

# The Lumber World

A JOURNAL OF THE PRODUCTION AND UTILIZATION OF LUMBER.

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## DESERONTO, ONT., AND ITS INDUSTRIES.

*Its Location, Growth and Development—Immense Lumbering Interests—Wood-working Establishments—Other Manufacturing Industries—The Results of Individual Enterprise and Push—Almost a Fairy Tale.*

IN the province of Ontario, and county of Hastings, at the mouth of the Napanee river, and head of the Bay of Quinte, is located the village of Mill Point, or, as it will be known from this date, Deseronto. Were Deseronto, and its location, in the United States, it would achieve fame as a summer resort; as it is, it has become a hive of industry, and it is questionable if we in this country have any place of like size to compare with it; and THE LUMBER WORLD, believing its many readers will be interested in a description of the place and of the men who have created, out of almost nothing, a business whose influence is felt not only in Canada, but in the United States and Europe as well, has pleasure in beginning the redemption of its promise, to illustrate and describe model lumbering establishments, by presenting herewith engravings and descriptions of the various shops, factories and mills, which are the outgrowth of determined energy, combined with good business sagacity and judgment. The Bay of Quinte is an arm of Lake Ontario, and takes its name from the

French word *quinte*, meaning five. There are in reality five bays in one; the old "Limestone City," Kingston, being at one end, and Trenton at the other, distant from Lake Ontario three miles. The Canadian government has undertaken the construction of a canal to connect Lake Ontario with the waters of the bay at Trenton. The country around Deseronto is rolling and fertile, that upon which the village is built gradually rising from the shores of the bay, in such a manner that from almost any point in the village, a delightful view of the bay and the Long Reach, as it is termed, is afforded. A trip down the bay and, by way of the river St. Lawrence to Ogdensburg, is one of the most delightful imaginable. Starting from Deseronto on one of the Deseronto Navigation Company's handsomely appointed passenger steamers, we sail through the Long Reach, a narrow neck of the bay, encompassed on both sides by high bluffs, past the Lake on the Mountain, a beautiful sheet of water two hundred feet above the bay, and on to Picton, a very pretty town on one of the most beautiful inlets of the Bay of Quinte. Leaving Picton we go on to Kingston, and thence down the St. Lawrence river, through the Thousand Islands to Ogdensburg. Adjoining and immediately west of the village of Deseronto, is a reservation of thirty square miles of land, set apart for, and owned and occupied by the Mohawk Indians, who left the valley of the Mohawk during the Revolutionary war, preferring to continue under the government and protection of Great Britain. They have their regular chiefs and councils, and are cared for and treated in a most creditable manner by the government. Distant from Deseronto about five miles, are the renowned duck shooting grounds at Hay Bay, and if one half that is told of the piscatory fruitfulness of the bay and its tributaries is true, a visit to them would make the heart of the merest tyro in the Waltonian art dance for joy. Mill Point (now Deseronto, which is the old Indian name), was originally an Auburn, N. Y., enterprise, started in the year 1848, by H. B. Rathbun, Thos. Y. Howe, formerly member of Congress from Cayuga county, and L. E. Carpenter, now connected with the extensive E. D. Clapp Wagon Works of Auburn. The object of the copartnership originally was, apparently, to build and operate a saw mill at that point, and, after the prosecution of this business for seven years, a dissolution of the copartnership was brought about, Messrs. Howe and Carpenter retiring. Mr. H. B. Rathbun continued the business alone until 1863, and then associated with himself his son, Mr. E. W. Rathbun. From that time on the firm has



Son build all their own boilers and marine engines. The motive power is obtained from three tubular boilers, and two engines with 15x30 inch cylinders. North of, and adjoining the machine shop, is the planing mill, and immediately north of and adjoining that, is the sash and door factory. Both buildings are substantially constructed of brick (as also are the machine and boiler shops) the former being one, and the latter, two stories in height. The sash and door factory utilizes largely

