A NEW STEAM TUG.

CONSIDERABLE interest is manifested by lumbermen in the construction of a new and somewhat novel steam tog that has been patented by a Simcoe firm and six of which have already been manufactured by them at their foundry in that town. The tog is aptly called the alligator, as it is intended to be used on land as well as in water. McLachlin Bros., of Amprior, who have three of these tugs in operation speak in highest terms of their usefulness. This peculiar vessel is scowshape with steel-shod runners for moving overland, is 37 feet long, 10 feet beam, decked all over, has sleeping room for men in the bow; the bottom and up the bow covered with steel boiler-plate, engine 23 horse power, furnishes steam for 10 hours' work with three-quarters of a cord of dry wood. In the water it moves six miles an hour, forward or backward as required, propelled by side-wheels. On land it is propelled by having a cable drum on which is coiled five-eights of a mile of steel wire cable, which is fastened with pulleys to a tree or some object in front, the boat moving as the wire is coiled up. The boiler is hung on an asle in the centre, and a screw arranged on the front enables the fireman to tip it forward or back and keep it level going down hill. It will move over an elevation of one foot in three on land and draws about 2S inches in water.

LUMBERING IN SCOTLAND.

S COTLAND as a whole, says J. E. Emerson in the Northwestern Lumberman, is the best timber land of Great Britain and has, I think, more mills for sawing and working timber and lumber. This probably is largely due to her numerous shipbuilding interests. and remarkable enterprise and rigid economy.

Scotland has the best monetary and banking system of any part of the world. Ship building was at one time carried on on the Thames in London, and its immediate vicinity, but as many ship builders were comparatively poor and there was a panic in England, and interest jumped as it often has from 2 to 10 per cent. in one day, and the Bank of England suspended specie payment, as it did during the wars of Napoleon Bonaparte, and the Crimean war, it was dangerous to be in debt and have notes falling due. Sir Walter Scott wrote under the assumed name of "Mullecar Mullagruder" (if I have spelied it correctly) and opposed Scotland's establishing the monetary system of England. For more than one hundred years interest in Scotland has not been more than 2 per cent.

It cost over \$15,000,000 to dredge the Clyde so ships could be launched. I was exceedingly interested in learning the method of doing business in shipbuilding, so I had a bank president explain it. Said he: "We want to know that a shipbuilder is a practical workman and manager. Such a man gets from the Cunand Line or East India, or a reliable nation, ship building to the amount of say \$5,000,000 and comes to us for a loan of \$100,000 until his first payment, which is when the outside or frame is ready for the machinery, and so on at each stage, as the work progresses, until launched, when all is then due. We get the contract at say 1's per cent, interest: if awarded to us he brings us his contract as our security and sends all of his bills, even his labor bill, for us to pay, and we pay them up to the ready for an inspector and we order one that is furnished by our government. Soon he brings in his receipt, that it is done satisfactorily and we then send the receipt to the parties he is building for and draw on them for the first payment. It comes and we place it to his credit, and then go on again, settling every six months, charging him interest for the exact time he has had the money and allowing him half interest for what lies in our bank not used at. Scientific Machinist,

by him. It costs us 34 per cent, to handle money, including all expenses, so that whatever we receive over that is profit."

In all of their doings I found the Scotch a farseeing people and in no way what we may call sharpers. They lay their plans often generations ahead, and what we call "clannish" Scotchmen look after the interests of Scotchmen wherever found.

WOOD PULP SILK.

