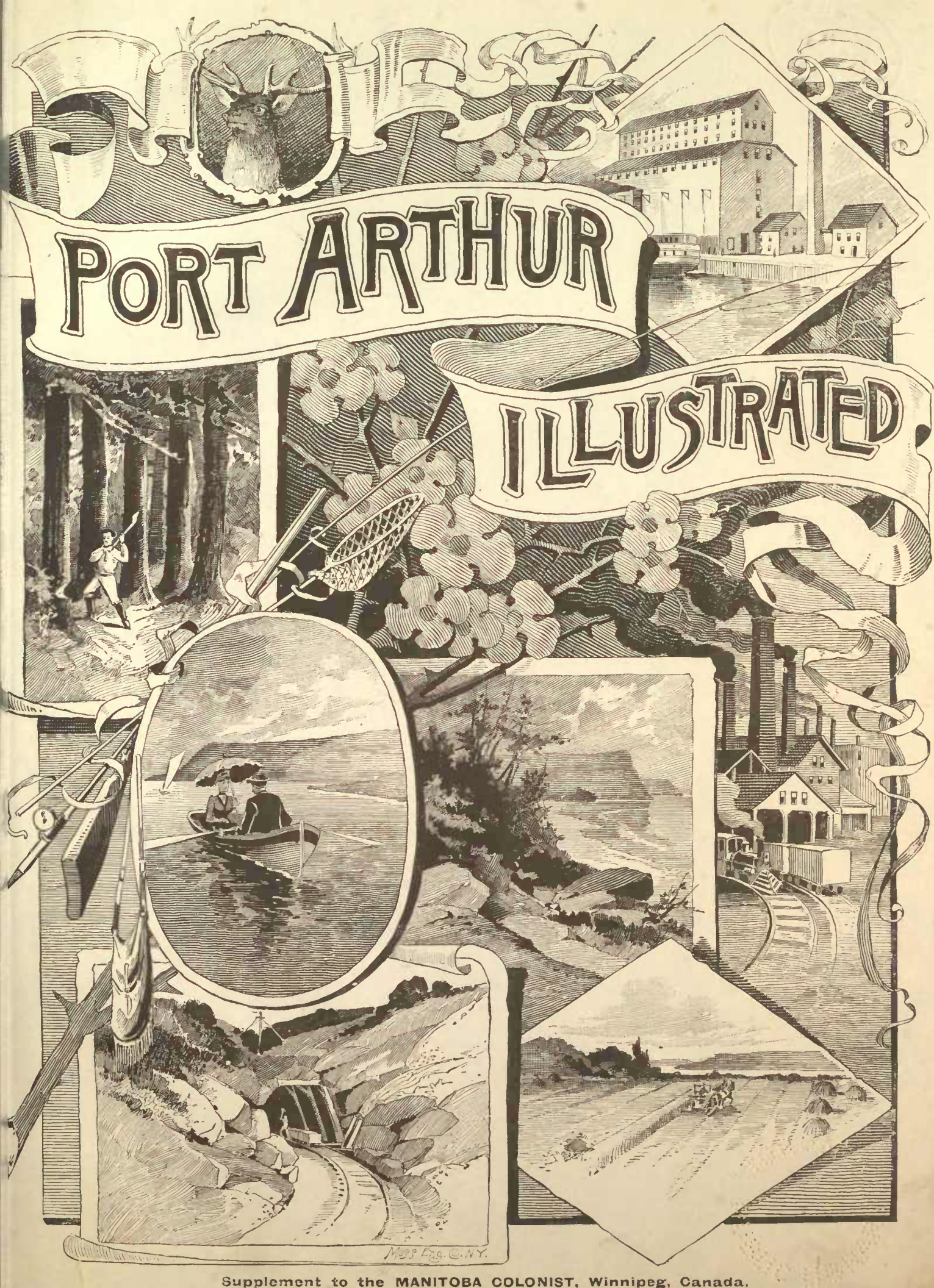
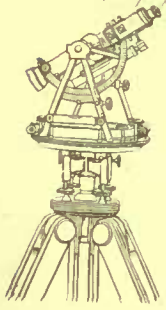
PORT ARTHUR

—

ILLUSTRATED.



Supplement to the MANITOBA COLONIST, Winnipeg, Canada.

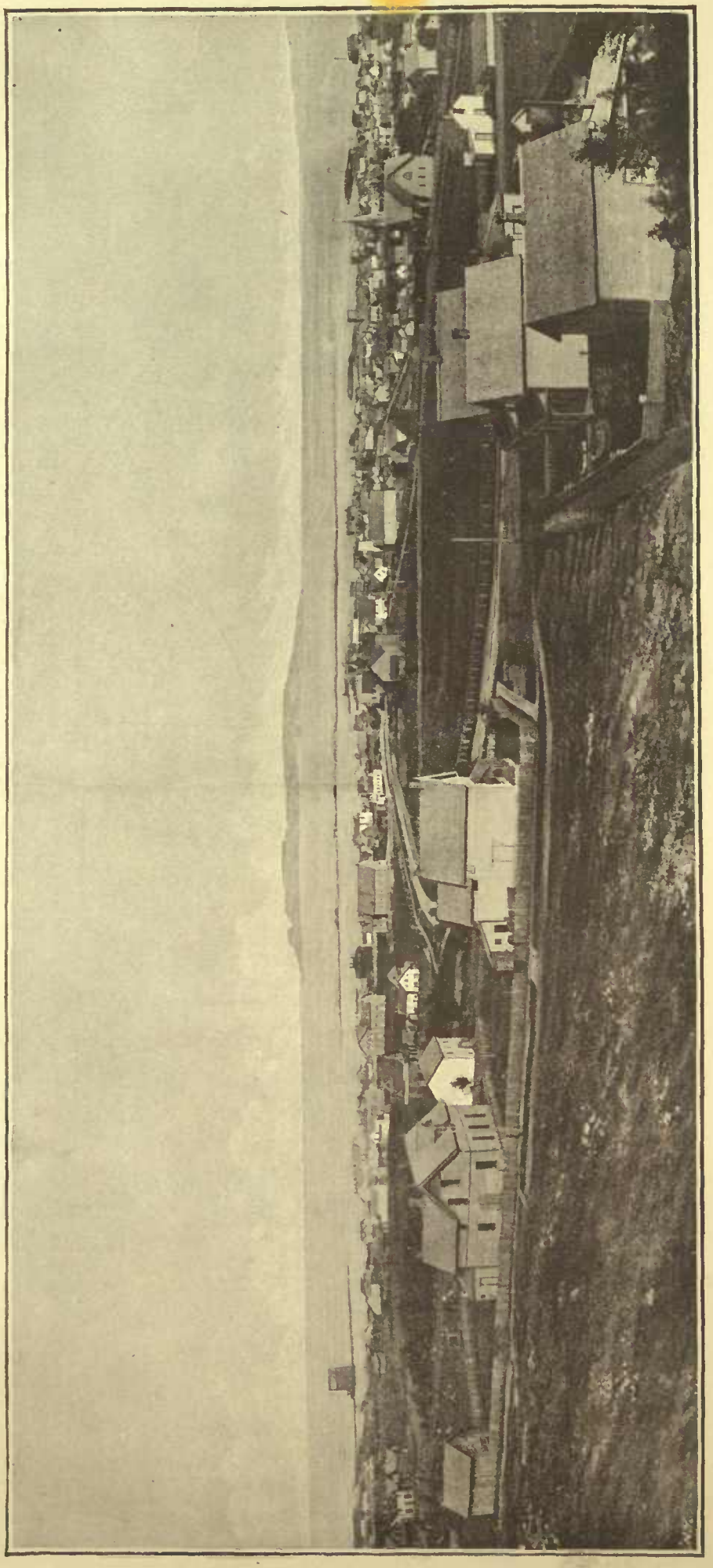


WALPOLE ROLAND,
C. E., M. E.
Topographical Surveyor,
PORT ARTHUR, CANADA.

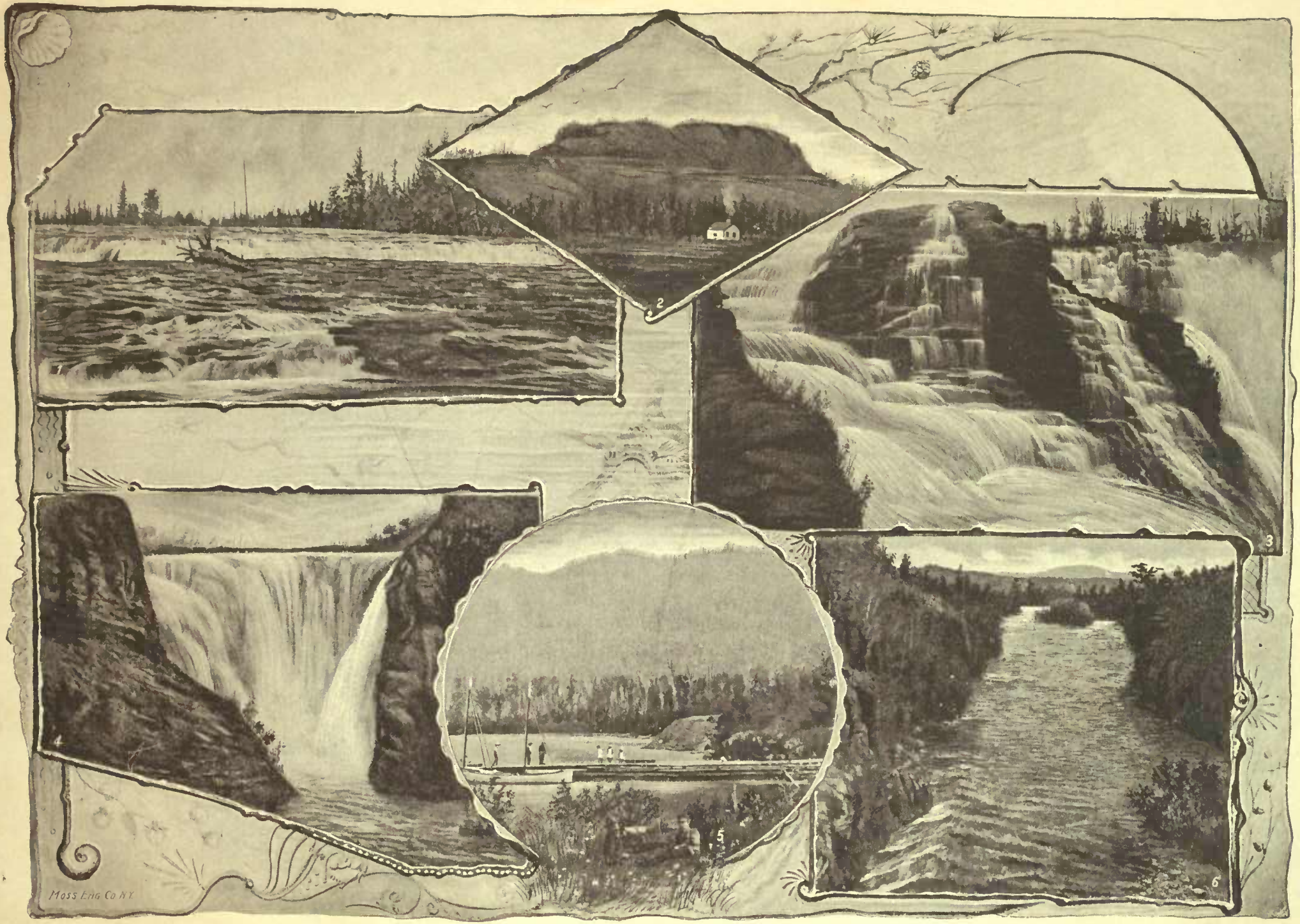
MINES REPORTED ON.

EXAMINER AND VALUATOR FOR THE CANADIAN PACIFIC RAILWAY COMPANY.

REFERENCES:—ALLIANCE BANK AND MINING JOURNAL, London, England; ENGINEERING AND MINING JOURNAL, New York, U.S.A.; ONTARIO BANK, Port Arthur, Canada.



PORT ARTHUR—LOOKING SEAWARD.



1. Current River Falls.
2. Mount Mackay.
3. Kakabeka Falls.
4. Kakabeka Falls.
5. Pie Island.
6. Gorge below Falls.

With compliments of

William Bishop & Co.

Port Arthur Illustrated

WITH A DESCRIPTION OF ITS

PRODUCTS, RESOURCES AND ATTRACTIONS.

PORT ARTHUR, CANADA, MAY, 1889.

Introduction.

THE aim of this work is to present the resources and attractions of Port Arthur and its tributary districts, in an interesting and accurate form. It is also intended as a record, which every resident will be proud and anxious to own and preserve, and one too which will reflect lasting honor and credit upon his home, and we are confident that everyone interested in any way, will feel a thrill of pride in its production. It is not the intention to amaze the reader by brilliant word passages, but to engage attention by faithful illustrations with concise and exact statements. This is the first of its kind ever issued in Canada, and also the most beautiful, complete and expensive. The compiler is not aware of any similar production surpassing it, and only one that equals it in all America. With this proud distinction, a striking tribute to the enterprise of the people and proof of faith in their country, these six thousand lovely messengers speed around the world upon their errands.

Explanation.

From the original desire to illustrate some of the residences, this work has grown to its present form. The mature plan included several more pictures, but from various causes beyond our control they could not be had in time. It was intended to show the commercial and national importance of Port Arthur partly by groups of its merchants, professional men and Government officials, Civic, Provincial, and Federal; but the delay of some and the diffidence of others prevented the completion of all the groups, and the reader will therefore understand that these illustrations do not comprise all those that should be. The scenery and resources also would have had greater attention in engravings could sufficient photos been had or the season and time at command permitted special ones being taken. Few would believe the amount of time, work, thought and money expended, and the care attendant upon a book like this.

Origin of Name.

Port Arthur was first called "The Station." In 1870 General Wolseley came up the lakes with troops on the way to Manitoba, in the Chicora, Capt. McLean. On board also were Mr. Thomas Marks and Mr. Wm. Murdoch, C.E., with his staff to define the line of the Canadian Pacific Railway. Passengers and goods were then lightered ashore, there being no docks. Upon leaving the steamer General Wolseley asked Mr. Marks the name of the place, and being told, said "we'll call it Prince Arthur's Landing." The name took readily among the 200 residents and held until 1874, when the municipality of Shuniah was created and officially fixed the name, which so remained until 1883. Then the C.P.R. being under way, the name was changed by their wish to Port Arthur, supposed to be partly as a companion to Port Moody, the Pacific terminus, and a compliment to Prince Arthur and partly for President Arthur. The name of the post office was also changed, and in May, 1884, when the town was incorporated, the name was finally and formally adopted.

Important Position.

Along Water Street, Port Arthur, there daily run all through-trains of the Canadian Pacific Railway, the greatest on the globe. It is distant 993 miles from the Atlantic ocean, at Montreal on the east, and 1912 miles from the Pacific, at Vancouver on the west. On the north it has Hudson's Bay, about 500 miles away, and on the south the International boundary, at Pigeon river, is distant some 60 miles. It is at the head of navigation on Lake Superior, the greatest body of fresh water on the world, and from its splendid harbor in beautiful Thunder Bay extends an unbroken water connection to the Straits of Belle Isle and the Atlantic, through the other great lakes, the canals, and River St. Lawrence, a distance of 2260 miles. The difference in level between Lake Superior and the point on the St. Lawrence near Three Rivers, where tidal influence ceases, is about 600 feet.

It is the nearest seaport to the great fertile prairies of Manitoba and the Western Territories, and is the supply centre for the extensive mineral region in the adjacent country. In addition to all these advantages it is the distributing point for Thunder Bay district and western Algoma, or an area of 400,000 square miles, being without a competitor in that immense territory.

For Health and Pleasure.

There is no healthier region or more beautiful scenery than on the north shore of Lake Superior. The air is almost intoxicating with its clearness and tonic effect, and the cool breezes from the lake render every nights' sleep, in the hottest summer, certain and restful. The trip on the lakes is quite as beneficial as an ocean voyage, and much less expensive, while the splendid new steel passenger steamships, now running almost daily, render it safe, speedy, and most enjoyable. With these merits it combines close connections with all principal points in the world, and one can easily reach or leave it when desired, and while there may be in ready touch with home, friends, and business. And there is also the prospect of mak ng an investment that will be very profitable, as the district is new and very rich in varied resources, so that the head of the family while paying for his family's enjoyment has an opportunity for reimbursment in a business line.

A Seaside Resort.

Nature seems to have dropped Lake Superior down in a most inviting position, and fitted it with every attractive feature. If not the Sea it is "Brother to the Sea" as Crowfoot, chief of the Blackfeet Indians expressed it. Of all the beautious spots none excel Thunder Bay in scenic or sporting privileges. Here too with Port Arthur as the chief town, one is within easy reach of all the details of civilization, an important feature, as business men who holiday, know. Here also one finds

good hotels, within a few yards of the lovely bay, and in the townspeople many familiar faces making the visitor feel home-like. Take your tickets to Port Arthur and return, including railway and sleeping car, and make a short trip on the lake, say one to three days, to some of the several interesting points. The whole thing could be done in a short time and would return more health, pleasure, change, and information, than perhaps any other available trip, for the moderate amount expended.

Rich and varied Attractions of the Woods, Waters and Rocks.

THE Port Arthur district has certainly many different attractions, its scenery being romantic and very beautiful, its game and fishing abundant and almost untouched. The geologist, the botanist, and naturalist here find specially interesting research: there the Laurentian formation rears its western head in Mount Mackay, whose thousand feet of timetorn cliff are mirrored in the charming Kaministiquia river, whose waters a few miles above leap one of the most beautiful falls in Canada, the excavation of their bed being itself a study. The height of land or water shed separating Hudson's Bay and Lake Superior is here in Algoma, and is also the dividing line for much of the flora and fauna. Many things found in Algoma are not again seen west of there until British Columbia is reached. The mulberry, capillaire, blueberry and moss cranberry, among fruits; the brook trout and red deer, in game, and some forms of lesser animal and plant life. You may also add the many lovely walks, drives and water trips by canoe or rail or steamers, with the gathering of wild fruits, rasps, saskatoons, gooseberries, strawberries, mulberries, blueberries and cranberries. The silver and gold-bearing veins and certain other economic products are not again found until the Rocky Mountains are reached. The trout fishing alone should draw all anglers who seek new fields and ample sport, for in the Nepigon and lesser streams as the Blende, Carp, Pigeon, Mackenzie, and others, are natural preserves of the gamest speckled fly-risers from six ounces to three and five pounds. The writer saw one lot from Carp river, thirty in all, only six of which weighed under two pounds, the rest being from two to three pounds, each. As for the Nepigon, the size of the fish and their plentitude and the exquisite beauty of the river and lake are sweet memories for life, some of the takes that have been made would not be credited by sportsmen accustomed to fishing the "tired" waters of older districts. There is a Loch Lomond on top of Mount Mackay, overlooking the town, which has such trout and grouse sport as would make the travelled sportsmen wonder how it could be kept quiet so long, and yet not over half a dozen know of it. The trolling for black bass in Loon lake, and for big trout, pickerel and pike in Lake Superior and smaller lakes and streams in all the district, is abundant and exciting from the size and vigor of the fish in these cool waters. The gunner may seek cariboo deer, bears, foxes, geese, ducks, snipe, rabbits, three kinds of grouse, and other smaller game; and the whole fills a rich bill of varied charm and benefit. One thing the traveller in this Great West might remember with comfort and profit to himself, and that is not to bring provisions or other supplies, as he can buy them at Port Arthur at reasonable prices and suitable to his wants and the country. Bring your favorite rifle and gun, your trusty rod and tackle, your hunting suit and gripsack, take a circular letter of credit from your home bank, and you are "ready for fun and bear."

Running the Kaministiquia.

From its source to its mouth, a constant feast of romantic curves, green clad banks, and dancing water, with long placid reaches, in which mirror fairy isles of varied size. One of the joys hereabout is to run the many rapids of this river, in a canoe, and under proper conditions it is a pleasure likely to last for some years. The requisites are a good canoe, canoemen, fine weather, genial company and fitting provision.

Upon a calm, clear afternoon in August, three of us put a Peterboro canoe in this river at Kaministiquia station, on the Canadian Pacific Railway, and began the race and within five minutes passed the first rapid, though an easy one. In a trip of this sort one needs to travel as lightly laden as possible and the fact that our knives and forks were forgotten, and were little missed, shews how little is necessary. With two blankets for each person, a tin cup and pan, a knife and fork, an axe, a water can, a fry-pan and some provisions, one can manage well, as the trip only occupies about a day. Safely stored in the centre of a tight canoe with a good guide ahead and equally good steersman behind, one can enjoy life for awhile.

With Messrs. H. K. Wicksteed, C. E., and J. M. Munro, Registrar, both of Port Arthur, and both skilled canoeists, the writer ventured his many years of inexperience, and was well repaid, though slightly dampened about the foundations, Soon after starting, the noise of a fall was heard, and the first portage or carry was made, the canoe and contents being carried on shore around the Mokoman falls, where the stream descends some twenty-five feet in the hundred, taking a quick turn through a split rock, into the "lace" pool, a long and wide pool, upon whose calm face lies the creamy foamlace in fretted flakes. As the La Chute was next passed, the setting sun shot directly through the rocky way, its soft, golden rays, and here another carry was made into a charming bay, when, after a short run, the Island rapid and a good camping place was reached. Carrying the things up, the engineer soon had a brisk jack pine fire going and the lawyer parboiled the bacon and then fried it and some eggs in the most artistic manner, and with creamery butter, good bread, canned fruits, opened with the axe, assisted with good appetites, an hour flew. And as night came on and the quieting shadows crept up the spruce and pine and poplar, and while the ceaseless falling water lulled the listening ear, the chat and thought grew faint and fainter into sleep.

In the morning the same succession of rapids, long reaches, and engaging scenery were passed through, and small patches of cleared land were seen under cultivation, the soil a good clay loam, some six inches deep. After passing Ecarte fall, quite a heavy descent in several breaks, by a half-mile carry, and going slowly across a river bay, the roar of the Kakabeka falls was heard ahead, and a long portage had to be made around it, though stopping half way to visit the falls, some hundred yards from the path. Including the volume of water, beauty of surroundings, and of fall, it is one of the most exquisite spots in Canada, and well deserves a special trip by tourists. Below the falls came a series of lovely wooded and fern edged isles; in a wide wide river, a kingfisher dropped from a tree stump and glinted across, a peewit circled out, a pigeon swifted overhead, and a duck dropped lazily down into the smooth water. The bridge of the new railway was the next sign of occupation, and across it teams from the silver mines were passing. At Point de Meuron is historic ground, and the site of a farm of the Hudson's Bay Company, soon a bed of water lillies was passed with one perfect flower floating, and now civilization set its foot firmly down and the steam craft, the grain elevators, and the sight of Port Arthur lying on the distant crescent gave warning of the close of a charming trip.

Distances From Port Arthur

TO	MILES BY RAIL.	TO	MILES BY WATER.
Winnipeg	430	Duluth	180
Vancouver	1918	Sault Ste. Marie	270
Toronto	857	Chicago	690
Montreal	993	Owen Sound	520
Quebec	1165	Sarnia	614
Portland	1290	Buffalo	920
New York	1473	Toronto	980
Halifax	1575	Montreal	1270
St. Paul	840		

The Customs.

Port Arthur was formerly a sub-port of Sault Ste Marie, but on July 1st, 1874, was made a port of entry, Fort William and Silver Islet being made outports of it at same time. Mr. Peter Nicholson is collector, with J. E. Williams, landing waiter, and J. L. Boyce, clerk. This table shows the growth of the port through its customs work.

Year.	Imports.	Exports.	Duty Collected
1884-5	$924.591	$44,310	$109,782 96
1885-6	283,771	69,068	64,500 36
1886-7	269,367	86,315	70,705 59
1887-8	421,891	890,847	85,436 40

Vessel Tonnage Owned in Port Arthur.

Steam vessels—Algonquin, steel, 2,240 tons, Clyde built, for Thos. Marks & Co., in 1888.

Steamer.	Steamer.	Tug.	Lighter.
Kakabeka,	Butcher Boy,	Mary Ann,	Black Prince,
Kate Marks,	Ida,	Salty Jack,	Dude,
Brothers,	Hattie Vinton,		Reciprocity.
Richmond.			

THE NEPIGON RIVER.

SPECKLED TROUT FROM THE NEPIGON.

A MORNING'S FLY-FISHING.

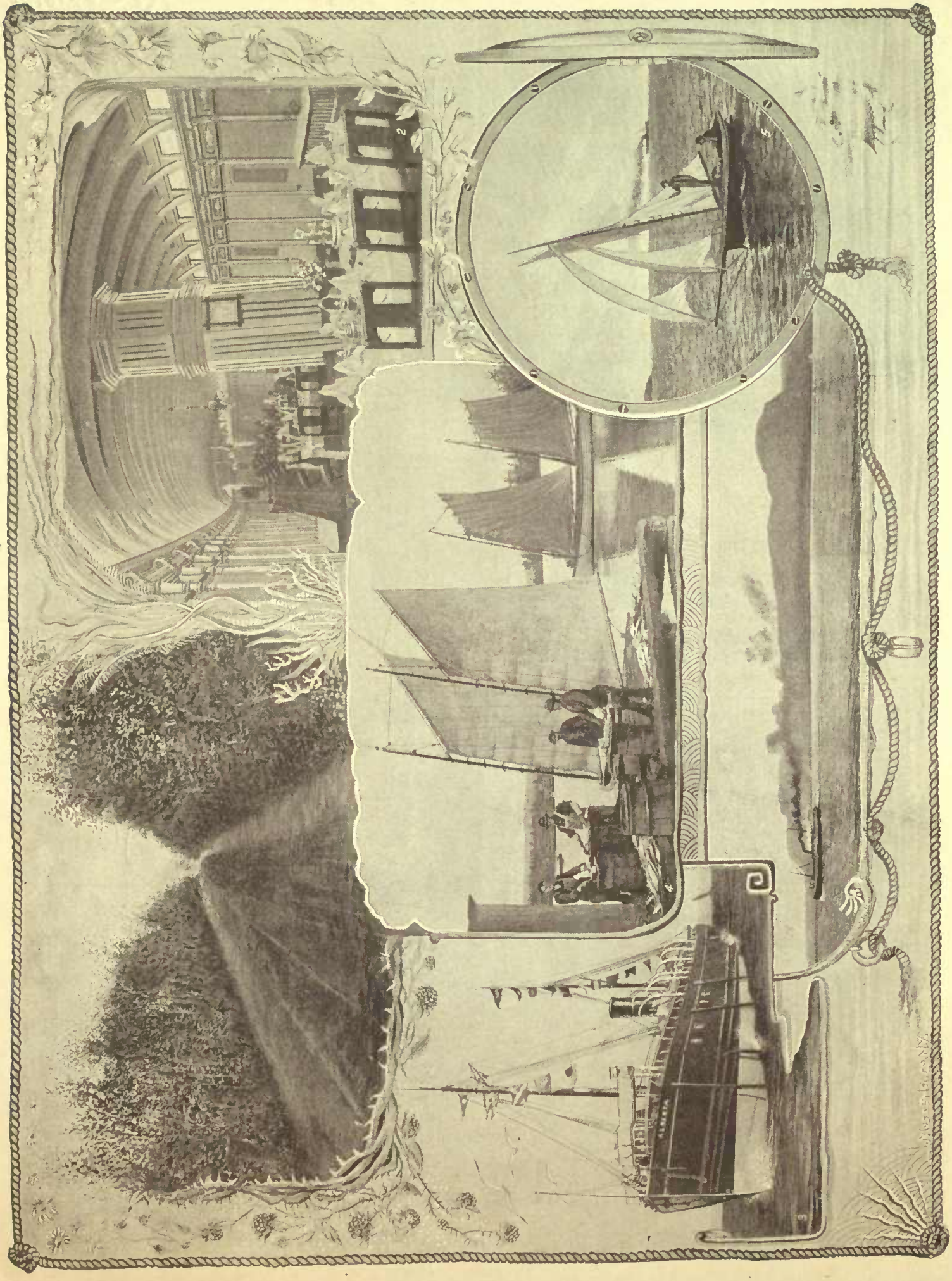


PLATE A.

1. Dawson Road.
3. Canadian Pacific Railway Lake Passenger Steamship.
5. Yachting on Thunder Bay.
6. Thunder Cape.

Shuniah Municipality.

This was first composed in 1873 as stated in the Town Government, but in 1880-81 it was divided: Neebing, Paipoonge, Blake, Crooks and Pardee—being erected into the separate municipality of Neebing. In 1883-84 it was again divided, the Town of Port Arthur being incorporated out of it as stated. It is under and subject to the provisions of the Shuniah Act, the fiscal year being from the 1st July to 30th June. The present officers are:—W. L. Bell, Reeve, with Councillors J. C. Hasking, Wm. McPharland and A. L. McEwen; Clerk and Treasurer, W. H. Langworthy; Solicitor, F. H. Keefer.

