gradually, inclosing within its area dozens of small islands variegated with evergreens, birch, poplar, larch, tamarack, etc., and then expands into a vast inland sea, whose shores gradually recede beyond the limit of vision. In the far distance, horizon, sky, and water meet, and the waves roll up on shore with a volume and dash as turbulent in storm as those of Erie or Superior. Its bays are numerous; some of them very deep, extending inland for a number of miles—all teeming with speckled trout, lake trout, pike, and pickerel in great quantities. Into it flows several rivers that have their sources in the heights of land which constitute the water-shed that divides the waters of the St. Lawrence chain from those of Hudson Bay."

Lake Nepigon Explored.

For many generations the existence of LAKE NEPIGON has been known, but only partially, to the traders, trappers, and Indians in the employ of the Hudson's Bay Fur Company. The general impression has been, that Lake Nepigon was located about 80 miles north of Lake Superior, and that it was as large as Lake Erie. But during the past three years the Government of Canada has been extending its surveys to the public lands along the North Shore of Lake Superior, past Fort William toward the Red River country. Mr. Herrick, one of the provincial surveyors, made a traverse of the Nepigon River in 1866, and found the distance to the lake to be in a right line less than thirty miles.

The lake, instead of lying east and west for two miles in length, has its longest diameter north and south, seventy miles; its breadth east and west being fifty miles. Its height above Lake Superior is determined approximately at 313 feet, or 913 above the ocean.

In 1869, Robert Bell, an assistant geologist and engineer of the Canada survey, in company with surveyor McKellar, made the entire circuit of Lake Nepigon, exploring it topographically and geologically.

From the reports and maps of these bold explorers it is learned that Lake Nepigon is accessible and has around it a valuable country. It has a shore line of about five hundred and eighty miles of navigable water, and probably one thousand islands. Its waters are clear, cold, and pure, and its outlet is the largest river of Lake Superior. A large part of the rocks are such as produce copper.

Near the south-west angle of the lake at Grand Bay, with only a few feet of elevation between them, the Black Sturgeon River has its rise. The space between them is so narrow and so low that in a high stage of the lake the waters

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appear to flow over the intervening ground from the lake into the head of this river. *Nepigon*, in Chippewa, signifies deep and clear water.

When the party reached the head of the river at the lake, they divided, McKellar following the right hand or eastern shore, and Bell the western.

They travelled in canoes, Indian fashion, taking the courses with a theodolite, and the distances with a micrometer. They also took observations for latitude and longitude. At the end of eight weeks they met at the northern extremity of the lake, having had a pleasant and prosperous journey.

The latitude of the northern extremity is $50^{\circ} 15'$ north. Its surroundings are less mountainous than Lake Superior. To the north, between Nepigon and Hudson's Bay, the country is represented by the Indians to be comparatively level.

The *Ombabika River* coming in from that direction heads with the Albany River, which discharges into salt water at James' Bay, and between them is supposed to be a flat limestone region. This is one of the routes of the Hudson Bay Company to their posts on Hudson Bay.

South-west of Lake Nepigon, between it and Thunder Bay of Lake Superior, the country is represented as capable of cultivation, and the climate the counterpart of Quebec.

By referring to the map can be seen the route usually pursued by the Canadian steamers; also, the islands and headlands along the North Shore.

On leaving Nepigon River and Bay, proceeding westward toward Thunder Bay, the steamer usually passes through Nepigon Straits, lying between St. Ignace and the mainland. Then the broad waters of Lake Superior are again entered, and you steam past numerous islands before reaching *Point Porphyry*, where is located a light-house to guide the mariner.

BLACK BAY, 15 miles east of Thunder Cape, presents a large expanse of water, being about 40 miles long and 10 or 12 miles wide, surrounded by a rugged and wild section of country. Towards the north are two peaked eminences, termed the *Mamelons* or *Paps*, from their singular formation, resembling a female's breast, when seen at a distance.

On approaching the famed *Silver Islet* from the east, the view presented is of the grandest and most interesting character,—the Island, with its treasures of wealth, and Silver Islet Settlement, are seen in the foreground, while bold Thunder Cape and romantic Pie Island are seen in the distance. Also, southward, may be seen Isle Royale and Passage Island, both being attached to the State of Michigan.

Trip from Marquette to Silver Islet,

NORTH SHORE, LAKE SUPERIOR.

