

30 x 40 ft. on west side. On the ground floor in the mill are two pair of twin oscillating steam engines, which are used to drive the feed works for carriages, also two steam engines for operating the kickers which throw the logs out of the jack ladder, and another steam engine connected with a butting-off saw used for cutting the slab and other wood into shingle and lath bolts. In addition there are the shingle mill, shingle edgers, carriers and all the shafting and pulleys for driving the machinery in upper part of mill, as well as single edger, double edger, large band re-saw machine and small band-saw, all of which are in the annex, and which are used for trimming purposes.

On the first floor of the mill there are two new Allis band mills, manufactured by the Waterous Engine Works Company, of Brantford, which were put in two years ago. These mills have given entire satisfaction to the proprietors. They are driven with the rope drive instead of with belts. The log carriages were manufactured by the Wm. Hamilton Manfg. Co., of Peterboro', and are of the most improved patterns. Passing the band-saws we come to a butting-off saw, which is rather a novelty of its kind, being worked up and down by one of the steam engines referred to above. It is the only one of its kind in the district. On this saw all the slabs are cut into shingle or lath bolts or fire wood.

The timber and lumber after passing the band saw is conveyed on live rollers to the timber butting-off saws, where the timber is butted to required lengths and the long timber in lengths to suit the edger. The timber after being butted on both ends, passes on live rolls to the outside of the mill, where it is rolled down on skids to be drawn out and distributed to its proper piles, while the lumber is passed through the double edger to the butting table, where it is cut to proper lengths, and finally reaches the culling table, from which it is distributed to its proper grade.

On the second floor is to be found the filing room, also fitted with machinery furnished by the Waterous Company. Here are situated the racks for holding the spare saws, fifteen in number.

Connected with the boiler room, but in a separate fire-proof building, are situated two powerful steam pumps, which, with a third one situated in the engine room, constitute a very efficient protection against fire, being capable of throwing six heavy streams of water.

The piling grounds extend over twenty-four acres, and are well laid out and convenient. The office is a large two storey frame building, finished inside in white pine, and is situated near the mill. Mr. W. T. Mason, one of the firm, has his residence within a few yards of the office, in the centre of the yard.

In addition to the yard at the mill the firm have lately opened a yard on the Richmond road, where they carry a full stock of rough and dressed lumber, sash, doors, mouldings, etc.

MR. WM. MACKEY.

We take pleasure in presenting to our readers the portrait of Mr. William Mackey, who enjoys the distinction of being the oldest square timber dealer in Ottawa. Mr. Mackey was born in the county of Down, Ireland, and came to Canada with his father, brother and sister in



MR. WM. MACKEY, OTTAWA.

1835, settling in Perth. In 1837 he moved to Ottawa, or By-town, as it was then called. He commenced shanty-ing in 1841, and in 1843-4 went into business on his own account, taking out his first raft of square timber on Mackey's creek, Madawaska river. At that time lumbering was far different from what it is at present; there were no improvements on the Madawaska, and it was quite difficult to get timber to market. All supplies were taken up the rivers in canoes, towed up the rapids, and carried over the difficult places or portages on men's backs with tump lines. Driving the timber down the chutes of the Madawaska river in the spring of the year was then pretty dangerous, and often resulted in loss of life—this river being one of the roughest on the Ottawa. Mr. Mackey has been principally identified with the square timber business, this being his fifty-third year in succession of making timber for the Quebec market, where his mark "W. M." and the quality and manufacture of his timber is well known, as well as in the English market.

