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DEVOTED TO THE MANUFACTURING INTEREST OF THE DOMINION

Vol. 19. TORONTO, SEPTEMBER 5, 1890. No. 5.

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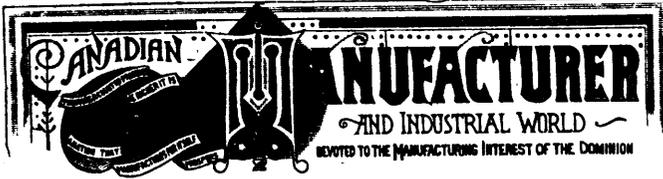
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63 Front Street West, Toronto.

THE TORONTO EXHIBITION.

WE take pleasure in stating that the Toronto Industrial Exhibition Association have assigned the Canadian Manufacturers' Association their accustomed office room in the Press Building, on the Fair Grounds, and that it will be occupied during the ensuing two weeks during the continuance of the Fair. All members of the Manufacturers' Association will make this their headquarters during the Fair; and all Canadian manufacturers, and all friends of the CANADIAN MANUFACTURER, are invited to make use of the accommodations we will have there to offer them. As usual, the latch string will be outside the door; and on the inside will be found conveniences which will be appreciated under the circumstances. The forthcoming Fair promises to be exceedingly interesting to all concerned, and particularly so to manufacturers. The management have done all within their power to make it thus, and they will undoubtedly succeed, as they always do. The Toronto Fair is always of great pecuniary advantage to exhibiting manufacturers.

THE FARMER'S CONDITION.

FARMING in Canada at the present may be described without much exaggeration as "a slave mill worked with many tears and God knows what of pining." The industry is depressed elsewhere, in the States as well as in Britain; but common sense tells us that the farmer's lot cannot be improved at such times, or at any other, by burdening him with taxes which augment the cost of production, and, to that extent, aggravate his poverty.—*Toronto Globe*.

This is the language of a wailing and woe-begone Jeremiah who is constantly bathed in Free Trade tears. It is a fair

specimen of the utterances that fill the *Globe* from day to day; from which an uninformed reader might suppose that Canadian farmers were sitting in sackcloth and ashes, vainly looking for a relief from misery that makes their life a burden and their couches beds of thorns. There is no statute law prohibiting such pessimistic expressions, and the patriotic sentiments that should possess every lover of Canada and impel him to refrain from speaking other than words of encouragement to all strugglers in life, find no reflex in the columns of the *Toronto Globe*.

No level-headed farmer in Canada entertains the idea that he can produce crops without manual labor, and a great deal of it. He does not live in an age of miracles, and he remembers the divine fiat that man shall earn his bread by the sweat of his brow. The *Globe* contends that farming in Canada is in a depressed condition, and it admits that this condition prevails in the United States and also in Great Britain. The condition in the United States is extremely bad, judging from the reports made from time to time of the mortgage incubus that is bearing so heavily upon the farmers of that country; and we know that the condition in Great Britain is infinitely worse; for there the farmers and farm laborers are constantly forsaking the farms and flocking into the cities, or leaving the country because farming does not pay, while thousands of acres of farming land are constantly being abandoned as such and converted into sheep walks and game preserves.

It is not claimed that the condition of the Canadian farmer is any worse than that of the American or English farmer, nor is it even claimed that it is as bad, but the only panacea for the ills he bears that the *Globe* has to offer is either Free Trade with all the world, such as prevails in Britain, or Annexation to the United States. Annexation is not the word used, but the sentiment is concealed behind the more deceptive term, Unrestricted Reciprocity. These are the only alternatives. The impression is sought to be created that the Canadian farmer is in a deplorable condition, and this is preached to him until he is inclined to listen; and when he asks, "What shall I do to be saved?" the tempter whispers either "Free Trade" or "Unrestricted Reciprocity," as the occasion may suggest.

Perhaps the most deceptive argument presented to the Canadian farmer is that which declares that his prosperity and that of Canada depends upon the foreign trade of the country. No account is taken of the internal trade, immense as it is; the *Globe* even going so far as to liken it to the traffic between the corner grocery and the pantry of the consumer. It contends that if a farmer has a thousand bushels of wheat to sell it is better for him and for the country to send it to Liverpool, and bring back the value of it in British merchandise, than to send it to Toronto and take back his supplies from this city. In one instance the transaction would represent valuable foreign trade, and in the other instance an insignificant corner grocery and kitchen pantry traffic. There is no objection to be advanced to foreign trade where the object of that trade is to dispose of whatever surplus of grain or anything else we may have after supplying our home wants, and in bringing into the country whatever we may desire that we cannot produce ourselves. If we have a surplus of grain, pork, lard, cattle or lumber we send it to the best and most available foreign market, and sell it at prices prevailing there;

and if we desire jewels, linens, fine raiment, wines and other luxuries, such as are not produced at home, we buy in foreign markets on the best terms we can obtain. But when we can sell our products at home, and when our wants can be supplied from home sources, it is evidently better that we should thus trade in our home markets, where all concerned are benefited. The Canadian producer makes a profit on all he sells, whether at home or abroad, and he is benefited to that extent. It is evident the foreign producer also makes a profit on what we import; and if such merchandise could be produced at home it is also evident that the profit on it would accrue to the home and not the foreign producer. In the foreign trade business but one profit—that on the exports—accrues to the Canadian, while the other profit—that on the imports—accrues to the foreigner; while in the entirely domestic trade both profits remain at home.