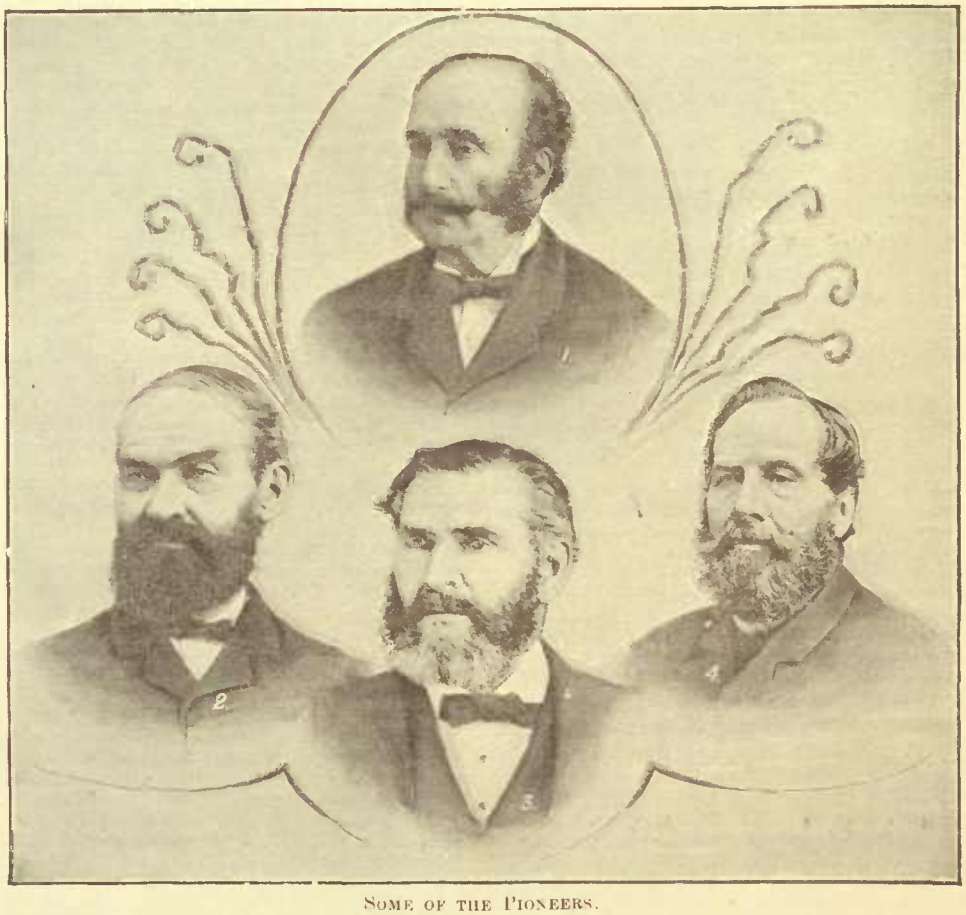
On the Nepigon.

This name is also spelled Nipigon and Neepigon, but Nepigon is the usual form, that being the name of the station near the river and on the Canadian Pacific Railway 65 miles east of Port Arthur. The river, the lake it flows from and the bay it flows into are named alike,

THE LAKE

lies northwest of Lake Superior, and was surveyed by Prof. Bell in 1868, who considers it the most beautiful of all the great lakes. It contains a great many islands from two to fifteen miles long, the water being clear and cold. The lake is the sixth and last in the chain of Great Lakes, being about as large as Lake Ontario, having a coast line of 500 miles. It is nearly 75 miles long from north to south, and 50 miles wide with deep bays. Some 16 rivers enter it, one, the Kabitotiquaik, has 30 miles averaging 15 feet deep for the first four miles.

At the head of the lake the Hudson's Bay Co. have had a fur post for about a century, and Messrs. Botsford & McLaurin also have one as it is a rich fur country. The country bears a variety of timber and the mineral wealth is varied and great, while extensive tracts of cultivatable soil exist.



SOME OF THE PIONEERS.

JAMES DICKSON. S. J. DAWSON, M.P. JAMES FLAHERTY. ROBERT MAITLAND.

NEPIGON RIVER.

This is the largest and clearest that enters Lake Superior. It is 43 miles long, a series of most picturesque expansions and rapids, the principal pools or widenings being Helen, Jessie, Minor, Hanna and Hamilton, and the chief rapids Alexandria, Narrows, Island, Split Rock, Pine and Little Flat Rock. The stream averages 285 feet wide and has 15 chutes or falls. Near the river mouth is the famous Red Rock sacred to the Manitou or Great Spirit, and carved with symbolic characters by early Indians who made their calumets or pipes from it. Here also is an old post of the Hudson's Bay Co., and a good dock to which vessels can run direct from any point on the Great Lakes, and have a safe harbor. Opposite is an Indian mission with its church and school and neat white houses. The river and lake abound with fish of several kinds, especially the true speckled trout which reaches twelve pounds weight and those of two to three pounds are quite common. The scenery from the entrance of the bay to the lake head is simply exquisite, and *Forest and Stream*, the authority in America, speaking of it says: "To those few who know, no word of appreciation is needed. The wonderful Nepigon with its glorious trout and its magnificent scenery shows upon its portage trails the tread of less than a hundred anglers yearly. Can it be that anglers have not heard of these waters."

The Nepigon's Glorious Fishing.

Judge John M. Hamilton, now of Port Arthur, then living at Sault Ste. Marie, was the first fly fisher on the Nepigon, having taken a Mackinac boat direct from the "Soo" to the present Camp Alexander, arriving there June 22nd, 1863. With him were Messrs. Alexander, of St. Louis, and Capt. Dodds, of Indianapolis, their guide being a half-breed named Kenosh or Etienne Jolyneux. The Judge discovered the pool named after him, and the party were astounded at the fishing, the trout plainly seen swimming and jumping—in fact the guide became frightened thereat, thinking the place enchanted as he had never seen so many fish before. The weight of single trout on this stream is heavier than any other known. One party in the last of August, 1888, had fish 5, 6, 7½, 10 and 12 pounds, and Mr. Leronde, of Nepigon House, has taken them up to 17 pounds and down to five each. One writer says fishing in the Nepigon is wearisome from its success, and the record book at Nepigon, in which fishers are required to enter the number and weight of catch is startling to anglers accustomed to the fingerlings of elsewhere. This book is kept by the Hudson's Bay Co's factor there, and was begun in 1874, the first name being W. M. Cameron, Cincinnati, July 2. Since then over 1,300 visitors have enrolled thereon, the yearly average being about 75, last year being the largest with some 160. In 1880 a record of the number and weights of the trout caught was begun, and a couple of entries we give, July 10th to 23rd, 1886, L. H. Clark of Palmerston, W. D. Mathews of Toronto, Canada, and two others, caught 243 trout, including 1 of 7½ pounds, 2 of 7, 10 of 6, 16 of 5, 26 of 4 and 64 of 3 pounds each. From July 19th up to August 20th, of 1886, F. H. Birds, George A. Gates, of New York, and two others caught 950 pounds of trout and in one day, August 16, caught 102 pounds.

Lake Superior.

This grand reservoir of the St. Lawrence, is over 350 miles long by 160 miles in its widest part, comprising an area of 32,000 square miles. Its greatest depth is 1,200 feet, making its bottom 603 feet below and its surface 597 feet above sea level. The chief rivers flowing into northern Lake Superior are the Kaministiquia, next the Nepigon, the Black Sturgeon, Current, McKenzie, Carp, and many lesser streams, all having their origin in the height of land or watershed dividing the waters flowing into Hudson's Bay from those of Lake Superior.

Mining in Port Arthur District—Past and Present History.

CAPITALISTS, and others interested in this district will wish to know the following: Has this region been examined and prospected for minerals, to what extent, and what results? What is the present state of the mining industry, and what has been done in the past? What experience has been gained of the nature and habits of the mineral deposits and how does it apply to the recently discovered mining sections of the region? To these questions it is hoped to furnish satisfactory answers in this account of mines and mining on the north shore of Lake Superior from the opening of work, forty-three years ago, up to the present. The area under description is very great, extending through a tract comprised within ten degrees of longitude and three degrees of latitude, or nearly as large as England, and includes the silver-bearing area extending southwest and tributary to Port Arthur. This great district was almost unknown until a fairly recent time, and even now large sections of it are only known to a very few and have been nearly without notice from mineral explorers. Speaking generally the whole region is a great rocky area covered with bush, mostly very dense, and with extensive muskegs. Considerable stretches of the timber are useful, chiefly pine and poplar, but much of the bush is useful only for mining purposes. Districts of large size of good farming lands also exist, and some are in cultivation. For the mineral explorer it offers many advantages, the rocky hills and mountains, and numerous lakes and rivers with large rock exposure giving fine chances for finds, and these water stretches also affording ready boat routes to the interior. Though the geological features are diversified, the rocks consist of a Laurentian gneissic and granitic, within which are found numerous areas of plutonic or volcanic rocks and metamorphic slates, etc., thought to be of Huronian age, whilst overlying these, chiefly round Thunder Bay and Lake Nepigon, occur the Animikie, Nepigon, and Keweenian groups of rocks. The mineral deposits found in this region are gold, silver, copper, iron, lead, zinc, nickel, molybdenum, arsenic and sulphur. Quartz amethysts, agates, fine red sandstone, barytes and plumbago are also found, and mercury is said to have been.

EXTENT AND FEATURES OF MINERAL REGION.

The chief area of the district now under description or the new silver region, southwest of Port Arthur, has its sides extending about 40 miles along the west shore of Thunder Bay, 60 miles on the International Boundary at Pigeon River, and 80 miles along the northern side, where the formation abuts against the Archæan rocks or an approximate area of 1,200 square miles. There are, also, other areas on the N. E. side of Thunder Bay, and extending down its east coast to Silver Islet. But except the latter mine all important discoveries are confined to the first area.

The rocks of the district are the Huronian, Laurentian and Lower Cambrian, and include several granite masses. The veins carrying silver ores occur, with a couple of exceptions, in the lower division of the Lower Cambrian or Animikie series.

The surface presents many flat topped hills and ridges, the first often roughly rounded, separated by valleys 200 or 300 feet deep. The cliffs vary from 30 to 150 feet, the debris sloping at an angle of about 45 degrees for about another 50 feet and merging into the gentler slopes of the clay and soil in the valleys.

The mineral discoveries are so far mostly confined to a belt of country running along the northern fringe of the formation between Port Arthur and Arrow Lake, and to the coast and islands of the N. and W. sides and in the mouth of Thunder Bay, the country in the interior of the triangle being little known comparatively. The valley bottoms usually have a considerable depth of soil often of compact white or yellow clay covered with varying depths of alluvial.

The bush over the whole district is chiefly poplar and birch, mixed in the lower lands with some pine, whilst balsam, spruce and tamarac prevail in the bottoms. The trap capping of the hill tops is usually covered with scanty soil, growing some jack pine. These valleys form a considerable portion of the country and mostly containing good soil, have an important bearing upon its agricultural welfare and upon the mining interest.

ROCK FORMATION.

In general the Animikie formation lies nearly flat, resting on the older rocks which show on the north, but on south and east extensions near Black Bay, and in Thunder Cape Peninsula are covered by the Nepigon formation, and south of these, at the island in the mouth of Grand Portage Bay, are seen to pass under the Keweenian series.

The rocks of the silver bearing formation are basic traps, black and gray argillites, cherts and jaspers, with some ferruginous dolomites.

This Animikie formation is divided into an upper and lower portion which are distinct, but not separated by a very definite line. The upper consists mostly of black, soft carbonaceous argillites, sometimes dolomitic, at others quite ferruginous, and at others holding a large amount of silica. The lower portion consists almost entirely of silicious rocks, as chert and jasper, often accompanied by ferruginous dolomites, and themselves all contain more or less oxidised iron, at some places carrying so much magnetite as almost to constitute an iron ore. One analysis by Mr. Hoffman gave 53 per cent. of iron, titanic acid being absent.

It is difficult to decide if the formation has any general dip or not, the measurements so far obtained, while ranging usually from 5 to 10 degrees, were so conflicting in direction and liable to disturbance by dykes, veins, trap intrusions, etc., as to leave it in doubt whether the rocks have any general dip, or if so to what amount and direction. This question remains to be worked out, but the balance of evidence favors a general flat south and southeast dip of the whole formation, probably averaging 5 to 8 degrees. The probable thickness of the Animikie formation is 12,000 feet.

Mining History.

FIRST PERIOD.

There are evidences of mining operations by the ancients at different places, where various crude implements, stone hammers, etc., have been found together with positive proofs of work done. Although it is known when the first free gold discovery was made by a white man, yet it is difficult to find the exact date when silver was first discovered on the north shore of Lake Superior.

In 1845 some mining was done by Colonel Prince on Spar Island and on Prince's Bay location, on the main land, in search of copper, but it resulted in discovering in the vein grey copper ore carrying a high percentage of silver. In 1846 the Montreal Mining Company employed Professor Sheppard and a large party of men to explore and locate lands along the north shore, and they located during that year 27 blocks of mining land on the mainland, and some islands in front of them, nearby, but did no mining work on them at that time. These grants were two miles wide and ran back from the coast five miles, and contained ten square miles each. But for the next sixteen years little was done beyond a few spasmodic exploring efforts and testing some of the Thunder Bay silver properties in 1845-6-7.

The district's mining history is divided into three periods, separated by intervals of idleness—the first period of work beginning with 1846, the second in 1863 and the third in 1882. Attention was first directed to the region by the copper finds on the south shore of Lake Superior, and by Sir Wm. Logan's suggestion of similar riches on the Canadian side, and the Government accordingly sent Mr. Logan in 1846 to investigate the Canadian shores of Lake Superior, and during this inspection some silver veins were found, some having rich pockets of ore.

SECOND PERIOD.

This opened a much more active stage, especially in the silver district about Thunder Bay, and the discovery in 1863 of hæmatite and magnetic iron ores at various places from Port Arthur eastwards along the Lake shore, gave evidence of the possible future in this line. In May, 1865, Peter and Donald McKellar, of Fort William, discovered the Black Bay lode on location 6, afterwards known as the Enterprise Mine, now in McTavish township, which carries some gold and a little silver, beside other minerals. Some other galena lodes were also found here, including the Cariboo and Arctic, some testing work being done at the second in 1872 and at the last in 1884. In most of the early discoveries of the McKellar brothers was associated Mr. John McIntyre, then chief factor of the Hudson's Bay Company for the Fort William district. But the second great period of mining for precious metals in the region really began with the discovery in September, 1866, of native silver and silver glance (argentite) in the Thunder Bay mine, by Peter McKellar. In May, 1867, George A. McVicar, of Port Arthur, found silver in the Shuniah or Duncan vein. The Wallbridge and lot 11 veins were located in 1863, and the former had a shaft sunk, but they also seem to have been considered as copper and galena bearers simply, and galena was also found at McKellar's Harbor, an 80 foot shaft being sunk in 1878.

PORT ARTHUR ILLUSTRATED.

In 1868 the Montreal Mining Company sent out Thos. McFarlane and a small party of men to examine and report upon their lands, and that spring he found silver on Jarvis Island, part of the company's property. A month or two later in the same year, was discovered the now famous Silver Islet Mine, on another island owned by the same company, the discoverer being a Mr. Morgan, one of Mr. Macfarlane's men. This islet was but a small wave washed rock about 75 feet long and 45 feet wide in the broadest place, and was only eight feet above Lake Superior, lying half a mile from the shore thereof, yet during its 16 years' successful working it produced in quantity the handsomest native silver and richest silver ore the world has ever seen, and a greater value in bullion from the amount of veinstone broken than any known silver mine.

In the spring of 1869, McKellar's Island mine was found by John and Donald McKellar, and in this year also Thompson's Island was located by Mr. Macfarlane for the Montreal Mining Company. Then came the discovery in 1870 of the Silver Harbor or Beck mine, by Ambrose Cyrette and "Little" Campbell, two well known explorers of this section, and in the winter of that year miners from that mine found the 3 A mine. In 1872 two Cornish miners found the Cornish mine. These discoveries were followed by the McKellar brothers finding silver at McKellar's Point and at 3 B on the main shore, on the same diorite dyke as Silver Islet. Discoveries of silver were also made on Victoria and Pie islands, the latter lying at the entrance to Thunder Bay, and on the main shore on location 51 B, near Big Trout bay, and near the international boundary. Some testing work was done on them, notably at Pie, Jarvis, Thompson's, McKellar's and Mink islands, at Stewart's location and Sturgeon Bay, etc. Silver was found also in the Weesau vein, on the properties comprising 1 T to 6 T inclusive, and on 26 T, 27 T and 28 T, on Little Gull Lake, and on several of the locations on the southern shore of Arrow Lake, at its western end. These last were made by Americans named Kindred and General Baker. With these discoveries were others on lands now in the townships of McIntyre, McGregor, McTavish, Neebing and Paipoonge. Of these there were the Trowbridge location, which adjoins the Duncan mine, in McIntyre township, the Wallbridge mine, the Parasseux vein, near the Parassenx rapids of the Kaministiquia river, and the Slate river location on lots 1 and 2 in the first concession of Paipoonge. To these add the properties known as F 16 and Y 1, southwest of Paipoonge township, with a few locations north of McIntyre, and the Algoma mine on locations 21 to 25 in the fourth concession of Neebing township. Silver was also discovered on Lambert island, in Thunder Bay, and on various locatioos on the shore of that bay, east of Port Arthur. Further east near Little Pic river, silver was found on several locations by Ambrose Cyrette on C 45, on V 49, V 50 and V 51, by W. Pritchard, Donald McKellar and J. McLaurin, all of Fort William, and on location 1, between C 45 and V 49 and also at the Ecrire mine, about three miles west of Black river. During these discoveries silver was also found in places within the present town limits of Port Arthur, at the Singleton mine and in its very streets, for a tea chest full of very rich ore containing native silver was taken from a very small vein or seam a few inches wide, that crossed Water street, in front of the store of Messrs. Thomas Marks & Co.

THIRD OR PRESENT PERIOD.

During the whole of the time past mentioned operations on a large scale were going on at Silver Islet mine, keeping alive silver mining in the district until fresh interest and increased work were caused by the working of the Huronian gold mine and the discovery and working of Rabbit Mountain silver mine in 1882, and several other important mining discoveries were made creating greatly renewed interest and confidence in the permanent value of the mineral resources of the country. This was increased by the opening of the Canadian Pacific Railway from ocean to ocean through the Thunder Bay district, in 1883-86. This led to the more extended working of the Huronian mine and to partial development of the Highland, Tip Top, Kam Kam, and some other gold locations.

After the Rabbit Mountain discovery came in rapid succession Rabbit Mountain Junior, Silver Creek, Twin City or Porcupine, and the Beaver silver mines—all discovered in 1883 by Capt. Daniel McPhee and Oliver Donnais, and all within a radius of four miles. After these came the finding of the argentiferous veins on mining locations R 48, 140 T, 143 T, and 144. The next important discovery of silver ore was in 1884, on the east and west ends of Silver Mountain, these properties being pointed out to Oliver Donnais by Weesau (Louis Bokachanini), the same Indian who directed him to the Rabbit Mountain vein. Soon after this, in 1884 and 1885, followed rapid discoveries of argentiferous veins on the locations known as Silver Bluff (R 61), Silver Hill (R 70), Crown Point (R 95), Silver Falls (R 110), Palisades (R 97 and R 98), Sunset Lake (R 80 and 81) and also on R 60, R 64, R 79, R 90, R 199 and 174 T. To these add the Badger, Caribou, Big Bear, Elgin, West Beaver, Silver Victoria, Silver Wolverine, Silver Fox and several others.

GOLD FOUND.

The gold history began with the discovery, during the winter of 1870-71, by two Indians—J. Baptist and M. Puchat, of the Hudson's Bay Company—of a gold and silver bearing vein, named the Jackfish Lake Mine, 70 miles west of Port Arthur, and in which free gold was found by Peter McKellar, and it occurs in sylvanite and pyritous ores. This created much excitement, being the first free gold discovery in the district. At that time the Indians of that portion of the country had no treaty agreement with the Government, and the territory being also in dispute between Ontario and the Dominion, land titles could not be had. In addition a contest arose between rival claimants of this find. But later on by mutual agreement the Ontario Government was allowed to issue land titles in 1871, the first being for the Jackfish Lake property. In 1872 a party directed by Peter McKellar and employed by Capt. Wm. B. Frue, then of Silver Islet, and who had become interested in the discovery, began operations in this gold district. But they were stopped by Chief Blackstone and his band of Chippewa Indians, until a treaty should be made with them. Soon after the Dominion Government made a treaty with the Indians, and as the Provincial land boundaries were last year defined these troubles are now settled. The Jackfish Lake vein was in the meantime traced by Peter McKellar into the adjoining lands on both sides to the north-east and south-west, which resulted in taking up the location on the north-east by the Neebish Mining Company, and that on the south-west by the Highland Mining Company It is said the vein was traced several miles south-west, and nearly 6,000 acres of land were taken up on its course and surrounding the Jackfish Lake, Neebish, and Highland properties, by various parties who afterwards formed the Shebandowan Mining Company.

At that time the only road from Lake Superior was the well known Dawson road, which did not penetrate the heart of the gold country, and the Canadian Pacific Railway, which now traverses it, was then but a projected line. The cost of transport then being heavy, with the other difficulties named, it was found advisable to wait, and nothing further was done until 1882, when a number of explorers went in and some 30,000 acres of mining lands in the gold country were taken up and the new township of Moss was surveyed.

In 1872 an Indian named Mamabin found and showed to Archibald McKellar on Partridge Lake a vein carrying free milling gold ore, and in 1872, also, Capt. Daniel McPhee discovered at the height of land the Tip Top mine, a vein carrying copper ore pyrites almost solid, rich also in gold and silver. Gold was also found in veins crossing different islands in Lake Shebandowan and on the lands about and near that lake and Kashabowie lake about the same time, the discoverers being Barney Wilcox, Lachlin McLachlin, John McNaughton, Charles Gehl and others, but no developments of any extent were done on these properties. While these discoveries were going on north west of Thunder Bay a portion of the gold bearing slates on the east were being explored and discovery made of the Heron Bay lode in 1872 by W. Pritchard, J. McLaurin and Ambrose Cyrette, and it was worked a short time then and again in 1879.

Gold has since been found on other locations on the main shore east by Donald McKellar at 35 X, and on the Mocum properties three miles north of Jackfish Bay by Peter and John McKellar and W. Pritchard, and on K 120 in a copper pyrites vein carrying gold and silver, and on property owned by the Elgin Mining Company. But on none of these properties either has any development work of any extent been made.

THE SILVER VEINS.

The silver ore of the district is native metal, and sulphide or argentite (black silver), generally associated with blende, galena, pyrites, etc., in a gangue of calcite, barite, quartz and fluorite in a series of fissure veins. These veins may be described as follows:—1. Coast group; 2. Port Arthur group; 3, Rabbit Mountain group; 4, Silver Mountain group, 5, Whitefish Lake group.

THE COAST GROUP.

This series of veins are on the coast of Lake Superior between Port Arthur and the international boundary at Pigeon river, and on the group of islands in the mouth of Thunder Bay. The greater number intersect the "Macfarlane band," a belt of trap dykes and sheets, thought to be the continuation of Silver Islet dyke. Nearly all the dykes strike northeast and southwest, or at right angles to the veins. The gangue consists mostly of quartz, fluorite, calcite and barite, and the veins carry native silver and silver glance associated with zinc blende and galena, and sometimes some copper sulphurets. None of this group are now working, but as Silver Islet was the chief mine in it and had great success and was a very important factor in the mineral development of the district it is worthy of more notice.

SILVER ISLET MINE.

It is on a vein crossing a small rocky islet, about a mile out in Lake Superior from Thunder Cape. The vein strikes north 35 west and dips southeast at an angle of about 70 to 80 degrees, and would average

8 to ten feet in thickness, though in places showing from 20 to 30 feet of solid vein stuff. The gangue is calcite, quartz and dolomite, the latter colored from cream to pink, according to the manganese in it, and rhodochrosite was found. The metallic minerals are native silver, argentite, galena, blende, copper and iron pyrites, with marcasite. Mr. Macfarlane also mentions tetrahedrite, domeykite, niccolite and cobalt bloom, and Dr. Wurtz found two new minerals called by him huntelite and animikite. There were also found annabergite, antimonial silver, ceragyrite and graphite, of the latter Mr. Richard Trethewey saying they sometimes found it without silver, but never found silver without graphite. Combustible gas was found in large quantities accompanied by highly mineralized water, both confined principally in large cavities or vugs under great pressure below the 8th level in the deepest workings. Discovered in the summer of 1868, $1,200 worth of specimens were taken away by the party that fall when leaving, and in 1869, after a difficult season's work, 9,455 pounds of ore were shipped, valued by assay at $6,751. During the same winter—1869-70—twelve men with a horse produced 17,609 pounds of total value $18,291. Then New York and Detroit capitalists acquired the property, in 1870, and Capt. Frue, with 30 men and two horses, in four weeks, mined and shipped before navigation closed, ore to the value of $92,153, having expended $80,000 in breakwaters, coffer dams, pumping, etc. From November, 1870, to November, 1871, silver ore was produced, worth by assay, $648,132. The vein had frequent and sudden changes in size and richness, in the fall of 1871 narrowing down to 6 inches, with little first quality ore, but during the winter widened and became very rich. In the summer of 1872 it became poor again, but rich the next winter, the vein almost disappeared in the summer of 1873 and an unfavorable state lasted until the close of 1876, and work almost closed the next year. But in the summer of 1878, a bunch of rich ore was struck, yielding 800,000 ounces of silver. This deposit was five feet solid across the breast and carried in great quantity two heretofore unknown compounds of silver, Animikite and Huntelite.

The total depth of Silver Islet mine was 1230 feet, and at 80 feet north on the bottom level a good bunch of ore was struck. The total yield was $3,250,000, or £650,000 sterling, and the total outlay one-third of this amount. The vein was traced one mile from the shore on the mainland, and galena was struck at one of the shafts the furthest inland, running 19 oz. of silver to the ton.

Owing to its peculiar situation this mine was worked at enormous expense. To maintain a footing on a rock not 80 feet square, against Lake Superior storms; to provide steam tugs, engines, pumps, and stampmill, establish a town on a barren rocky shore, and conduct exploration and general operations; to do all this cost $1,200,000. The mine made 155 gallons of water per minute, chiefly from the lake, which had to be pumped out. The 50-stamp mill cost $100,000, and had a daily capacity of 60 tons. The rock put through ran from 6 to 37 ounces per ton of 2,000 lbs. The concentrates varied from $300 to $10,000 per ton, but averaged between $500 and $1,500 The cost of concentrating was $1.70 per ton, the tailings averaged $2 per ton, and the mill saved 90½ per cent. of the silver in the ore. The 60 tons produced from 1 to 2 tons of wet concentrates holding abont 14 per cent. of moisture. The cost of production at this mine was, mining, $2.50; sorting, 50 cents; labor and carriage to mill, 50 cents; crushing, stamping and dressing, $2; total, $5.50. In five weeks of 1878 some $370,000 worth of silver was produced. Owing to the great richness of the ore and the presence of so much metallic silver, some difficulty was found at first in selling the ore to satisfaction. The assays varied greatly in the first lots and the smelters charged $100 per ton for smelting, and only guaranteed to return 95 per cent. of silver, and refused accounting for more than shewn by their own assay. So the company erected their own smelting works in 1871. Throughout the mine nearly 5,000 feet of holes were bored by the diamond drill. In March, 1884, owing to the non-arrival of a vessel with 1000 tons of coal, work had to be suspended, and remains so to-day.

OTHER VEINS IN COAST GROUP.

Angus Island—Shaft sunk and drifted to intersect vein, but no success.

McKellar's Island—Shaft sunk 120 feet, drifted 160 and cross-cut 60 feet, with some test pits and other development. Argentiferous blende was the chief vein ore. In 1886 the barite rib on the east side of the main vein was worked, 30 men being employed, the product after hand picking to extract as much calcite and quartz as possible, was shipped to the United States, the buyers giving $5 per ton *over the rail* at the island for best quality.

Thompson's Island—An adit level, run 25 feet, a 9 foot winze sunk. The vein carried blende, galena, and pyrites in small amount.

Spar Island—Two shafts 24 and 27 feet, finding copper glance, copper pyrites, zinc blende, and some argentite.

Jarvis Island—In 1869 a 12 foot shaft sunk, producing ore yielding $117, of silver. In 1870-71 this shaft was deepened 20 feet, and three more sunk with a total of 270 feet, and some stoping, with a good amount of work done in drifting and winzes, etc., with the necessary surface work, houses, etc. In 1886, work was resumed and sustained until last year. The vein looked well, and silver was found from time to time, but apparently in limited extent.

Victoria Island—Some surface work and two test pits of 30 feet and some tunneling.

McKellar's Point—A 30 foot shaft and an 80 foot tunnel, with some other work.

Stewart's Location—Some work done for copper.

Pine Bay—A little work.

Big Trout Bay—Two tunnels 50 feet each, and some vein stripping.

Cloud Lake—Adit 250 feet driven.

Caldwell Island—Shaft 60 feet sunk, without much result.

Mink Island—Some little work done in 1872-73.

Sturgeon Bay—Two shafts sunk and a drift run.

K 17—Some work done in 1878-79.

Prince's Mine—This is the oldest mine, having been worked in 1846-47, for copper. Two shafts sunk, one 90 feet, and a tunnel 200 feet. One bunch of ore was struck in sinking, weighing several hundred pounds, and with three per cent of silver and some gold.