THE uses to which wood may be put, as anyone who has studied the subject closely knows, are quite wonderful. The "forest primeval" is turned to many different purposes. Alcohol, gas, resin, tar, sassafras oil, oninine, rubber and cork, are only a few of the many products that come from wood as the result of distillation and the application of other scientific methods. But it has been left to a Frenchman to make a silk dress out of a piece of wood. The process seems to be a practicable one, for the inventor has organized a company and is now making the "wood The process of manufacture is given as follows: The raw material is made from wood pulp, such as is used for the fabrication of certain kinds of paper. This pulp is carefully dried in an oven and plunged into a mixture of sulphuric and nitric acids, then washed in several water baths and dried by alcohol. The product thus prepared is dissolved in ether and pure alcohol, and the result is collodion, similar to that used in photography. This collodion, which is sticky and viscous, is enclosed in a solid receptacle furnished with a filter in the lower end. An air pump sends compressed air into the recentacle, and by its pressure the collodion is passed through the filter, which removes all imputities, and flows into a tube placed horizontally. This tube is armed with 300 cocks, of which the spouts are made of glass, and pierced by a small hole of the diameter of the thread of a cocoon as it is spiin by the silk worm. The spinner opens the cock and the collodion issues in a thread of extreme delicacy (it takes six to make a thread of the necessary consistency for weaving). This thread is not, however, fit to be rolled on the spools by reason of viscidity and softness; the matter is as yet collodion and not silk. To produce the necessary hardness, the inventor resorted to a very ingenious but simple method. The little glass tube already mentioned is surrounded by a small reservoir of the same material constantly filled with water; when the thread issues from the aperture in the manner described, it traverses this water, which takes up the other and alcohol, and then the collodion becomes solidified, that is to say, it is transformed into an elastic thread, as resisting and brilliant as ordinary silk.

OIL CANS.

NO engineer should use oil caus with bent and broken norries, and without covers and stoppers, for it gives a forlorn appearance to the whole room. As a rule, steam users will furnish these to some reasonable extent, but the writer has made a practice for more than a dozen years of furnishing his own, wherever he is employed, and the cost has not been excessive, for we have succeeded in keeping an ordinary brass squirt can for two years without accident, although using it every day in oiling valve gears in motion. Sometimes steam users are accused of being niggardly in sum loaned. He comes and says that he is I dealing out supplies, but it may be that there is a reason for this, so that it is well not to be hasty in forming an opinion until you are familiar with all of the facts in the case. If an engineer has been in the habit of using belt lacing, for various purposes of his own, he should not be surprised if the supply is reduced. If he has not been careful of his waste, he should not object if he is put "on allowance." If he has wasted oil he must expect to be corrected for

WANTED AND FOR SALE

Advertisements will be inserted in this department at the rate of 15 cents per line each insertion. When four or more consecutive insertions are ordered a discount of 25 per cent, will be allowed. This notice shows the width of the line and is set in Nongarel type. Advertisements must be received not later than the 27th of each month to insure insertion in the following issue.

WE WANT ALL KINDS OF HARDWOODS, Will pay cash. ROBERT THOMSON & CO., 103 Bay Street, Toronto.

FOR HEMLOCK, DIMENSION LUMBER, hardwood thoring, cedar shingles, piles, sawdust, etc., write J. E. MURPHY, lumberman, Hepworth station, Ont.

WANTED-A SITUATION AS FILER IN A sawmill. Have had nine years experience with gang and round saws. Address "II," 3 Maitland St., Halifax, N.S.

WANTED BY YOUNG MAN SITUATION as book-keeper, cashier or correspondent; rapid worker; energetic, and thoroughly reliable and experiencel; competent to take charge of manufacturers office. Address. "Accountant, care Canada la manufacture Transition." BERMAN, Toronto.

WANTED.

IN CAR LOTS, IN MONTREAL, ELM LOGS not under 25 inches in diameter, als Spruce. Apply to

WM. MCNALLY & CO.,

McGill St., Montreal,

WANTED.

L UMBER, LATH, SHINGLES, CEDAR parts, dals, edgings, and hard and soft cord-word in exchange for word-working machinery.

"Machinery,"

Care CANADA LA MIERMAN.

FOR SALE.

A BOUT A MILLION FEET OF LOGS (AT mill) suitable for bill stuff, etc. Mill can be leased to cut them. Address "Lumberman," care CANADA IX MINDIAN, TOTALE

LUMBERMEN

TAPERIENCED SHIPPER OPEN FOR EN-gegeneat middle of May, Good backeeper and correspondent. Competent to take charge of mill. References furnished. Address' Impector, care CANADA LA MICHAMAN, Toronto.

RAILS FOR TRAMWAYS

N EW AND SECOND-HAND STEEL AND iron rate for transvays and logging lines, from 12 lbs. per yard and upwards; estimates given for exaplete cutin.

JOHN J. GARTSHORL.

49 Front St. West, Toronto.

TO EASTERN STATES LUMBERMEN.