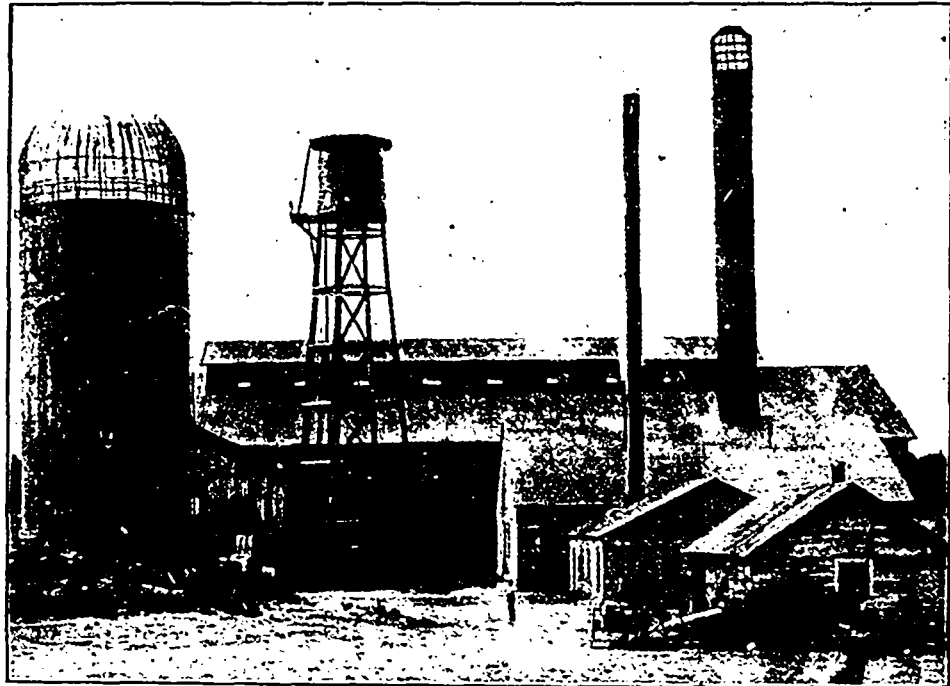
#### GILMOUR & COMPANY'S MILL AT CANOE LAKE.

Just as we are going to press the following description comes to hand of the new mill recently completed at Canoe Lake by Messrs. Gilmour & Company, of Trenton, and which is referred to on another page:

The new mill is located in the heart of the limits purchased by the company in the townships of Peck, Hunter, and McLaughlin, Nipissing district. Operations were started on the first of March, 1896, and on the sixth day of June following the first lumber was sawn, although the regular night and day sawing did not start until June 29th. The mill is solid and substantial, and cannot be surpassed in points of excellence and lumber sawing facilities.

Situate at Canoe Lake, on the line of the Ottawa, Arnprior & Parry Sound railway, it is in the heart of the great lumber district of the north country, and is in direct communication with Ottawa, the lumber metropolis of Canada. In less than one year a space of about 300

208 ft., with shingle mill 48 x 52 ft., and lumber shed 32 x 276 ft. The saw floor of mill is without posts, the roof being supported by a truss. The engine and boiler house is 81 x 82 ft., built of brick, stone and iron, covered by an iron roof. It contains eight boilers, 60 in. x 20 ft., each boiler having eighteen 6-inch flues. The engine is an Allis Corliss of 900 horse power. The power house is of brick, stone and iron, 24 x 56 feet, and contains one 125 horse power boiler and a 75 horse power engine, with arc and incandescent dynamos to light the mill and lumber yard. In the mill there are 300 electric lamps of 16 candle power each. The power house also contains one Worthington Underwriter pump, capable of throwing 1,000 gallons of water per minute, with four hose attachments. The fire protection is the Grinnell sprinkler system, there being over 900 sprinkler heads in the mill, supplied by a tank holding 24,000 gallons of water elevated 95 feet above the ground. The said tank is



ST. ANTHONY LUMBER CO.'S MILL, WHITNEY.

acres has been cleared up, and a substantial mill erected, with offices, storehouses, boarding and tenement houses in close proximity.

The piling grounds are excellent, being well drained, with good, solid bottom. A switch from the O. A. & P. S. railway runs directly to the mill.

The mill is erected on the shores of Canoe Lake, where an abundance of water is always procurable for fire and other purposes. Eight saw log shanties are now in active operation, as well as two board timber gangs, within a short distance of the mills. The logs after a short drive are boomed in the lake opposite the mill, and elevated to the sawing floor by improved methods, everything, in fact, being conducted on the most approved systems.