Pie Island—Vein 3 to 4 feet; some 400 feet drifting and 200 foot shaft sunk, crosscutting, winze and air-shaft done. Some development was also done on 13 B location on the same island.

THE PORT ARTHUR GROUP.

Thunder Bay Mine—Four shafts sunk, a total of 200 feet; some drifting and stoping done, with crosscutting, etc., buildings put up, three miles of road built, a stamp mill erected, and a 200 foot dock built. This was from 1866 to 1869, and work was again carried on for six months in 1874. The vein was from one inch to ten feet thick, and carried native silver and argentite, with galena, blende and iron pyrites, the ore being in bunches, with the silver in strings, leaves and grains. The product of first operations was 3294 pounds of ore, worth $2,592, and 200 tons low grade ore which yielded well, the concentrates being rich in native silver.

Shuniah or Duncan Mine—In 1867 some trenching was done and two shafts sunk 40 and 60 feet and a crossent run, and several barrels of ore taken out, running from $200 to $300 per ton. The mine was then closed owing to owners disagreeing and want of funds. It was re-opened in 1870, when the main shaft was sunk to 135 feet, with considerable drifting and several crosscuts, silver being got at several points. The mine closed again in 1873, but re-opened in November, 1873, as the Duncan mine, and closed finally in 1881. The force had varied from 2 to 100 men. A new stamp mill and other good buildings were built; the total product being $20,000 worth of ore, and the outlay (including property, $75,000) was $500,000. A total of 4,884 feet of diamond drilling was done.

The Beck or Silver Harbor Mine—A 40 ft. shaft was sunk, and surface work done, with explorations, etc., a dock built, houses, etc.

Algoma Mine (MacGregor Township)—Lambert Island, Cariboo Island, Blende Lake, Emmons Mine and Cornish Mine, all had more or less development work done, but not enough to prove or disprove them.

Singleton Mine—This vein of white quartz, a foot thick, was found within the town limits of Port Arthur, and some rich bunches of native silver taken from it.

Wallbridge—Vein 24 feet wide, and well defined. The development was done with an idea of selling, and the vein improved in the depth it is said.

Three A mine—Vein was from 18 to 24 inches wide, the ore being as rich as much of Silver Islet, and lasted well down, but pocketty. The shaft was sunk some distance and some drifting and considerable work done. The vein carried copper, lead, zinc, nickel, silver, cobalt and gold.

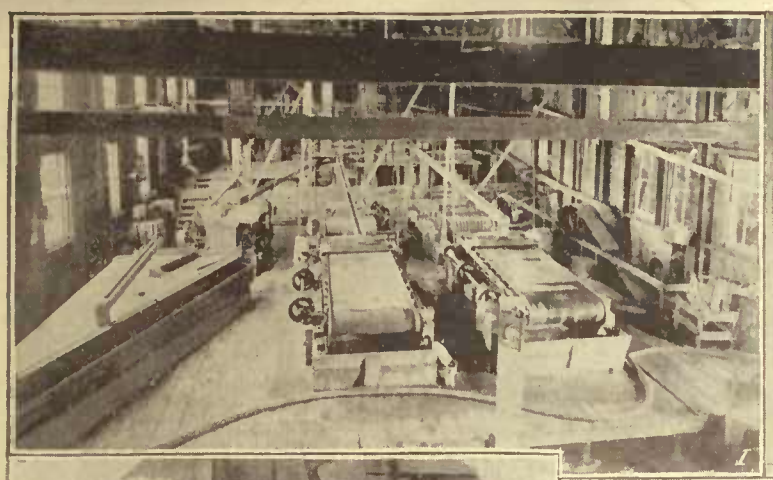
Silver Hill—A 6—Nine miles N. from Port Arthur, and contains 60 acres. Some work was done in 1872-73, and assays gave $4½ in silver and $9 in gold per ton. It is owned by J. C. Hasking & Co., Port Arthur.

Chicago Mine and Quebec Mine—These two properties are about 3 miles N. of Port Arthur and near the Shuniah mine. They are owned by the Lake Superior Mineral and Development Company, of which Mr. P. M. Freneh is resident manager. On each a shaft is down about 60 feet, and the manager says shews leaf silver and cobalt.

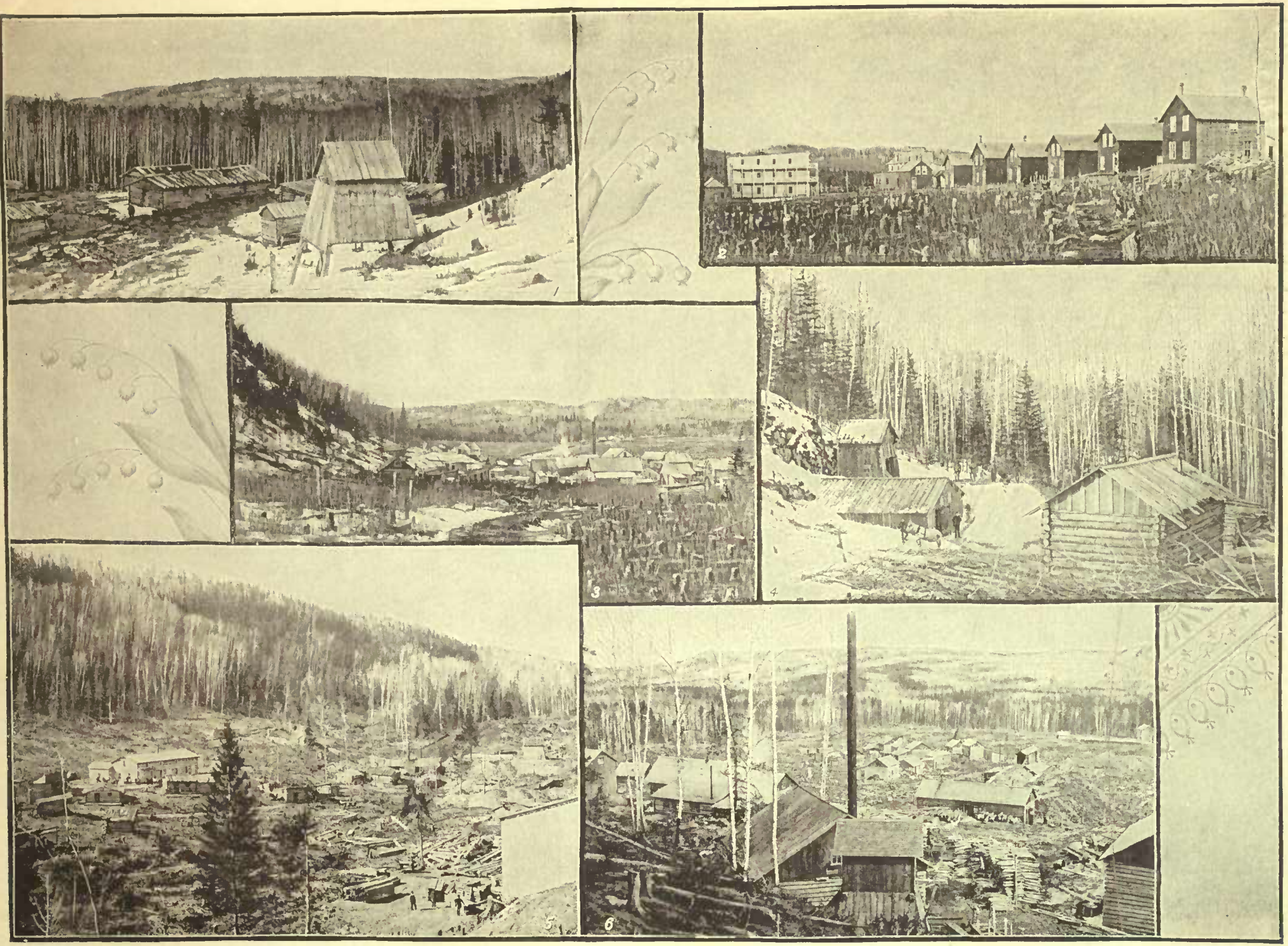
The general strike of the Port Arthur group is N. of E. and S. of West, and the strike of the Silver Mountain and Whitefish Lake groups is similar.

RABBIT MOUNTAIN GROUP.

Rabbit Mountain mine—This is the first in the present period of



1. Interior Stamp Mill, Beaver Mine.
2. Stamp Mill, Rabbit Mountain Mine.
3. Powder Magazine, Beaver Mine.
4. Silver Bricks, Crucibles, &c., in Laboratory, Badger Mine.
5. Hotel, Beaver Mine.
6. School, Beaver Mine.
7. In the Vein, Silver Creek Mine.
8. Shaft House, Beaver Mine.
9. General Store, Beaver Mine.



1. Porcupine Mine, Shaft House and first buildings.
2. Part of Beaver Mine.
3. Beaver Mine.
4. Elgin Mine first building.
5. Rabbit Mountain Mine.
6. Badger Mine.

Silver mining and created a sensation when opened, owing to its richness. It is 24 miles southwest of Port Arthur. The vein is a composite, averaging four feet wide, the ore consisting of native silver and argentite with much blende, with a little iron pyrites and galena and some copper pyrites in a gangue of quartz, calcite, and green and purple fluorite. It has been proved 800 feet on the surface by trenches and cross-cuts. Since opening, in 1882, it has been worked in a spasmodic manner, having changed hands several times and employed from two to sixty men, it stopped December 16, 1887, and remains closed at present, pending settlement of some differences among its owners.

A stamp mill of 15 tons daily capacity was built and all the other usual buildings. It is claimed that the concentrates ran as high as $4,000 per ton and averaged $1,500, and that the milling ore averaged $80 per ton. Over 400 feet of sinking and over 740 feet drifting, and some stoping was done, most of the good ore coming from 100 feet, and deeper.

Rabbit Mountain Mine, Junior—This is a short distance from the last, and the vein is parallel and dips to it at an angle of 75 degrees. It had a shaft sunk and some other work done.

Porcupine Mine—This vein is 2 to 5 feet thick, and its contents similar to that of the district. It carries witherite or carbonate of barium, the only instance in Canada. The peculiar talcose material, commonly called "mountain tallow," is also met with in connection with the ore bodies. It is a white or pale green substance impregnating the vein stuff, and at first quite soft and greasy, but afterwards dries and hardens on exposure to air. It is neither talc nor serpentine, but is probably closely allied to mineral saponite. The bulk of the silver is sulphide in nugget or leaf form with a small proportion of metallic silver in wire and mossy form. Work was begun in 1884, and including drifting and sinking continued at long intervals, the owners intending to prove its value and sell it. Mr. T. A. Keefer, one of the owners, says some $10,000 have been spent and more than repaid by sales of ore obtained.

Silver Victoria.—This mine is on Lot 7, Concession C in Paipoonge Township, south of the Kaministiqnia River, close by the Government road to Murillo Station, seven miles distant. The Port Arthur & Duluth proposed railway also passes through the property, which also has the advantage of being only 50 chains from the Whitefish river water-power. It is three miles from the Beaver, Rabbit and Mountain mines, etc. The vein runs east and west, shows silver at surface with argentiferous blende and galena. Mr. Henry G. Rathwell, C. and M. E., then superintendent of the Cariboo mine, reported of the Victoria,—"It is a mine of great promise, and from its advantage of location I have no doubt will not only prove an economical mine to work, but has every indication of proving a rich one also, and will repay judicious investment." Capt. Harry James, who was captain of the Beaver mine for over a year, says of the Victoria,—"The vein is of similar composition to the Beaver, calcites with quartz and fluor spar, and it is also in the same black silver bearing slates. I visited it several times, the first impression was favorable, and the last visit confirmed it, that the Victoria is the making of another Beaver."

Silver Champion.—This property contains 85 acres and is crossed by a strong vein some five feet wide bearing northeast, dipping slightly northwest. The gangue is calc spar with some quartz carrying argentiferous blende and galena, with leaf silver. The Government wagon road crosses the location, and the mine is some 9½ miles from the C. P. R. Station, Murillo. It is covered with useful timber and has good soil. Capt. Henry Parsons, in charge of Beaver mine in early days, reports that he regards the Champion as "one of the most promising properties in this section."

The West Beaver—140 T, (149 acres) adjoining Silver Creek mine on the north, and Beaver mine on the west. The line of the P. A. D. & W. Ry. is located on this property. Silver Creek flows through the location and offers a good mill site convenient to the workings and the Government wagon road crosses it.

The vein which crosses the property has a strike about E. N. E., and dips to the southeast and varies from four to eight feet in width. It is a remarkably strong true vein adjoining rich mines and rich itself. It can probably be made a large producing mine by proper management and sufficient capital. It has produced the ordinary milling grades of ore, and very high grades of smelting ore yielding from $500 to several thousand dollars per ton.

Big Bear Mine—The mine is on Lot 34, in 2nd Con. Township of Paipoonge, and contains 100 acres. The works expose a large vein about four feet wide with a strike about E. N. E. Its gangue is similar in character to the Badger, Beaver and other mines in the district, and its ores vary from ordinary milling ore to smelting ore, yielding from 500 to 3,000 oz. of silver to the ton. It has a convenient mill site on the property on Oliver creek, which flows through it, and is well located.

The Lone Pine—This property consists of 100 acres of mineral and well wooded land in the centre of the new silver district, within 3 miles of the Beaver and Rabbit Mountain, Porcupine, Silver Creek, Badger and West Beaver silver mines. It is traversed by the Government wagon road from Murillo. It has a well defined true fissure lode, with a strike of S. E. and N. west, dipping slightly north. The walls of this lode are slickensided and its gangue carries leaf silver in calcite and fluorite with rich blende. This property has been most favorably reported upon by local experts from Beaver and Badger mines—including Mr. Brent, M.A. and M.E, and Capts. Williams and Hopkins, of their respective mines. So far, however, owing to want of capital, but little work has been done.

Silver Creek Mine, 95 T—Contains 160 acres, and adjoins Beaver, Badger, etc. A road is cut from the Government wagon road, which passes within a quarter of a mile of the location, and within that distance the P. A. D. & W. railway is located. These mines are about 25 miles from Murillo station on the C. P. R. Samples from the mine have yielded from one to over five thousand dollars per ton in silver. This vein is two to three feet thick, and has had some work done on it. A 75 foot tunnel was driven and a 70 foot shaft sunk in 1885, and later on some more work was done, resulting in good ore at the bottom of the shaft. The amount expended was about $3,000, and the ore about covered this. Mr. E. D. Ingalls, M.E., who saw the dump, says it was good mill rock, the silver showing as leaf and film argentite.

Cariboo Mine—Three small tunnels have been driven in this vein and some 60 feet of drifting done to test it at a cost of about $1,500. It is six feet wide in places and in others is split up.

The Elgin Mine—This is about a mile north of the Beaver mine, and is now being tested by sinking and drifting. The vein consists of several parallel stringers distributed in about ten feet width of the enclosing argillite. The metallic minerals are very abundant, and an early assay gave $10 per ton, the owner states. This property is being developed by Capt. Thos. Hooper, who began work in September, 1888, and employs seven men on it. In March the shaft was down 135 feet, and 130 feet of drifting done with encouraging results, Capt. Hooper stating that the assays ran 587 oz to 5 oz. per ton. It resembles the other veins of the group and lies about 200 yards from the high road.

BEAVER MINE.

As this property has been worked constantly and vigorously from the start in 1884 to the present, it merits extended notice as a good type of the district, group, and period. The main vein averages 4 feet thick, though almost pinched out in places, and has the usual contents, yellow and dark color blende with some iron pyrites and a little galena, in a gangue, chiefly of calcite, with some white and amethystine quartz and a little fluorite, generally green, but sometimes purple. The silver occurs chiefly as argentite, in nugget, sheet and leaf form, with some native silver. The mountain tallow is very abundant in places. Two seams have been worked on, the main one cuts N. W. across a range 200 feet high, and is intersected 300 feet in by a vein running N. E. Up to March, 1889, some 1280 feet of sinking in shafts and winzes, 3,510 feet of drifting and 600 feet of crosscutting had been done in this mine. A large amount of work has been done on this property, entailing equal expenditure probably $350,000, but it is stated that there was taken from it in 2½ months of 1887, over $93,000 of silver and in the fall of that year the ore body in sight was estimated at about one million dollars. The property is evidently being developed upon a permanent footing and is excellently managed so far as a visitor can judge. Some 75 men are employed and the village contains about 40 families or 200 people. The mine buildings comprise, boiler house, machine shop, air compressor house, hoist house, blacksmith and carpenter shops, pump house, stables, etc. The laboratory is very complete and the stamp mill also; the air compressor runs 7 drills, 2 hoists, and the pumps. The daily production now is 60 tons of ore, and about 30 cords of wood are consumed for power and general purposes. The mine is owned by Col. Frank J. Hecker and Ex-Governor Alger, of Detroit, United States, and is managed by Capt. Thomas Hooper, with Capt. Williams in charge of underground work, W. C. Romer assayer and accountant, and Capt. White in charge of machinery. Since starting, this mine has cleared and consumed the timber of 500 acres of its land, and requires daily to clear and use nearly one acre for its furnaces, etc. The monthly expenses are about $5,000, a school is maintained with some 40 scholars, and a general store with about $7,000 of varied goods in stock, and there is also a good hotel, costing $10,000, and accommodating a large number of guests. A resident physician is here and religious services are held regularly twice monthly by a visiting minister. The mine is 29 miles S. W. from Port Arthur, and work goes on day and night, except Sunday, in two shifts of 10 hours each.

Badger Mine—This property contains 215 acres in location 201 T. and part of 200 T. in Gillies Tp. It was discovered in the spring of 1887 by Mr. Charles F. Eschweiler, of Detroit, who interested in it Messrs John M. Stowell, Charles A. Read, and others of Milwaukee, who with Mr. George W. Robinson, of Mobile, Alabama, advanced the necessary capital for development. Work was begun April, 1887, and after drifting on the vein 100 feet a rich body of silver was struck. Up

to end of March, 1889, the work done consisted of sinking the shaft 280 feet. Over 2,000 feet of drifting, and 190 feet of winzes is done and some stoping between first and second levels, where extremely rich ore was found, some assaying over 19,000 ounces of silver per ton. Up to April first, 1889, $65,000 had been expended and $250,000 worth of silver was taken from this mine. Some 80 men are employed and the surface buildings are the hoisting works smiths shops, rock house, stables, 22 dwelling houses, store and office, and a stamp mill of 22 tons daily capacity. The company has a capital of $250,000, paid up and non-assessable. The mining superintendent is Mr. Herbert Shear, and in speaking with this gentleman, he said, he had never heard of a silver mine anywhere that in course of development and after a few months work had returned all its outlay for property and working expenses and made a surplus of about two hundred thousand dollars besides. This mine is in the Rabbit Mt. group, and distant from Port Arthur some 26 miles—the high road passing through it and the projected railway near by. The general character and strike of this vein are similar to others of the district. The native silver is nearly always associated with quartz, and in many places, occurs in such proportion that drilling is difficult and sometimes impossible. One assay of a piece of such, giving 19,217.5 ounces per ton of 2,000 pounds. The argentite is disseminated throughout the vein matrix.

Parasseux Vein—This vein crosses the Kaministiquia river in a direction N. E. of E., and is from 10 to 25 feet wide. Its composition is similar to the others and carries galena, blende, copper and iron pyrites. It is 14 miles west of Port Arthur. Herrick and Logan made special mention of this vein in the first survey of this district, and Prof. Selwyn also in 1869, and English experts have pronounced favorably upon it. Mr. Walpole Roland, C.E.,M.E., of Port Arthur, who made a careful examination of it, says: It is a true vein, with the strongest evidences of rich mineralization, and is altogether too good a property to lie dormant any longer." It is owned by Mr. F. Proudfoot, of Winnipeg.

The general vein strike of the group is N. E. except the Beaver.

SILVER MOUNTAIN GROUP.

The rocks of this group are almost altogether of the siliceous class in their lower division, the beds with a few exceptions sloping at low angles, and the upper division nearly altogether consists of the soft black argillacious. The archean rocks project into this field from the north, and present the Laurentian characteristics, being largely covered with drift deposits consisting of stiff white clay, sand and gravel. The general surface of this drift is some 300 feet below the hilltop, and the streams have cut valleys below this still, with sides often 100 feet high, the latter being also water gullied.

Silver Mountain Mine—East End, or Shuniah Weachu Mine—The enclosing rock is argillite, topped as usual by a sheet of columnar trap, the falting being clearly visible and amounting to 80 feet. The metallic minerals are light and dark blende, galena, iron pyrites and a little copper pyrites, the silver occuring both native and as sulphide or argentite. The argentite is the most common, forming films, sheets and solid nuggets often several ounces in weight, while the sulphide is more often in fern and wire forms. The first ore found here was remarkably rich, and E. D. Ingalls, M.E., says he "felt sure that several tons of ore could have been obtained from the same spot which would average $1,000 to $2,000 per ton." He then says, "though silver bearing rock has been found at several other spots in the vein, none of it is as rich as this, nor do the developments so far—1887—seem to have resulted in proving any extensive bodies of ore, but an encouraging fact is the finding in the west end, a mile distant on the same vein, of ore running $127 per ton, and it would seem strange if between these extreme points, the vein was found barren of any bodies of payable yield and size." Some good silver ore was also obtained in two small counter veins on either side of the main vein. This mine was first leased to Americans on 12 months option, who began work in the spring of 1885, and spent some $10,000, but at the end of the year did not care to pay the price asked, and gave the property up to its owners, who then interested with them Messrs. Trethewey, who formerly managed Silver Islet Mine. In 1886 a little work was done resulting in striking more silver in the upper tunnel, and in October a Liverpool, England, company bought the mine, began work October 27, and has carried on operations ever since. Their share capital is £100,000, as follows:—Cost of property and floating co., £55,000, for directors and other services in forming company, £9,000; working capital, £3,600. Capt. Thomas Trethewey and Mr. A. J. D. Blythe are the resident officers of this company. It is 13 miles west of the Beaver mine, and comprises over 1,300 feet of vein in length, the average width being six feet, though ranging from 13 feet down to a few inches. Up to middle of March this year the work done was 3,363 feet of drifting, 786 feet of shaft sunk, 468 feet of winze and 366 feet of rise, 45 men being employed on an average. This mine was then down a depth of 470 feet, having passed through the trap and slates and was then working in the chert. Capt. Trethewey said that at 360 feet much ore, assaying over 9,000 ounces per ton, was struck, the foot wall there being chert, and the hanging wall slate. Distinct traces of gold as high as 1¼ oz. per ton, have been found, and also copper and nickel traces.

Silver Mountain West End Mine.—The vein cuts the middle of the hill almost east, and dips 80 to 85 degrees, and has caused about half a mile of valley by denudation. In the last report of the Geological Survey of Canada it is described as "a very strong and persistent fissure, showing at frequent intervals right across the hill for over a mile. Along its outcrop, on the top and for some distance below, the vein is large and solid, from 4 to 6 feet thick, whilst in the argillites below, as one expects, its width is not so persistent, whilst a few feet further on it comes together again as a large solid vein. The gangue consists mostly of white barite and calcite with a little colorless quartz and green fluorite. The silver occurs both as native and as sulphide or argentite. Good ore running about $127 to the ton is found at the west end, but the developments have not been extensive enough yet to show the extent of the ore body. It was also discovered by Mr. Oliver Dounais, who treated it in separate halves—east and west ends. The west end was bonded, but after a little work was done with very encouraging results, the parties got into law as to control, which stopped further work at that time—1885-6. But in May, 1888, H. N. Nichols, of Denver, Colorado, at the head of some Chicago and New York capitalists, resumed work on this property. It is about one mile from the East End, 14 miles from the Beaver, and 36 miles from Port Arthur. The work done at visit consisted of surface structures, shaft house, ore houses, assay and general offices, boarding house, store house, blacksmith and machine shop, carpenter shop, six miners cottages, stables, etc. About 30 men were then employed. A 25 horse-power boiler supplied steam for the hoisting and pumping plant. Up to April 17th about 225 feet of sinking and 500 feet of drifting had been done, and the vein is being opened in four places about 500 feet apart. The main shaft had continuous ore from the surface, and at a depth of 200 feet was improving in quantity and quality. The No. 2 shaft struck rich ore near the surface, and at a depth of 55 feet was drifting along a rich ore body, assaying from 3,000 to 18,000 oz. silver per ton. Six assays made from the ore taken out in development at this point went respectively 11,000 oz., 8,100 oz., 3,120 oz, 7,330 oz., 18,120 oz., 15,580 oz. to the ton, the owners state.

Mr. H. W. Tallant, of the Denver Mint, examined this property last summer some time after work had been resumed, and said it was a strong fissure vein of wonderful promise and predicted immense results. He took samples from the vein in the main shaft at different points, which were assayed at the Denver Mint with the following results:—400 oz., 290 oz., 182 oz., 21 oz., 860 oz., 40 oz., and 11,000 oz.

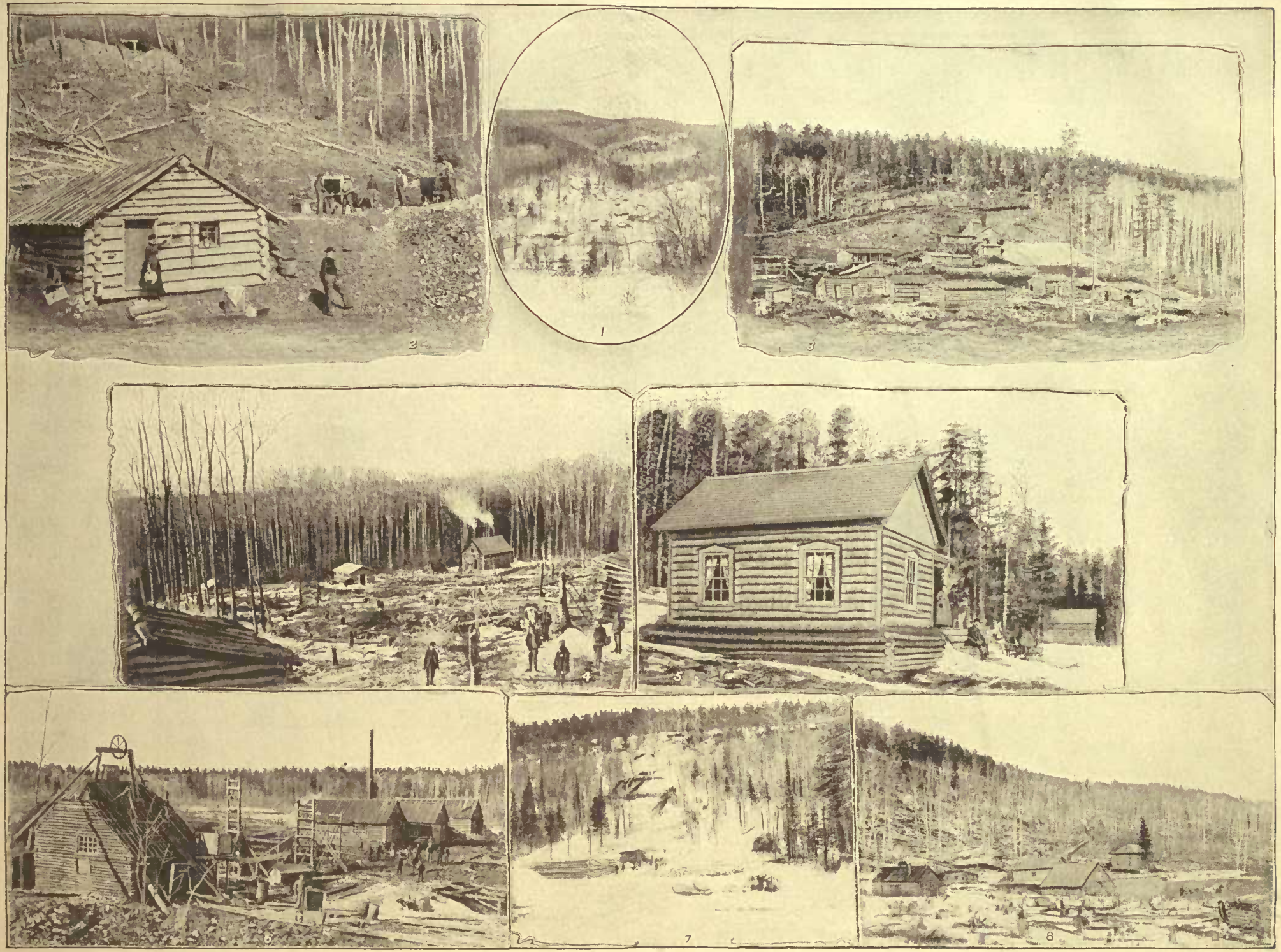
Some $35,000 have been already expended by this company, and every opening is in ore. The company is called the West End Mining Co. Mr. H. N. Nichols is general manager; H. K. Nichols, superintendent, and J. J. Dennen, assayer. The company contemplate putting up larger hoisting plant and more extensive machinery this season.

Crown Point Mine.—This vein is from 3 to 4 feet wide, the silver being argentite in leaf and nugget, the enclosing rock being very similar to Silver Mountain mine. The work up to visit consisted of some 530 feet of drifting, 110 feet of cross-cutting and a 10-feet winze, ten men being employed, no hoisting or pumping machinery being then required. All the development has been done by the original owners, who have not had enough capital to open the vein more, though the results have certainly been encouraging. It is owned by A. D. Cummings, of Duluth, and W. N. Montgomery, of Virginia City, U.S.A. Quite a lot of ore (said to be 1,200 tons) is on the dump, for which the owner claims an average value of $250 per ton, and was then about making a shipment to Omaha. The buildings are dry house and smith's shop, sleeping quarters and eating house, office and residence. The property contains 160 acres, and is on Silver Mountain, and a few hundred yards from the East End mine.