Leave MARQUETTE at 2 P. M. by steamer, with a large party of tourists on board, bound for Silver Islet and Duluth. Arrive at Houghton, 85 miles, at 9 P. M.; leave at 4 A. M. next morning for Silver Islet, distant 150 miles from Marquette by direct route. Pass Keweenaw Point and Copper Harbor at 11 A. M. Fresh wind from the N.W., steering northward; thermometer 42° Fahr. Pass

Passage Island at 4 P. M., running direct for Thunder Cape. The N.E. part of Isle Royale presents a rugged appearance; the highest part being elevated 500 feet. Arrive at SILVER ISLET or RYANTON at 6 P. M.; distant 24 miles E. of Fort William. Take a tug-boat and visit *Silver Islet Mine*, lying 3,000 feet from the mainland; descend down the shaft, within the coffer dam, about

100 feet, by means of ladders, the passage being lighted by candles; length opened, about 70 feet from south to north; vein about 8 feet wide with a dip of 75°. On arriving at the end of the opening a rich sight was presented to our view, the face of the mine sparkling with silver as viewed by candle-light. The ore yields from \$2,000 to \$4,000 a ton.

Silver Islet or *Ryantou* lies on the mainland, having a secure harbor and easy of access, with a convenient wharf for the shipment of silver ore, which is mostly

put up in barrels for the purpose of transportation.

Mining for silver has been commenced on the mainland near the water's edge, which bids fair to be very productive. The vein has been traced for several miles northward in a straight line from *Silver Islet*. Back of the settlement lies *Surprise Lake*, while *Thunder Cape*, to the westward, rises almost perpendicular from the waters of Lake Superior, here containing several small rocky islands scattered along the coast.

Silver Island, Lake Superior.

"SILVER ISLET, a desolate rock some 70 or 80 feet square, projecting from the stormy waters of Lake Superior, lies some 3,000 feet away from the Canadian Shore of Lake Superior, south of Thunder Bay, off Thunder Cape, 24 miles east of Fort William, and until recently was regarded merely as a danger to navigation, an object to be scrupulously avoided. Now, it is known that the rocks of the island and its vicinity are rich in silver, and arrangements have been made for mining in them, even as far as the mainland, if found desirable. The island is so low, and such a mere speck in the lake, that in a sea the waves were wont to wash entirely over it, rendering it altogether uninhabitable, and presenting great difficulties in the way of opening a vein. It became necessary that breakwaters should be built all about it, and large expenses incurred before the location could be worked at all. The present owners bought the property from a Montreal Company, and commenced building breakwaters Sept. 1, 1870. Before the close of navigation in Nov., they had completed their erection, and had mined 22 days, sending to the smelting works in New Jersey some \$100,000 worth of ore.

"The miners are now boring and blasting 100 or 200 feet below the surface, and, though they will deepen the passages as they go forward with the mine, it is

thought that no very deep work will be required, even in getting safely beneath the surface of the Lake and working toward the mainland, 3,000 feet distant. All indications point to the great success of the enterprise, and incline one to the belief that this recent addition to the mineral wealth of Lake Superior is one of the most brilliant discoveries that have been made in that marvellous region." The treasure shipped in 1871 amounted to \$820,000; in 1872, about \$1,000,000.

Silver Islet Settlement is a flourishing village near Thunder Cape, opposite *Silver Islet*, on the main shore. Some 60 or 80 dwellings are already erected for the accommodation of the miners, and bids fair to be the nucleus of a large mining town. A church, a hotel, and school-house have been erected by the Silver Mining Company.

From a map issued by the Crown Land Department of Canada, showing a proposed route around the North Shore of Lake Superior, it gives the course of numerous streams and locates some good timbered lands. The trees are mostly birch, balsam, cedar, spruce, pine, and hard maple on the high ridges. Iron, copper, and silver ore are also found for a distance of 400 or 500 miles from near Saut Ste. Marie to Prince Arthur's Landing, situated near the mouth of the *Kaministiquia River*.

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THUNDER BAY presents a large expanse of water, being about 25 miles in length and from 10 to 15 miles wide, into which flow several small streams, abounding in speckled trout. *Thunder Cape*, on the east, is a most remarkable and bold highland, being elevated 1,350 feet above Lake Superior. It rises in some places almost perpendicular, presenting a basaltic appearance, having on its summit an extinct volcano. From the elevated portions of this cape a grand and imposing view is obtained of surrounding mountains, headlands, and islands—overlooking *Isle Royale* to the south, and the north shore from McKay's Mountain to the mouth of Pigeon River, near Grand Portage, Minn.