Lumber, bill stuff,	- - -	3,500,000 feet.
Shingles, Cedar,	- - -	13,000,000
Lath,	- - -	1,500,000
Fence Posts,	- - -	160,000
R. R. Ties,	- - -	95,000

A little to the west of the cedar mill is the ship-yard in which an average of forty men find continual employment. The Messrs. Rathbun have built during the past few years, 6,500 tons measurement, of passenger



H. B. RATHBUN & SON'S SAW MILL AT DESERONTO, ONT.

the small lumber from the saw mill, and supplies not only a large section of Canada, but sustains as well a representative in Great Britain. The output for the last year was:

Doors,	- - - - -	25,000
Turned Maple Rods,	- - - - -	60,000 pieces
Chair Stretchers,	- - - - -	100,000 "
Mouldings,	- - - - -	600,000 feet.
Broom Handles,	- - - - -	75,000
Windows of Sash,	- - - - -	7,000
" " Blinds,	- - - - -	4,500
Matched Flooring,	- - - - -	3,000,000 feet.

steamers, sail vessels and tugs, among which are two of the largest vessels, as well as two of the largest steamboats, on Lake Ontario. They are now building one steam barge, and rebuilding two steamboats and one small sail vessel.

A short distance east of the cedar mill stands a handsome, new, stone flouring mill, 45x70 feet square, four stories in height, and having, at its easterly extremity, an engine and boiler house, 40x40 feet square. The power is furnished by two steel boilers fourteen feet long by five feet in diameter. The engine is of the



STEAMBOAT DOCK AND WAREHOUSE AT DESERONTO, ONT.

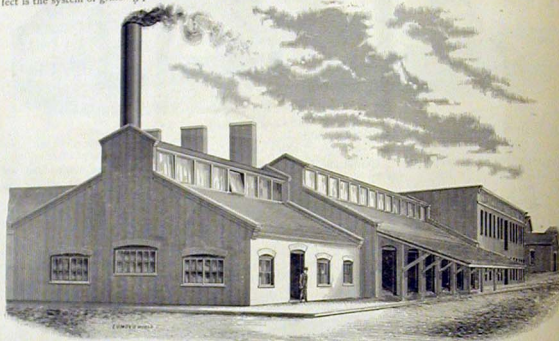
A large part of this product was exported to Great Britain, Australia and New Zealand, and facilities have been largely increased for the present year's output.

On the shore of the bay, about three blocks from the buildings already described is the cedar saw mill. The motive power of this mill is composed of five flue boilers, and one large engine. The mill runs the entire year, and its product last season was:

ordinary slide-valve type, with condenser and cut-offs, has cylinder 18x30 inches, and develops 175 horse power. South of the flour mill, upon the dock, stands a grain elevator, with storage capacity of 40,000 bushels. The building is 50x60 feet square, forty-five feet high, surmounted by a cupola twenty-two feet high, the whole being entirely sheeted with iron. Vessels, grain laden, discharge their cargoes into

the elevator, and, as it is required for milling purposes the wheat is discharged into the mill by means of a covered iron conveyer. North of the flour mill, and 60 feet distant, is a bran and flour warehouse, 40x60 feet square, and forty-five feet high. The upper portion is used for the storage of bran, it being blown across in iron pipes by Sturtevant blowers, and has capacity for 400 tons, while the lower portion is used for a flour warehouse, and has capacity for from 1,800 to 2,000 barrels. The flour mill is a perfect model, being tastefully fitted up throughout, and is supplied with every modern appliance for the production of the very best grades of flour. The system of grinding pursued is known as the Hungarian process, or roller system, and the flour turned out finds ready sale in the principal markets of Canada, where it is highly esteemed for its purity and strength. So perfect is the system of grinding pursued in the Deseronto

