

### THE ARROWHEAD LUMBER COMPANY'S MILLS.

The above company was organized in the summer of 1903 as a joint stock company under the laws of British Columbia and with a capital of \$250,000. The directors of the company are: Archibald McMillan, of Westbourne, Man., president; Thos. Meredith, of Yorkton, N. W. T., vice-president; W. W. Fraser, of Emerson, Man., secretary-treasurer; W. R. Beatty, of Arrowhead, B. C., managing director; George McCormick, M. P., of Kamloops, B. C., and Alex. McMillan, of Winnipeg, Man.

The construction of a mill was immediately undertaken and on June 19th, 1904, the first lumber was produced. The location of the mill is on the north shore of the Upper Arrow Lake, about half a mile east of the town of Arrowhead, B. C., and occupying a site of about twenty-five acres. It is one of the best designed and most modernly equipped mills in the Province, and reflects great credit upon the manager, Mr. Beatty, by whom it was designed. The capacity of the mill is 100,000 feet in ten hours.

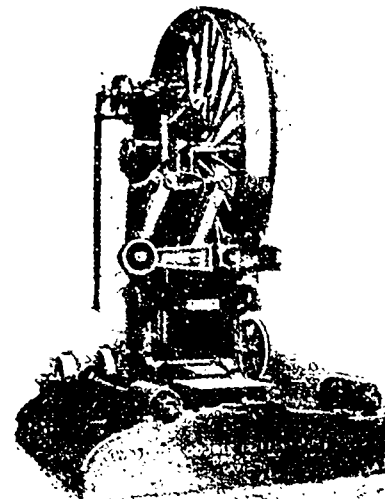
Besides the mill proper, there are a warehouse 32x70 feet built at a point convenient

other 30x126 feet, two stories high. The planer room is 48x72 feet with floor beneath for actuating machinery. The boiler room, which is of fire-proof construction, is 50x60 feet. The refuse burner is 34 feet in diameter and 80 feet high, built of heavy tank steel lined with brick and surmounted by a dome of underwriter's fire screen. This burner was constructed entirely on the ground, the steel having been rolled, punched, erected and rivetted by the company's employees in their own shops.

Power is supplied from a battery of four boilers, each 72 inches in diameter, equipped with "Dutch" ovens and operated at 125 lbs. pressure. The setting is of brick and stone and the floors are cement. The fuel supply is automatic, sawdust being delivered into the ovens by chain conveyors, while the refuse from the planer is delivered by pneumatic draft. Storage bins are provided to receive the surplus of fuel, which is used in the night to keep steam up for the use of the kiln and for fire protection purposes. The smoke stack is 6 feet in diameter and 105 feet in height from the roof of the boiler house.

The engines are two Waterous high pressure, each 20 inches diameter by 24 inch stroke, operating on one shaft. These engines oper-

ate at 105 revolutions per minute. Power is transmitted to the main shaft by a 38 inch double leather belt, from whence it is distributed by an efficient system of gears and belts to the various machines.



WATEROUS DOUBLE CUTTING BAND MILL.  
Installed in The Arrowhead Lumber Company's Mill.

was furnished and installed by the Hinton Electric Company, of Vancouver.

#### THE MILL EQUIPMENT.

The equipment of the saw mill consists of a double cutting band mill, shown herewith, 50 inch Wickes gang, large double edger, slash table and trimmers. The mill is furnished throughout with modern steam handling apparatus, such as log-loaders, niggers, kickers and stock transfers, by means of which a great economy of labor is effected. A well-devised system of carriers conveys all the refuse from the various machines. Logs are delivered into the mill by an endless chain of exceedingly heavy construction and are delivered to the saw carriage by an ingenious arrangement of steam "kickers" and log-loaders. Every precaution has been taken against accident by efficient guarding of the machinery and by providing ample room for the workmen.

The logs go from the double-cutting band saw to the gang saw, which takes from one to four logs at one cut, delivering the whole in sawn lumber on to the trimmer table. The lath machinery is located conveniently to the slab slasher so that the stock is easily picked out for their manufacture. On the main conveyor to the refuse burner a workman is located, whose duty it is to select and throw out those slabs which are suitable for fuel.

The dry kiln is 44x120 feet and heated by live steam on the natural draft principle. The building is of "slow-burning construction," dimension lumber being laid on its flat and well spiked together. This is said to be the most nearly fire-proof of any form of wooden construction.

The planer equipment consists of three large "Invincible" planers built by the Berlin Machine Works, of Beloit, Wisconsin. This department is also supplied with a cut-off saw and a re-saw for the manufacture of bevel sid-



MILLS OF THE ARROWHEAD LUMBER COMPANY, ARROWHEAD, B. C.

for loading or unloading either by boat or rail, a three-storey boarding house 32x70 feet, a two-storey office building 30x50 feet, finished in native woods, and a machine shop 20x40 feet. The equipment of the latter consists of a planer, large lathe, two drill presses, bolt cutting machine, and two forges, power being supplied by a 20 h. p. horizontal engine.

The mill consists of two buildings, one being 48x120 feet, three stories high, and the

ate at 105 revolutions per minute. Power is transmitted to the main shaft by a 38 inch double leather belt, from whence it is distributed by an efficient system of gears and belts to the various machines.

The electric light plant is situated in a room adjoining the engine room, and consists of a 500 light multipolar dynamo, manufactured by the Canadian General Electric Company, of Peterboro, Ont., direct-connected to a 90 h. p.