

A DOWN HILL LOGGING ROAD.

FOOT OF PLANE, Pa. March 30.—Our logging road is different from anything I have ever before seen; it is a very cheap way for us to get our stock in. Our loads are all one way, and the only thing we have to be particular about is the brakes, which work on all eight wheels, and can slide them all at once, if necessary. We use two cars, which are drawn into the woods by one horse. The horse is started back at once in charge of a boy. With a man to each car, they load, make the run and unload by the time the horse can get back.

Our cars are not coupled except when going back empty. They are adjusted to suit the length of the logs, which vary from 12 to 40 feet, and sometimes longer. The brake on the front truck is operated by a small rope extending back to where the man stands to operate the rear brake. The axles are placed 24 inches apart from centres, which makes the sharp curves very easy. We never take into consideration curves, but put the road where we want it, regardless of the curves. We have two branches. On one of these we get motion enough to send the cars out on the main track, on the other we draw the cars up a grade of two feet to the 100 feet, a distance of 400 feet. To show what can be done with a road of this kind, last summer we had about 300,000 feet that had to be loaded at a certain place, or drawn considerable of a distance. We put a branch to the loading place, with a grade of 13½ feet to the 100 feet, for 300 feet. We put wood rail on this heavy grade, but could not hold the cars when the rails were wet. We changed to a T rail, and had no more trouble in holding at any point, no matter whether the rails were wet or dry.

It seems to be a great convenience to be able to build a cheap road into these bad places on which to get out our logs.—*Minor & Parker, in Northwestern Lumberman.*

DISAPPEARANCE OF PINE FORESTS.

The great groves of white pine which once constituted the glory and pride of Canada are narrowing their limits so rapidly that the final extermination of large trees is but a question of time. This is evidenced by the great value now placed upon the first qualities of this wood.

The log hauler is gradually extending his operations until he has reached the very headwaters of most of our rivers. In his track follows the settler, who, in consequence of the value of provisions which are grown in places where they can be hauled readily in winter to the lumbermen's camps, where they command high prices, clears a spot, perhaps alongside of some hay road, or on the banks of a river, where, among a vast quantity of bad land, he finds a little patch which will yield him some return. Here he erects his hut, cuts down the trees, and makes a clearing. The first settler is usually an old lumberman and is cautious about how and where he does his burning. When one man makes a settlement, however, others quickly follow. The latter, not being as cautious as the former, too often allow fires to extend from their clearings, and thus hundreds of thousands of acres, covered with the most valuable of pine groves, have been destroyed. Indeed, the thicker the growth of pine the more readily does the fire run, and consequently the more danger it causes. Early in the spring and late in the autumn are the periods when these fires are the most destructive.

Such being the result of settlements made among timber lands, which in general are poor lands for farming purposes, and in view of the great destruction to timber from this cause would it not be well that the various provinces should enact some law whereby settlement in the vicinity of tracts of pine should be prohibited?

Forest fires are frequently caused, too, by the carelessness of river drivers, especially of cooks, who do not take the pains and time to quench those which they have been using. This is a matter which the forest fire guardians should have control over, and they should be required to report to the proper authority any neglect on the part of river driving parties to extinguish fires which they may have been

using, with a view to the punishment of the offenders.

There is a sad lack of knowledge in all the Provincial Crown land offices with regard to the extent and character of the timber under their control. Before, therefore, any effective system of forest conservation or protection can be originated, some accurate knowledge of these things for general use must be first acquired. It might be well to make a commencement on the Ottawa, by ascertaining as nearly as possible where its pine lands are situated, where the country is chiefly hardwood, but also, above all, the locations which have been devastated by fire. As this information is acquired at the Crown timber offices from time to time it could be transferred to a plan which, in the end, would enable one to take in at a glance the extent of country yet unburnt. At the same time the proper authorities would at once see the country which required protection, and the service of men could be engaged for a month or two, in the spring and fall, to prevent settlers from locating near bodies of pine, as well as for the purpose of extinguishing incipient fires. The merchant takes an account of his stock; why should not governments do the same with theirs? And as the merchant takes precautions against the occurrence of fire among his goods, should the public protect their timber lands as far as possible from the same destructive agent. If our timber lands be worth anything they are worth protecting.

The subject of the prevention of forest fires is one which demands the attention of both Dominion and Local Legislatures. Indeed, in view of the very rapid disappearance of our forests, more especially of those of pine, the subject of legislation in regard to forestry and forest protection loudly calls for immediate action.—*Montreal Herald.*

VENERABLE BUILDING MATERIAL.

