

quantity of timber is produced in the shortest time by the vigorous development of the dominating trees. These are removed and converted into lumber as soon as the undergrowth is of sufficient density to protect the soil (Fig. 1). The first thinning is made as soon as the struggle for existence commences—that is, when it is found that the trees are contending with each other for light and space. If the owner of the woodlot has gone over his land in the early stages of its tree growth and weeded out the undesirable trees, this first thinning may be delayed till the tenth or fifteenth year, when the trees taken out may be utilized for firewood or temporary fence posts. The thinning should be heavy enough to give the trees that remain the space they require. As white pine may naturally come up in a very thick stand, quite a slash will be necessary to rid the woods of the undesirable trees (Fig. 2). In choosing the ones to be removed, the deformed and diseased trees should be taken first. The former, if left, will never amount to anything, and are liable to injure the growth of the remaining crop. The latter usually harbor injurious forest insects, which in a great many cases cause considerable damage.

(To be Continued.)

THE "STERN WHEELER."

With the opening up of territory in New Ontario and Western Canada, the question of transportation facilities will have to be considered and the best means devised for utilizing the present rivers and lakes for the purpose of distributing supplies to the new settlements.

We present to our readers a form of steam boat specially adapted for navigating shallow rivers and lakes, and for carrying large loads on a light draft of water. This style of steamboat is known as the "Stern Wheeler" and is largely used on the Mississippi and other western rivers, where the conditions are such that a deep draft boat cannot be operated. This style of steamboat is also well adapted for service in towing logs, carrying lumber, etc.

The boat illustrated is 80 feet in length, 20 feet beam and draws only 16 inches of water. These steamers are now being constructed by the Goderich Engine Works, Goderich, Ont. The hulls can be supplied in parts so that they may be shipped by rail to destination and put together and completed by ordinary labor.

The above company will upon application supply all information regarding these steamboats.

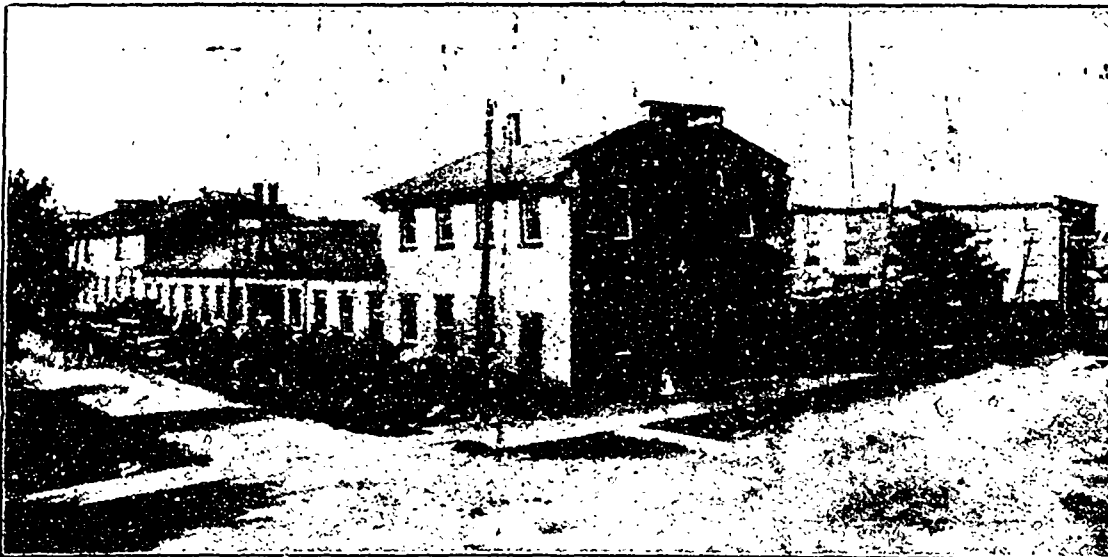
AN OWEN SOUND MANUFACTORY.

The Wm. Kennedy & Sons, Limited, engineers and iron founders, of Owen Sound, Ontario, is one of the oldest established firms in that line of business in the province. They have been continuously in business for over 40 years and are favorably known throughout Canada. Hydraulic and mechanical engineering

any mill or factory can be supplied. Heavy shafting, pulleys, etc., are special lines with them and particular care is bestowed on this class of work.

Situated as their shops are on the waters of the Georgian Bay, they enjoy the patronage of a large number of saw mills of the Georgian Bay district. Their trade with them is constantly increasing, and we cheerfully recommend them to those who have not hitherto given them their patronage.

Years ago Messrs. Kennedy & Sons started the manufacture of propeller wheels in a small way, but it



WORKS OF WM. KENNEDY & SONS, OWEN SOUND, ONT.

seems to have "run in the family", as the Kennedys are born engineers.

In 1868 they commenced the manufacture of the Leffel turbine in Canada, and their water wheels carried off the 1st prize at the old Provincial Exhibitions whenever shown. They were also awarded the Bronze Medal of the Centennial Exhibition in 1876 and the Canadian Silver Medal for Canadian exhibitors at the same time. In 1880 they were again awarded the Canadian and French Official Silver Medals for their turbine exhibited at Paris. Later on they adopted the New American turbine, believing it to be the best all round water wheel made, and are now manufacturing it in all the different vertical and horizontal styles, to meet the continually changing requirements.