Silver Valley, R 111—This is one mile northeast of Silver Falls, and is owned by W. H. Laird, C. S. Morris and P. M. French, but is not yet developed.

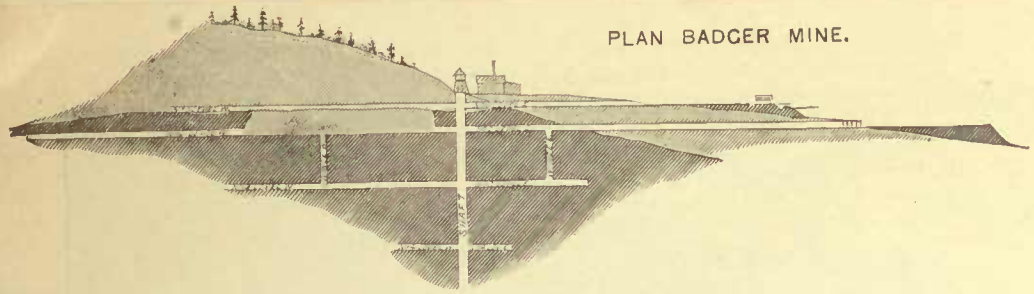
Silver Hill, R 70—This property is 23 miles from Murillo Station, and contains 160 acres. Some testing work was done on this vein, and Mr. V. Bowerman, of Port Arthur, who had some reports on this mine said they showed it to be a valuable property but he was not at liberty to give them just then.

Palisades Vein, R 97-R 98—This is nine miles west of Beaver Mine and directly on the wagon road. The vein is a strong one averaging six feet wide and was traced a half mile. Mr. Malloy an expert pronounced it a true fissure vein. Dr. Lehnan made several assays from picked samples of its ore which ran from $50 to $1,200 per ton, an assay from the outcrop made by Mr. Chas. Kreissman gave $13 per ton. This property contains 320 acres and has had a test shaft of some 40 feet sunk on it. It is owned by Messrs. McIntosh & Johnston and Oliver Dounais of Port Arthur, and negotiations are now proceeding for its sale and operation.



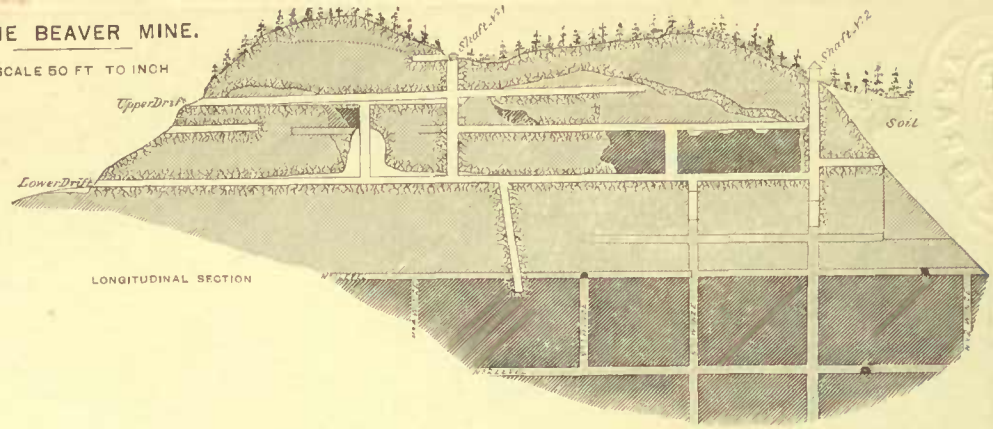
1. Crown Point Mine.
2. Rabbit Mountain Mine first month.
3. Silver Mountain, West End-Mine.
4. Silver Wolverine Mine first buildings.
5. Silver Fox Mine first building.
6. Shuniah Weach-u Mine.
7. Beaver Mine first month
8. Shuniah Weach-u Mine.

PLAN BADGER MINE.

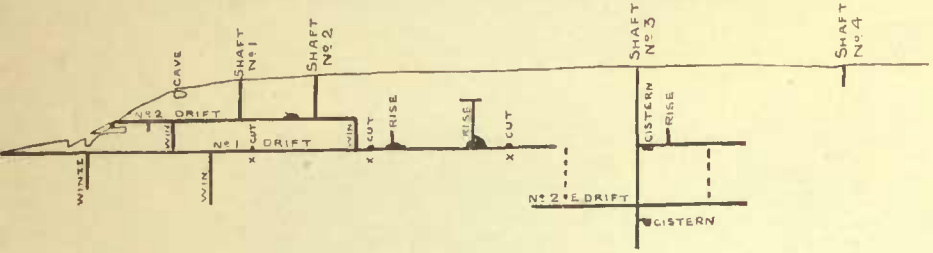


THE BEAVER MINE.

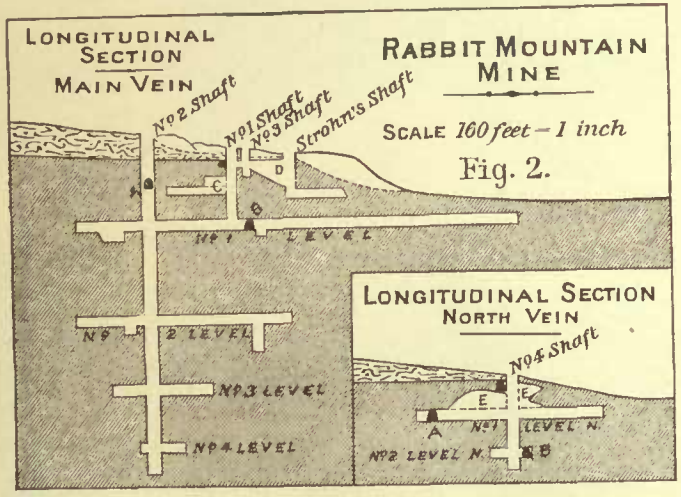
SCALE 50 FT TO INCH



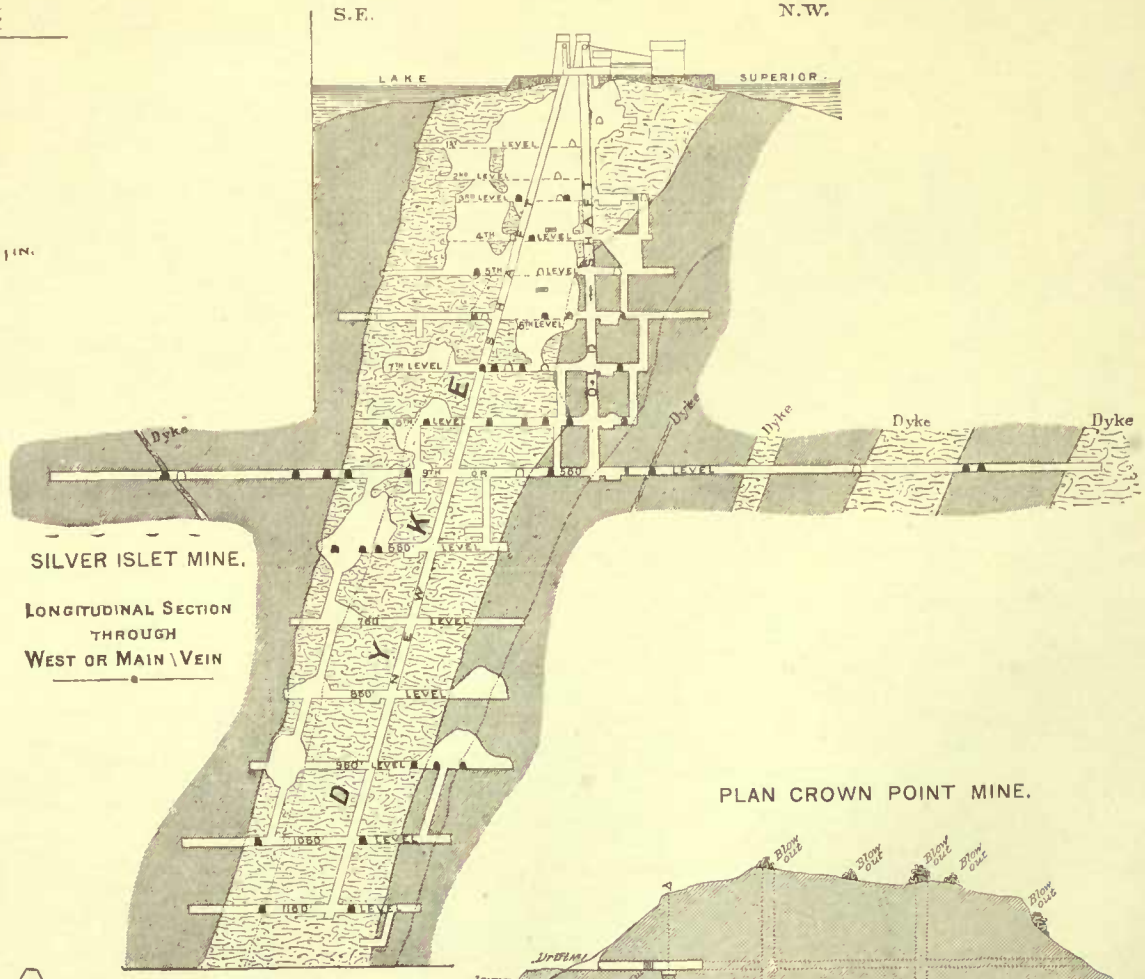
PLAN SILVER MOUNTAIN EAST END.



SHUNIAH WEACHU MINE : LONG^L SECTION SHEWING WORKINGS : 500^FT TO 1 IN.



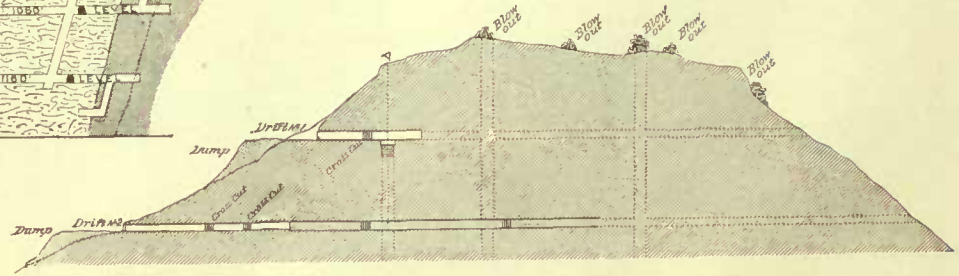
S.E. N.W.



SILVER ISLET MINE.

LONGITUDINAL SECTION THROUGH WEST OR MAIN VEIN

PLAN CROWN POINT MINE.



SECTION PROFILE OF CROWN POINT MINE, SILVER MOUNTAIN, CANADA

LONGITUDINAL SECTION.

PORCUPINE MINE.

PORT AUTHUR.

PORT ARTHUR ILLUSTRATED.

OWNERS AND OFFICERS OF SILVER MINES IN PORT ARTHUR DISTRICT.

1. A. D. Cummings, Crown Point Mine.
2. H. N. Nichol, Silver Mt. W. End Mine.
3. Capt. Dan'l McPhee, Rabbit Mt. Mine.
4. A. J. D. Blythe, Shuniah Weachu Mine.
5. Chas. Brent, Badger Mine.
6. Walpole Roland, C. E. Mining Engineer.
7. Capt. T. Trethervey, Shuniah Weachu Mine.
8. W. N. Montgomery, Crown Point Mine.
9. H. K. Nichol, Silver Mt. W. End Mine.
10. Cap. Thos. Hooper, Beaver Mine.
11. W. J. Simmons, Badger Mine.
12. Capt. Cottam, Silver Wolverine Mine.
13. A. Falco, Silver Fox Mine.
14. Oliver Downais.

PORT ARTHUR TOWN OFFICIALS.

1 J. E. Johnston. | 2 J. Mc Teigue | 3 C. H. Shera. | 4 W. J. Bawlf. | 5. Jas. A. Fraser. | 6. T. A. Gorham, Mayor. | 7. H. L. Elliott. | 8. P. Nicholson. | 9 R. Nichol, Chf. Police. | 10. G. M. Francis Assessor. | 11. W. G. Brown. | 12. J. H. Woodside, Chf. Fire Dep't. | 13 W. Murdock, (C E.) City Eng'r.. | 14. J. F. Ruttan.

Silver Fall, R 110.—This vein is 35 miles S.W. of Port Arthur, the Whitefish Lake wagon road passing near it, and the proposed Pt. A. D. & W. Ry. runs through the property. It contains 80 acres, is well timbered and has a creek with enough water power to keep a 50 stamp mill in constant work. The vein is from 2 to 12 feet wide, shown by shafts 30, 60 and 200 feet apart, well defined walls, carries sulphides and native silver, the gangue being the peculiar pink spar of Silver Islet vein. Dr. Lehnan says: "Silver Falls is one of the best properties in the district." Mr. Peter McKellar reports: "The surface soil is good for cereals and root crops. The local disturbance is unusual in this flat lying formation, the Animikie, and I consider such, favorable places to explore for metalliferous veins. It belongs to the veins intersecting the silver belt, and is well worthy of thorough mining test." Mr. Walpole Roland, C.E., M.E., says it has "a good showing of leaf silver." Capt. John Trethewey says it is "a well defined vein which promises well."

Dr. Lehnan made 20 assays of its ore ranging from 15 to 540 ounces of silver per ton, with a trace of gold. This property is owned by Mr. J. C. Hasking, of Port Arthur, who has expended over $5,000 upon it, the surface work including smith's shop, boarding house, men's quarters, etc.

Augusta Mine.—This property is a half mile from Silver Mt. west end, contains 139 acres and has a good wagon road through it. It is distant from the C. P. R. 26 miles, is covered with timber suitable for mining purposes, and borders on a small lake. The formation is similar to other veins of the group. Some three acres are cleared and mining buildings erected. Mr. Peter McKellar, who examined it, says five or six small veins in a 60 foot breadth show in the exposure and seem to be portions of one vein fissure. An 80 foot tunnel is driven in the slates 15 feet below the trap, showing the vein continuous, with a fair show of ores including silver. The vein varied from a few to 16 inches and I broke out silver glance and consider it one of great promise." A. Falco, M.E., of Silver Fox Mine, also reported favorably upon this property, and an assay by Mr. Charles Brent, of Badger Mine, gave 860 ounces of silver per ton of 2000 pounds, so the owner, Mr. Silas Griffiths says.

193 T.—This vein is six miles south of Silver Mountain, west, and contains 139 acres. It is also owned by Mr. Griffiths who states that a test pit on it made a good showing of silver.

WHITEFISH LAKE GROUP.

The Silver Wolverine Mine.—This property contains 80 acres, less than ¾ mile from the north shore of Whitefish Lake, and just east of the Queen location. Capt. F. I. S. Williams, of the Beaver Mine, describes it thus:—It is on the general run of the highly mineralized belt and carrying the silver ores of this district, and carries two strongly defined veins. The vein at surface is 4½ feet wide, and at 16 feet depth is 3½ and widens to 4½ feet at bottom of shaft (then down 34 feet). The vein is composed of quartz, calcite, and fluor spar, carrying native silver, argentiferous galena, pyrites, black or glance silver, and zinc blende, the latter in this district invariably carries considerable silver. The general appearance of this lode is very promising indeed, the facilities for developing are very favorable, and the location presents a most excellent prospect for developing into a first class mine when properly opened out.

Mr. H. De Q. Sewell, Assoc. Mem. I.C.E. and D.L.S. reports: "The Wolverine is well wooded with timber suitable for building and mining purposes, while its height above the lake afford facilities for mining not often met with. The located line of the Pt. A. D. & W. Ry., which it is expected will be built soon, passes through the location."

This mine is being worked by an English company, incorporated, with a capital of £100,000, Mr. A. B. Cottam being local agent.

Silver Fox Mine, R 264.—This property is 12 miles west of Silver Mountain, and is operated by Messrs. H. N. Nichols and Achilles Falco, work having begun in June, 1888, some ten men being employed. A road of four miles had to be cut, and lumber for building whipsawed, and all supplies, tools, etc., packed in. The shaft in March 1889 was down 25 feet and cross cut of 125 feet run, working one shift. The buildings are a boarding house, office and manager's house, smith's shop, ore house, etc. The vein is a true fissure about 4 feet wide, and the shaft shows considerable high grade ore, but the amount of water coming in the shaft stopped further sinking until such time as the owners are able to get in machinery, either by railroad facilities or wagon road. Meanwhile the cross cut is being pushed to cut the vein at a depth of about 160 feet from the surface.

Silver Tip Mine.—This is 35 miles from Murillo station on the C. P. R. and upon the line of the proposed Pt. A. D. & W. Railway. Silver Fox wagon road runs through the location on the south end, and Wolverine road passes within a mile on its northern boundary. Two very distinct veins running parallel to each other, show outcroppings at various places on the surface, with an average width of six feet, and filled with calcites, fluorites, barytes, quartz and pyrites of copper and iron, the pay ore being native silver. The veins are an extension of those of the Silver Fox and are easily traced. With sufficient capital the Silver Tip promises to be one of the steady producers in the country.

Mining locations.—26 T, 27 T, 29 T. These are on south side of Little Gull Lake, four miles N.W. of Whitefish Lake and forty-six miles from Port Arthur, the projected wagon road passes near them. W. H. Furlonge, M.E, says: "the vein is well defined and from 5 to 8 feet wide, showing zinc blende, galena and pyrites giving $19 in silver per ton and a small amount of gold."

Black Bear Lode.—This strikes N. 37 degrees E., the vein averaging four feet wide is slickensided and shows strong mineralisation. Some work has also been done on Sunset Lake vein, Medicine Bluff, Scripture vein, Hurlburts, Geroux's, Laplante's, etc.

A small steamer owned by the West End Mining Co., is now running on Whitefish Lake for use of mining men.

PRESENT POSITION.

Communication is much improved in the district, and is good. The C. P. Ry. affords connection with the rest of the world, the shores are easily reached from Port Arthur by tug or small craft, while the Dawson road, Colonization road and others, with the numerous canoe routes afford connection with the interior. Freight rates are now reasonable, both in supplies for the mines and products from them, and the growth of agricultural settlement will still further reduce the cost of sustenance.

The silver mines working at present are the Beaver, Badger, Silver Mountain East End, Silver Mountain West End, Crown Point, Silver Wolverine, Silver Fox, and Elgin, and some other locations are either being developed or preparations being made therefor.

RESULTS ATTAINED.

Until the opening of the Canadian Pacific Railway in 1883-86, from ocean to ocean, through the district, communications with the outside world were poor—being by boat and in summer only—and this even only affected the ends of the lake, though some connection was kept up with fishing stations, etc., by tugs and other irregular steamers, and the whole coast line of hundreds of miles forming the natural base of explorers operations had to be reached by these imperfect means. Add to these the former absence of interior roads, compelling canoe or boat travel and foot journeys, carrying supplies on men's backs, the dense bush, limiting sight, and the snow in winter, and also the expense of supplies, as owing to the absence of farmers until last few years, everything was imported. These great difficulties were also expensive, causing a very gradual opening up of the region, and largely deterred people from making or developing discoveries. Even when work began to test veins, incorrect estimates of the amount needed to develop a prospect into a proved mine, either caused premature abandoning or a starting with insufficient capital and exhaustion of the funds before the vein was proved a paying one or not. Capital was also used in building stamp mills and other surface work not at once needed, which if employed in under-ground work might have carried the property through stretches of poor vein to a paying standpoint. Then consider the changes in the mining laws, high prices upon locations and proprietary squabbles and a desire to work only the very richest ores, neglecting the more lasting and finally profitable low grade ores. These failures from such causes affected the region unfavorably and render it difficult to interest those at a distance, who, unacquainted with these inside facts, must judge from outside appearances.

Considering all the circumstances and with the light of this information, the reasonable investigator will admit that the results attained have been satisfactory.

GENERAL NOTES.

Mr. Chas. F. Eschweiler, Mining Engineer, of Milwaukee, United States, and discoverer of the rich Badger mine, advises the formation of an exploring company, to make the most of the mineral wealth of the country, and says: "Your mining districts deserve more than any other on this continent the fullest and closest attention. There is not the least doubt, in my mind, that the north shore of Lake Superior will equal, if not surpass, the great success of the mines of the south shore."

Mr. N. Lehnen, Ph. D., analytical chemist, of St. Paul, U. S., says "Port Arthur district will be the most important silver field in the world. The deposits are more easily reached and worked than elsewhere, and the ore richer The veins are either struck at surface or near to it, and are from 2 to more feet wide. The veins are true, and with no trouble from water in the mines, as they are 150 feet above water level, and timbering is needed only in the shaft, and little even there. There are ample supplies of fuel and water at close command and at low cost for all mining wants, and supplies are reasonable and easily laid in."

It is a curious fact that though some of the most valuable mines in Port Arthur district, were pointed out by Indians, yet at first none of them could be induced to tell the situation or go near the properties,

though perhaps willing to describe them closely enough to enable others to find them. This superstitious objection to making known the locations of minerals is ascribed to his idea that they are of a sacred character, the disclosing of which will cause him trouble or early death. They are now believed to possess richer gold specimens than any hitherto obtained in the district.

Iron explorations have been carried on on the range which extends southwest from the C. P. R. at Kaministiquia station to the International Boundary. The surface indications are that ore of quite as good quality and certainly to quite as great an extent exists there as is to be found south of the line; and Port Arthur may yet be an iron ore shipping port of importance.

In connection with the mining industry two names are worthy of special mention and the President of the Port Arthur Board of Trade thus refers to them in his last address: "I cannot conclude this subject without mentioning the names of two men, to whose indefatigable exertions, probably more than to any others who have interested themselves in mining in this district, much of the success and energy now displayed are due, while to either one or the other must be given the credit for having been instrumental in attracting to our midst nearly all the outside capital now employed in this industry. It is, of course, needless for me to say that these gentlemen are Mr. Thomas A. Keefer and Mr. Walpole Roland, C.E., M.E."

Mr. T. A. Keefer is a Canadian by birth, education and taste. He is a barrister, and was honored by the British Association for the Advancement of Science in being made a member of that body some years since, as a mark of approval of his labor in their field.

To Mr. Keefer was mainly due the attractive and very effective mineral collection sent from Port Arthur to the Colonial Exhibition some three years since, and he has for years spent an immense amount of time, labor and money in the endeavor to place fully and properly before the world a true knowledge of the extent, variety and wonderful value of the mineral deposits of this district. He was one of the original owners of the Beaver and Rabbit Mountain silver mines, and at present in whole or part of the Huronian gold mine, Zenith zinc mine, Porcupine, Silver Creek, West Beaver, Big Bear and various other silver mines and mining locations and other mineral properties. Upon all he has done, alone or with others, a large amount of development, costing a very large amount of money and resulting in the inflow of capitalists and mining men, from whom the district is now reaping great profit. Mr. Keefer has also taken great interest in the agriculture of the district, is president of the Whitefish Valley Colonization Company, and has under cultivation a considerable farm on Pic Island.

Walpole Roland, C.E., M.E.—This gentleman gave the new mining district a great impetus two years since in his exhaustive work "Algoma West," which is now bearing fruit, his long and intimate knowledge of the country and its mineral resources specially fitting him for the task. With his fine education as a civil engineer, great natural abilities and facile pen, he has been of great service to Western Canada, and indeed the Dominion, as he was a long time exploratory engineer on surveys for the Intercolonial and Canadian Pacific Railways, and a trusty examiner and valuator for the latter company in the Northwest Territories. He also made a special survey in the Athabasca country, and the first survey for the railway from Winnipeg to Hudson's Bay. Born in India, educated at Edinburgh High School, he entered the Bengal Engineers and saw active service in India and China. After retiring from the British army, he came to Canada, has had many years' experience as a mining expert, from Nova Scotia to Algoma, and has written many valuable and most interesting articles, among them a series for the *Manitoba Colonist*, of which journal he was mining editor in 1887. Among the lodes in Port Arthur district he has been instrumental in organizing and developing into true minehood are the Silver Wolverine, the West Beaver, the Porcupine, Silver Creek, Big Bear, Silver Champion, Palisade and Lone Pine, upon which considerable work has been done, and most are known to be rich.

Some Port Arthur History.

The town is on the western height of Thunder Bay, and lies in latitude 48° 26 N, and longitude 89° 31 west. It is in Thunder Bay district, in Western Algoma, a division of the great Province of Ontario, the largest, wealthiest and most important member of the Dominion of Canada. In 1857 Mr. Robert McVicar, Crown Lands Agent, the first white settler, built the first house near the present intersection of Arthur and Cumberland streets, then covered with a heavy growth of timber. The original town contained only 534 acres, which were sold at public auction by the Government.

In 1859 Mr. S. J. Dawson, now M.P. for Algoma, suggested to the Government of Canada the propriety of a road from Thunder Bay to Manitoba, and work was begun on it 1868-69, and continued for some five years, until the near approach of the railway connection stopped it. As some 3,000 men were employed on the sections supplied from here, during the building of the C. P. Ry., causing an immense flow of money, it gave the place a strong advance. In 1878 Shuniah municipality began building the Prince Arthur's Landing and Kaministiquia Ry., costing $40,000, and which is now merged into the C. P. R. system. The log house built in 1868 was used by the Public Works Department and after by the Ontario Bank in 1875, and now stands on the Government reserve opposite the Baptist church, on Cumberland street. The first dock was built in 1868, for wooding up the old Algoma steamship, and served for landing the troops and supplies for the first Red River Expedition, General Wolsely sending the builder, Mr. James Dickson, a $50 cheque for its use, being more than the structure cost. In 1868 Mr. Dickson built the first store for Mr. Thomas Marks, a place 10x16 feet, and 8 feet high, out of 1,000 feet of lumber which he and Mr. James Flaherty rafted ashore, June 12th, it being the first lumber imported. The same year Mr. Flaherty built the first stopping place, on the Dawson Road, and afterward built and owned the first hotels, the first and second Queen's which stood on the site of the Northern.

In 1881 the town had 1,000 people and 50 business houses, both doubling the next year. In the fall of 1882 the railway contractors opened the line through to Winnipeg, and in May, 1883, the Canadian Pacific Ry. Co. took over the line from them, and in opening it for full traffic in 1886 placed the town in close connection with the world.

THE TOWN GOVERNMENT.

In 1871 the town site was laid out by the Ontario Government and in 1873 it was incorporated along with the adjoining townships of McIntyre, McGregor, Paipoonge, Neebing, Blake, Crooks, Pardee and the Island Ward and formed the municipality of Shuniah. In March 1884 the Town of Port Arthur was incorporated out of this municipality, and consists of the North and South Wards of Prince Arthur's Landing with portions of the townships of McIntyre and McGregor. The Town is divided into three wards represented as follows: The Mayor elected by the whole town and three councillors from each ward elected by the ratepayers in the respective wards. The first council consisted of Thomas Marks, Mayor, by acclamation, and councillors, Ward one—Geo. H. Kennedy, R. Vigars, J. C. Hasking. Ward two—W. G. Smith, Wm. Margach, James Dickson. Ward three—A. L. Russell, J. F. Ruttan, J. T. Mackay.

THE TOWN'S DAILY LIFE.

The town bell, at the police station, rings at 7, 12, 13 and 19 o'clock and on Sunday's at 11, 18:30 and 19 o'clock for all the churches except the Roman Catholic, which has its own bell and rings at 6, 8, 10;30, 12, 18, 18:30 and 19 o'clock.

The schools begin at 9:30, the noon recess being 1½ hours, and close at 16 o'clock.

Mails arrive, from the west, at 14:30, daily except Tuesday, and from the east, at 14:30, daily except Friday. Mails close daily at 13;30 except Tuesday for the west and Friday for the east.

Steamboats from points on Lake Huron and Georgian Bay arrive Monday, Wednesday and Friday, and from Duluth, Monday, Tuesday, Thursday and Friday, and leave same days.

C.P.Ry. boats arrive Monday, Wednesday and Friday at 10; leave for the east, Tuesday, Thursday and Saturday at 15 o'clock.

Fort William Ferry leaves daily at 6:30, 9:15, 13:30 and 16:15 o'clock.

Town Council meets every second and fourth Monday in each month.

Board of Trade Council meets first Tuesday in each month.

Board of Trade meets first Tuesday in January, April, July and October.

Fire Brigade meets every Wednesday at 19:30 o'clock.

C.P.Ry. telegraph office open on week days from 8 to 20, and on Sunday from 9 to 10 and from 16 to 17 o'clock.

There are about 4,000 people in the town, and they keep 117 horses, 140 cows and 174 dogs.

First Persons and Events.

The first white resident was Frank Brown, Sr., who came from Collingwood, Ontario, in 1857.

First white child born was Jane McEachen, in 1861.

First Physician, J. A. Macdonell, M.D.; first lawyer, J. Fitzgerald; first stipendiary magistrate, D. D. Van Norman; first sheriff, John F. Clarke, M.D.; first judge dist. court, John M. Hamilton, 1884; first postmaster, D. M. Blackwood; first mayor, Thomas Marks, April 28, 1884; first president board of trade, Thomas Marks.