A New York paper of March 22nd had the following, written from Dingman's Ferry, Penn.—"Moses C. V. Shoemaker, of this village, has one of the newest houses in Pike county, but its floors are laid with what is undoubtedly the oldest manufactured lumber in the Union in actual use for a similar purpose. The boards are made from yellow pine lumber. They are an inch and a half thick and almost two feet wide. The trees from which they were cut were felled along the Delaware River at Dingman's more than 160 years ago. The boards were sawed out by hand by ancestors of Mr. Shoemaker and were used as the floor in a stone house which they erected in 1724. This building also served as a fort, those early settlers being constantly exposed to Indian raids. The ancient structure was demolished a year ago to make room for the new shoemaker residence. It was in as good condition as when first built. There was not an unsound stick of timber in it, and not one which had been in it over since the house was built. No lumber like the floor boards could be found in any lumber yard in the state to-day, for native yellow pine is now entirely extinct, and yellow pine lumber two feet wide and an inch and a half thick would be almost worth its weight in gold. When the old floor was taken out of the stone building a wealthy Philadelphian who was spending the summer at Dingman's offered shoemaker a price for the boards which would have almost paid for the new house, but he refused to part with them, and used them in his new residence. To all appearances they are good for use for another century and a half. From the timbers in the old stone house over 100 pounds of wrought iron nails were taken. They were four inches in length, and had evidently been made with rude implements. The work of forging must have been done on the spot, as there was no place nearer than Minisink settlement, near the present site of Port Jarvis, where the nails could have been obtained, and that was 24 miles up the river."

MANY soft timbers, especially walnut, are more destructive to the cutting edge of planes than harder wood, such as oak. The reason has been found to be the presence of extremely minute crystals of silica in these soft woods. These particles of uniform size and evenly distributed through the tissue of the wood.

NATIONAL PUMP WORKS

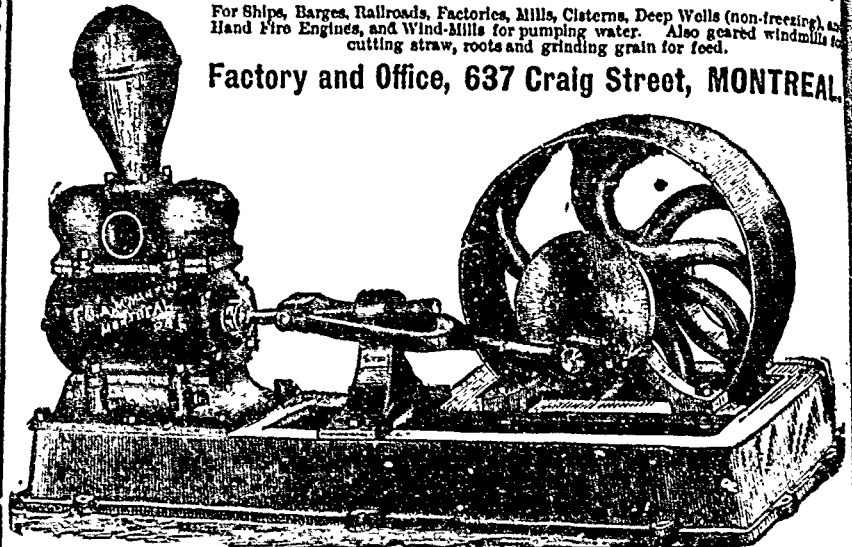
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The above cut shows our Double Acting Brass-Lined Horizontal Suction and Force Pump, mounted on a Cast Iron Bed Plate with light and loose pulleys, 4 inch face, 18 inch diameter. This is one of the most compact and powerful pumps of the kind yet out, with Bed 4 feet long and 2 feet 2 inches where the pulleys are placed, all being in good proportion. The pump has a guide to the piston rod, and is driven by the connection rod attached to the disc with steel pin and wrought iron connections. The valve seats and valve are made of gun metal, and easily got at by bolts on either side of the pump, so that access to the bottom or top valve can be had without any difficulty. We make two sizes of these pumps, which are adapted for mills, factories or tanneries. We make these pumps with a clutch to drive them direct, when so ordered, and dispose of the pulleys and belt. All enquiries will be promptly answered, by addressing the above, and catalogues of our pumps sent out.

SUBTERRANEAN WOODS.