dence of Mr. H. B. Rathbun is a beautiful farm of 230 acres, under a high state of cultivation, owned by the firm. As with everything else owned by the Messrs. Rathbun, this farm is run for profit. Requiring in their business at Deseronto, a large number of horses at all times, the number being kept in constant use ranging from 85 to 100, they have arranged to raise their own from thoroughbred Clydesdale stock. We find also on the farm a fine herd of Durham cattle. Returning now to the village, a visit to the firm's stables will not be devoid of interest. Stall accommodations for sixty horses are provided in a substantially-constructed, warm, yet thoroughly ventilated building, which is kept at all times in a condition of thorough cleanliness. All hay consumed is cut by power, which is transmitted by wire rope from the machine shop. Suitable arrangements for cooking or steaming the feed, are supplied. Along the center of the floor, at a suitable



H. B. RATHBUN & SON'S MACHINE SHOP, PLANING MILL, AND SASH AND DOOR FACTORY.

flouring mills that hundreds of millers from the United States have visited them to determine the advisability of adopting the same process, and, so well were they convinced of its value, that, in almost every instance, they have, in whole or in part, adopted the system. The system pursued is, however, purely American, but the fact that American millers visited Canada to witness its operation, speaks well for the ability of the Messrs. Rathbun to develop its value. A detailed description of this mill would prove interesting reading, but the limits of our space forbid it. Leaving the flour mill we go up to Main street, and find a fine store, 30x95 feet, filled with almost every description of merchandise suitable for country trade. A corps of competent clerks are employed, and a business of something over \$95,000 was transacted during the year 1880. A short distance south of the store is the handsome residence and grounds of Mr. E. W. Rathbun, while at the north end of the village, immediately outside the limits, upon high ground, overlooking the bay and the village, resides Mr. H. B. Rathbun. Contiguous to the resi-

height, is the drinking trough, in which a supply of ever changing fresh, pure water is held, and by an arrangement of steam pipes in the bottom the chill of the water, in winter, is taken off. At one corner of the stable is fitted up a harness repair room, and underneath it a large root cellar.

Northeast of the saw mill are located the general offices of the firm, in which a force of well-trained, reliable clerks and assistants, to the number of eighteen, are employed. In addition to this force, the sash and door factory and the store have their own corps. The average number of men finding employment with the Messrs. Rathbun is over 1,300, and wages are paid weekly in cash, store orders not finding favor with the firm. Their operations are by no means confined to Deseronto. They operate the Eagle Mills at Rossmore, opposite Belleville, containing three tubular boilers and two engines, which produced last season, day running, of eleven hours, over 12,000,000 feet of lumber, besides several cargoes of barrel heads and lath, about all of which found market in the United States. At

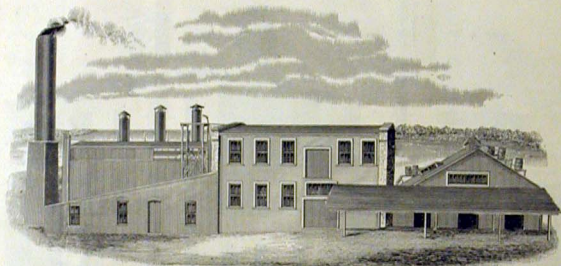
this point is a complete staff of assistants, a village, largely owned by the firm, with extensive docks, tracks and facilities for carrying on the business. They also own the Star Mill, about six miles farther up the bay, which with the Eagle Mills, were formerly owned by Hon. A. S. Page, of Oswego, N. Y. A small mill at Ottawa, cutting about 1,500,000 feet, and one at Shannonville, cutting 500,000 feet, were operated for them last year. In addition to their own product they purchased last year something over 4,000,000 feet of pine, ash and basswood. Canadian ash is entering largely into the manufacture of cars, furniture and inside finish to houses.