Thunder Bay and its vicinity has long been the favorite residence of Indian tribes who now roam over this vast section of country, from Lake Superior to Hudson Bay on the north. The mountain peaks they look upon with awe and veneration, often ascribing some fabulous legend to prominent localities. A learned Missionary, in describing this interesting portion of Lake Superior and its inhabitants, remarked, that "the old Indians were of the opinion that *thunder clouds* are large gigantic birds, having their nests on high hills or mountains, and who make themselves heard and seen very far off. The head they described as resembling that of a huge eagle, having on one side a wing and one paw, on the other side an arm and one foot. The lightning is supposed to issue from the extremity of the beak through the paw, with which they launch it forth in fiery darts over the surrounding country."

PIE ISLAND, in the Indian dialect called "*Mahkeneeng*" or *Tortoise*, bounding Thunder Bay on the south, is about 8 miles long and 5 miles wide, and presents a most singular appearance, being elevated at one point 850 feet above the lake. This bold eminence is shaped like an enormous *slouched hat*, or inverted pie,

giving name to the island by the French or English explorers, while the Indians gave it the name of *tortoise* from its singular shape. This elevated point is basaltic, rising perpendicular near the top, like the *Pulisades* of the Hudson River.

Prince Arthur's Landing, District of Thunder Bay, Ont., is favorably situated on the west side of Thunder Bay, 3½ miles north of Fort William. Here is a government wharf, a court-house and register's office, a town hall, 2 churches, 4 hotels, 12 or 15 stores, about 200 dwelling houses, and 800 inhabitants.

A government road extends from this Landing westward toward Fort Garry, Manitoba. There are also in the vicinity several rich silver mines, as yet but partially developed.

CURRENT RIVER, 3 miles above Prince Arthur's Landing, is a dashing trout stream, where is a beautiful fall near the shore of Thunder Bay. On *McKenzie's River*, about 20 miles north-east, are found rich deposits of amethyst.

The view presented on approaching Thunder Bay is perhaps the grandest sight on the shores of Lake Superior. Here may be seen from the deck of the steamer *Thunder Cape*, with its Sleeping Giant; *Pie Island*, assuming the singular shape of a slouched hat; *McKay's Mountain*, lying westward on the main land; the *Welcome Islands*, and numerous other islands and headlands in the distance, altogether presenting a most magnificent view of land and water.

The *Military Road*, running from Prince Arthur's Landing to Manitoba, is 443 miles in length, of which 138 is by land (eleven portages) and 305 miles by water. This route passes through Lake Shebandowan and the new gold region, some 60 or 70 miles west of Thunder Bay, Lake Superior, continuing westward through Rainy Lake and the Lake of the Woods to Lake Winnipeg.

Silver Mining Companies on the North Shore, L. S.

Algoma Mine, Thunder Bay.
 3 A Mine, Thunder Bay.
 3 B Mine, Thunder Bay.
 Cornish Mine, Thunder Bay.
 Dawson Mine, Thunder Bay.
 Howland Mine, near Pigeon River.
 Jarvis Island Mine.
 Ontario Mine, Thunder Bay.
 Shuniah, Thunder Bay.
 Silver Harbor or Beck, Thunder Bay.
 Silver Islet, near North Shore.
 Thunder Bay Mine.
 Trowbridge Mine.

Fort William, an important Hudson Bay Company's Post, is advantageously situated at the mouth of the Kaministiquia River, in north latitude 48 degrees 23 minutes, west longitude 89 degrees 27 minutes. Here is a convenient wharf and safe harbor, the bar off the mouth of the river affording 7 or 8 feet of water, which can easily be increased by dredging. The Company's buildings consist of a spacious dwelling-house, a store, and 3 storehouses, besides some 10 or 12 houses for the accommodation of the *attachés* and servants in the employ of the above Company. The land is cleared for a considerable distance on both sides of the river, presenting a thrifty and fertile appearance. Wheat, rye, oats, barley, potatoes, and most kinds of vegetables can here be raised; also grass and clover of different kinds. The early frosts are the great hindrance to this whole section of country, which is rich in minerals, timber,

furs, and fish; altogether producing a great source of wealth to the community. Pine, spruce, hemlock, cypress, and balsam trees are common, also white birch, sugar-maple, elm, and ash, together with some hardy fruit-bearing trees and shrubs.

The *Roman Catholic Mission*, situated 2 miles above the Company's post, on the opposite side of the river, is an interesting locality. Here is a Roman Catholic church and some 50 or 60 houses, being mostly inhabited by half-breeds and civilized Indians, numbering about 300 souls. The good influence of the Roman Catholic priests along the shores of Lake Superior are generally admitted by all unprejudiced visitors—the poor and often degraded Indian being instructed in agriculture and industrial pursuits, tending to elevate the human species in every clime.