The dimensions of the mill and other buildings are as follows: Mill, 240 ft. x 56 ft., with following machinery, two band mills, one set twin circular saws, one 52-in. gang, one band re-saw, one circular splitter, two large edgers, two trimmers, two machines for making mouldings, with all necessary slash and butting saws; lath mill, 50 x 32 ft., with picket and heading machinery; sorting shed, 240 x 24 ft.; boiler house, 84 x 38 ft., with eight 46 in. x 14 ft. tubular boilers, and three 60 in. x 12 ft. tubular boilers; engine house, 51 x 28 ft., with one 750 h. p. engine, and one boiler feeder; fire engine house, 24 x 28 ft., with one Amoskeg fire engine and two hose reels, including hose, pumping house, 22 x 24 ft., with one Worthington duplex fire pump, capacity 1,500 gallons per minute, one 30 arc light dynamo, and one 40 h. p. engine; machine shop, 50 x 24 ft., containing two lathes, one bolt cutter and one drilling machine; blacksmith shop, 24 x 24 ft., containing two forges, with engine and blower; carpenter shop, 55 x 24 ft., with one Daniel planer and circular saw table; water tank, for fire purposes, with a capacity of 30,000 gallons.

#### ST. ANTHONY LUMBER COMPANY.

Located at Whitney, at the foot of Long Lake, 144 miles west of the city of Ottawa, is situated one of the most complete saw mills in Canada. The proprietors are the St. Anthony Lumber Company, which is composed of Messrs. E. M. Fowler, of Chicago; Arthur Hill, of Saginaw; and E. C. Whitney, manager, located at Ottawa.

The company purchased limits from Messrs. Perley & Pattee, of Ottawa, in 1892, and have since secured other limits, until to-day they possess nearly 400 square miles from which to draw their supply of logs. These limits are on the headwaters of the Madawaska and its tributaries, and are said to be among the best in Ontario. They contain a vast amount of virgin white pine. Their property at Whitney consists of some 1,800 acres.

The mill was erected in the spring of 1895, and on July 25th sawing was commenced. The main building is 88 x

also supplied by the Underwriter pump mentioned above.

In the lumber yard there are ten miles of small railway tracks to carry the lumber from mill to yard, which requires 250 lumber cars. There is also five miles of standard gauge tracks laid with 56-lb steel rails to accommodate cars to load lumber for shipment over the Ottawa, Arnprior & Parry Sound railway. The mill contains three Allis band saws and one Wickes gang, two six and one four saw edgers, and two eleven saw trimmers. The mill is supplied with all the latest and best labor-saving machinery, such as steam niggers, steam feed, steam flippers and kickers, required to handle logs and lumber.

The output of the mill is white pine lumber, lath and shingles. The capacity is 200,000 feet per day of ten hours. Over 300 men are employed at the mill, and about 500 in the woods in winter.

#### UPPER OTTAWA IMPROVEMENT COMPANY.

The present system of bringing the logs down the Ottawa river is said to be giving entire satisfaction to lumbermen. As soon as the logs reach the river they are handled by the Upper Ottawa Improvement Company, under the direction of the secretary-treasurer, Mr. G. B. Greene. This company holds a charter from the Dominion government and has a capitalization of \$150,000. Once the logs are delivered in the river within the company's jurisdiction, the owners are relieved of all responsibility until they reach the mill. This is the only company of the kind in Ontario which takes full charge in this manner. The cost of bringing the logs from the head of Lake Temiscamigue, a distance of over 300 miles, is about \$1.30 per thousand feet, B. M.

Some years ago several of the lumber firms owned improvements along the river and did their own driving and assorting. This system did not prove altogether satisfactory and arrangements were made that the present company should be incorporated to take over the improvements and undertake the work. The length over which the operations extend is in the neighborhood of 325 miles and from 400 to 600 men are employed. Six steel and five wooden steamers are used. All the towing, driving and assorting of the logs and timber is done at actual cost, the tolls charged by the company for the use of their river improvements, averaging about fifteen cents per 1,000 ft. B. M., being sufficient to pay for all repairs and provide an annual dividend to the stockholders.

At the beginning of the season rates for towing, driving and assorting are fixed which are known to be sufficient to cover expenses, and if at the end of the year any surplus exists, the directors authorize a reduction of the rates to the actual cost, thus securing to the lumbermen the advantage of any favourable conditions which should reduce the cost of the work.