In connection with their bay of Quinte property, Messrs. Rathbun & Son own not less than 575 square miles of timber limits, besides 50,000 acres of timber lands in fee simple. On the north shore of Lake Huron they own 117 square miles of timber limits, which the construction of the railroads projected in that vicinity will make available. They bought and

J. Benedict & Son, one of the oldest and best known firms in the trade in that city, and with whom Messrs. Rathbun & Sons have done business for over twenty-five years. Mr. E. M. Upton, the manager 'of their business at Charlotte, handled for their last year:

Posts, - - - - -	233,000
Ties, - - - - -	58,750
Shingles, - - - - -	7,667,000
Lath, - - - - -	1,800,000

The timber limits before referred to, are utilized not only for pine, ash, basswood, elm and maple, logs and ship timber, but for supplying the demand from the United States for poplar for pulp mills, stave bolts, heading bolts, hop poles, etc. Mr. E. W. Rathbun is President of the Napanee Cement Works. These works produce water lime, or hydraulic cement, and are run, to a certain extent, in connection with the interests of H. B. Rathbun & Son, at Deseronto. The barrels for this cement, as also those for the flour produced at the Deseronto flour mills, are all



H. B. RATHBUN & SON'S CEDAR SAW MILL.

sold last year about 22,000 tons of coal, chiefly from Pennsylvania; a few cargoes from Ohio. This coal makes return freights for their vessels touching at United States ports, and is distributed to their different yards and agencies in Canada. They have an office in Toronto, and yards at Napanee, Belleville, Kingston, Gananoque and Morrisburg, Ontario, besides agencies in the chief markets of Ontario, also an extensive yard and docks at Oswego, N. Y., where a business of fully \$200,000 was done last year. The yard handled in 1880:

Lumber, - - - - -	33,791,813 feet.
Lath, - - - - -	9,353,750 pcs.
Posts, - - - - -	43,599 "
Railroad ties, - - - - -	40,647 "
Shingles, - - - - -	3,755,090

The dock frontage at Oswego is about 1,200 feet. The principal portion of this dock was built at Deseronto (Mill Point), towed across the lake and filled with stone upon arrival at its destination. The water front has an average depth of 11 feet. They also have yards at Fairhaven and Charlotte, N. Y. Their Albany, N. Y., connection is Messrs.

manufactured by the Napanee Cement Works. Mr. E. W. Rathbun was also the originator of the Canadian Boiler Inspection and Insurance Company, the only concern of the kind in Canada, also president of the Deseronto Navigation Company, a corporation owned and controlled by the Rathbuns, having three steamers running on the bay of Quinte, and as far down the river St. Lawrence as Ogdensburgh, N. Y. The firm also own and operate in connection with their business, four sailing vessels, two steam barges with three consorts for freight, and one tug for lumber handling and log towing. The total number of vessels which sailed from Mill Point (Deseronto), loaded by or for the firm alone, during the season of navigation beginning March 31, 1880, and ending November 20, 1880, was 509, of which 300 cleared for United States, and 209 for Canada ports. This does not include passenger steamers. During the season of navigation it is not an unusual sight to see from fifteen to seventeen vessels loading at the Deseronto docks simultaneously.

In connection with their immense business, it has been found necessary to keep almost constantly em-

ployed, two surveyors and assistant wood-rangers. Their farms in different localities have to be looked after; dams in creeks and rivers kept up, and trespassers and dangers of fire in the pine timber guarded against. In and about the works at Deseronto, six watchmen are continually on duty during the night, to guard against fire. There are kept constantly ready for immediate use, one Silsby steamer, four Chemical, and one hand fire engine, with fire extinguishers, ladders, etc.

At the home establishment resides a master mechanic, to whom is submitted all questions relative to economical generation and application of power, the location and construction of special machinery, etc. So important has Deseronto (Mill Point) become, that a railroad, to connect with the Grand Trunk, has been surveyed, the right of way secured, the ties delivered at various

Poplar Wood.	- - - - -	300 cords,
Railroad Ties.	- - - - -	250,000 pes.
Hop Poles.	- - - - -	50,000 "
Cord Wood.	- - - - -	1,000 cords.