McKay's Mountain, lying 3 miles west of Fort William, near the Roman Catholic Mission, presents an abrupt and grand appearance from the water, being elevated 1,000 feet. Far inland are seen other high ranges of hills and mountains, presenting altogether, in connection with the islands, a most interesting and sublime view.

KAMINISTIQUIA, or "*Gah-mahnatek-waiiahk*" River, signifying, in the Chipewewa language, the "*place where there are many currents*," empties its waters into Thunder Bay. This beautiful stream affords navigation for about 12 miles, when rapids are encountered by the ascending *voyageur*. Some 30 miles above its mouth is a fall of about 200 feet perpendicular descent.

Extracts from Report on the Geology of the Lake Superior Country.

NORTHERN SHORE. — "Beginning at *Pigeon Bay*, the boundary between the United States and the British Possessions (N. lat. 48°), we find the eastern portion of the peninsula abounds with

bold rocky cliffs, consisting of trap and red granite.

"The Falls of Pigeon River, eighty or ninety feet in height, are occasioned by a trap dyke which cuts through a series

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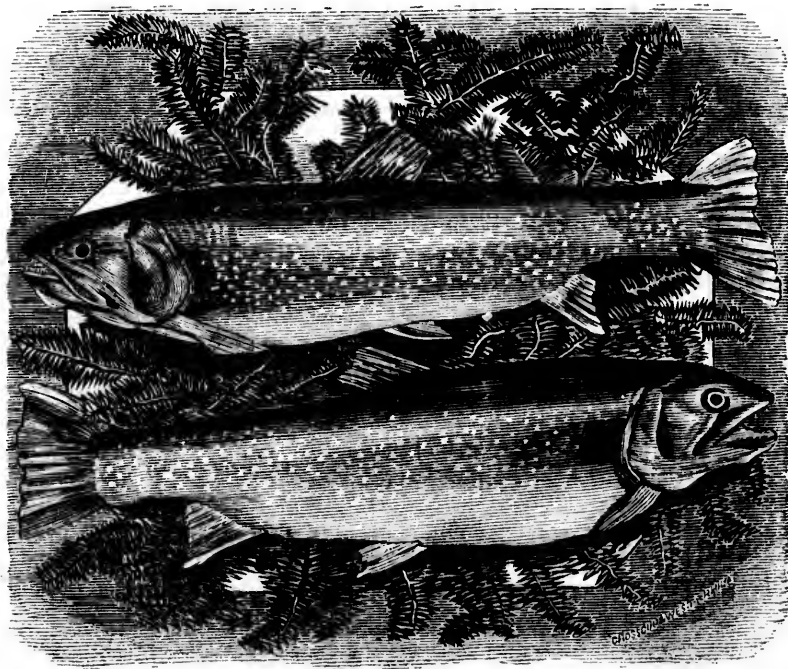
of slate rocks highly indurated, and very similar in mineralogical characters to the old graywacke group. Trap dykes and interlaminated masses of traps were observed in the slate near the falls.

"The base of nearly all the ridges and cliffs between Pigeon River and Fort William (situated at the mouth of Kaministiquia River), is made up of these slates and the overlaying trap. Some of the low islands exhibit only the gray grits and slates. *Welcome Islands*, in Thunder Bay, display no traps, although in the distance they resemble igneous products, the joints being more obvious than the planes of stratification, thus giving a rude semi-columnar aspect to the cliffs.

"At *Prince's Bay*, and also along the chain of Islands which line the coast, including Spar, Victoria, Jarvis, and Pie

Islands, the slates with the crowning traps are admirably displayed. At the British and North American Company's works the slates are traversed by a heavy vein of calc-spar and amethystine quartz, yielding gray sulphuret and pyritous copper and galena. From the vein where it cuts the overlaying trap on the main shore, considerable *silver* has been extracted.

"At *Thunder Cape*, the slates form one of the most picturesque headlands on the whole coast of Lake Superior. They are made up of variously-colored beds, such as compose the upper group of SIR WM. LOGAN, and repose in a nearly horizontal position. These detrital rocks attain a thickness of nearly a thousand feet, and are crowned with a sheet of trappean rock three hundred feet in thickness."



SPECKLED TROUT FROM NEPIGON RIVER—Weighing $5\frac{1}{2}$ lbs. each.

ISLE ROYALE — LAKE SUPERIOR.