AN ENTENSIVE HANDLER OF PULP wood, fir, spruce, cannot birth and juplar, is desirous of finding a market for same in the Lastern States - New York or Braton preferred. It prepared to ship any size required per schooner from Quebec. Parties handling same should communicate with

lling same suomo communitations (LCAL, care Canada Luminessian, Toronto.

FOR SALE

A WELL-ESTABLISHED, THRIVING LUM-FA her business, being one of but two yards in a rapidly growing manufacturing city of zeross inhabi-tants, surrounded by a well-to-do farming class. Sales the past year over 550000, which can be doubled. Capital required about \$15,000. Terms casy. Reason for selling, ithress of Manager. Address

"Good Opportunity, Care Canada I Cherkhan,

WANTED FOR CASH.

A SH AND SOFT ELM DIMENSION STOCK cut to exact sizes. Apply for specification, prices, etc., to

P.O. Box 2144.

NEW YORK.

WANTED FOR CASH

Ash and Soft Elm

ASH AHU SOIT EIM

MOSTLY ONE-INCH, SOME ONE-AND-Aquarter and one-and-a-half inch, strictly firsts
and seconds; also commons. Furtherm-use, Ash and
Oak squares from one-and-a-half to four mehes thick,
Red Birch Lumber, L and H., all thickness; also Red
Birch Squares 82 card 636 ten feet and over long.
Address all jurticulars as to dryness, quality, quan
ity on land and price, to P.O. Bys 2144, New York,
N.V.

SAW MILL AND TIMBER LIMITS For Sale.

THE UNDERSIGNED OFFERS FOR SALE.

I his Mill Property, situated in the town of Peter-boro, known as the Point St. Charles saw mill, together with piling grounds, pond, bosons, chains, anchors, ropes, horses harness, wagons, sleight, shamy and driving outfits. Also, the Galway linets and about 15,000 pieces of logs on Nogeys Creek and Swamp lacke, composed of pine, cedar and hemlock. For all information mult be. A. McDONALD,
Point St. Charles,
Peterboro, Ont. information apply to

SAW AND SHINGLE MILL

FOR SALE

At Proton, Station on the G.P.R.

Containing 312 Acres of Land Mill Capacity from 10,00 to 15,000 feet per day

PHE PROPERTY IS SITUATED IN ONE of the best hardwood districts in the country. Two small houses, stable, etc., on the property. Mill is running, and can be seen at any time.

Terms casy.

For full particulars apply

213 QUES STREET EAST, Toronto.

IMPORTANT SALE

LARGE AND VALUABLE

TRACT OF TIMBER AND MINERAL LAND

THE TEMBER AND MINERAL PROPERTY of the Scotish Carolina Timber & Land Company, Lumted, in liquidation, studie in Haywood and Madison counties, western North Carolina, will be offered for safe at public auction at the Court-House door, at Knoxyille, Tennessee, on

Wednesday, June 14th, 1893

HOURIDOUGH, SOUTH 17401, 1070

This splendid tract of kind is estimated to contain alant forty theorand acres, a large part of which is heavily timbered with paplar, whitespare, cherry, walnut, hickory, maple, brach, lasses word, bernbock and other woods. After the tumber is removed from the lands, the property will still is valuable for agricultural and grazing putty see, and for the rich deposits of fromore and other minerals upon it.

This property having come into the hands of mornagees, must be sold, and offers a rare chance to investors or practical lumbermen. For further description or particulars, apply to

LEON JOUROLMON, Ausmry, Knowille, Tennessee.

VALUABLE

Timber Lands

- AND - Saw Mills

FOR SALE

AT PARRY SOUND

THE MILL IS SITUATED ON THE WATLRS of Party Sound, and has good shipping facilities. The largest vessels or steamers on the false can lead at the lumber docks. The mill will out about twenty thousand feet of lumber and twenty-five thousand shingles in ten bours.

There are about seven thousand five hundred acres of timber pine, hemberk, birch, ash, sak, sprace, basswood, etc.

The timber is free of dues.

Parry Sound is the terminus of the Ottawa, Arnjoios and Parry Sound Railway, 1000 in process of con-ATTECTION.

Proce: Twenty-five thousand clothers.

Terms as may be agreed upon.

WM. BLATTY.

Parry Sound.