The logs to supply the various mills are cut on the Napance, Salmon, Moira and Trent rivers and their tributaries, driven from forty-five to one hundred and forty miles to the bay of Quinte, rafted at the mouth and towed by the firm's tug to the mills. Messrs. Rathbun & Son have contracts on hand now for over 250,000 ties for the New York Central R. R., chiefly for the new extension of two tracks from Rochester to Buffalo, besides contracts from other railroads in the United States, aggregating 100,000 more. They have on hand in logs at their mills something over 20,000,000 feet in pine, and 10,000,000 feet board measure, in cedar



H. B. RATHBUN & SON'S DESERONTO FLOURING MILLS.

points along the route, and it is expected cars will be running before next July. The completion of this road will largely increase the facilities for distribution of the products of the various establishments to points east and west, and will be known as the Bay of Quinte R. R. & Navigation Co.

The quantity of manufactured lumber on hand at the mills and in the hands of their agents at the present time is fully 30,000,000 feet, and about 5,000,000 feet in manufactures from cedar. During the winter just past all the mills have been put in complete order, and facilities for increased output the coming season have been provided. The operations in the woods the past winter by the firm, and others working for them, has resulted in a cut of:

Pine Logs.	- - - - -	325,000 pieces,
Cedar Logs.	- - - - -	175,000 "
Stave and Heading Bolts.	- - - - -	1,500 cords.

timber. Both the Dominion and Montreal Telegraph Company's lines are in direct connection with their offices; you step out of their general offices into the post office, in which you can obtain a money order on the United States or Great Britain, and to which is added a Postal Savings Department. Their general office is in direct telephonic communication with all the various establishments at Deseronto as well as with the proprietors' residences, and, as if they had not yet enough to keep them employed, they have recently established a banking office.

The firm of H. B. Rathbun & Son is too well known, and stands too high in the commercial world, to require commendation at our hands, yet our acknowledgement of an appreciation of the numerous courtesies extended, upon occasions when we have visited their establishments will not be inappropriate. Mr. E. W. Rathbun, upon whom has devolved, in a great measure, the

direction and management of the vast interests of the firm, has repeatedly demonstrated that courteous demeanor is not incompatible with careful watchfulness and prudence in business affairs, and were we to hazard a guess as to the prime cause of the magical success which has crowned the business career of this firm, we should attribute it in a large degree to the courteous and affable manner in which everyone who has dealings with them is treated.

In closing this description of the growth of Deseronto, and its industries it remains for us only to say that the firm is composed of H. B. Rathbun, and his sons Edward W. and Fred. S. Rathbun, and to express the hope that their tribe may increase.

## SKETCHES OF THE TRADE.

NO. 2.

### THE WEST BRANCH, PA., LUMBER INTERESTS.

THE territory embraced in the West Branch lumber district, includes as its prominent points Williamsport and Lock Haven, Pa., and Port Deposit, Md., with markets or outlets for products at Philadelphia and Baltimore. The three points—Williamsport, Lock Haven and Port Deposit, have between them nearly one hundred saw and planing mills, and a reasonable degree of prosperity has attended the trade in past years. Williamsport takes the lead in number and size of mills, and quantity of product. It is a delightful, sleepy little city, of something over twenty thousand inhabitants, and is the seat of the West Branch Lumberman's Exchange. A search after knowledge among the lumbermen of Williamsport is about the most difficult task a man can undertake, and especially at this season of the year. The lumbermen there are all in pretty easy circumstances, but are averse to giving any insight into the extent of their business, for fear their neighbors, finding it out, may endeavor to surpass them in the future, and this would lead to competition, and competition signifies exertion. We were informed by Mr. Wm. R. Prior, the genial secretary of the Exchange, that although efforts to obtain statistics of production, had been made in behalf of the Exchange, a degree of success the reverse of flattering had resulted.