As this large and important Island, attached to Michigan, is attracting much attention, owing to its mineral deposits, we copy the following account from a late number of the *Ontonagon Miner*, May, 1874.

"The Island is situated near the North Shore, but at the time the treaty was made with Great Britain, Benjamin Franklin secured it for the United States. Its general course is north-east and south-west; its length about 40 miles. The western end is about 10 miles wide, narrowing toward the east; distant 60 miles north from Ontonagon.

"The surface of the island is rough and uninviting, although healthy and cool during the summer months. It is almost entirely destitute of a large growth of timber, its chief supply being cedar, spruce and tamarack. Its shores are indented with numerous bays and harbors, many of them being large enough for the entrance of steamers and sailing craft. In the early days of mining on Lake Superior, Isle Royale attracted much attention, — say from 1850 to 1860. It was then abandoned, and the few dwellings erected allowed to go to decay.

"During the summer of 1872 an extensive system of exploration was commenced in different parts of the Island. Numerous pits and Indian diggings were found and opened, and the veins proved to be of so much promise that work was continued throughout the season of 1873, and belts of rich copper-bearing con-

glomerates were found and opened, being mostly situated in Sections 29 and 30, Town 64 North of Range 37 West. A company was formed, called the *Island Mining Company*, and a large force of miners set to work last fall.

"A vein of silver, apparently of great promise, has also been discovered on the western end of the Island. This will, no doubt, be followed by other important discoveries, as it lies on the same range with Silver Islet, some 20 or 30 miles north, situated on the Canada shore."

Lake Desor and Siskowit Lake are considerable bodies of water, lying near the middle of the Island. There are also a number of islands along the coast, where are several good fishing stations.

Blake's Point lies on the extreme north end of the Island. To the N.E., distant 3 miles, lies *Passage Island*, and 5 miles farther north are the *Gull Islands*, all being attached to the United States; the boundary line of Canada running immediately north, in latitude 48° 15', being the most northern bounds of the United States east of the Lake of the Woods.

Steamers now run from ports on the South Shore and from Duluth to Siskowit Bay, Washington Harbor, and Rock Island Harbor, Isle Royale; also, to Pigeon River, Thunder Bay, and Silver Islet, forming a deeply interesting excursion during the summer months.

**LATITUDE, ELEVATION ABOVE SEA-LEVEL AND MEAN
ANNUAL TEMPERATURE OF SIGNAL STATIONS
ON THE UPPER LAKES.**

ALPENA, (Lake Huron,) Mich.
Latitude, 45° 05'.
Longitude, 83° 30'.
Elevation of Barometer, 608 feet.
Mean Annual Temp., 43° Fahr.

BUFFALO, (Lake Erie,) N. Y.
Latitude, 42° 53'.
Longitude, 78° 55'.
Elevation of Barometer, 660 feet.
Mean Annual Temp., 46½° Fahr.

CHICAGO, (L. Michigan,) Ill.
Latitude, 41° 52'.
Longitude, 87° 38'.
Elevation of Barometer, 650 feet.
Mean Annual Temp., 47° Fahr.

COPPER HARBOR,* (L. S.,) Mich.
Latitude, 47° 30'.
Longitude, 88° 00'.
Elevation of Barometer, 620 feet.
Mean Annual Temp., 40° Fahr.

CLEVELAND, (Lake Erie,) Ohio.
Latitude, 41° 30'.
Longitude, 81° 74'.
Elevation of Barometer, 682 feet.
Mean Annual Temp., 49° Fahr.

DETROIT, (Detroit River,) Mich.
Latitude, 42° 21'.
Longitude, 83° 07'.
Elevation of Barometer, 656 feet.
Mean Annual Temp., 47° Fahr.

DULUTH, (L. S.,) Minn.
Latitude, 46° 48'.
Longitude, 92° 06'.
Elevation of Barometer, 642 feet.
Mean Annual Temp., 40° Fahr.

ERIE, (Lake Erie,) Penna.
Latitude, 42° 07'.
Longitude, 80° 03'.
Elevation of Barometer, 671 feet.
Mean Annual Temp., 48° Fahr.

ESCANABA, (Green Bay,) Wis.
Latitude, 46° 44'.
Longitude, 87° 16'.
Elevation of Barometer, 600 feet.
Mean Annual Temp., 41° Fahr.

GRAND HAVEN, (L. M.,) Mich.
Latitude, 43° 05'.
Longitude, 86° 15'.
Elevation of Barometer, 616 feet.
Mean Annual Temp., 47° Fahr.

