exported from the country instead of being sawed and then shipped out, the cost of towing logs across the lake is \$1.25, and the freight on lumber varies from \$1.25 to \$2.00. The Canadian boat competes with the American boat for the carrying of the lumber and the towing of the logs, both being open to boats of either nationality, and the only possible loss being the difference between the freight bill and the tow bill.

If, on the other hand, the Canadian Government imposes an export duty on logs, the import duty on lumber to the United States rises proportionately, and the timber would be left standing in the woods, as it could not be exported in the shape of either logs or lumber, but the whole lumber business, the most important manufacture of the country, is completely paralyzed, and the forests stand idle for years a prey to the fiend a forest fire which has already destroyed so much valuable property.

## SECOND PAPER.

THIS is not the trifling matter many suppose it to be of allowing a few sawlogs to be exported free of duty to Michigan for the use of the people of that State, now that the lumbermen have about gleaned it of pine timber; it is whether the Government of Canada is to any longer continue to give a bonus equal to \$2 per M. to American millmen to encourage them to transfer the manufacture, shipping, etc., of our forest products from Canada to the United States.

A trade which, while the export duty on sawlogs was the same as the American import duties on our sawn lumber, amounted to a mere interchange of about a like quantity of sawlogs, has now, under the special advantages granted Americans, become of vast and, in its evil effects, alarming proportions. While the exact amount is not yet known, it is reported that nearly 200,000,000 feet of Canadian pine sawlogs were towed over from the Georgian Bay and Lake Huron districts to stock Michigan sawmills last year, an amount equal to double the whole exports of sawn lumber from Quebec to the United States; and it is now computed that the sawlogs to be exported free of export duty this year will amount to fully 400,000,000 feet, or about as much as the entire cut of deals and lumber manufactured by the mills in the Ottawa district last year, and four times the whole exports of all kinds of sawn lumber from Quebec to the United States, every foot of this vast amount to go out of our country to the United States free of any duty whatever, while every foot of our sawn lumber must pay a duty when entering that country. Well may our American friends boast that "they will make the waters of the lakes smooth towing over Canadian sawlogs to stock Michigan sawmills."

That we of Quebec must rely for the future more upon the spruce industry than the pine is evident from the growing scarcity of pine timber, and it consequently behooves us to see that this industry is not needlessly sacrificed. The Crown Lands reports show us that whereas the proportion of spruce to pine taken from Government lands twenty years ago was little over ten per cent., and ten years ago about twenty-five per cent., it is now about forty per cent., which percentage must of necessity increase from year to year as pine timber becomes more difficult to obtain; and as our pine timher is chiefly shipped in the form of timber and deals to the English market, where it has no competitive wood of like value and is little affected by the American lumber duties, the spruce of Quebec has not only to compete in the English and other foreign markets with similar wood from the North of Europe, but also in the the United States markets with the lower qualities of pine lumber manufactured in Michigan from Canadian sawlogs which by this vicious policy are allowed to be exported to the United States free of duty and there manufactured into lumber at a bonus to the Americans of \$2 per M. so long as the logs go free and the Americans exact a duty of this amount on our spruce lumber. It is this condition which in a measure accounts for the difference between the prices obtained by the province of Quebec for spruce limits and the province of Ontario for pine limits at the recent sales of timber limits.

The Americans have now no interest in making Canadian lumber free, for in getting the logs free they not only get free lumber but also the manufacture and shipping in their own country, and one can readily conjecture what effect this must have on the lumber industry of Quebec if the Americans can supply themselves, which they appear determined to do, and will no doubt contimue to do, so long as we are senseless enough to permit them, with pine sawlogs free of all duty on either side of the line they will not care to purchase much of our spruce lumber on which they would have to pay \$2 per M, duty when entering their country, unless at a price so low as to be ruinous to our manufacturers.

It is no satisfactory answer to the foregoing to say that the American government, having now reduced the import duty on pine lumber from \$2 to \$1 per M., and that if we re-impose the export duty on sawlogs the rate of \$2 becomes restored to pine lumber imports; for he American government did not reduce the import duties on pine lumber on our account, nor on account of our removal of the export duty on sawlogs, which might Le inferred from the statements made on the floor of Parliament by a gentleman engaged in the business of exporting Canadian sawlogs to the United States, but the duties on pine lumber were reduced at the almost universal demand of the people of the United States for absolutely free lumber; and the restoration of the export duty on sawlogs (which every candid American, even many of those who are engaged in towing over Canadian sawlogs to their mills in the United States, admits to be only fair under the circumstances), by increasing the price they would then have to pay for pine lumber, would at once result in an imperative demand by the people of the United States to accept our lumber free in exchange for free logs. The twaddle reiterated by those interested in getting our logs free of export duty, and who unfortunately for us are also interested in keeping the American import duties on pine lumber as high as possible, about the Americans retaliating by further increasing the import duties on pine lumber, which they must now have from us in increasing quantities owing to the decreasing supplies in their own country, or that it would irritate them or any one except those who are "robbing" us of our timber, is simply nonsense.