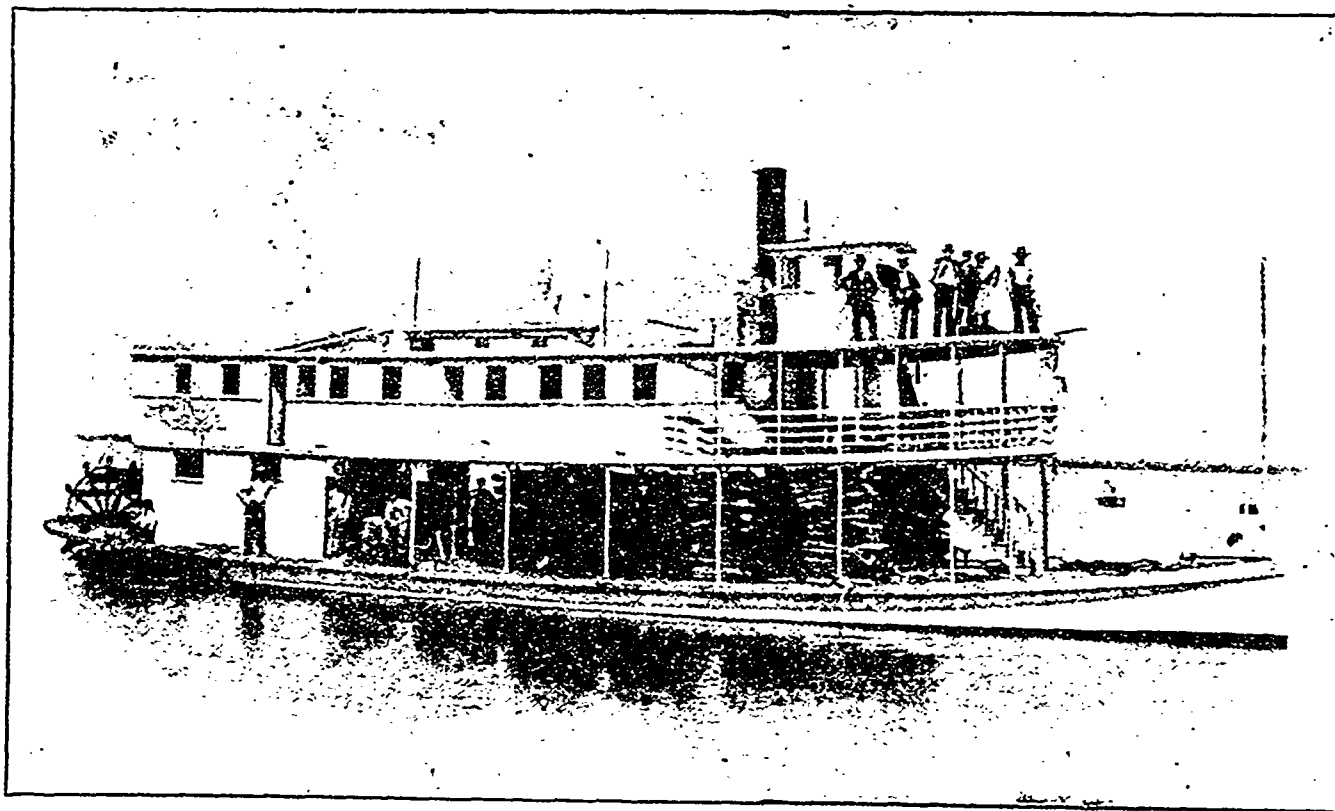
In connection with this department of their business, they have perhaps the largest and most complete set of heavy gear patterns to be found anywhere in the country, and as they have installed special, up-to-date gear-dressing machinery, they are in a position to do the very best class of work in this line.

The furnishing of iron bridgetrees, yokes and floor-stands also receive special attention at their hands. They have a large stock of patterns from which almost

has grown to such an extent that "The Kennedy Wheel" is now well and favorably known to most of the marine men on our lakes and rivers, and we are advised that they stand second to none in finish and efficiency. They make them in all sizes and for all purposes, running, towing or for general purposes as required, and solid or sectional as best suited to the different routes and conditions under which the wheel has to perform its work. We understand a special mixture of iron and steel, or all steel, is now being used to give greater strength without destroying the efficiency, as is done in the case of a "heavy club of a wheel". Particular care is taken in the foundry to get smooth, true castings, and this seems to be obtained to a remarkable degree. To help to supply customers as promptly as possible, considerably over one-hundred propellers are carried in stock, and the company claim to have the largest line of patterns and largest stock of propeller wheels in Canada. This fact of itself should be of great benefit to steamboat men, and their endeavor to furnish "Canadian made" propeller wheels promptly should be encouraged.

General marine repairs receive particular attention from them, and the close proximity of their shops to the docks and to the dry dock at Owen Sound must be a real benefit to their customers on the Upper Lakes.

Observing that no steel castings were made in Canada west of Montreal, The William Kennedy & Sons lately put up a special moulding shop (fitted with electric crane, etc.) and a plant for the production of steel castings, and now as good steel castings can be obtained from them as can be procured anywhere. Those requiring steel castings from their own patterns or from The Wm. Kennedy & Sons patterns, can get them in the rough or finished, as desired. The steel is produced by a special process, is of uniform grade and of a soft but very tough nature. We note that several of the large manufacturers of steam engines and mill machinery get their steel castings from this firm, and our readers can get "Canadian made" steel castings at Owen Sound. This industry should receive special encouragement from those wishing steel castings, because it is a pioneer industry to supply a long felt want.



THE "STERN WHEELER," MANUFACTURED BY GODERICH ENGINE WORKS.