MACKINAC,* (Lake Huron,) Mich.
Latitude, 45° 51'.
Longitude, 84° 33'.
Elevation of Barometer, 700 feet.
Mean Annual Temp., 41° Fahr.

MARQUETTE, (L. S.,) Mich.
Latitude, 46° 33'.
Longitude, 87° 36'.
Elevation of Barometer, 666 feet.
Mean Annual Temp., 40° Fahr.

MILWAUKEE, (L. M.,) Wis.
Latitude, 43° 03'.
Longitude, 87° 54'.
Elevation of Barometer, 661 feet.
Mean Annual Temp., 46½° Fahr.

TOLEDO, (Lake Erie,) Ohio.
Latitude, 41° 40'.
Longitude, 83° 32'.
Elevation of Barometer, 649 feet.
Mean Annual Temp., 50° Fahr.

NOTE.—Variation of Mean Annual Temperature, from 40° to 50° Fahr.

* Not Signal Stations,

LAKE SUPERIOR,

Its Bays, Harbors, Islands, Tributaries, &c.

OBJECTS OF INTEREST ON THE SOUTH SHORE.

	Miles.		Miles.
Saut Ste. Marie, Mich. N.		<i>Portage Entry and Light (West),</i>	245
lat. 46°30', W. long. 84°43'.		Portage Lake,.....	6-251
Head of Ship Canal and Rapids,	1	HOUGHTON, † N. lat. 46°40', W.	
Round Island and Light,.....	6-7	long. 88°30'.....	8-259
Waiska Bay,.....	2-9	<i>Hancock, †</i>	1-260
Iroquois Point and Light,.....	7-16	Head of Portage Lake (8 miles),	268
Toquamenon Bay and River,....	9-25		
White Fish Point and Light,	15-40	Traverse Island from Portage	
Carp River,.....	20-60	Entry,.....	10-255
Two-Heart River,.....	6-66	Tobacco River,.....	12-267
Sucker River,.....	12-78	<i>Lac La Belle, †</i> and Bete Grise Bay	14-281
Grand Marais River,.....	12-90	Mount Houghton (900 feet high).	
Grand Sauble, 300 feet high,....	10-100	Montreal River (Fishing Station),	6-287
Cascade Falls, 100 feet,.....	18-118	Keweenaw Point,.....	8-295
The Chapel,.....	2-120	Manitou Island and Light.....	3-298
Arched Rock, or Grand		COPPER HARBOR, † N. lat. 47°30',	
Portail,.....	4-124	W. long. 88°,.....	10-308
Sail Rock,.....	2-126	Agate Harbor,.....	10-318
The Amphitheatre, ...	2-128	<i>Eagle Harbor †</i> and Light,.....	6-324
Miner's Castle, & River, } Pictured	3-131	EAGLE RIVER, † N. lat. 47°25',	
Grand Island and Harbor,.....	3-134	W. long. 88°20',.....	9-333
<i>Munising</i> , and Iron Works.....	2-136	Entrance to Ship Canal & Portage	
ONOTA, Schoolcraft Co.....	4-140	Lake Route,.....	20-353
Au Train Island, and River....	9-149	Salmon Trout River,.....	8-366
Au Sauble River,.....	6-155	Graveraet River,.....	5-366
<i>Harvey</i> , Mouth Chocolat River,..	12-167	Elm River,.....	8-374
MARQUETTE * AND LIGHT, N. lat.		Misery River,.....	5-379
46°32', W. long. 87°41'.....	3-170	Sleeping River,.....	6-385
Dead River,.....	2-172	Flint Steel River,.....	6-391
Presque Isle,.....	1-173	ONTONAGON, † N. lat. 46°52', W.	
Middle Island,.....	2-175	long. 89°30'.....	9-400
Granite Point and Island,.....	5-180	Iron River,.....	11-411
Garlic River,.....	8-188	Porcupine Mount'ns, 1,300 ft. high,	8-419
Little Iron River, and Lake Inde-		Carp River,.....	10-429
pendence.....	10-198	Presque Isle River,.....	6-435
Salmon Trout River,.....	8-206	Black River,.....	6-441
Pine River and Lake,.....	6-212	<i>Montreal River</i> boundary between	
Huron Islands and Light,.....	10-222	Michigan and Wisconsin,....	20-461
Huron Bay,.....	6-228	Maskeg, or Bad River.....	10-471
Point Abbaye,.....	4-232	Chaquamegon Point, Bay, & Light,	11-482
Keweenaw Bay (13 miles wide)		<i>Ashland</i> , Wisconsin, head Chaqua-	
<i>L'Ance</i> , and Settlement (South), .	13-245	megan Bay.	