Nor does Canada stand to lose anything by the re-imposition of the export duties, as some are so urgently insisting it would by at once restoring the import duty on pine lumber to \$2 per M., the same as that exacted on our spruce lumber; for the altered conditions, instead of reducing the price of pine lmber here, as many ignorantly imagine it would do, would have just the contrary effect of increasing the value of our pine lumber about \$1 per M. feet; for, if the Americans have to pay \$2 per M. export duty on the sawlogs they must of necessity increase their prices on the lumber made from these logs to this amount, or what would have about the same effect, cease to manufacture, which would at once increase the price by lessening the production.

But, whatever may be the resulting effects, the present policy of our Government on this subject being, in so far as Canadian interests are concerned, destructive to our forests-destructive to our manufacturing-destructive to our shipping-destructive to our labor, ruinous and unpatriotic in every aspect, must at once be completely changed if our country is to derive any substantial benefit from our forest resources.

In asking this we are only asking even-handed justice. If the Americans admit our spruce and other lumber free, they can then have our logs free, but not otherwise. and even then they have advantages which we well know from past experiences they would be chary in granting us under like circumstances.

WILLIAM LITTLE.

## THE DISCOVERER OF STEAM POWER.

INVENTION, a journal devoted, as the title would indicate, to the subject of inventions and inventors, tells the pathetic story of Solomon Caus, a Normandy scholar, who lived in 1576 and thereafter, and wrote many scientific works, all of which led up to his conception of an idea which resulted in the transformation of his whole life into a tragedy. After pestering the king and the cardinal of Paris, he was ordered to be taken to Bicetre-the mad house-and there shut up. was done. They had just one way with mad people in those days. They shut them in iron cages and fed them through the bars like wild beasts. They did this

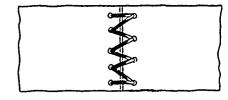
to Solomon Caus. For a long time he stood behind those bars all day and called to those who would listen, and to them repeated the story he had told the cardinal. He became the jest of the place. Some of them gave him writing materials, and then, amid the misery of his surrounding, he wrote down his ideals and amused his jailers so much the more. However, it could not be long before such a life, such surroundings, would shatter any brain. In time Solomon Caus was as mad as every one believed him.

It was in 1624 that an English nobleman, Lord Worcester, went to Paris and visited Bicetre. As he was passing through the great court, accompanied by the keeper, a hideous face with matted beard and hair, appeared at the grating, and a voice shricked wildly, "Stop! stop! I am not mad, I am shut up here most unjustly. I have made an invention which would ennch a country that adopted it." "What does he speak of?" the marquis asked his guide. "Oh, that is his madness," said the man laughing. "That is a man called Solomon Caus. He is from Normandy; he believes that by the use of the steam of boiling water he can make ships go over the ocean and carriages travel by land; in fact, do all sorts of wonderful things. He has even written a book about it which I can show you." Lord Worcester asked for the book, glanced over it and desired to be conducted to the writer. When he returned he had been weeping. "The poor man is certainly mad now," he said, "but when you imprisoned him here he was the greatest genius of the age. He has certainly made a very great discovery." After this Lord Worcester made many efforts to procure the liberation of the man, who, doubtless, would have been restored to reason by freedom and ordinary surrounding, but in vain; the cardinal was against him, and his English friends began to fancy that he himself had lost his senses, for one wrote to another, "My lord is remarkable for never being satisfied with any explanations which are given him, but always wanting to know for himself, although he seemed to pierce to the very centre of a speaker's thoughts with his big blue eyes that never leave theirs. At a visit to Bicetre he thought he had discovered a genius in a madman, who declares he would travel the world over with a kettle of boiling water. He desired to carry him away to London that he might listen to his extravagancies from morning till night, and would, I think, if the maniac had not been actually raving and chained to the wall."

Thus, in Bicetre dic the man to whom, after his works were published, many people gave the credit of being the discoverer of steam power, and it is said that from the manuscript written in his prison, Lord Worcester gathered the idea of a machine spoken of as a "water commanding engine," which he afterward invented. Historians have denied that Caus died in prisotn, but there exists a letter written by Marion de Lorme, who was with Lord Worcester at the time of his interview with Caus, which establishes the fact beyond doubt.

## SIMPLE BELT LACE.

In lacing a belt, says an experienced machine man, the lacing should never be crossed on either side. To lace a belt in the manner illustrated herewith make one more hole in one end than in the other so there will be



a hole in the middle of one end, which is the place of beginning. Draw the lacing to its middle through this hole, lace each way to the edge and back to the middle again, and you will have a smooth joint.

## A THREE CENT STAMP DOES IT. .

ON receipt of a three cent stamp we will mail free to any address a copy of our little hand-book entitled "Rules and Regulations for the inspection of pine and hardwood lumber," as adopted by the lumber section and sanctioned by the Council of the Board of Trade, of Toronto, June 16, 1890. Address, CANADA LUMBER-MAN, Toronto, Ont.