First house was built in 1857, by Robert McVicar; first store in 1868, by James Dickson for Thomas Marks & Co.; first dock in 1868, by James Dickson for Thomas Marks & Co., first hotel, by James Flaherty; first mail service via Duluth, 1861; first sod turned on C. P. Ry., June

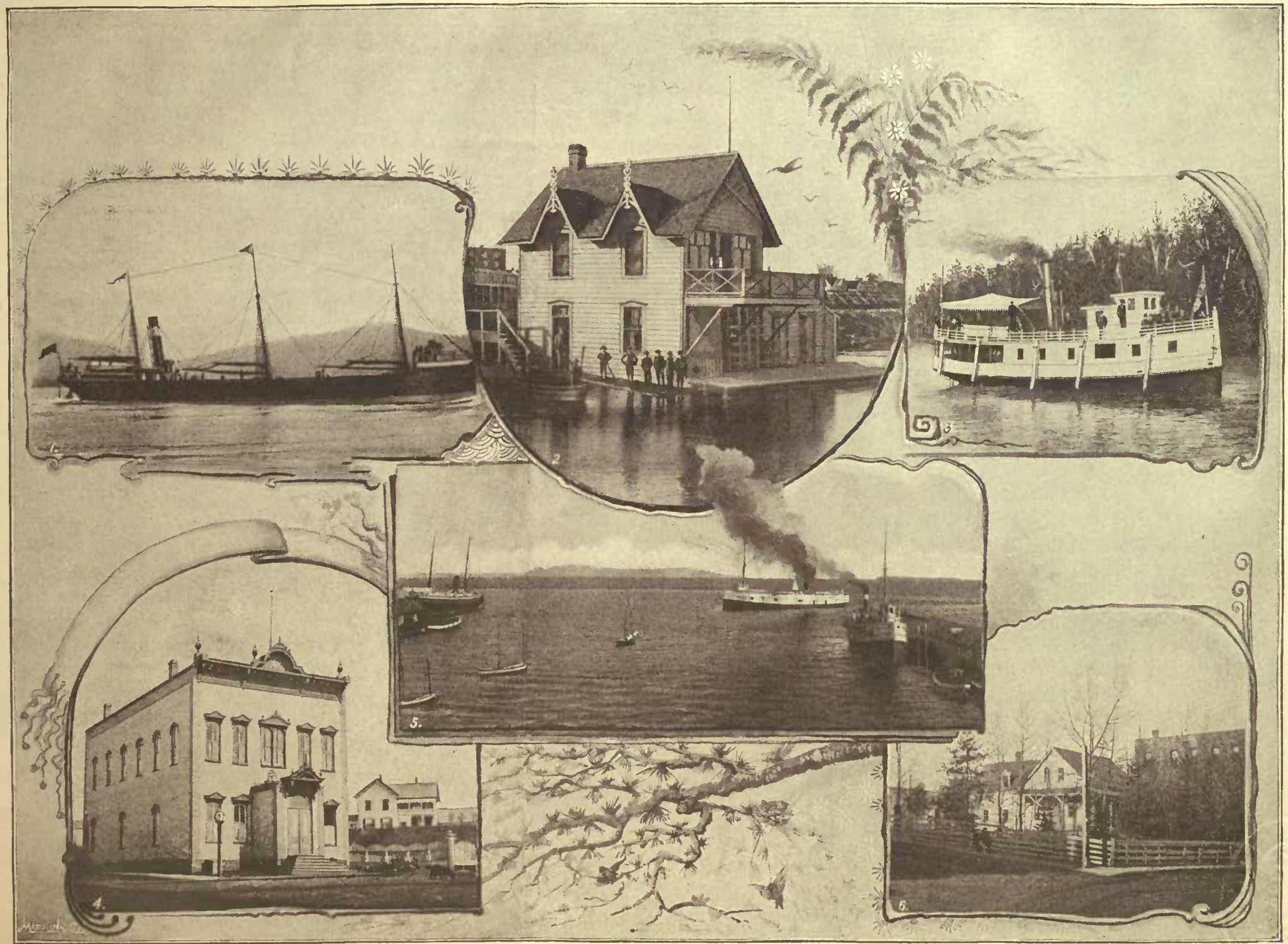
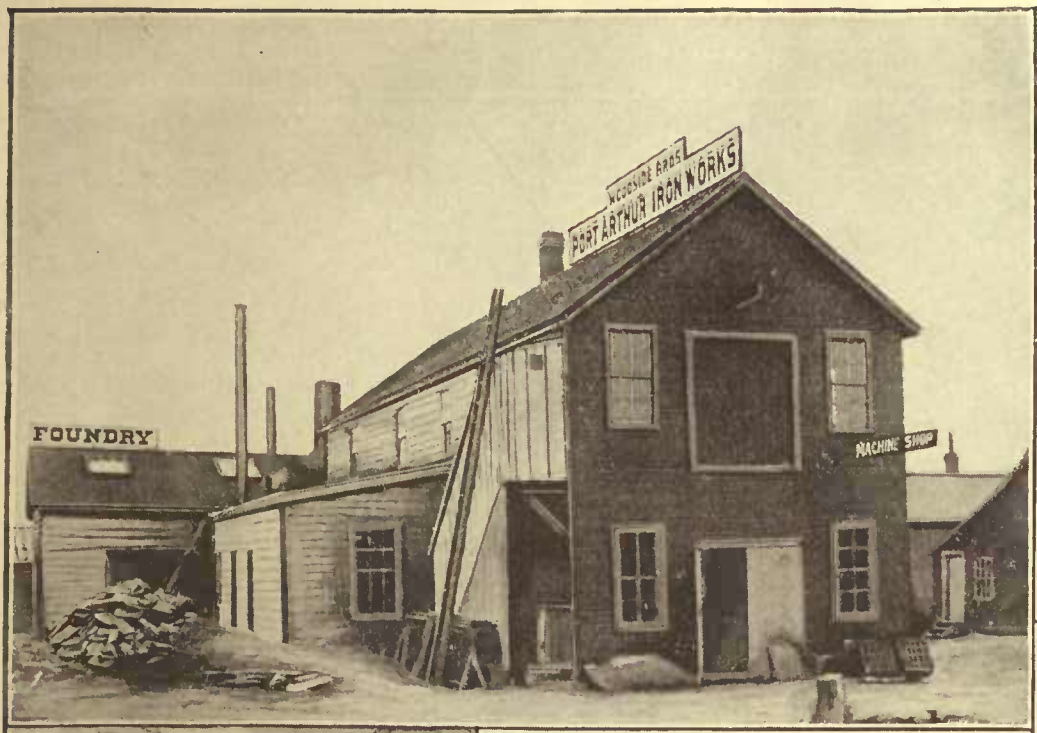
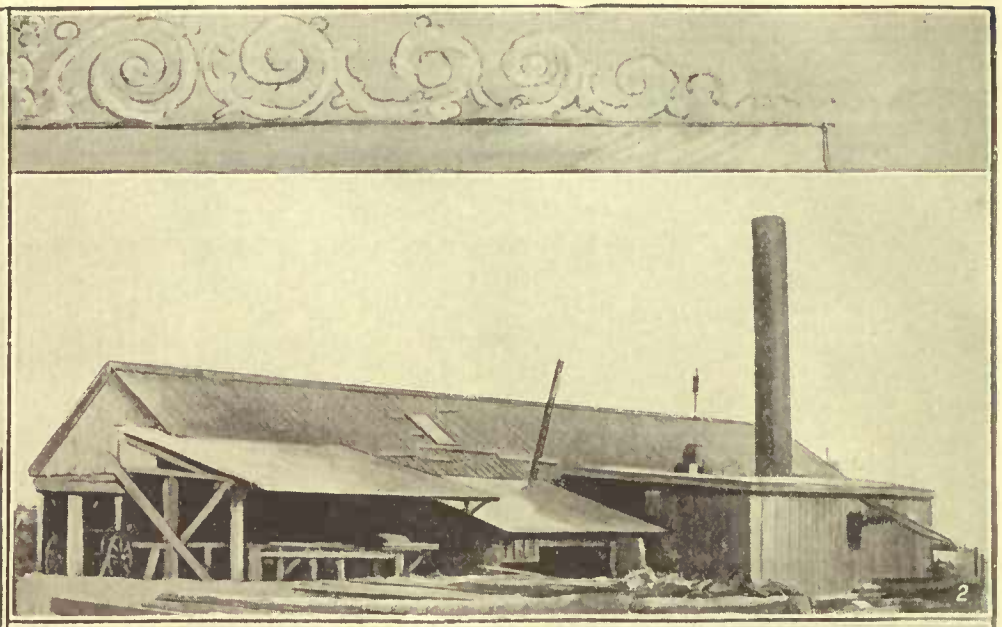


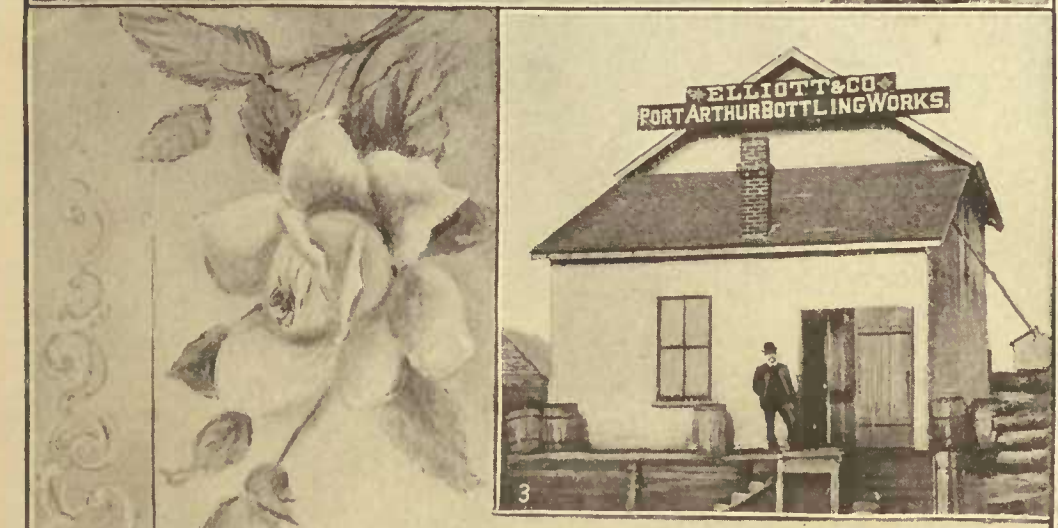
PLATE B.

1. Lake Freight Steamship Algonquin
2. Yacht Club House.
3. Ferry Steamship Kakabeka.
4. Town Hall.
5. Around the Docks.
6. The Dawson Residence.

1. McGillis Block.
2. Ray Street & Co's Bank
3. Flaherty Block and Bodega Hotel.
4. Fire Hall.
5. Cameron Street.
6. Ontario Bank, Rays' Block.
7. Burk Block.
8. Bawlf Block.
9. Cordingly Block.







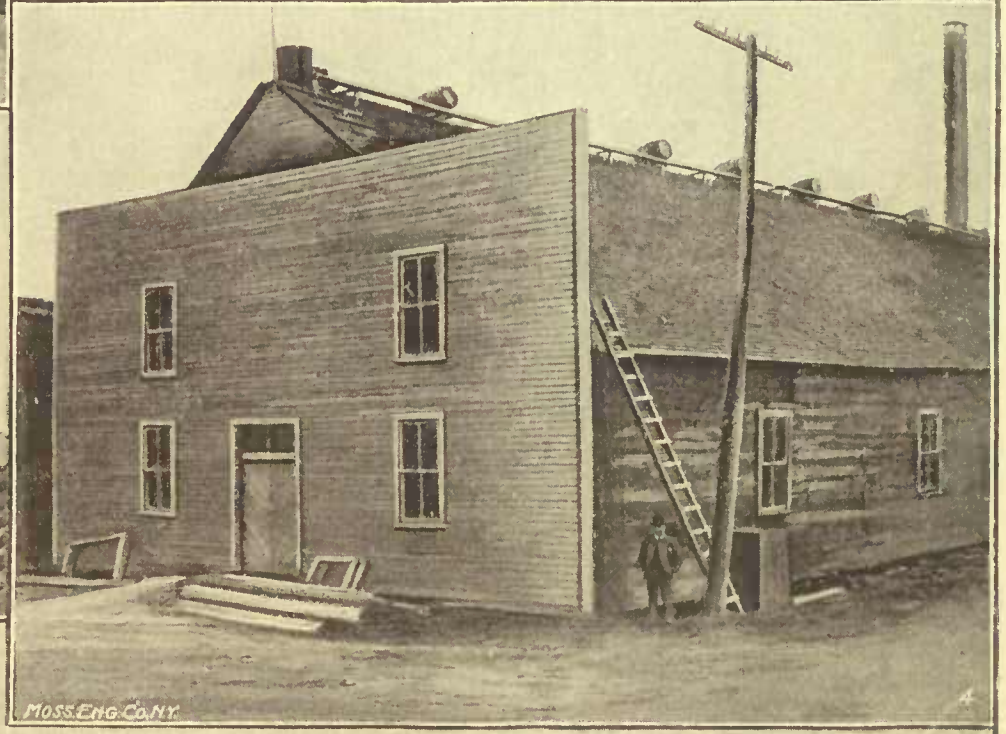
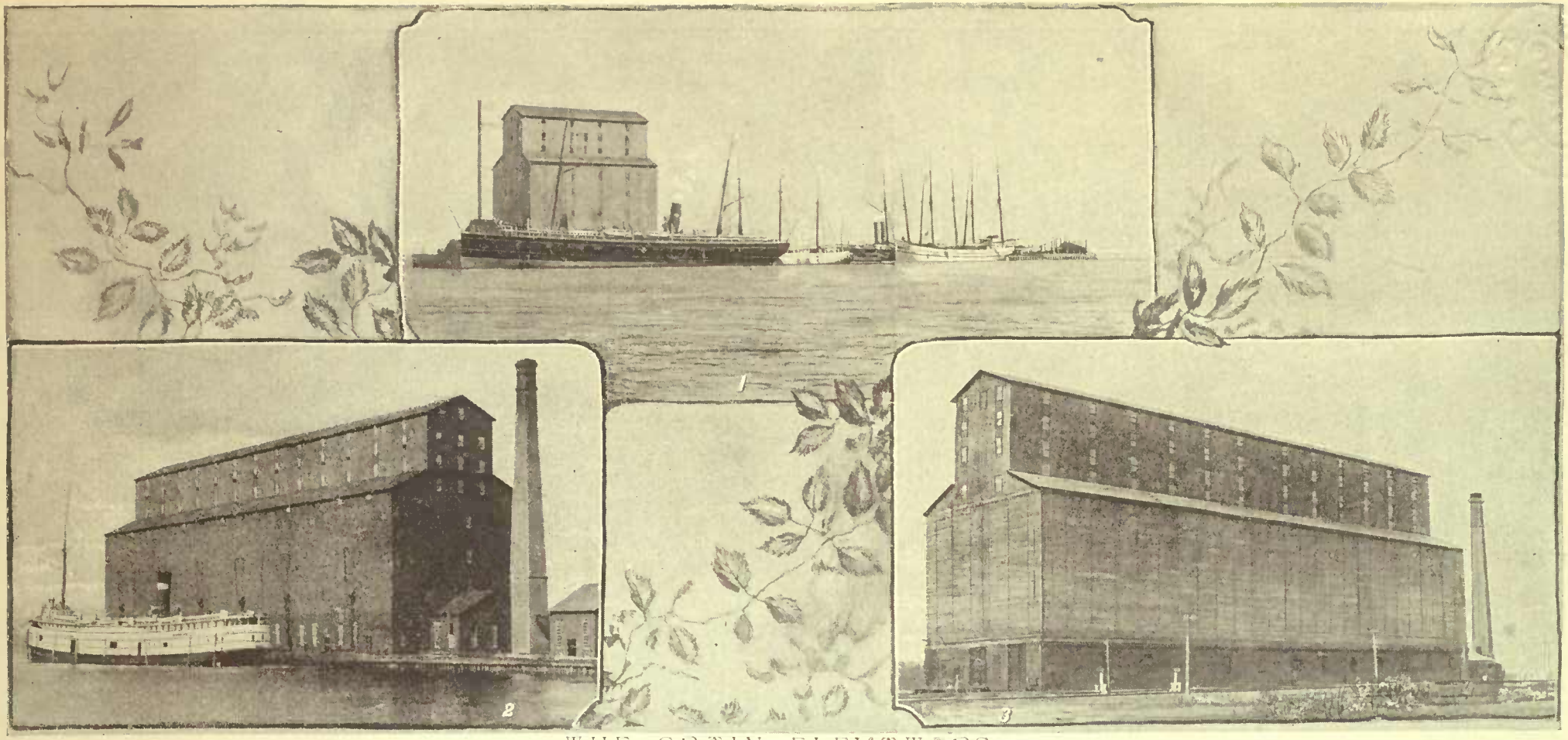


PLATE D

1. Iron Foundry—Woodside Bros.
2. Saw Mill—Vigars Bros.
3. Bottling Works—Elliott & Co.
4. Sash and Door Factory—Kennedy & Saunders.



THE GRAIN ELEVATORS.

R. Martin's Farm, in Oliver Township.-

Wm. McPharland's Farm in Shuniah Municipality

1st, 1875; first Ry. engine entered Port Arthur, May 6, 1877; first mining location sold 1860, Walbridge loc. to John McIntyre and Duncan McEachen; first road, a trail to Dog Lake, in 1857, by N. W. T. Co.; first survey, Red River Exploring Ex., July 31, 1857; first meeting to consider C. P. Ry. connection, June, 1875, in Hebert's Hall; first cargo of railroad iron, from Europe, 550 tons, Capt. J. Clifford; first cargo of grain exported on steam barge Erin, Capt. J. Clifford, loaded from cars at Marks wharf.

Sir John Franklin passed on way to arctic circle 1846; visit of Earl and Countess Dufferin, 1874; visit of Marquis of Lorne, 1881; visit of Marquis of Landsdowne, 1885; Dominion Express opened, May 14, 1883; first permanent dock, govt., 1872-73; Ontario Bank opened, 1875; mails to Fort Garry began, 1855; Red River Expedition under General Wolseley arrived, May, 1870; Dawson Route begun, 1868; Troops for Saskatchewan trouble arrived, April, 1885, and returned July, 1885; Canadian Pacific Ry. opened from the Atlantic to the Pacific, July 1st, 1886.

Companies and Corporations.

Lake Superior Tug Company (Limited).—Geo. A. Graham, President: H. A. Wiley, Manager. Incorporated, 1888; capital $12,500. Composed of Thomas Marks, George A. Graham, John T. Horne, Geo. T. Marks, J. C. Graham, H. A. Wiley. Business—Towing, wrecking, lightering.

Vessels—Tug	Mary Anne	100 tons.
" "	Salty Jack	50 "
"	Steam barge—Butcher Boy	150 "
"	Lighter—Black Prince	75 "
" "	Reciprocity	200 "

The Thunder Bay Boom and Slide, Lumber, Dock and Forwarding Company (Limited).—Incorporated 1885; capital $50,000. James Conmee, M.P.P, President; James McTeigue, Secretary.

The Thunder Bay Forwarding and Elevator Company.—Established 1882; capital, $300,000. Thomas Marks, President; George T. Marks, Secretary.

Lake Superior Dock, Forwarding and Elevator Company.—Established 1882; capital, $100,000. D. F. Burke, President.

Port Arthur, Duluth and Western Railway.—Incorporated 1885. M. Dwyer, President; James McTeigue, Secretary.

The Ontario and Rainy River Railway Company.—James Conmee, M.P.P., President.

Port Arthur Water, Power and Light Company.—Organized 1888. M. Dwyer, President; James McTeigue, Secretary.

Secret and other Societies.

MASONS.

Shuniah Chapter, R.A.M., No. 82. G.R.C.—Officers: Ex. Comps. J. A. Fraser, Z; R. E. Mitchell, I.P.Z; W. G. Smith, H; J. E. Johnston, J; W. J. Clarke, S.E. Comps.—W. L. Bell, S.N; H. de Q. Sewell, P.S. Rt. Ex. Comp.—S. W. Ray, Treas. Comp.—W. H. Demuth, S.S; T. I. Roberts, J.S. Ex. Comp.—A. W. Thompson, Master of Ceremonies. Comps.—A. H. Chase, Master 1st Veil; O. W. Bonter, Master 2nd Veil; C. H. Strutt, Master 3rd Veil; J. K. McLennan, Master 4th Veil. Ex. Comp.—R. E. Mitchell, Janitor.

Shuniah Lodge, A.F. & A.M., No. 287, G.R.C.—Officers: W. Bro. J. E. Johnston, W.M.; J. A. Fraser, I. P. M; A. More, S.W; C. A. Laney, J.W.; J. H. Woodside, Chap.; W. J. Clarke, Treas.; Geo. Mooring, Sec.; W. H. Demuth, S.D.; M. N. Garland, J.D.; V. W. Bro. W. C. Dobie, D. of C.; R.W. Bro. S. W. Ray, Organist; A. Saunders, I.G.; G. W. Brown, S.S.; J. A. Woodside, J.S.; John Goodhead, Tyler.

Meets first Tuesday on or before full moon.

Grand Lodge, 17th Algoma District—Officers: R.W. Bro. S. W. Ray, D.D.G.; A. W. Thompson, P.D.D.G.M.

Knights Templars, Ray Preceptory, No. 23, Organized 1879—S. W. Ray, Eminent Preceptor; R. E. Mitchell, Marshal; W. J. Clarke, Constable.

Meets every Wednesday on or before full moon, Masonic Hall.

CANADIAN ORDER OF FORESTERS.

Court Port Arthur, No. 194—Officers: I. L. Mathews, D.D. H.C.R.; Geo. Slipper, C.R; J. A. Fraser, V.C.; R. J Lawrence, Rec. Sec.; J. Woodside, Fio. Sec.; W. J. Barrie, Treas.; Hy. Murdoch, Chap.; W. C. Woodside, Sen. W.; H. Gazeley, Jun. W.; A. W. Thompson, B.; F. Witherspoon, B.; G. S. Beck, M.D., Court Physician.

Meets 1st and 3rd Friday in each month at 8 p.m. in Hall, Wright Block.

ODDFELLOWS.

Port Arthur Lodge, 244 I.O.O.F—Officers: A. M. Gill, J.P.G.; J. W. Crooks, V.G.; Alex. Allen, V.G.; W. Burrows, Rec. Sec.; M. Nicholson, Per. Sec.; W. J. Inglis, Treas.

Meets every Wednesday night.

KNIGHTS OF PYTHIAS.

Crusader Lodge, No. 5—Officers: Geo. Hodder, C.C.; James Symons, V.C.; C. W. Hamilton, Prelate; James Webb, K.R.S.; M. D. Campbell, M.F.; D. E. Andrews, M.E.; Johnston Carson, M. of A.; Robert Hughes, J.G.; Alfred Saunders, A.G.; M. C. Campbell, D.D. G.C.

Meets every Tuesday night at 8 o'clock in lodge room, Arthur St.

Orange Lodge—Founded in 1867. First Master, W. H. Davis. Present officers: A. Allen, master; John P. Hale, secretary; W. H. Davis, treasurer. There are 57 members. Meet first Monday in each month in their hall, Park Street.

POLITICAL ASSOCIATIONS.

Liberal-Conservative Association of West Algoma—Geo. H. Macdonell, president; F. H. Keefer, 1st vice-president; A. Squier, 2nd vice-president; W. W. Russell, secretary; A. More, treasurer.

Port Arthur Liberal Association—Geo. A. Graham, president; J. A. McIntosh, 1st vice-president; I. L. Matthews, 2nd vice-president; Geo. Hodder, secretary-treasurer.

MILITARY BODIES.

Algoma Rifle 96th Battalion.—Total Strength 300; Organized 1886; Six Companies; Headquarters Port Arthur. Staff—S. W. Ray, Lieut.-Col. Commanding; T. H. Elliott, Major; Lieut. G. A. Kobold, Adjutant; G. S. Beck, M.D., Surgeon. Officers Port Arthur Company: M. N. Garland, Captain; J. H. Woodside, first Lieut.; George Hodder, second Lieut.

Drill nights Tuesday, Thursday, weekly.

Rifle Association—Organized 1887; Affiliated with Dominion Rifle Association Wm. Murdoch, President; M. N. Garland, 1st Vice Pres.; Geo. Hodder, 2nd Vice Pres.; G. T. Ware, Secretary.

About 50 members; has had two very successful matches, and has an excellent range of 1000 yards.

Internal Revenue.

This office was opened in 1874. The present collector being Mr. George A. Ironside. The collections for 1884 were, $18,225.18; for 1885 were, $20,500.08; for 1886 were, $21,784.88; for 1887 were, $15,835.09, and for 1888 were, $15,176.88.

Source of the St. Lawrence.

This is in Coldwater Lake, the last of three small ponds, altogether about one mile long, flowing thence through a small stream across which the willows almost touch, into Dog River and thence into Dog Lake and on into the Kaministiquia and to Thunder Bay and Lake Superior. Coldwater Lake is about 60 miles in a direct line from Port Arthur, and can be reached without much trouble. It is 3 feet deep, temperature 40°, clean, and is 722 feet above Lake Superior, and 3 miles from watershed.

Season of Navigation.

Lake Superior and Thunder Bay opened in 1873, April 28; 1874, April 18; 1875, May 12; 1876, May 6; 1877, April 17; 1878, March 18; 1879, April 24; 1880, April 5; 1881, May 3; 1882, March 20; 1883, April 25; 1884, April 24; 1885, May 2; 1886, April 30; 1887, May 11; 1888, May 21; 1889, April 19.

In all the years named it has closed in December, namely: In 1873, Dec. 3; 1874, 28th; 1875, 4th; 1876, 14th; 1877, 14th; 1878, 31st; 1879, 20th; 1880, 3rd; 1881, 31st; 1882. 7th; 1883, 30th; 1884, 16th; 1885, 20th; 1886, 16th; 1887, 16th; 1888, 27th.

The Timber Wealth.

It is said there are eight hundred million feet of pine in the Thunder Bay district, and chiefly tributary to Port Arthur. This lies in the area from Lake Superior to Savanne, and south to the International boundary. In the stretch of ten square miles west from Frog Lake it

is estimated there are thirty million feet. There are vast quantities of poplar also, some of large size, and a considerable amount of tamarac and cedar, with some birch, spruce, ash and other woods.

The late surveyor-general, Lindsay Russell, and Mr. James Conmee, M.PP. for Algoma, and Mr. S. J. Dawson, M.P., estimate that from Lake Superior to the Lake of the Woods there are twenty-five thousand million feet of timber, board measure.

Docks and Frontage.

There are nine docks at present, with a total dockage accommodation of fourteen thousand two hundred feet, and the water frontage of the town is six miles. The docks are :

	Feet.
Thos. Marks & Co. No. 5	1,000
C. P. R. Co. No. 1	1,000
" " 2	1,000
Lake Superior Dock Co	1,000
Thunder Bay Dock Co. No. 5	1,000
Thos. Marks & Co. No. 3	600
Smith & Mitchell	600
G. O. Clavet	600
W. H. Davis	300

Thunder Bay and Yachting.

This magnificent body of water is 32 by 16 miles. The entrance is between Thunder Cape, 1,350 feet high, and Pie Island, 850 feet, and five miles south. The depth of water here is 180 feet and from 60 to 120 feet in the bay.

An experienced sailor says this is one of the finest bays imaginable for yachting—having deep water, plenty room, no shoals, and nearly always enough wind from some quarter. A course of one hundred miles can be laid inside this magnificent bay, only going once around. The yacht club have quarters on the bay and six sailing yachts and one steam launch are owned by the townsmen. A boat livery is also maintained on the lake shore where 20 boats and 12 canoes are kept for hire, and contains besides, 12 boats of private owners. Altogether some $6,000 are invested in sail and row boats. An annual regatta has been held on July first, Dominion Day, for some 13 years past, and in the open for all race about 10 or 12 sail boats start on the mile course. The sail yachts are Lurline, Albatross, cutters, deep draft, 6 tons each ; Sylvia, do do, 3 tons ; White Wings, schooner, 10 tons ; Genesta, sloop, 6 tons, and Mountain Boy, schooner, 7 tons.

Thunder Bay District.

The Judicial District comprises that part of Algoma bounded by a line drawn due north from Gros Cap, on Lake Superior, to its intersection with the Albany river, westward to a line drawn due north from the easterly end of Hunter's Island to its intersection with Lac Seul. Its northern and southern boundaries are identical with the district of Algoma. It is about 500 by 450 miles square.

This comprises 43,132 square miles or 27,605,802 acres, and contains a population of 20,000. It is long past two centuries since the first trading was done here on the shores of Thunder Bay, and from here started Verandrye, Thompson, Harmon, Simpson, Milton, Cheadle, Duluth, Hennepin, Wolseley, Dawson and others on their explorations of the interior. Here in 1656 M. de Grossier and Raddison explored and went to Rainy River, and in 1678 Daniel Gresalon began the fur trading which resulted in the opening of the Northwest Fur Company in 1808. From here departed the Red River exploring expedition sent by the Canadian Government under Gladman, Hynd and Dawson in 1857, which ended in the abolition of the Hudson's Bay Company's claim to the great prairies of Manitoba and the Territories. The whole northern shore was surveyed by David Thompson in 1798, while in the Hudson's Bay Co's employ, and resurveyed in August, 1812. From 1805 to 1857 the business was confined to fur trading with the Indians, and it still remains a profitable one in some sections.