	Miles.		Miles.
<i>La Pointe</i> , Madeline Island,.....	3-485	Burnt Wood River,.....	10-545
(The Twelve Apostle Islands).		Poplar River,	9-554
BAYFIELD, Wisconsin, N. lat.		Cotton Wood River,.....	4-558
46°45', W. long. 91°3',	3-488	Amican River,	2-560
Basswood Island,	7-495	Mouth Nemadje, or Left Hand	
Raspberry Island, and Light,....	6-501	River, (Alloues Bay).	
York Island,	4-505	Wisconsin Point,.....	7-567
Fishing Island,.....	4-509	Minnesota Point and Light,	1-568
Bark Bay and Point,	10-519	St. Louis Bay and River.	
Apakwa, or Cranberry River, ...	6-525	Superior City , Wisconsin,	1-569
Iron River,	10-535	Duluth , Minnesota,.....	7-576

* Shipping Port for Iron. † Shipping Ports for Copper.

Objects of Interest on the North Shore.

	Miles.		Miles.
Superior City , Wisconsin,		FORT WILLIAM, Canada, N. lat.	
N. lat. 46° 40', W. long. 92°,		48°23', W. long. 89°27',... ..	3-150
(<i>Superior Bay</i> .)		<i>Prince Arthur's Landing</i> , 3½ miles,	
Duluth , Minn.	7	Thunder Cape, 1,350 feet high,..	15-165
Lester River,	5-12	<i>Silver Islet</i> , Canada,	5-170
Kassabika River,.....	7-19	Black Bay, ..	5-175
French River (Copper Mines), ...	3-22	Point Porphyry,.....	5-180
<i>Buchanon</i> ,	4-26	Entrance to Neepigon Bay & River	30-210
Knife River (Copper Mines), ...	1-27	Ste. Ignace Island,.....	10-220
<i>Burlington</i> ,.....	10-37	Slate Islands,.....	30-250
Stewart's River,.....	3-40	Pic Island,	15-265
Encampment River and Island ..	3-43	Peninsula Harbor,.....	8-273
Split Rock River,.....	7-50	Pic River and Harbor,	10-283
<i>Beaver Bay</i> , N. lat. 47°12', W.		Otter Island, Head and Cove, ...	30-313
long. 91°	10-60	Michipicoten Island, 800 ft. high,	25-338
Palisades,	5-65	<i>Michipicoten</i> , Harbor and River,	
Baptism River,.....	1-66	N. lat. 47°56', W. long. 85°06'.	45-383
Little Marais,.....	6-72	Cape Gargantua,	25-403
Manitou River,	3-75	Leach Island,	12-420
Two-Island River,.....	8-83	Îlard Islands,.....	6-426
Temperance River, ..	5-88	Montreal Island and River,	14-440
Poplar River,	6-94	Mica Bay (Copper Mine),	20-460
<i>Grand Portage</i> , Indian trading		Mamainse Point,	6-466
post, N. lat. 47°50', W. long.		Batchewanaung Bay (Fishing St'n)	10-476
90°.....	16-110	Sandy Islands,	4-480
Isle Royal, attached to Michigan,		Maple Island,	7-484
<i>Pigeon River</i> , boundary between		Goulois Bay and Point,.....	8-495
the United States and Canada,	10-120	Parisien Island,	5-500
Pic Island, 700 feet high,.....	20-140	Gros Cap, 700 feet high,.....	10-510
Welcome Island,	7-147	Point Aux Pins,.....	7-517
Mouth Kaministiquia River,		Saut Ste. Marie , Canada, ..	8-525

