

LUMBERING OPERATIONS OF EMILE STEHELIN.

A FEW years ago a progressive capitalist from France, recognizing the advantages of Canada as a field for investment, purchased considerable property in the vicinity of Weymouth, Digby county, Nova Scotia, and decided to establish

better communication between the point of manufacture and the shipping port, he decided to facilitate matters by building a pole railway, which was begun in April 1896, and has steadily been going on to the completion of the distance, as previously stated, is six

no limit to the height to which such piers and abutments can be carried.

The locomotive "Firefly," shown below, is the first one built by the road. It is made stationary boiler and a twenty-horse-power engine, mounted on a truck. The wheels are driven by an intermediate crank wheel. Con-



MILL OF EMILE STEHELIN AT NEW FRANCE, N. S.

a saw milling business. This gentleman was Mr. Emile Stehelin, by means of whose efforts a thriving settlement has been founded at New France, about sixteen miles from Weymouth. At this place Mr. Stehelin built a gang mill, situated on Long Tusk Lake, and driven by water power. It has a capacity of 15,000 feet of lumber per day, and is also provided with the planing, shingle and lath machinery necessary for a complete equipment. An electric light plant is also installed, which furnishes light to his mill and to the village as well. Three miles from New France, at Doyle Lake, Mr. Stehelin erected a portable mill of the same capacity as the one above referred to.

The lumber cut at these mills during the first few years was consumed in the erection of houses, barns, and other necessary accommodation, but when these were completed, attention was given to the export trade. Now Mr. Stehelin manufactures annually one million feet for the South American market and 500,000 feet of deals for the English market. He owns about

France; Doyle Lake, where there is one sawmill; Riverdale, where there are two sawmills; Woodville, where there are three sawmills; Corberrie, a thriving little village; and Weymouth, on the coast. The construction of this railway is so unique that we give some particulars and illustrations herewith.

On level ground the construction of a pole railway is a very easy matter, but in this part of Nova Scotia the country is hilly and there are a great many swampy stretches, which made construction more expensive than would often be the case. The cost of the whole line,

including equipment in this case, was about \$3,000 per mile. This included grades of three to six per cent., a number of bridges and several embank-

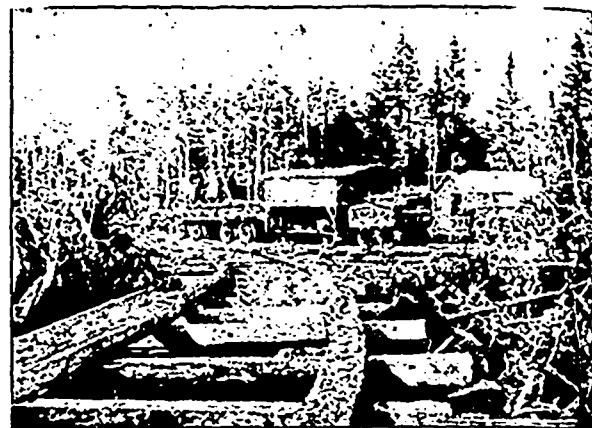


FIG. 6—POLE RAILWAY—THE LOCOMOTIVE "FIREFLY."

siderable difficulty was experienced in adjusting the parts of this engine, but it was finally got to run very satisfactorily, and is used for hauling logs to the saw mills.

The "Maria Theresa" is an entirely new locomotive, built expressly for the line by a Nova Scotia firm. It has four cylinders of twenty horse-power each, driving two trucks of four wheels each.

In operating a line of this kind, one of the greatest difficulties to be contended with is the amount of friction developed by the wheels, which do not run on the wooden rails with at all the same ease as on steel or iron. The locomotive should, therefore, be made as light as is consistent with the power to be developed, the friction of the wheels being sufficient to compensate for the lack of weight in the locomotive. It is to obviate as much of this friction as possible that the upper surface of the rail is cut in three faces. At present only six miles per hour is obtained regularly, but Mr. Stehelin hopes with some modification of the locomotive wheels to



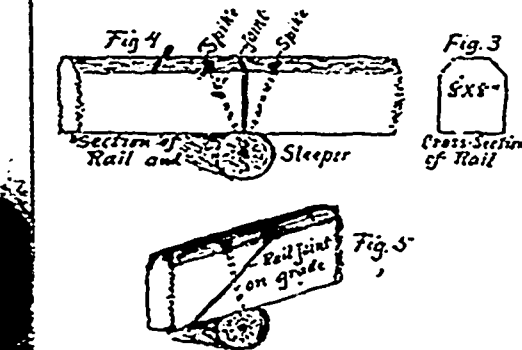
FIG. 2—CONSTRUCTION OF POLE RAILWAY.

ments of from ten to fifteen feet high. On level ground the construction consists in laying down sleepers ten feet long and three to four feet apart, on which is laid a spruce rail, sawn as shown in Fig. 3. The rails are twenty to thirty-five feet long, and



FIG. 1—POLE RAILWAY IN OPERATION.

ten thousand acres of timber land, chiefly spruce. It is not alone in the direction of building saw mills that Mr. Stehelin has shown progress. Having his first stock of lumber ready for market in the year 1896, he discovered that, owing to poor roads, it would be very expensive and laborious to get it to Weymouth, the nearest shipping point. Realizing the necessity of



are trimmed square for flat stretches and bevelled for grades, as shown in Figs. 4 and 5. The joints are made and the rails secured by twelve-inch wharf spikes. The method followed in building bridges and embankments is to lay a series of timber floors one upon another, each at right angles from the last, till the required height of the pier of embankment is obtained. With careful work and exact cutting of the timber, there is practically

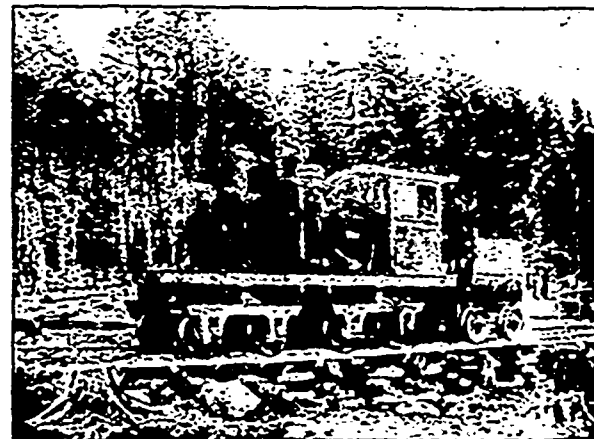


FIG. 7—POLE RAILWAY—LOCOMOTIVE "MARIA THERESA."

obtain higher speeds. The engines are wood burning, but it is proposed to substitute coal, which can be had very cheaply at Weymouth. The freight cars used on the pole railway are twenty feet long, on two trucks with four wheels each; the passenger car is twenty feet long, and is covered and closed; there is also one small passenger car to carry four persons.