Port Arthur's Lake Commerce.

Previous to 1829 the American, Northwest and Hudson's Bay companies had in their employ, plying on Lake Superior and visiting Thunder Bay regularly, these vessels: The Invincible, Otter, Mink, Recovery and Discovery; running force, 20 to 100 tons, each. Lieut. Bayfield, (afterwards Admiral) employed the schooner Mink in the Hydrographic survey of Lake Superior.

The steamer Independence was on Lake Superior in September, 1845, but the first steam vessel known to enter Thunder Bay was the Julia Palmer, a side wheeler of 280 tons, which was sent from Detroit to St. Ignace Island, in Nepigon Bay, with men and supplies for the Montreal Mining Company. She coasted on westward and came into Thunder Bay in September, 1846. She was built at Buffalo as a full rigged ship, and afterwards converted into a side-wheel steamer, and hauled over the rapids at Sault Ste. Marie in 1846. She was followed in 1857 by the Rescue, which plied between Collingwood and Thunder Bay until the Autumn of 1858, the Ploughboy running in opposition, on the same route, at the same time. In 1862 the Rescue again appeared on this route, carrying for the Northwest Transit Co. the mails for Fort Garry (now Winnipeg), and she again had the Ploughboy in opposition, though at irregular intervals. In 1865, the Algoma, a side-wheel, of 416 tons, began on this route and continued until 1871.

In 1869 the Chicora came on also and ran until the autumn of 1875. She was built by Laird, at Birkenhead, on the Mersey, England, in 1861, named, Letter B., and bought by the Chicora Company, of Charleston, S. C., who named her the Chicora, and used her as a blockade runner during the American war, being commanded, during the blockade, by Capt. Coxetter, now of Savanne, Ont. She now runs from Toronto to Niagara. In 1870 the Cumberland was added to the route and ran until 1877, when she was wrecked, and became a total loss, on the Rock of Ages, a sunken reef off the west end of Isle Royale. In 1869-70, the Canadian and British Governments employed the following vessels in carrying troops and supplies from Collingwood to Thunder Bay, for the suppression of the Red River trouble :—

NAME.	NATIONALITY.	TONNAGE.
Steamer Clematis	American	276
do Arctic	do	618
do Union	do	933
do Brooklyn	do	439
do Algoma	Canadian	116
do Waubuno	do	180
do Shickluna	do	450
do Chicora	do	550
Tug Pioneer	do	
do M. J. Mills	do	62
do Okorona	do	37
Gunboat Rescue	do	275
do Prince Albert	do	456
Schooner Snow Bird	do	110
do Nemesis	do	101
do Pandora	do	326
do Orion	do	240

The first arrivals with troops were the Algoma and Brooklyn, on the morning of May 27th, 1870, from which were landed the headquarters' staff and four companies of the 60th Rifles.

The side-wheel steamer Manitoba began plying on the Sarnia and Thunder Bay route in 1871, in the Beatty Line, and ran regularly each season until 1883, when she was driven ashore at Southampton, Lake Huron, and wrecked. She was rescued by the insurance companies, rebuilt at Detroit in 1887, sold to the C. P. Company, renamed the Carmona, and now plies between Owen Sound and Sault Ste. Marie. The Acadia, a propellor of 450 tons, ran in connection with the Manitoba in the same line from 1871 to 1873.

In 1874 the Ontario and the Quebec, two propellors of 700 tons each, were built at Sarnia and entered the Beatty Line the same year, the Ontario being still on the Sarnia and Port Arthur route. The Quebec sank in the Sault Ste. Marie river in 1885 in 126 feet of water. She was raised in 1886, rebuilt at Buffalo, renamed F. E. Spinner, with American register, and now trades as a tramp steam barge. The raising of this sunken vessel was the greatest wrecking feat ever done on the great lakes.

The Asia, a propeller of 450 tons, began running in the spring of 1875, as the pioneer boat of the Windsor and Lake Superior Line, and was followed the same season by the Sovereign, also a propellor of 450 tons, in the same line, and both continued until the fall of 1876. In 1887 this line amalgamated with the Beatty line and formed the Northwest Transportation Company. The Asia was chartered by the great Northern Transportation Co., of Collingwood, in 1882, and in September, 1882, was wrecked on Georgian Bay, with a loss of 102 lives, there being only two survivors.

The Campana, a twin screw steamship of 1,500 tons, built on the Clyde for the South American trade, was bought in London, England, in 1881, by the Canada Transit Co., to replace the City of Winnipeg. She was cut in two at Montreal, towed through the St. Lawrence, canals, joined together at Port Dalhousie and placed between Collingwood and Port Arthur from 1882 until 1887. She is now running on the N. W. Trans. Co. line, from Sarnia, Port Arthur and Duluth.

SOME OF THE BUSINESS MEN OF PORT ARTHUR.

1. F. S. Wiley.
2. J. T. Mackay.
3. C. A. Cordingly.
4. H. A. Wiley.
5. Geo. Hodder.
6. W. J. Clarke.
7. W. G. Smith.
8. Ed. Mackay.
9. John Merrill.
10. Wm. Bishop.
11. J. J. O'Connor.
12. Thos. Marks.
13. I. L. Matthews.
14. A. Squier.
15. T. A. Woodside.
16. C. O. Lobnde.
17. Geo. T. Marks.
18. R. Vigars.
19. Geo. H. Macdonnel.
20. A. F. Mills.
21. Geo. A. Grahame.

SOME OF THE PROFESSIONAL MEN OF PORT ARTHUR.

1. J. M. McGovern, Emigration Agent.
2. J. C. Hasking, Counsellor of Shuniah.
3. J. M. Munro,
4. W. P. Cooke, Weather Observer.
5. J. P. Donnelly, Indian Agent.
6. W. H. Law, B. A.
7. W. H. Hesson, License Inspector,
8. M. Sellars Sup't Grain Elevator
9. J. J. Godfrey, Barrister.
11. T. A. Keefer, Barrister
12. W. C. Dobie Fishing Inspector.
13. Wm. McPharland, Counsellor of Shuniah
15. F. E. Gibbs, Grain Inspector
16. W. L. Bell, Municipality. Reeve of Shuniah.
18. G. T. Ware, Barrister.
19. Rev. F. T. Tapscott, Baptist.
20. Fred Jones.
21. T. Penfold, Jailer.
23. Rev. J. A. McClung, Methodist.
24. Rev. J. Pringle, Presbyterian.
25. Dr. T. S. Smellie.

The United Empire, a propeller of 1,500 tons, launched at Sarnia, in 1882, joined the N. W. T. Co. line in 1883, and continues in it.

In 1883 Marks North Shore Line was founded, with the propellers E. M. Foster, and City of Montreal, and the steam barge Kincardine, which made regular bi-weekly trips to all north shore points during 1883-84. The Kincardine was wrecked at Jackfish Bay in 1883, rescued and rebuilt. The E. M. Foster ran until the fall of 1885, when she was taken to Lake Huron and foundered off Port Hope, Michigan, in the fall of 1888. The City of Montreal was rebuilt at Owen Sound, converted into a steam barge and sold to A. Campbell, of Colborne, Ont., and used by him in carrying sandstone from Nepigon to Chicago. She foundered off Michipicoten Island, Lake Superior, in the fall of 1888.

In 1883, Graham's North Shore Line was founded, composed of the propellers, Argyle, Ocean, and Prussia, each of 450 tons, and the steam barges City of Mt. Clemens, 150 tons, and Georgian, 350 tons. They made bi-weekly trips between Port Arthur and all north shore points during 1884-85. After that the Argyle was sold to Kingston, rebuilt, converted into a steam barge and named the Glengarry. The Ocean was taken to St. Catharines and now plies between there and Montreal. The Prussia was burned off the Apostle Islands, Lake Superior, in 1886. The City of Mt. Clemens was taken to Port Huron and the Georgian to Toronto, and afterwards to Georgian Bay and foundered there in the spring of 1888.

The Jacques Line began in 1882 and contained the propellers Acadia, 650 tons; Glenfinlas, 900 tons; St. Magnus, 800 tons; Scotia and Canada, 450 tons each. They plied between Montreal and Port Arthur. In 1883 the Glenfinlas was burned at No. 2 Lock, in the old Welland canal, at St. Catharines. This vessel was built in 1856, and named the City of Brantford, was afterwards bought by the Welland Ry. Co., renamed the Calabria and ran on Lake Ontario, between Port Dalhousie and Kingston, being too large to pass through the old Welland canal.

The Duluth and North Shore Line consisted of the tugs Siskiwit, 75 tons; Amethyst, 60 tons; T. H. Camp, 90 tons, and the steamer Agnes, 150 tons. In 1884 they renamed the latter the Isle Royale, and she foundered off Isle Royale in 1886. The Amethyst went ashore in December, 1880, at Grand Marias; was rescued and rebuilt at Duluth. This line carried the overland mails from Duluth each season after the lower lake boats ceased running. In 1884 the Stewart was put on this line, a propeller, of 160 tons, and plied during the seasons of 1884-5-6. The Vernon, of 500 tons, followed in 1887, and ran for one season, being transferred to Lake Michigan, where she foundered in 1888, with a loss of 40 lives.

Between 1872 and 1875, the steamer Mary Groh ran between Bayfield, Ashland, Duluth and Port Arthur, and the Lotta Benard ran on the same route. The Mary Groh was transferred to Lake Michigan in 1876, and is still in commission.

Between 1873 and 1879, the steamers Maytham and Ella M. Smith ran at irregular intervals between Port Arthur and Houghton, Michigan, calling at Menong Mine, Rock Harbor and other points on Isle Royale. The propeller Manistee, 450 tons, of the Duluth and South Shore line, called at Port Arthur at intervals between 1873 and 1885.

Steamers of the Lake Michigan and Lake Superior Trans. Co., called at Port Arthur regularly in the summer months and at intervals in the spring and fall, between 1875 and 1882. They were the propellers Peerless, 1,000 tons; City of Duluth, 600 tons; City of Freemont, 500 tons, and Joseph L. Hurd, 500 tons.

In 1883 the Champion, a side-wheel tug, of 200 tons, was brought from the Gulf of St. Lawrence, and traded from Port Arthur to north shore points in 1883-84 for the C. P. Ry. Co. She was afterward rebuilt at Owen Sound, renamed the Cambria and now runs on the C. P. Ry. line between Owen Sound and Sault Ste. Marie in connection with the Carmona. The steam yacht Dauntless, was brought from Quebec in 1884, and ran in connection with the Champion from Port Arthur to U. S. ports.

The Owen Sound steamship Co. began in 1884 with the side-wheel steamers Magnet and Spartan, of 500 tons. The Spartan was wrecked on Cariboo Island, Lake Superior, in 1883, and the Co. then withdrew the Magnet. The insurance companies rescued the Spartan, repaired her at Detroit, and both boats are now plying on the St. Lawrence.

The Canadian Pacific Steamship Company began in 1884, also. Their line being composed of the steel steamers Algoma, Alberta, and Athabaska. These were each of 1,500 tons, were built on the Clyde, cut in two at Montreal, taken through the canals, rejoined and put on the route from Owen Sound to Port Arthur in connection with the Canadian Pacific Ry. Co, by whom they are owned. They formed a decided advance in Lake Marine. The Algoma was wrecked Nov. 7, 1885, on Isle Royale, with a loss of 45 lives, but the other two are still running on the route. In 1888 the company began building, at Owen Sound, a steel steam ship to replace the Algoma, and similar to the other boats, but larger. This boat launched in April, 1889; is the first steel or iron ship built in Canada and is named the Manitoba.

In 1888 the Inman Line was established between Duluth and Port Arthur, with the steamers Ossifrage, of 300 tons, making bi-weekly trips, and the Hiram R. Dickson is since added, also making bi-weekly trips.

The Francis Smith, a sidewheel steamer of 550 tons, ran between Collingwood and Lake Superior ports from 1870 to 1886, when she was wrecked on Manitoulin Island. Being rebuilt at Collingwood, she was renamed the Baltic, and now plies between Owen Sound and Sault Ste. Marie.

The City of Owen Sound, a propellor of 650 tons, with the Francis Smith formed the Canada Transit Line, and plied on the above route until the autumn of 1883, but was wrecked at Michipicoton river. She was rescued, rebuilt at Owen Sound and returned to the route, remaining there until the fall of 1887, when she was wrecked and a total loss, on the east end of Manitoulin Island.

In 1878 an 800 ton propellor, called the City of Winnipeg, (formerly the Anna L. Craig) came on the Canada Transit Line, and continued until 1881, when she was burned at her dock in Duluth.

The steamship lines now on the Port Arthur route are:—

The Canadian Pacific Steamship Company, with three boats, making tri-weekly trips to and from Owen Sound.

The Northwest Transportation Company, with three boats, making semi-weekly trips to and from Sarnia.

The Jacques Line, with four boats, giving weekly trips from Montreal.

The Inman Line, with two boats, and semi-weekly connection with Duluth.

A Steamer also makes 4 daily trips on the Port Arthur and Fort William Ferry line, and frequent connections are made with points along the shore and islands of Lake Superior.

Fly-Fishing on the Nepigon.

BY CLOU D'ARGENT.

It is hard not to go into ecstacies and be carried away by one's enthusiasm when attempting to write of the glorious fishing on this grandest of all earthly trout streams. There may be finer ones in some other world—but this is anticipating. I am aware that trout of equal size are taken with the fly at Rangeley Lakes, for example, or at Parmachenee, but the difference between fishing in these rapid waters and the still fishing with the fly in the smooth waters of those lakes is almost like the difference between fly-fishing and bait fishing.

This stream is the outlet of Lake Nepigon, which is situated some thirty or forty miles to the north of the western portion of Lake Superior. It is so deep and wide that I am sure the first impression of the angler, especially if he be from the United States and has been accustomed to associate brook trout with brooks, would be one of *immensity*.

Wading in along the shore as far at the depth would permit and casting our flies upon the swift current, we were again and again answered by the wild rush of the gamiest trout I ever saw. Trout weighing from two to two and a half pounds were no rarity and we frequently had on two at a time. Three of us in a few hours during the middle of the afternoon caught more than eighty pounds of fish and could have taken more, as we stopped fishing before sundown, when at least two hours of the best part of the day remained.

At Rock Island we found Major Edward Cunninham and John F. Shepley, Esq., of St. Louis. They had found the fishing most excellent in the swift water above the Rock Island Portage, and spent several days there and had some very fine sport. While we were camped at island, the Major caught one trout of 4½ pounds weight, length 22 inches, girth 12½ inches. Mr. Shepley's largest weighed 3⅝ pounds, length, 20¼ inches, girth 12⅛ inches. They found the silver doctor the most killing fly.

At Hamilton's Pool we met a Mr. White and Mr. Bristol, of St. Paul, Minn. They had found some rare sport, especially in what they called the "Aquarium," a strip of black water close under the bank below the camp. At this point I tried the experiment of using smaller flies than those deemed absolutely necessary on this stream. I found that in some of the more quiet stretches the trout were rising to small natural flies, but would not notice the large and gaudy bugs of my cast. I therefore put on a cast of flies tied on No. 10 hooks, the one a "Great Dun" and the other a Stone Fly, and it was not long before I was hitched to a beauty of about a pound and a half. I caught quite handsome trout on this cast. Later in the evening, directly in front of the camp in swifter water, I landed a 3½ pounder on a small Dusty Miller on a No. 8 hook. He took it with a rush, hooked himself firmly, and swept down stream to the tune of my whizzing reel till he had run out, I should say, sixty feet of line; then there was a splash about two feet from him, and I realized that the white miller which I had on as a stretcher, had been seized by another fellow that I think was his equal in size. Well, we had a circus, as may be imagined.

On the way up to Virgin Falls I took the largest trout of our trip, and so far as I learned, the largest taken on the stream during the present season. It was thus: I had laid my rod down in the canoe with the flies trailing in the water perhaps ten feet astern, and was tying a string on the strap of my creel. Just as the canoe was passing over a rather shallow part of the still water where a shoal of rocks made out into the stream, there was a break for one of my flies by a trout. I picked up the rod just as he came again, and hooked him firmly on my stretcher fly, a March Brown of the ordinary bass size.

It was done, you see, in a very unsportsmanlike way. If a photographer had been there he would probably have seen one sportsman standing up in a birch-bark canoe with a split bamboo rod in his hand well curved, and coolly watching a spot on the water, and feeling the weight on the line, and endeavoring to keep the strain on that rod at about such a degree of pressure, and would have shared the feeling of exultation and thrill of excitement which was participated in by the whole party when the immense dorsal fin showed above the water and the distance between head and tail at last resolved itself into a lazy wiggle, and the monster beauty slid gracefully into the landing net and was hoisted safe on board. "Twenty-three inches long," was the verdict of the tape, "and 12½ inches in girth. Scant five pounds," was the record of a rather stiff pair of scales.

Undoubtedly the large flies tied on large hooks are better for the very swiftest, roughest water, both on account of their making more show, and especially because they hang on the jaws of a romping big fish better when he starts, and as he is almost certain to do, straight for Lake Superior. Then you want a hook that will hold a canoe. I had good success with several varieties.

I used successfully the March Brown, on which I took my big fellow, the Moose fly (black body and black and white wings), a black fly, brown hackle, the Coachman, both royal and plain, the green Drake, (lost a wolloper on this by the leader parting in swift water), the Silver Lawyer, Parmachenee Belle, a brown fly with silver body, and also, as in duty bound, I had great sport on several dark days and in the evening with the "Silvernail" fly, made with silver body, gray hackle, and striped feather from neck of jungle cock for wings, feather put on whole. The common assortment of flies on large hooks will answer when the trout are on the feed. When not, I found that smaller flies would coax up the smaller trout, say those running from one to two pounds.

Leaders need to be made of the best gut and to be well tied. I found it of advantage to pull them in two when the gut got a little frayed, and tie them over. The leader should not be more than seven or eight feet on this stream, especially when fishing from a boat.

The *rod* should be a pliant yet rather stiff one, capable of enduring hard work, and heavy enough to set the barb to cover in the hard jaws of the fish in the deep water. A heavier rod is needed to properly hook a trout on the Nepigon than is needed to play him. I found my seven and a half ounce split bamboo a more satisfactory rod to use than the lighter ones I have been accustomed to use on smaller streams.

The *reel* should be a good, solid one, capable of holding at least thirty or forty yards of good, strong, waterproof line. Don't forget to take a landing net. The handle should be long, as doubles are not uncommon, and the tail fish, which of course should always be netted first, is often quite vigorous when the other is quite spent. And don't forget the *tar oil*, carbolic acid and glycerine, penny royal, "shoo fly," or whatever favorite "bug disguster" you prefer the smell of. The trout bite freely on this stream.

The canoe goes with the guide, though it has to be paid for separately.

Mr. Flanagan, the Hudson's Bay factor at Nepigon, who will also very kindly and courteously make you out a permit for fishing on application and *the payment of five dollars*. The fishing is worth the fiver. Pay the money and don't grumble. If you are any sort of an angler—except the worst—I mean the fish hog—you will get your money's worth. It is almost imperative that you make your arrangement for guides before reaching Nepigon, as they are hard to get at. The price formerly was $1.50 per day, till some of our American sportsmen spoiled the programme by paying more, just to show their good will. Now, all, good bad and indifferent, charge $2.

As I look back over the ten days spent on this grand stream it seems almost like a dream. It is so different from anything in the United States. A million men could be comfortably camped along the Nepigon and not crowd one another.

Free Grant Lands.

A single man over 18 years old or a married man without children under 18 residing with him is entitled to a grant of 100 acres. The male head of a family or sole female head having a child or children under 18 residing with him or her may have a free grant of 200 acres and may buy 100 acres more at 50 cents per acre cash. As soon as located by the local agent the applicant is required to enter and occupy his land and begin improvements within one month. At the end of five years he receives a title, after making proof of completion of required settlement duties. These duties are to clear and cultivate 15 acres of which at least two are to be cleared and cultivated yearly for the five years. To have built a habitable house 16x20 feet and to have lived upon and cultivated the land for five years after location. The settler may absent himself from the land for six months in any one year during the term. After a patent issues the owner may sell the land and take another free grant. Free grants are exempt from debt liability, while owned by the legatee or his heirs, for 20 years. The townships open for settlement in Thunder Bay district are:—Blake, Crooks, Gillies, Lybster, O'Connor, Oliver, Paipoonge and Dawson Road. J. F. RUTTAN, Agent, Port Arthur.

The Fishing Industry.

The district under local inspection extends from Thunder Bay to the Pigeon River on the south and Jackfish Bay on the north, and includes Silver Harbor, Black Bay, Amethyst Harbor, Welcome Islands, Thunder Bay points, and Point Porphry, Roche de Bout, St. Ignace, Nepigon, Rossport and Jackfish Bay, or some 200 miles. The fishing grounds are divided into five mile limits, and as many licenses granted for each as the inspector thinks sufficient. The "close" or non-fishing season is during November. About 44 sail boats of 2 tons and 4 steam tugs are employed, and so far no illegal methods have been practised for catching, nor is there any poaching by United States fishermen.

The fish are caught by gill and pound nets, the latter only being allowed at certain points. The fishers remain out about 6 or 7 hours daily, returning to shore as soon as loaded up. The chief varieties are trout or lake salmon, whitefish, sturgeon and pickerel, and the catch is marketed in the United States and Eastern Canadian cities, beside the local consumption, which is 3,000 pounds weekly, and 2,000 go west. The fish after unloading are dressed, packed in ice in square wooden boxes and shipped. Some are salted in 100 pound barrels, one barrel of Canadian salt being used to each 8 kegs of fish. No smoking is done except for private orders, and fish oil is not extracted, neither is the sturgeon roe (caviare) saved, only one man doing anything with it, nor are the sounds saved. The figures for the season of 1888 show that the value of the sail boats employed was $3,825, and of the nets $10,100. Of whitefish 500,000 pounds were caught, with 360,000 pounds of trout, 48,000 pounds of Sturgeon, 91,000 pounds of pickerel and 30,000 pounds other fish, or a total weight of over one million pounds, which sold for over thirty-three thousand dollars. The cost of a fishing license is from $10 to $15 dollars, according to locality, and for using a pound net is $50.

About 100 men are engaged in the business, the principal and practically the only firm in the trade being the Port Arthur Fish Co., established in 1885, and controls the entire catch from the limits in the Thunder Bay inspector's district. This company has large and well appointed buildings at Port Arthur and at Rossport, and consume 2,000 tons of ice yearly in packing at those and other points. This company supply to the A. Booth Packing Co. of Chicago, and it is not improbable that the latter company will absorb the Port Arthur company, successful though it has been. They have long envied the splendid salmon, whitefish and others supplied them from here, and having gobbled up all the lesser companies in Canada and the United States, will likely follow suit with this one.

The Lake Whitefish (*Coregonus clupeiformis*)—It is very abundant, and its flesh leads all other fresh water fishes in quality, being white, tender, juicy, and does not tire the appetite. They average six pounds and run up to over 20 pounds. They feed upon small crustaceans, and sometimes take a bait or fly. They spawn from the middle of October to end of November, and in one year the young fish reach a length of five inches. They are very prolific, but have a number of enemies beside man. It is the most important fish of the lake, and eagerly bought in all available markets. The price for fish from Lake Superior is higher than others.

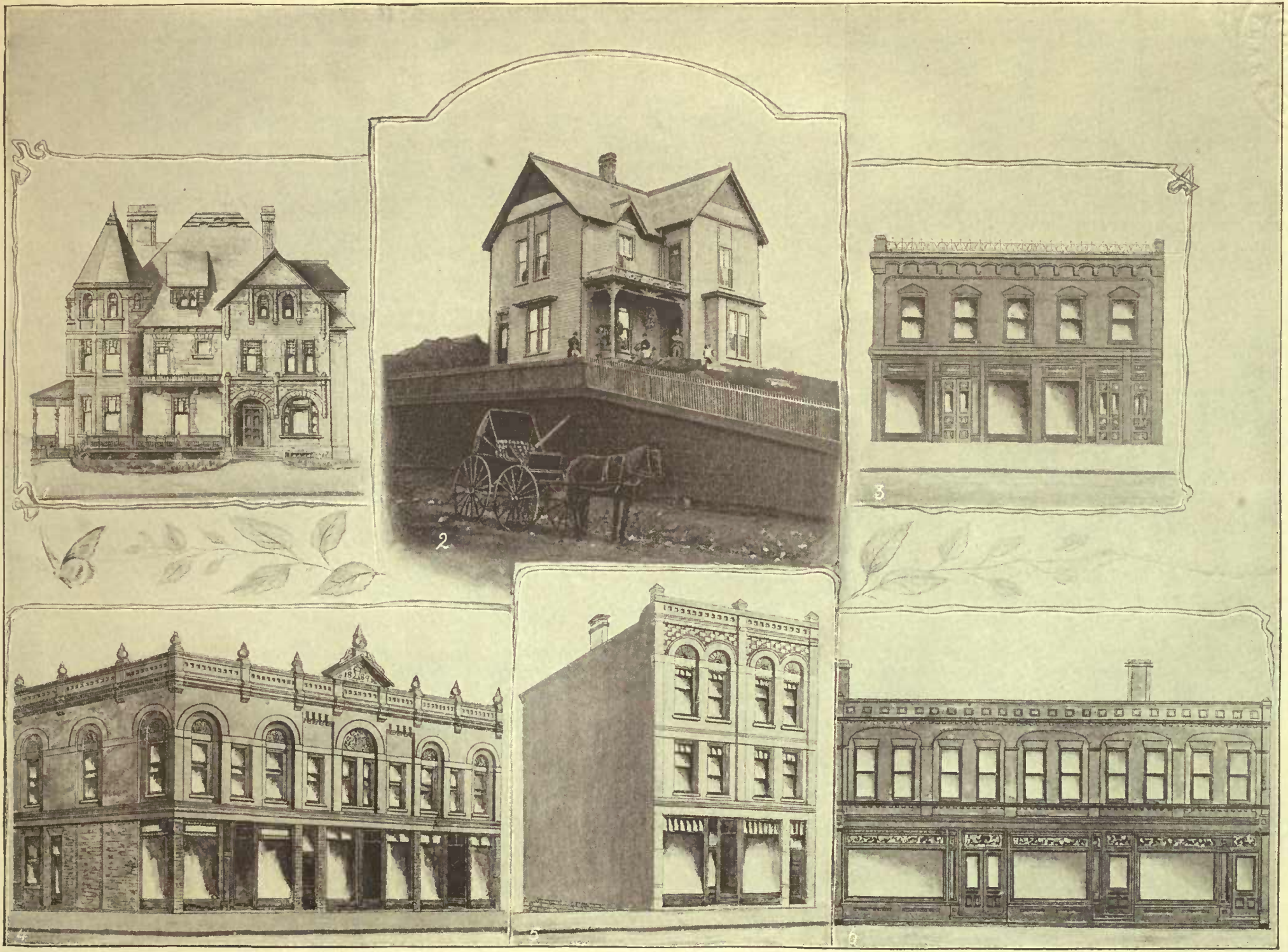
Lake Trout or Salmon Trout (*Salvelinus namaycush*)—It is more nearly related to the char than the salmon, and is peculiar to the inland seas of North America. It is sometimes 120 pounds weight, though the average is about 5 to 10 pounds, and is almost always found in the same lakes with whitefish, upon which they feed greedily, though they eat anything and everything possible. They usually live in deep water, and their chief spawning grounds are along the north shore of Lake Superior, and are only second in importance of catch to the whitefish. From 15 to 30 pounds and over is quite a common weight, and they are plentiful at all times and places in the Thunder Bay district. It is in great demand in the markets, and is a firm, well flavoured fish, and affords grand trolling sport.

The Siskiwit or Siscowet—Said to exist only in Lake Superior, and Herbert calls it the very best salt fish in the world. It averages 4 pounds and rises to thirty. The name is an Indian one, meaning "cooks itself," the fish being so fat. They are fairly plentiful.

PLATE C

A Few Port Arthur Homes.

1. James Conmee, M.P.P.
2. G. T. Marks.
3. J. T. Mackay.
4. The McVicar's.
5. J. J. O'Connor.
6. Judge Hamilton.
7. P. Nicholson.
8. George H. Macdonnell.



1. Thomas Marks' proposed new home.
3. Eade's Block.
5. Mitchell Block.
6. Squiers' Block.

Agricultural Resources.

One of the most important interests which has to do with Port Arthur's future is that of agriculture. The lands in the immediate vicinity are calculated for the successful growing of cereals and vegetables, lying close to a cash market and susceptible of a great diversity of crops, are waiting only to be subdued and cultivated to make the agriculturist handsome returns. All about the town, beyond the hills and stretching away along the length of the river valleys are large areas of fertile soil, well watered and drained, which to-day can be bought at a low figure. These lands are destined to be the truck garden for a great city, for already the town demands more fresh vegetables, poultry, dairy products, meats, etc., than can at present be obtained, although she draws heavily on the resources of the east and west, and this demand is increasing with each passing year. Only a part of the demand is met by the local supply of milk, butter, eggs and poultry, while in addition to the town demand there is a large and ever increasing call for supplies from the mining regions to the south. This is an exceptionally good place for poultry raising, because of the unlimited supply of the best food which can be had almost for the asking. The millions of bushels of wheat which pass through the elevators every year contain some shrunken and broken kernels which are not fit for shipment and some cockle and other seeds. These are taken out by the cleaners before the grain is shipped, and at present are burned, but could be put to a much better use as poultry feed. The luxuriant growth of grasses and root crops, the sheltered valleys, shady groves, and the numerous lakes and streams of sparkling water, make the vicinity of Port Arthur an ideal location for dairy farming. The establishment of flour mills and linseed oil mills which is certain for the near future, will make an abundant supply of bran and linseed meal. There will thus be left nothing to be desired in the matter of a supply of food for live stock. It is not necessary for anyone to make experiments in any of these lines.