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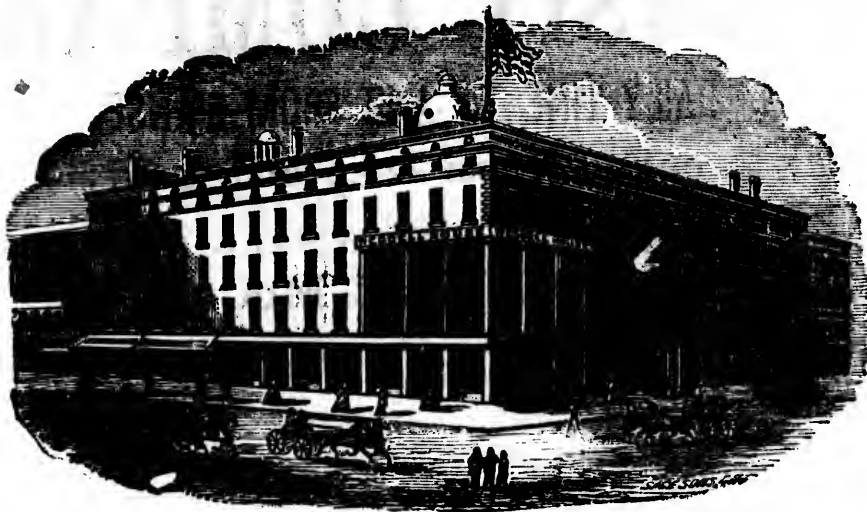
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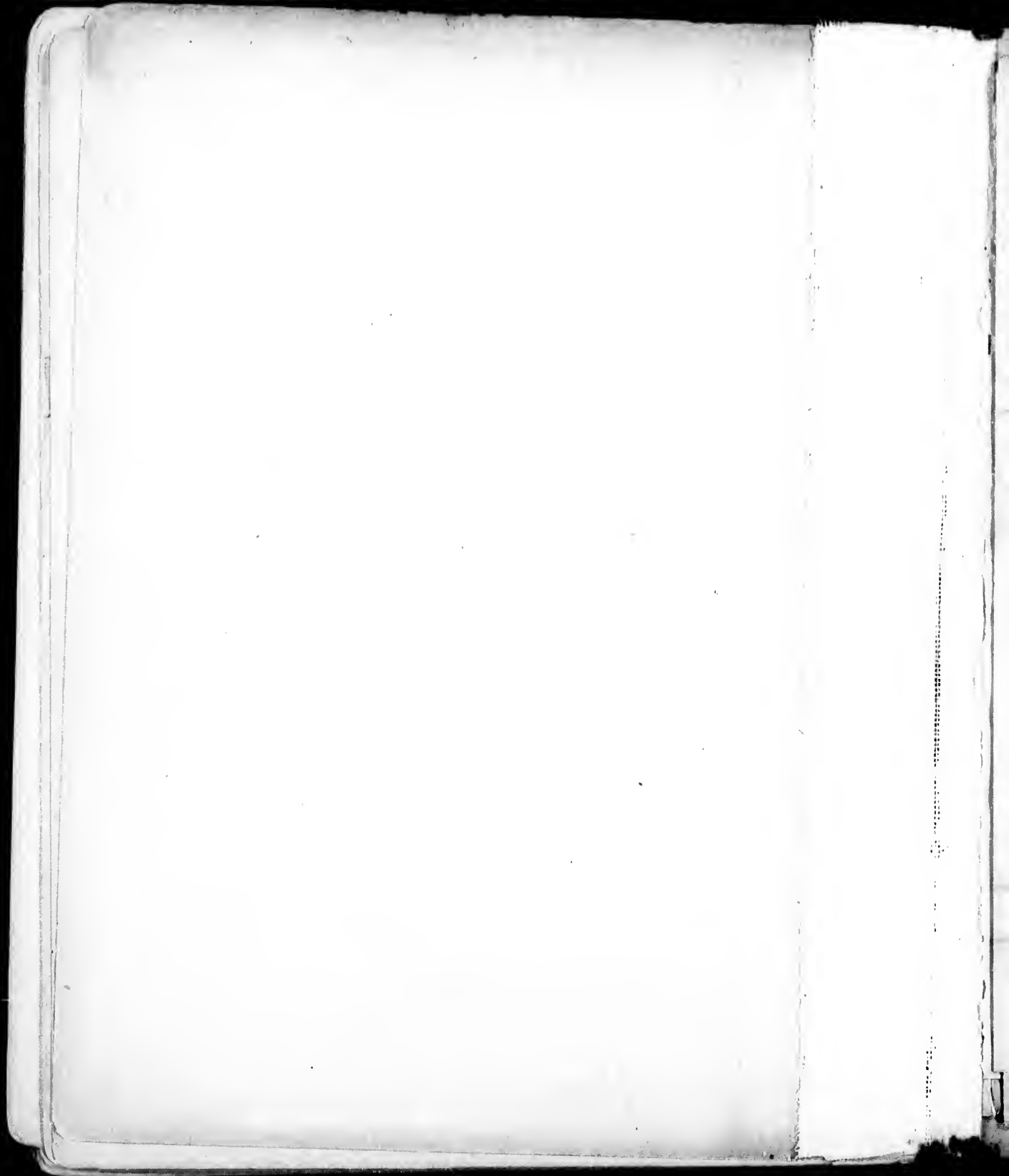
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