Clarence Deming, in his "By-ways of Nature and Life," says of the swampy regions of southern New Jersey:—"The huge trees which lie under the swamp to unknown depths are of the white cedar variety, an evergreen, known scientifically as the Cypresses Thyoides. They grew years ago in the fresh water, which is necessary for their sustenance, and when in time, either by a subsidence of the land or a rise of the sea, the salt water reached them, they died in numbers. But many of them ere they died fell over as living trees, and were covered slowly by the deposits of muck and peat which fill the swamp. These trees that fell over by the roots, and known as 'wind falls,' to distinguish them from the 'break downs,' are the ones most sought for commercial use, and they are found and worked as follows: The log digger enters the swamp with a sharpened iron rod. He probes in the soft soil until he strikes a tree, probably two or three feet below the surface. In a few minutes he finds the length of the trunk, how much still remains firm wood, and at what place the first knots, which will stop the straight split necessary for shingles, begin. Still using his prod, like the divining rod of a magician, he manages to secure a chip, and by the smell knows whether the tree is a windfall or a breakdown. Then he inserts in the mud a saw like that used by ice cutters, and then saws through the roots and muck until the log is reached. The top and roots are thus sawed off, a ditch dug over the tree, the trunk loosened, and soon the great stick, sometimes five or six feet long, is brought to the surface and it is split by hand and worked into shingles, as well as into staves used for poils and tubs. The wood has a cross grain and splits as straight as an arrow. The shingles made from it last sixty or seventy years, are eagerly sought by builders in southern New Jersey, and command in the market a much higher price than ordinary shingles made of pine or chestnut, which lasts for roofing usually not more than twenty or twenty-five years. In color, the wood of the white cedar is a delicate pink, and has a strong flavor, resembling that of the red cedar, used in making lead pencils. The trees, once fairly buried in the swamp, never become waterlogged, as is shown by their floating in the ditches as soon as they are pried up, and what is more singular, as soon as they rise they turn invariably with their under sides

uppermost. These two facts are mysteries which science has thus far left so. The men dig the logs up and split them earn their money. The work is hard, requiring, besides lucky manual labor, skill, and experience; the swamps are soft and treacherous, no machinery can be used, and long stretches with mud and water must be covered with boughs or bark before the shingles can reach the village and civilization."

A happy combination of best Grape Brandy Smart-Weed, Jamaica Ginger and Camphor Water, as found in Dr. Pierce's Compound Extract of Smart-Weed, cures cholera morbus, diarrhoea, dysentery, or blood-stix, colic or cramps in stomach, and breaks up colds, fevers and inflammatory attacks.



NOTICE.

SEALED TENDERS, addressed to the undersigned, and endorsed "Tender for Indian Supplies," will be received at this office up to noon of MONDAY, 25th MAY, 1885, for the delivery of Indian Supplies during the fiscal year ending 30th June, 1886, consisting of Flour, Bacon, Groceries, Ammunition, Twine, Oxen, Cows, Bulls, Agricultural Implements, Tools, &c., duty paid, in Manitoba, and the North-West Territories.

Forms of tender containing full particulars relative to the Supplies required, dates of delivery, &c., may be had by applying to the undersigned, or to the Commissioner of Indian Affairs at Regina, or to the Indian Office, Winnipeg.

Parties may tender for each description of goods (or for any portion of each description of goods) separately or for all the goods called for in the Schedule.

Each Tender must be accompanied by an accepted Cheque in favor of the Superintendent General of Indian Affairs on a Canadian Bank for at least five per cent. of the amount of the tenders for Manitoba, and ten per cent. of the amount of the tenders for the Northwest Territories, which will be forfeited if the party tendering declines to enter into a contract when called upon to do so, or if he fails to complete the work contracted for. If the tender be not accepted the cheque will be returned.

Tenders are required to make up in the Money columns in the schedule, the total money value of the goods they offer to supply, or their tender will not be entertained.

Each tender must, in addition to the signature of the tenderer, be signed by two sureties acceptable to the Department, for the proper performance of the contract.

In all cases where transportation may be only partial by rail, contractors must make proper arrangements for supplies to be forwarded at once from railway stations to their destination in the Government Warehouse at the point of delivery.

The lowest or any tender not necessarily accepted.

L. VANKOUGHNET,
Deputy of the Superintendent-General
of Indian Affairs.
DEPARTMENT OF INDIAN AFFAIRS,
OTTAWA, 19th MARCH, 1885.