All kinds of vegetables grow freely even the choicest such as celery and cauliflower. There are a few fairly large market gardens near the town and from one of them in 1887 some $1,600 of products were sold.

Farms are to be had at reasonable prices within easy reach; for instance, in one issue of the Port Arthur *Herald* were notices of four for sale, one within three miles having 50 acres cleared, and another with 105 acres cleared, and a house, stables and barn on it.

The West Algoma Agricultural Society holds an annual exhibition at Port Arthur and the *Manitoba Colonist* thus refers to that of 1888:

"At Port Arthur, in October, Western Algoma held her annual agricultural show, and it would be a surprise to most. In addition to the grains in straw and bulk, there was a capital display of vegetables, many of them of the choicest quality—the cauliflower and celery especially. Potatoes, carrots, cabbage, beets, turnips, cucumbers, apples, tomatoes, peas, beans, tobacco, kohl-rabi and all the usual other varieties, clean, large and sound. The butter was also good, and the home-made bread, and there were enough flowers and plants to show that the country is favorable to floral growth; while the display of ladies' work, painting, etc., proved that the finer part of our nature is well attended to. One of the exhibits was a group of vegetables from Ignace near the Height of Land or Watershed between Lake Superior and Hudson's Bay, 160 miles west of Port Arthur on the main line of the Canadian Pacific Railway. They were grown by R. Hosker, and included celery, broad beans, turnips, cucumbers and several varieties of good potatoes."

This Society is an active one and this year it furnished free flax seed for trial by the farmers, arranged for a supply of fertilizers as might be necessary, and for seed grain and voted $50 toward buying a Shorthorn bull, beside offering prizes for the largest yields of potatoes, $60, $25 and $15 to first, second and third. At the annual fair this year $500 will be given in prizes, and the Society is financially strong. When the Scottish crofter immigration movement began the *Herald* summed up Port Arthur district inducements for these desirable settlers:

"The climate here is somewhat similar to that which they have been accustomed to; if they desire to leave the homestead and family to procure outside work temporarily, there is a large fishing industry right at their doors during the summer and mining and lumbering during the winter; a homestead of 160 acres, with a small log house and from two to fifteen acres in shape for cultivation, can be had for them at a cost of from $150 to $500 ready to step right into. We can place ten families in the township of Oliver on these terms, where they will have a home market the highest in Canada for their produce—viz: the mines—where they will have churches, schools and neighbors right at their doors. The first crop could be put in for them at a cost of from $35 to $150, so that they might even come if the matter were arranged, after their spring's work was done."

The Kaministiquia Valley alone which adjoins the town has over 20,000 acres of good land.

Mr. Wm. McPharland, one of the councillors Shuniah municipality, and who has a fine farm three miles from Port Arthur, says the spring plowing generally begins the middle of April and closes in the fall about the first of November. He has 300 acres, 40 being in cultivation and being yearly extended, and chiefly devoted to market gardening. The soil is a clay loam, warm, quick and enduring. From 70 bushels of potatoes sown 1,800 bushels were harvested from somewhat over six acres, and hay averages 1½ tons per acre. The large red clover and the white Dutch clover grow wild all over the district miles away from farms.

Among the settlers is Mr. John Armstrong, of County Fermanagh, Ireland, who has ten acres in garden truck above the town and grows excellent crops, especially potatoes. He says a man can make a good living there and would advise some of his fellow nationalists to come out. He says potatoes have been grown up to 3½ pounds, and that about eight miles from town is an elevated tract of land of twenty thousand acres, suitable for sheep raising.

The Government statistics show that in crops Algoma is up with the best of them. Of fall wheat the average is 22 bushels and of spring wheat 19 bushels, while barley is 25 bushels, and oats 32 bushels, rye 17, peas 24, corn 47, buckwheat 27, beans 20, potatoes 173, mangels 344, carrots 255, turnips 361 bushels and hay 1½ tons per acre. The percentage of cleared land under crop is larger than any other section of the province. All varieties of live stock thrive and all the farm products are in brisk demand. The average value of good farm land is five dollars an acre.

Markets and Wages.

	CENTS.
Beef, per lb	8 to 15
Bread, per loaf	7
Bacon, per lb	14 to 16
Eggs, per doz	20 to 30
Turnips, per bus	50 to 75
Potatoes, per bus	50 to 75
Beets and carrots, per bus	1.25 to 2.00
Cabbage, per doz	1.20 to 2.00
Milk, per quart	10
Poultry, per lb	10 to 20
Oats, per bus	35 to 50
Butter, per lb	25 to 30
Flour, per 200 lbs	5.50 to 6.50
Mutton, per lb	8 to 15
Pork, per lb	10 to 12
Sugar, per lb	8 to 10
Tobacco, per lb	50 to 60
Tea, per lb	40 to 80
Hay, per ton	$20

Farm laborers, with board, $1 per day; domestic servants, $10 to $15 per month; masons, $3 per day; laborers, $1.50 to $2 per day; bricklayers, $3 per day; carpenters, $2 per day; dock laborers, 20 to 35c per hour.

Guides for hunting or exploring from $1.50 to $2.50 a day and their board.

Importance in Manufactures.

Port Arthur is destined to become the greatest manufacturing center in the West. Her geographical position; her nearness to inexhaustible supplies of raw materials; her facilities for cheap transportation, both by water and rail; her big water power; her cheap fuel supply; and last, but not least, a vast empire for her market, a country destined to support millions of inhabitants—all these point to this end. The miner, the farmer and the lumberman have barely touched the wealth of the Port Arthur district. In whatever direction one may turn, opportunities for profitable enterprises seem abundant in this great north land, which require only energy and intelligence to develop. With the growth of the district and the great West, the varied wants will call into profitable life the following:—

In Iron—Blast furnaces, steel plants, rolling mills for rails, beams for bridges, buildings and other structures, and merchant's iron, foundries, machine shops, nail mills, forges, and in general, plants for the entire series of iron and steel products may be profitably operated here, including also stoves, hot air furnaces, engines, boilers, etc.

In Wood Working.—Saw mills, sash, door and blind factories, wagon works, harvester works, manufactories of agricultural implements of all kinds, musical instruments, furniture, etc.

Miscellaneous—Flouring mills, paper mills, oil mills, pulp mills, woollen and linen factories, glass works, tanneries, boot and shoe factories, paint works, smelting and refining works for the precious metals, locomotive works, car shops, and, in short, whatever is needed to supply the wants of an intelligent, progressive and enterprising people.

Town Industries.

Saw Mill—This was established 1886. It is situated on South Water Street, and its size is 50 × 100 feet, with a capacity of 40,000 feet B. M. per 10 hours. This mill is owned by Messrs. Vigar Bros., the products being board, plank and square timber, the average annual output being 2½ million feet. It contains one circular saw, 60 inch, one trimmer, one slab saw, and one edger. They also own a pile driving outfit, consisting of a floating steam driver, with a daily capacity of 100 piles. Altogether from 35 to 100 men are employed; the total investment is $12,000.

Planing Mill—This turns out an average of six million feet yearly of dressed lumber. It was opened in 1888, and is owned by Messrs. Graham, Horne & Co.

Aerated Waters—These works were opened in 1881, are owned by Messrs. Elliott & Co., 40 × 60 feet in size, and $7,009 invested therein. The products are soda water, ginger ale, lemonade, cream soda, sarsaparilla, champagne cider, and champagne lime juice. The yearly output is 10,000 dozen.

Sash and Door Factory—This is on Cumberland Street East, was established 1888, and employs 30 men. Its size is 48 × 140 feet. It is owned by Messrs. Kennedy & Saunders, and the machinery cost $5,000.

Lager Beer Brewery—The proprietor is Mr. Conrad Gehl. It was founded in 1876. Production averaged 20,000 gallons yearly, the building being 28 × 38, with three cellars—a total of 50 × 81 feet.

Iron Foundry.—This is owned by Messrs. Woodside Bros., is on Manitou street; was opened Sept., 1883. Its size is 40x120 feet and includes machine shop, blacksmithy, etc. It contains 3 lathes, 1 planer, 2 drills, 1 shaper, 1 bolt cutter, 1 milling machine, and is run by a six-horse power engine with a 10-horse power boiler. The molding shop can turn out all sorts of castings for heavy machinery, etc., and weekly casts are made. The output is mining machinery and general custom work. Twelve men are employed. Annual output $12,000.

The products of these factories are marketed in and about the town, and east and west along the railway, and in Manitoba and the Territories.

Proposed Railway to the Mines.

The matter is now in this position. The Port Arthur, Duluth & Western Railway is chartered by the Federal Government from Port Arthur to Gunflint Lake on the boundary between Ontario and Minnesota, 85 miles in length, for which a subsidy of $3,200 per mile has been granted. The Ontario and Rainy River railway has a provincial charter from Port Arthur to Rainy River, and has a grant from the Ontario Government of $3,000 per mile for 50 miles to Sand Lake.

As the route for the first fifty or sixty miles of these two projected lines is identical and it is not possible for either company to finance the enterprises upon the limited amounts of Government grants which they hold, it is proposed, with the consent of the Ontario Government, and the assistance of those interested, to build a railway common to both companies for say sixty miles of the distance. It is now projected to build from Port Arthur via Fort William and through the silver district to Sand Lake.

The estimates for construction, cost of right of way, station grounds, clearing, grubbing, grading, bridging, steel rails, tracklaying, ballasting, station houses, water tanks, telegraph lines, etc., and an equipment of locomotives, flat and box cars, passenger, baggage and mail cars, sufficient for the business and to pass the Government inspection—is $14,000 per mile, or for the first fifty miles $700,000, or after deducting the subsidies (of $310,000) $390,000, which is being raised.

This railway as projected runs westerly eleven miles, to a point on the Canadian Pacific, two miles east of Murillo Station,; thence it turns slightly and maintains a southwesterly course through the township of Paipoonge, the southwest corner of O'Connor, the heart of Gillies and Lybster and the southerly portion of Strange, crossing the Kaministiquia some three miles below the now celebrated Kakabeka Falls, and passing almost within call of the Beaver, Porcupine, Little Pig, Palisade, Silver Falls, East Silver Mountain, and West Silver Mountain mines, through a country not only rich metalliferously but agriculturaly as well. Leaving Strange, the line skirts the north shore of Whitefish Lake, crosses the divide and gains the water, discharging into Arrow Lake, near the 52nd mile. The balance of the line is projected only, but the route is pretty definitely fixed as running along the south side of Sand Lake and thence southwesterly to North and Gunflint lakes, crossing the International boundary at the west end of the latter and passing within easy distance, generally within a stone's throw, of all the recent discoveries of iron. Every care has been taken by the engineers throughout to secure easy gradients and curvature.

The projected railway would open up very valuable mineral and timber districts and extensive agricultural areas the latter especially in the Whitefish and Rainy River sections. About 23,000 square miles of country are tributary to the line in Ontario. Mr. John Ross, the great railway contractor, says: "No line has been projected of late years, that offers more advantages for the investment of capital." The surveys show that the line passes through an easy country for construction except in two short places. Rainy River is part of the boundary between Canada and the U.S., and is a splendid stream, from 250 to 400 yards wide, winding through a valley of deep, alluvial soil. The banks are from 30 to 40 feet and the country level and well supplied with valuable timber of various kinds. The valley contains some 220,000 acres on the Canadian side, fit for agriculture and stock raising, and is fairly settled.

The Lake Business.

Port Arthur's increased lake business cannot be better illustrated than by a comparison of the arrivals and departures, as furnished by the Collector of Customs, for 1887 and 1888.

PORT ARTHUR'S SHIPPING, 1887.

VESSELS.	NO.	REGISTERED TONNAGE.	TONS CARRIED.	CREW.
Inwards.				
Canadian Steamers	179	162,658	50,473	4,989
Canadian Schooners	49	17,469	31,500	343
American Steamers	46	11,683	1,409	496
American Schooners	2	305	1,269	14
Total,	276	192,615	34,651	5,842
Outwards.				
Canadian Steamers	176	178,833	47,063	4,934
Canadian Schooners	49	17,469	9,232	343
American Steamers	46	11,683	9,063	496
American Schooners	2	330		14
Total,	273	190,790	83,858	5,787

1888.

VESSELS.	NO.	REGISTERED TONNAGE.	TONS. CARRIED.	CREWS.
Inwards.				
Canadian Steamers.	256	119,151	104,151	4,879
Canadian Schooners	61	22,712	28,782	249
American Steamers	123	44,069	42,204	1,546
American Schooners.	18	13,628	24,591	160
Total,	458	297,560	200,718	6,884
Outwards.				
Canadian Steamers	256	217,151	126,203	4,879
Canadian Schooners	61	22,712	41,401	249
American Steamers	123	44,069	6,397	1,546
American Schooners.	18	13,628	2,985	160
Total,	458	297,560	176,986	6,834

THE OUTSIDE CANADIAN BOATS.

These were: The steamship Algonquin, the steel steamship Rosedale, the propeller S. L. Tilley and consorts, the lake barges Neelon, Benson and Merritt, propeller Myles, steambarge Dominion and consort Agusta, steambarge Clinton, towing barges Grimsby and Lisgar, the propeller Glengarry towing the barges Glenora and John Gaskin, tug James A. Walker with barges Brandon, Jennie and Regina, propeller Bruno and consorts Maggie McRae and Laura, propeller St. Magnus and steambarge City of Montreal towing schooner Keewatin.

THE COMMODITIES CARRIED.

The commodities carried by other than the line boats have been soft coal from Lake Erie ports to Heron Bay, Rossport, Port Arthur, and Fort William, anthracite coal from Lake Ontario and Lake Erie ports to Port Arthur and Fort William; and lumber from Georgian Bay, Lake Michigan and the South Shore. The down cargoes have been Manitoba wheat from Port Arthur; the destination being in nearly all cases Kingston.

THE ALGONQUIN.

This vessel was added to the Canadian Lake fleet in 1888, and is owned by Messrs. Thomas Marks & Co., Port Arthur. She was built in 1887-88, on the Clyde, by Napier, Shanks & Bell, of Glasgow, is a steel, screw, steam ship, 250 feet long, 40 feet beam, and on 14 feet draft carries 2,000 tons of cargo or 68,500 bushels of grain and 500 tons more on 16 feet draft, with a loaded speed of 12 miles an hour. She classes 100 A. 1 at Lloyds, she and the Rosedale being the only steamers on the lakes with the highest British classification.

WHEAT SHIPMENTS.

Crop of 1884	2,097,824	bushels
" 1885	1,200,378	"
" 1886	1,975,515	"
" 1887	5,003,884	"
" 1888	2,075,434	"

PORT ARTHUR ILLUSTRATED.

Port Arthur.

Upon Superior's finger tip,
Far pointing toward the boundless West,
Upborne above the white-winged ship,
Her battlements, rock-founded, rest.
Around her oceans wield their sway
Of billowed grains and roaring pines;
And in her cells fast chained and bound
Are precious ores in glistening veins.

—W. H. Ballou.

Thunder Bay.

This deep indentation on the north coast of Lake Superior is shut in by islands and headlands on the south and west, and by Thunder Cape Peninsula on the east, while outside, 11 miles off, is Isle Royale, running east and west, closing the gap, as the opening between the cape and Pie Island is called. Once inside, vessels are safe from any wind. Within Thunder Bay is Port Arthur harbour, protected from every wind, the east alone blowing over the low part of Thunder Cape Peninsula, and this the Government has protected by a breakwater.

Administration of Justice.

John M. Hamilton, Judge of the District Court, Surrogate Court, Local Judge and Master of the High Court; Chas. Kreissmann, Registrar of the High Court, Surrogate Court, and Clerk of District Court; A. R. Lewis, District Crown Attorney; James Meek, Acting Sheriff and Marshal of Maritime Court; John M. Munro, Registrar of Deeds and Clerk of the Division Court; W. H. Hesson, Bailiff of the High Court; J. Donovan, Bailiff of the Division Court; Thomas Penfold, Jailor.

POLICE FORCE.

This consists of three men: R. Nichols, Chief; J. Bailey, Sargeant; Thos. Squire, Patrolman. The service costs the town about $2,000 per year.

Fire Department.

This is under the control of the committee of fire, water and light of the Town Council. The appliances consist of 1 steamer; 1 hand engine; 4 hose reels; 1 hose wagon; 4000 feet of hose. 10 pounds of steam is kept constantly on the steamer. One engineer always on duty.

The officers are:—Jas. H. Woodside, chief; John Woodside, deputy chief; E. P. Vigars, engineer; Thomas J. Redden, assistant engineer; Wm. Woodside, Capt. hose company; Alex. McLean, 1st lieutenant hose company; R. Lawrence, Capt. hook and ladder company; Geo. Beatty, 1st lieutenant hook and ladder company; F. Fregean, secretary; Jas. H. Woodside, treasurer. Membership 60.

The members of the fire brigade hold weekly meetings. The officers and men are paid 25c for each meeting, and 25c per hour when on duty at fires. The total cost to the municipality for the maintenance of the fire department is about $4,000 annually.

Board of Trade.

This was organized in 1885, Messrs. Thomas Marks being president, Geo. A. Graham vice-president, and W. H. Langworthy secretary-treasurer. Its membership is now 65; the annual fee being ten dollars. It is affiliated with and entitled to representation on the Dominion Board of Trade. The Board has dealt with several important matters, among them the enlargement of the canal system, the fixing of the Western grain standards, the import duty on lumber and reserving mining timber. The secretary's office is on Lorne street, where a permanent exhibition of the minerals and other products of the district is being gathered. The Board owns the Daniels Block on Park street, and is active and prosperous. The officers for 1889 are:—

President—Thomas Marks.

Vice-President—George A. Graham.

Secretary-Treasurer—J. J. O'Connor.

Council—George H. Macdonell, A. Squier, J. F. Ruttan, W. C. Dobie, F. E. Gibbs, V. Bowerman, H. A. Wiley, James Meek, J. T. Horne, S. W. Ray, F. S. Wiley, W. H. Langworthy.

Education.

The town has a high school, a public school, and a separate school, which is controlled by the Roman Catholic church.

High School—This was opened in two rooms of the public school in August, 1887, but on January 9th, 1888, moved into the present building, at the head of Park Street, and which cost $11,500. Mr. Coleman was the first master, and retained it for two terms. The present principal is W. H. Law, B.A., M.D., with R. King, B.A., assistant-master, The board of trustees consists of W. S. Beaver (chairman), A. Squier, W. Margach, J. A. McIntosh, J. Hancock, J. L. Meikle, I. L. Matthews. In 1889 the cost to the municipality is $1,900, with government grant of $800. The number of pupils on the registrar is 40, in the following branches: English grammar, English literature, composition, reading, dictation, penmanship, arithmetic, algebra, English history, geography—40 pupils in each, while 16 are in bookkeeping and commercial transactions, 6 in each of geometry, Grecian and Roman history and ancient history, 5 in chemistry, 27 in French, 3 in German, 16 in Latin, and 35 in drawing. Twelve pupils are preparing for third class certificates, and two for second, with one for University matriculation and one for Upper Canada College. The building is of white brick and red sandstone, only the two lower rooms being at present used.

Public School—This was opened in 1872, on Reserve A, the first board of trustees being D. D. Van Norman, T. Woodside, and A. Bowerman, and W. C. Dobie was added in 1873. Their first financial report was the year ending December 31, 1873. To Government warrant, $58.00; Cr. by payments for repairs, and other expenses, $57.95. Debts due teachers, $100; do. for repairs and other expenses, $61.25. A school house was built in 1874 in Waverley Park, and occupied in the autumn of the same year. Mr. J. A. Stewart is the principal, the assistant teachers being Misses L. Kennedy, K. Kennedy, Ella Healey, Annie Woodside, and Mr. McKenzie; the board of trustees, J. T. Mackay (chairman), R. Vigars, W. C. Dobie, W. W. Russell, J. E. Johnston and V. Bowerman.

1st department—Teacher and Principal, J. A. Stewart. Class of Pupils—Senior and Junior Fourth; No. of pupils enrolled 32; Average attendance 27.

Subjects taught—Reading, (fourth reader,) writing, arithmetic, grammar, Geography, Literature, composition, history, English and Canadian, dictation and spelling, drawing.

2nd department—Teacher Miss Lizzie L. Kennedy. Class of Pupils—Senior and Junior Third; No. of pupils enrolled, 42; Average attendance, 34.

Subjects taught—Reading, (third reader,) and same as in the 1st department.

3rd department—Teacher Miss Kate W. Kennedy. No. of pupils enrolled 54; Average attendance 43. Class of pupils—Senior and Intermediate Second. Subjects taught—Reading, (second reader) writing, drawing, grammar, arithmetic, geography, literature, composition, dictation and spelling.

4th department—Teacher, Miss Ella Healey. Class of pupils Junior second and Senior Part II of First. No. of pupils enrolled, 48, average 37. Subjects taught—To Junior 2nd the same as in the 3rd department To Senior Part II of First the subjects for Second ommitting grammar, literature and dictation.

5th department—Teacher, Miss Annie Woodside. Class of pupils, Junior Part II of First and Senior Part one of First. No. of Pupils enrolled, 44, average, 34. Subjects taught—Reading, writing, spelling, arithmetic, geography, drawing.

6th department—Teacher, Miss Maggie McKenzie. Class of pupils Intermediate and Junior Part I of First. No. of pupils enrolled, 102 average 73

Subjects taught—Reading, writing, spelling, arithmetic, drawing and singing.

In the 6th department the half-time system has been adopted and has been one year in operation.

The total No. of pupils enrolled in the schools is 322 the total average attendance is 248. Promotion examinations held in July and December.

Separate School—Number of pupils on register, 147; average attendance, 97. Subjects taught are the same as in the public schools, with religious teaching.

St. Joseph's Convent—Established by Sisters of St. Joseph, August 27, 1881. At present there are nine sisters teaching and nursing in the hospital.

The Hospital was established in 1884, is 45 × 50 feet, contains 3 wards and 4 private rooms. It is supported by grants from the Ontario Government, and the town, and by private donations and some paying patients.

PORT ARTHUR ILLUSTRATED.

Algoma's Boundary.

The district Algoma is bounded on the east by a line drawn due north from the mouth of the French river, on Georgian Bay, to the mouth of the Moose river, on James' Bay. On the north by the English river, Lac Seul and the Albany river. On the west by a line drawn due north from the n.w. angle of the Lake of the Woods to the intersection with the English river. On the south by the Rainy river, Rainy lake, Pigeon river, Lake Superior, Sault Ste Marie river and Georgian Bay. The district is 1,200 miles in length and from 200 to 800 miles in width. Algoma also includes the Manitoulin, Cockburn and St. Joseph Islands.

Sporting Notes.

With the rod one has an almost untouched list of speckled trout streams at command within easy reach, or can troll in the lakes for the great trout.

About a dozen muskellunge (*Esox Nobilior*) are yearly caught in Thunder Bay and generally large.

Messrs. Fred. Jones and Geo. T. Marks, of Port Arthur, one day trolling off Jarvis Island caught in six hours 45 red salmon trout of an average weight of six pounds.

Mr. A. S. Wink, barrister, of Port Arthur, in 1½ hours fly fishing on the Nepigon on July 2nd, 1888, caught eight trout weighing a total of 24 pounds.

This season Mr. Macdonell has placed the first steam launch on Thunder Bay, a coal oil burner of six horse power, six feet beam and 30 feet long with a speed of ten to twelve miles an hour.

This is also one of the greatest fur yielding districts from the Nepigon to the Lake of the Woods a length of 400 miles and north to Hudson's Bay. Of the smaller animals except the beaver, the supply in some cases seems to be increasing and certainly in others is not lessening and for this I have the authority of a Hudson's Bay factor of many years experience in one of the largest districts collecting the usual variety of skins.

The Town Council.

The first council met for organization May 12th, 1884, and appointed W. H. Langworthy clerk and treasurer; A. S. Wink, solicitor; W. W. Russell, engineer; Dr. Lorne C. Campbell, medical health officer; A. W. Thompson, J. J. O'Connor and Geo. T. Marks, a Board of Health. Thos. Marks retired from mayor's chair, Dec. 31st, 1884, and James Conmee presided in 1885, being succeeded by Geo. H. Macdonell, who was mayor for three successive years, and was followed by Thos. A. Gorham in January, 1889.

PRESENT COUNCIL.

Thos. A. Gorham, mayor. Councillors, Ward 1—C. H. Shera, P. Nicholson, W. J. Bawlf; Ward 2—G. W. Brown, J. McTeigue, J. E. Johnston, ; Ward 3—J. F. Ruttan, H. L. Elliott, J. A. Fraser. Town clerk, W. H. Langworthy.

TOWN ASSESSMENT.

1884	$1,028,745
1885	1,359,730
1886	1,325,117
1887	1,527,834
1888	1,565,472
1889	1,750,524

TAXES LEVIED.

	General Purposes.	Schools.
1884	$16,459 92	$3,086 24
1885	19,156 15	4,454 10
1886	24,514 04	4,036 35
1887	18,022 00	4,886 00
1888	22,298 96	4,363 18

The Churches.

PROTESTANT EPISCOPAL.—Port Arthur, now in the diocese of Algoma, originally formed part of the diocese of Toronto. Rev. C. B. Dundas was the first incumbent, being ordained and appointed in 1872. During that year the erection of a plain wooden church was begun which was completed the year following. The parsonage was built in 1875. In September, 1877, Mr. Dundas resigned and was succeeded by the Rev. J. K. McMorine. On April 5th, 1881, both church and parsonage were destroyed by fire. The present parsonage, costing $1,500, was finished in March, 1882, and the new church, costing more than $7,000, in July, 1884. Mr. McMorine resigned in 1885, when at the request of the Bishop of Algoma, the present incumbent, Rev. C. J. Machin, took charge. At that time Port Arthur provided only one-third of the clerical income. It now provides the whole. The congregation is large, and there are over ninety communicants. Improvement is steadily going on. The Womens' Sewing Society have raised $800 towards a school-house to be built in the autumn. It has also been determined that a new and more substantial parsonage shall be erected. A parochial missionary association, a branch of the S. P. G., is doing good work, raising about $300 a year. A branch of S. P. C. K. is contemplated. The Bishop has constituted Thunder Bay District a rural deanery, of which the incumbent of Port Arthur, is rural dean.

BAPTIST.—Organized September, 1885, by Rev. Robert Garside, with 14 members. It has been under Rev. Fred. T. Tapscott from the first. At first the town hall was used for services, but in December, 1886, they opened their present church, corner Cumberland and St. Paul streets, which has cost $2,800 and seats 250 people. The income for 1888 was $2,800, and 100 members have been added since organization. The average attendance at Sunday school is 155, and the scholars contributed $377 last year. Mr. I. L. Matthews is the clerk of the church.

ROMAN CATHOLIC.—Built in 1874. Rev. R. Baxter, S.J., first pastor. Total income about $1,000, at present. First church burned in February, 1881, replaced the same year by a substantial brick structure 40x70. Situated at the corner of Arthur and Algoma streets.

Reports from the other churches have not been available.

Light, Water, and Street Systems.

ELECTRIC LIGHT.—The Heisler incandescent system. Established by the Port Arthur Water, Power and Light Company, May, 1889; president—M. Dwyer; secretary—James McTeigue.

PRESENT STREET LIGHT SYSTEM.—Is on Arthur from Hebert to S. Water street, Cumberland from Van Horne to Bay, Court from Elgin to Wilson, Algoma from Cameron to Waverly, Park from Waverly to S. Water, S. Water Arthur to Bay, Pearl S. Water to Algoma, Wilson street Cumberland to Court.

SEWERS.—Located on 1 Pearl street from Second to Cumberland St.
2 Park " " Algoma " " "
3 Cumberland " Arthur " " "
4 Wilson " Cumberland to S. Water "
In all about one mile in extent.