A gradual decrease in "Stock on hand" at the close of each season for the past ten years, can safely be taken as indicating a like decrease in the quantity produced, but, as prices have advanced in a ratio nearly equal to the decline in production, the financial volume of business has not been materially affected. The character of the output, however, has undergone a material change; the lumber produced, while appreciably better than that produced in years gone by, is not so wide, a manifest desire, or necessity being evidenced to utilize everything in the shape of a log. The production of hemlock lumber is also yearly assuming greater importance, and poplar enters to some slight extent into the total product. This latter is, however, consumed at home in the manufacture of furniture.

The system of inspection in vogue at Williamsport and Lock Haven, extends to Philadelphia and Baltimore, and is also recognized to a considerable extent by Buffalo dealers, especially by those who have dealings in

the Philadelphia and Baltimore markets. The following tables give the amounts of lumber in the Williamsport market on the first day of January for the past five years, as officially furnished to the West Branch Lumberman's Exchange:

WILLIAMSPORT.				
Years.	Pine.	Hemlock.	Lath.	Pickets.
1881.	96,483,160	5,264,638	12,843,900	1,266,870
1880.	91,438,089	6,189,035	22,147,035	1,803,497
1879.	88,289,787	11,234,477	20,430,900	2,361,200
1878.	115,453,197	27,159,669	26,190,300	2,396,320
1877.	161,057,766	23,995,316	36,269,450	2,264,570

LOCK HAVEN.				
Years.	Pine.	Hemlock.	Lath.	Pickets.
1881.	10,186,948	.....	.....	.....
1880.	10,382,422	200,000	758,700	187,640
1879.	11,445,477	885,000	1,441,000	328,000
1878.	17,442,387	1,322,132	4,851,000	684,000
1877.	25,371,194	3,307,000	2,895,600	1,128,600

PORT DEPOSIT.				
Years.	Pine.	Hemlock.	Lath.	Pickets.
1881.	500,000	.....	.....	.....
1880.	.....	.....	.....	.....
1879.	1,255,000	800,000	200,000	20,000
1878.	700,000	1,100,000	.....	75,000
1877.	1,097,000	1,000,000	150,000	91,000

[For the LUMBER WORLD.]

### ANCIENT SAW MILLS.

BY GEORGE WALKER, M. E.

II.

THE saw mills of a half a century or more ago, were very crude and inefficient in comparison to the better class of saw mills of the present day; and, in fact, to what they have been for the last thirty years or more. But, during this latter period, the march of improvement has been so rapid and radical, that what would have been considered a first-class mill in every respect, twenty-five or thirty years ago, would be ranked as far behind the times at the present time; especially for the larger class of mills, by which extensive forests are rapidly devoured, as by an herd of insatiate monsters. As an example of the saw mills of the period first mentioned, I select for description, the one of which I have the earliest recollection. It was built a little over sixty years ago. It was located on, and received its power from a small branch of the Susquehanna river, which diverged abruptly from the main channel, encompassing about two-thirds of the boundary of a large island, returning to the main channel as abruptly as it departed, about a mile and a half below the point of departure. A timber dam was built across the branch at the mill, by which, in favorable stages of water, a head of from three to four feet was secured for operating the saw mill, and a grist mill contiguous thereto.

The saw mill contained two water wheels, as was usual in those days, and still is to some extent at present, in small mills intended for local or neighborhood custom. In this mill the saw was driven by what was termed a side vent reaction wheel, of about six feet diameter, revolving horizontally on an upright wooden shaft. A large wooden cog wheel, with wooden cogs, shanked and fitted into mortices in it, and projecting from its lower face, was attached to the upper part of the shaft, by arms secured in mortices made through it. The crank was supported in wooden bearings on large beams, which were termed crank bents, which were some three or four feet apart, and located about midway of the length of the mill, and forming a part of the frame thereof. On the crank was a fly wheel