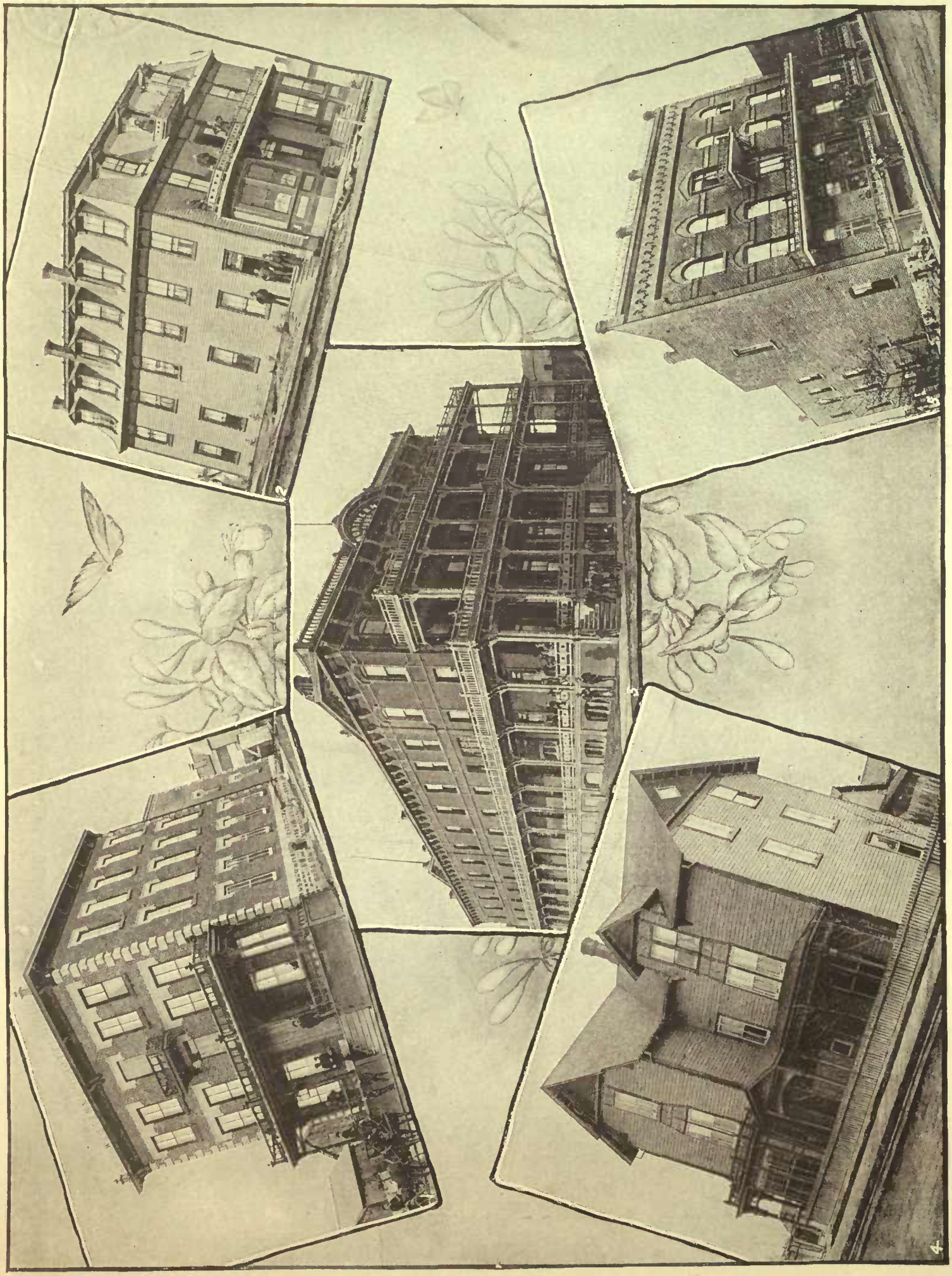
WATER SUPPLY PROPOSED.—By gravitation from Current River through ravines into McVicar's Creek to a dam at a point about 1,000 feet above Algoma street, from which point the water will be pumped by water-power into a reservoir, situate at or near the intersection of Van Norman and High streets, on the Russell addition, at a height of 220 feet above the level of Lake Superior; from there the water will be distributed in suitable sized steel mains, for the present, on Arthur St. from the intersection of the Red River road to S. Water St., Park St. from Waverly to S. Water St., Pearl from Banning St. to S. Water St., Cumberland from Victoria to Wilson St., Court St. from Wilson to Victoria, Victoria from Court to Cumberland, St. Paul from Arthur to Cameron St., Cameron from Cumberland to Court St., South Water St. from Arthur to Wilson. In all 5⅛ miles.

The surplus water over the dam above Algoma street, will be brought down and over a series of dams to Lake Superior and will be used for water-power purposes, capable of being developed into a capacity of 6,000 horse-power.

STREETS.—Arthur, Lorne, Park, Lincoln, Pearl, Ambrose, Wilson, Manitou, South Water, North Water, Bay, John, Court, Machar Avenue, Algoma, Second, Banning, High, Hill, Pine, Elizabeth, Duke, Van Norman, Cameron, Cumberland, St. Paul, Tupper, Howe, Graham, River, Victoria, Hebert, Regent, Elgin, McVicar, Van Horne, Waverly, Front, Jean, Winnipeg avenue, Prospect avenue, Oxford, Ontario, King, Albert, Dixon, Frances, Young, College, Sheppard, St. Vincent, St. George, St. Joseph, Riverside avenue, Nugent, Stephens, Robertson, Queen, Hester, Inchiquin, Lisgar, Elizabeth, Beverly, Foley, Wiley, Dufferin, Red River road, Fort William road, Shuniah road. In all about 20 miles, and 8 miles of sidewalks.

The improvements for this year include the completion of the breakwater; the erection of four business blocks, of brick and stone; the introduction of electric light, and the opening or extension of streets and sidewalks, with various private additions to realty.

1. Hospital and Convent.
2. Presbyterian Church.
3. High School.
4. Episcopal Church.
5. Court House and Jail.
6. Common School.
7. Methodist Church.
8. Baptist Church.
9. Roman Catholic Church.



1. Western Hotel. 2. Continental Hotel. 3. Northern Hotel. 4. Belmont Hotel. 5. Algoma Hotel.

Returning Thanks.

It is very rare in publications of this kind that such an amount of skilled work is employed, and it seems a fitting place here to give that credit to those whose care and knowledge have permitted this issue.

The Photos—Almost all these were done by Messrs. W. J. Barrie and J. F. Cooke, of Port Arthur, under varying and often difficult conditions, and the majority were taken specially for this book. The beauty of the engravings is largely due to the excellence of the photos, as a good print cannot be had from a poor photo.

The Engravings—These were done by the Moss Engraving Co., New York, and the work speaks for their thoroughness, and each one explains itself. They are done by the Moss procecs, which is so far beyond compare with any free hand drawing. The softness and delicate finish are exquisite, and bear continual study, while being true to life.

The Paper—This is the product of the Canada Paper Co., of Montreal, and is a good and true foundation to receive such illustrations and press work, the cover paper being especially beautiful.

The Letterpress—This and the "make up" were done at the office of *The Commercial*, Winnipeg, and perhaps only members of the profession will fully understand the labor and skilled interest required.

Information—This has been gathered from so many sources, both verbal and written, that it is scarcely possible to mention them separately, and this chance is therefore taken to thank all those who so kindly furnished it, and also to those whose monetary assistance allowed the publication of this work.

General Notes.

L. R. O'Brien, the Canadian artist, thinks the Kakabeka falls are "as beautiful as anything on the continent."

The Secretary of the Port Arthur Board of Trade will answer questions about the town or district.

Current River Water Power.—This is estimated at the lower falls to be 3,000 horse-power, which could be increased to 4,000 a little higher up stream.

How Factories Rise.—When a smelter is started the lead ores will be used, and with a linseed oil mill handling Manitoba flax seed, and the fine baryta close by, paint works will be profitable.

The Port Arthur district has long been an important trade point. Before the days of railways there were five routes connecting it with the prairies of the west, namely: by Pigeon River, by the Kaministiquia River, by Current River, by Nepigon River and the Dawson route.

The Dawson Road.—This is one of the prettiest drives of the district. In the first 44 miles the road crosses three large rivers, 22, 27 and 39 miles from Port Arthur. For the first 27 miles it runs through a partly open country and over a succession of sandy hills, and along its course affords some charming scenery and excellent shooting.

Every railway terminus on the great lakes east has a line of steamers connecting with Port Arthur, viz: from Collingwood, Owen Sound, Sarnia, Chicago, Milwaukee, Duluth, etc. The Canadian Pacific Railway Co's steamers are over 1,400 tons each, and run from Owen Sound to Port Arthur, a distance of 504 miles, in about 36 hours and are always on time.

The Press.—This is represented by the *Sentinel* and the *Herald*. The *Sentinel and North Shore Miner* is issued daily and weekly. The former being in its eight year, and the subscription $6, while the weekly is $2 per year. It is owned by the Thunder Bay Printing Company, Mr. D. L. McIntyre being managing director and editor. It is Conservative in politics. The *Herald and Algoma Miner* is published by the Herald Printing Company at $1 per annum, Mr. D. F. Burke being editor. The paper is Liberal in politics and it is seven years old.

The Grain Elevators.—These are some of the largest, best equipped and most complete anywhere, and the rapid loading facilities they afford give a great advantage to vessels trading here, in saving time. The system is being yearly increased to meet the storage demands of the fertile western prairies, and even now has a total capacity of three million bushels.

Flour Milling.—No place offers greater advantages for this industry. Here wheat can be delivered into one door of the mill on the water front, direct from the railway car that was loaded on the prairie, and the flour can be passed out of another door into the hold of a vessel that has just unloaded enough coal to run several mills for a twelve month. About 100 barrels is the daily consumption of the town and district.

A Jesuit Mission.—On the Kaministiquia River, above the town, a mission to the Indians has been established over half a century, with two fathers and six lay brothers resident. The reserve of land contains 1,600 acres (for 300 Indians), and 100 are cultivated—four being in a fine garden. Here is a convent and orphanage for girls, a boy's school, a church and a four story stone residence, and proposed industrial school costing $12,000.

The hotels of a city are an unfailing sign of its condition. They mark eras in its growth and development. The village inn, the country tavern, the metropolitan hotel—all tell the tale of their surroundings. Step by step the village follows hamlet, the city follows village, and metropolitan greatness succeeds enterprising city. With each step of its progress the change for the better is marked by the improvement of its houses of public entertainment. Port Arthur has reached a sound position in this respect.

Current River.—Its course is picturesque beyond description. Leaping from one brow to another, winding its way among the thick underbrush which lines its shores, and between the trees that close above it, now a turbulent flood whose rushing can be heard at a distance, and again subsiding into a quiet, placid stream or an eddying pool, only for a moment, then to leap over another projecting crag until it mingles its waters with the mighty lake—the lover of nature following its course, is constantly attracted by some new scene, some new picture, some new enchantment, which lures him on and on.

Conclusion.

Great cities do not occur by accident, they rise from natural and artificial causes, chief among the former being a dominant commercial or geographical position. That must be where extended lines of land and water carriage meet, and where the tributary country is great and rich in resources. Of these are products of the farm, forest and mine. When these are joined with energetic and capable men, the result is as certain as any thing may be within our range. Now in applying this to Port Arthur take first her

POSITION.

Port Arthur is a natural terminal point. Water transport is the key to commerce, and when joined by railways, complete the situation. Its importance in this respect was long ago seized by the farseeing men controlling the gigantic Canadian Pacific Railway system, who have promptly made it their Lake terminus.

Port Arthur is located at the extreme head of the great chain of lakes, 300 miles beyond any other lake port, and consequently 300 miles nearer the richest agricultural and mining regions of the west. It is also not less than 500 miles nearer the Pacific Coast and is, consequently, on the pathway of commerce between the eastern and western seaboards. Of course it is at the extreme of deep water navigation on the west, and will become one of the chief railway centers. The requisites for cheap transportation are, therefore, all at hand here.

These important geographical conditions are strongly reinforced by others which guarantee that a vast volume of international commerce must inevitably seek the route of the great Lakes through Port Arthur as the shortest and cheapest line between all Atlantic ports, both European and American, and those of the East Indies, China and Japan. These conditions may be thus summarized.

RESOURCES.

The Farm—These are practically unlimited, as almost the whole products of the country west of Lake Superior and north of the International Boundary flow here.

The Mine—Here is the heart of a great extent of varied riches herebefore shown and scarcely yet entered upon, the production and treatment of which cause rapid and large growth of population and wealth.

The Forest—The enormous extent of timber tributary to the place is not fully known or indeed surveyed, but good judges estimate it at thousands of millions of feet.

The Fisheries—Are also an important factor.

Cheap Power—The cheapness with which coal can be laid down here by water, and the abundance of wood, added to the waters running waste answers the question of cheap power for manufacturing.

Handling Facilities—This splendid natural harbor made perfectly safe by man's hand, and the ready facilities for rapid dispatch of marine business now building up, supply the remaining conditions for the existence of a great sea port, a wholesale center and storage point for the wide west. The lesser aids to solid growth are present in abundant supplies of building material, stone, brick and lumber, an equable and healthy climate, pure and unlimited water, and perfect drainage facilities, with one of the finest sites to be found. Reviewing all these conditions one risks nothing in concluding that Port Arthur will be one of the great cities of the world.

The bright bow of promise in flaming beauty spans her skies. Like a royal despot she exacts her tribute from every other point in western Canada. Forest and field and mine alike send their treasures to her gateway, and in their turn the fruit receive of loom and spindle. Through the whole west every workshop and every golden field of grain, are factors in her growth. No Titan force can stay her march to greatness, nor rivalry impede her course.

Building Stone.

VERTE ISLAND SANDSTONE.—In Nepigon Bay, some 70 miles east of Port Arthur, is an island containing some of the choicest building stone in America. It is a hard durable red sandstone of a rich color, of high fire proof qualities, and tenacious. The deposit is from 20 to 40 feet deep, and improves in descent. It is being worked by General John MacArthur of Chicago, and $30,000 have been spent on docks, buildings and plant since opening in 1883. From 30,000 to 50,000 cubic feet are yearly shipped, some 50 men being employed, the principal market being Chicago and other United States cities, where it sells at $1.25 per foot, the duty being $1 a ton.

WINNIPEG FLAG STONE SUPPLY.—When the time comes to use stone pavements, the Canadian Pacific and Thunder Bay district will have the profits of providing them. There is in sight of Port Arthur and under the Giant's Head at Thunder Cape, a quarry of excellent flagging stone, from two to twelve or more feet square, smooth on one and often on both sides. It is a dark slate, hard and tough, with well defined breakage, with unlimited supply and very easy of access, being only 15 feet from deep water.

Business Directory.

BANKS.—Ontario Bank, Ray Street & Co.

BAKERS.—Hy. Foote, W. H. Demuth, D. M. Davidson, A. Lavery.

BOAT LIVERY.—F. Jones.

BARBERS.—Thomas Dunbar, Malcolm & Slipper, D. Anderson.

BUTCHERS.—G. W. Brown, M. Sullivan, Spofford Bros., W. Hancock.

BOOTS AND SHOES.—C. O. Lalonde, A. McGillis.

BOOKSELLERS.—Moir & Mills, J. L. Meikle.

BLACKSMITHS.—Taylor & Johnston, Woodside Bros., Chas. O'Meara.

BUILDERS.—J. H. Post & Sons, A. McInrot, A. Morrice, Charles Scott, Kennedy & Saunders.

CONFECTIONERY AND FRUIT.—G. L. Peterson, J. C. Banks.

COAL AND WOOD.—Dominion Coal Co'y.

DRY GOODS.—Mackay & Co , Mathews & Fraser, Shera & Co., C. W. Hamilton & Co.

DRUGS.—J. J. O'Connor & Co., W. J. Clarke, T. J. C. Rodden.

DRESSMAKING.—Miss W. W. Coward, (C. W. Hamilton & Co.,) Miss Gordon, (Shera & Co.,) Miss McPhadden, (Mathews & Fraser,) Mackay & Co.

FURNITURE.—J. A. Smith, Dwyer & Nagle, Geo. Mooring.

FISH DEALERS.—Port Arthur Fish Co.

FLOUR AND GRAIN.—W. J. Bawlf, V. Bowerman.

GROCERS.—Wm. Bishop & Co., M. Isbister & Co., McIntosh & Johnston, W. C. Dobie & Co., G. O. P. Clavet, P. Labby & Co., W. J. Hasking, L. U. Bonin, W. F. Fortune, Wm. Hayne, D. Coveny, J. Coburn.

GENTS' FURNISHINGS AND CLOTHING.—Garland, Elliott & Co., J. M. Neelin, J. C. Vivian, Mackay & Co., Mathews & Fraser, H. Nicholson.

HARDWARE.—Thomas Marks & Co., Wells & Emerson, M. Isbister & Co.

HARNESS AND SADDLERY.—J. Witherspoon.

HOTELS—Northern, Northern Hotel Co. proprietors, F. S. Wiley, manager; Algoma, Merrill & Hodder; Bodega, W. G. Johnston; Western, Chas. Hayne; Continental, Adams & Spofford; Argyle, H. T. Jackson; Albion, W. H. Davis; Mansion House, J. W. Morey; Mining Exchange, W. J. Schweigler; Ottawa, B. Guerard; Tracey House, Ole Brand; Merchants, John Bourke; Cosmopoliton, M. M. Connolly; Bay View, A. Guerard; Royal, D. K. Campbell; Superior, P. Daly; Windsor, J. Erikkala; Norway, A. Johnson; Victoria Hotel, Isaac Fraser.

INSURANCE—A. Squier, fire, life, accident and marine; F. Jones, life; J. J. O'Connor, life and accident; J. F. Ruttan, fire and life; Geo. H. Macdonell, fire, life and accident; Wiley & Co., fire, life, accident and marine; Hancock & Inglis, life. All these agents represent a total of 30 companies.

JEWELLERS—A. W. Thompson, Moir & Mills, A. Ross, and W. P. Cooke.

LIVERY STABLES—A. Crysler, R. Cuthbert, McDonald & Dwyer.

LIQUORS AND CIGARS—Wholesale, Thomas Marks & Co., M. Isbister & Co., S. Downing.

MILLINERY—Mrs. Trayner.

PIANOS AND ORGANS—J. L. Meikle, Moir & Mills.

PHOTOGRAPHERS—W. J. Barrie, J. F. Cooke, M. A. O'Meara.

RESTAURANTS—M. Mathews, S. Cunningham.

REAL ESTATE—J. F. Ruttan, A. Squier, Geo. H. Macdonell & Co. Wiley & Co.

RAILWAY AND STEAMSHIP TICKET AGENCIES—Hancock & Inglis, Wiley & Co., F. R. Swan.

SEWING MACHINES—J. L. Meikle, Moir & Mills.

STOVES AND TINWARE—Thomas Marks & Co., Wells & Emerson, A. Clavet, O'Meara & Whitcomb.

SHIP CHANDLERS—Thomas Marks & Co.

STATIONERY AND NOVELTIES—J. L. Meikle, Moir & Mills, W. H. Arthur.

TELEGRAPH COMPANIES—Canadian Pacific Railway Company's service.

TAILORING—H. Nicholson, Hodder & Montgomery, T. Wilcox.

WAGON WORKS—Taylor & Johnston, W. O'Meara.

GOVERNMENT OFFICIALS.

FEDERAL—Political representative, S. J. Dawson, M.P.; Collector of customs, P. Nicholson; Collector inland revenue, Geo. Ironside; Fisheries Inspector, W. C. Dobie; Postmaster, F. Jones; Immigration agent, J. M. McGovern; Resident engineer public works, Wm. Murdoch, C.E.; Grain inspector, F. E. Gibbs; Timber inspector, W. H. Davis; Indian agent, J. P. Donnelly; Forest ranger, John Hourigan; Light-house keeper, John Cooper; Harbor master, J. Davidson.

PROVINCIAL—Political representative, James Conmee, M. P. P.; Judge of district court, John M. Hamilton; Sheriff, James Meek, (acting); Registrar, John M. Munro; Crown attorney, A. R. Lewis; Police magistrate, A. W. Thompson; License inspector, W. H. Hesson; Crown lands and timber agent, Wm. Margach; Clerk of District Court, Chas. Kreissman; Jailer, Thos. Penfold; Turnkey, Jas. Humphrey; Bailiff, J. Donovan; License commissioners, W. J. Clark, D. McKellar and G. O. P. Clavet; Justices of the Peace, W. W. Russell, W. J. Clarke, G. O. P. Clavet, J. F. Ruttan, W. C. Dobie, John Cousins and P. Nicholson.

TOWN OFFICIALS.

T. A. Gorham, mayor; W. H. Langworthy, clerk and treasurer; Council, J. F. Ruttan, Geo. W. Brown, P. Nicholson, H. L. Elliott, J. A. Fraser, J. E. Johnson, J. McTeigue, W. J. Bawlf and C. H. Shera; Chief of police, Richard Nichols; Sergeant, James Bailey; Patrolman, Thos. Squier; Health inspector, Richard Nichols; Chief fire brigade, J. H. Woodside; Solicitor, F. H. Keefer; Engineer, Wm. Murdoch, C E.; Assessor, G. M. Francis; Chairman board of health, W. W. Russell.

THE PROFESSIONS.

RELIGION—Protestant Episcopal, Rev. C. J. Machin; Roman Catholic, Rev. Father Hudson, S.J.; Methodist, Rev. J. A. McClung; Presbyterian, Rev. J. Pringle; Baptist, Rev. T. A. Tapscott.

MEDICINE—Drs. T. S. T. Smellie, J. A. McDonell, W. F. Peters and G. S. Beck.

LAW—Wink & Cameron, Keefer, Thacker & Godfrey, T. A. Gorham, A. R. Lewis and G. T. Ware.

MINING ENGINEER AND ASSAYER—Chas. Kreissman.

LAND SURVEYORS—Russell, McDougall & Russell, Walpole Roland, C.E H. de Q. Sewell.

EDUCATION—W. H. Law, B.A., M.D., R. King, B.A., J. A. Stewart; Misses L. Kennedy, K. Kennedy, Ella Healey, Annie Woodside, M. McKenzie; Sisters of St. Joseph and Mt. Leven.

SOCIETIES AND CLUBS.

SOCIETIES—Free Masons, Odd Fellows, Forresters, Knights of Pythias, Royal Templars, Orange Lodge, Sons of Temperance, Imperial Federation League.

CLUBS—Keewaydin, Thunder Bay Yacht, St. George's Snowshoe, Shuniah Snowshoe, Cricket, Lacrosse, Football, Curling, Tennis, Philharmonic, School Band of Mercy.

INSURANCE RATING.

Port Arthur is classed "E" by the fire underwriters' association of Canada, its class having been improved in 1888. The following fire and marine companies are represented in the town: Glasgow & London, Imperial, Western, Northern, Queen, Caledonian, Commercial Union, City of London, Lancashire Citizens, London & Lancashire, British America.


Flatrock L.
Sand Lake
HILLS
THE OUTPOST
LINE
STRANGE
MARKSO
Arrow Lake
1510' A.S.
Little Whitefish L.
Whitefish Lake
Arrow River Mining Co.
Whitefish L. M. Co.
Silver Fox
Queen
Wolverine
Port Arthur
Duluth
Silver Falls
Sunset L.
Palisades
Peerless Mine
Whitefish River
Junction
Boundary Mountain Lake
Moose L.
Ken L.
Cock L.
Pine Locations
Pine Locations
Arrow
Whitefish R.
River
Falling Snow L.
Pine L.
Pine
Pardee
Crystal L.
Ontario Mineral Lands Comp'y.
Pigeon River
Boundary between United States and Canada
Pine B.
Pigeon B.
Pigeon Pt.
Grand Portage B.
Port Arthur's Connections.
Halifax
Portland
Boston
Quebec
New York
Montreal
Kingston
Ottawa
Buffalo
Toronto
L. Ontario
L. Erie
L. Huron
L. Michigan
L. Superior
Owen Sd.
Sarnia
Detroit
S. Ste. Marie
Chicago
Milwaukee
St. Louis
Port Arthur
Duluth
St. Paul
Winnipeg
C.P.R.R.
G.T.R.R.
Can. Pac. R.R.

SUPPLEMENT TO THE MANITOBA C

PORT ARTHUR DISTRICT CANADA.

—1887.—

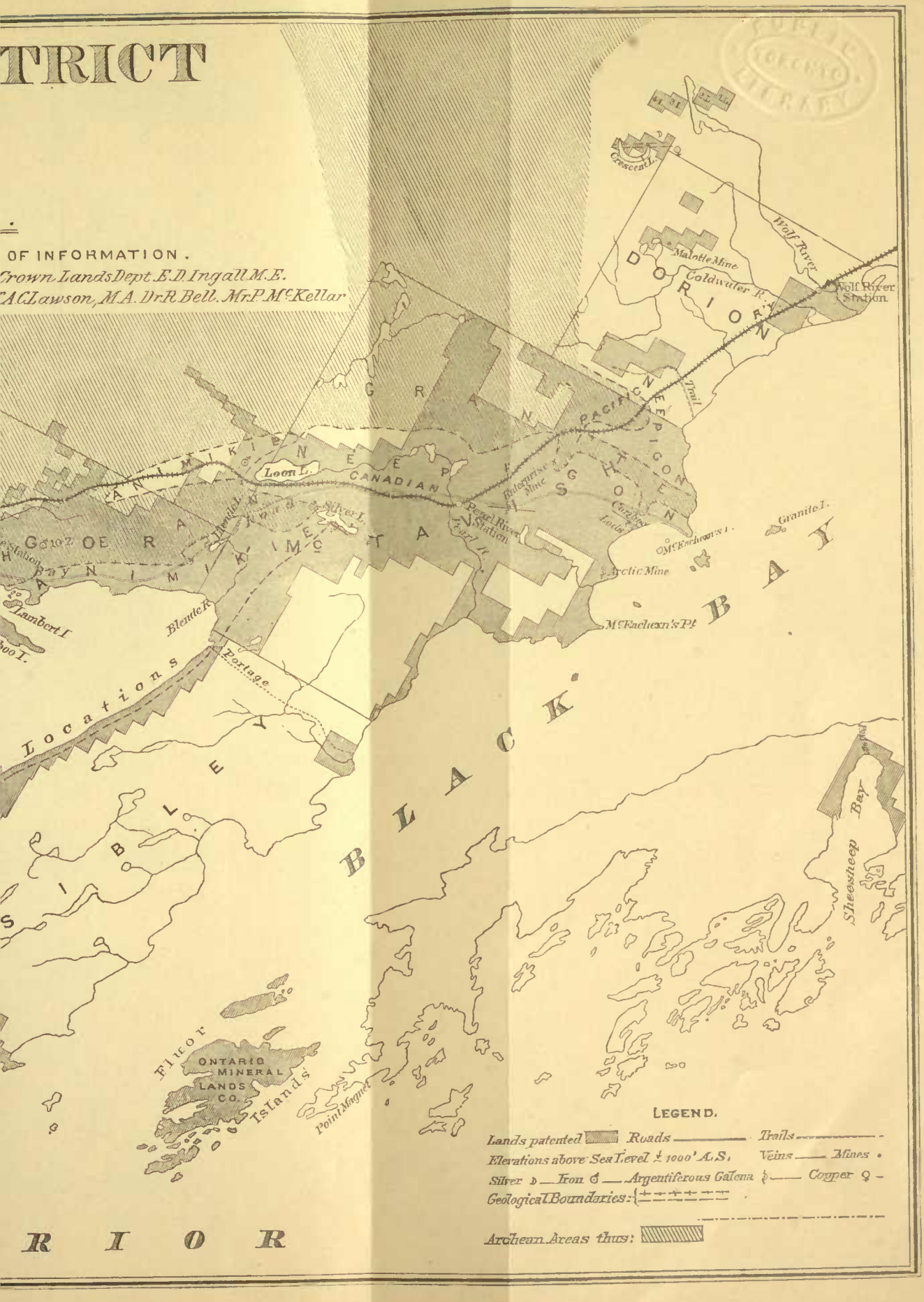
SCALE : 4 MILES TO 1 INCH.

OLONIST, WINNIPEG.

TRICT

OF INFORMATION.

Crown Lands Dept. E.D. Ingall M.E.
A.C. Lawson, M.A. Dr R. Bell. Mr P. McKellar



LEGEND.

Lands patented ▭ Roads ——— Trails - - - -
Elevations above Sea Level ± 1000' A.S.L. Veins ——— Mines •
Silver ♭ — Iron ♂ — Argentiferous Galena ♄ —— Copper ♀ –
Geological Boundaries: {
Archean Areas thus: ▨

R I O R

Sportsmen and Tourists

IN PORT ARTHUR DISTRICT

GET THEIR

Camping, Hunting, Fishing and Exploring Outfits

FROM

WM. BISHOP & CO.,

GROCERS AND ITALIAN WAREHOUSEMEN.

An important condition of an enjoyable summer outing is a stock of suitable viands properly put up.

From long experience with Anglers and Tourists we understand their wants in this respect.

We Make a Special Feature of Filling Orders, by Wire or Mail.

FOR

Intending Visitors to the Nepigon.

(Which Hallock terms "King of Trout streams.")

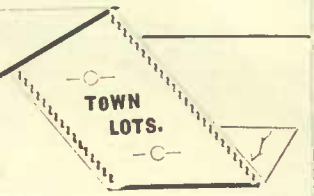
Orders are Carefully Packed and await Owner's Arrival at

Port Arthur or Nepigon Station as he may Direct.

We are pleased to answer any questions about this District, and would suggest your Holiday be taken here this year.

LAND

IN PORT ARTHUR.



J. F. RUTTAN

HAS FOR SALE ALL KINDS OF

TOWN LOTS in PORT ARTHUR

—ALSO—

Acre Property in and Near Town and Farm and Mineral Lands in the Thunder Bay District.

J. F. RUTTAN,

Crown Lands Agent for Thunder Bay District,
and prepared to Locate Settlers on Free Grant Lands,

REAL ESTATE & INSURANCE,

Port Arthur, = Canada.