This home market business is also likened to boys swapping jack-knives. We are told that a lot of boys may engage in this home market occupation and push it to its utmost extent, and still at the end of the day each boy may have a jack knife different from the one he started with in the morning, but no more valuable; and that the time employed in trading had been wasted. This would be true if the business of life consisted only and entirely in exchanging one kind or class of products for some other kind or class of products; but this illustration is offered only to deceive and mislead; for the business of life is of a higher and different character, and this difference is the thing that some importers and traders persistently shut their eyes to. Thomas Ruffin, of Virginia, declared that he who caused two blades of grass to grow where only one grew before was a benefactor of mankind. The earth may be filled with riches—gold, silver, precious stones, coal, iron—the land may groan under its wealth of timber—the sea may abound with fishes—but none of these things are of the least benefit to man until the labor of man has been expended in converting them into merchantable commodities; and in doing this wealth is produced. This is not swapping jack-knives. In Canada all these diversified products are required for consumption and use. But some of them are produced in excess of the demand; and when this is the case the surplus must find sale in foreign markets. So, too, where the supply is not sufficient to meet the demand, the deficiency must be supplied from elsewhere, and the wealth acquired in foreign countries, in producing this merchandise, is lost to Canada. Nay, more, Canada is bled for it.

As far as the Canadian farmer is concerned, it is evidently better that he should sell all his produce at home than to be obliged to send a portion of it abroad. How is he to do this? He is more interested in the multiplication of consumers of farm products at home than in finding markets abroad. If he is producing articles for which there is a good home demand he readily sells all at remunerative prices; and if there is a tariff duty upon such articles brought from abroad, that duty is his Protection. If there is an unsatisfied demand in Canada for any farm products it would be better for him to engage in the production of them than give his energies to producing articles that he must export. What would be the effect of Free Trade upon him? One great desideratum with him is to find consumers, and another is to find consumers at home.

Circumstances not necessary here to allude to make it impossible that Canadian manufacturers can compete on equal terms with foreign manufacturers; and because of this inequality tariff duties were interposed. Now if these duties were withdrawn and the protecting influence of the tariff removed, the manufacturing industries of the country would languish, and the thousands of consumers of farm products employed in them would cease to be consumers and would become producers of farm products, in competition with the farmer. This would be restricting the consumption, a thing very much against the interest of the farmer, and multiplying the production, another thing antagonistic to the farmer's interest.

THE FOREIGN MARKET FOR GRAIN.

AN anti-Protection contemporary alludes to the fact that during the Dominion election canvass in 1878, one of the pictorial appeals which the Manufacturers' Association distributed represented a large factory with tall chimneys, towards which farmers were hauling bags of wheat marked \$1.50 per bushel. It ridicules the picture and declares that town property has not experienced any advance in value since then in consequence of the multiplication of factories, and that the farmer has not obtained \$1.50 for his wheat. It inadvertently admits, however, that Liverpool and not the farmer fixes the price of the wheat, and that the cheaper grain of India and Russia is the determining factor.

It goes without argument that Liverpool fixes the price of all wheat exported from any country for sale. Qualities being equal the wheat of Canada or the United States, where farm labor is worth, say an average of one dollar a day, is worth no more in Liverpool than wheat from India, where farm labor is worth less than ten cents a day.

Regarding this matter of Great Britain fixing prices for the rest of the world, regardless of the cost of production, discussing the fact that "Britain can easily absorb all our surplus farm products," the *Toronto Globe* says:

But John Bull is not a sentimental person—he wants to get everything at the lowest figure, and will purchase the cheapest article even if it has been grown under a foreign flag. In order to enlarge our business with him, therefore, it is necessary not only that we should develop our agricultural lands by securing population from the outside, but that we should be able to undersell all competitors. Of late years what are known as the cheap-labor countries have been repairing to his market with all sorts of products. Steam and electricity have annihilated distance, and, yoked with capital, have been instrumental in opening up to cultivation regions which half a century ago had all they could do to feed themselves without anything being left over for export. If we wish to increase our trade, then, we must cut prices to the lowest notch. Unfortunately the N.P. stands in the way. It exalts the price of everything the farmer has to buy, that is, makes everything dearer than it ought to be, and than it is in most of the countries referred to; so that the cost of producing food products is augmented, and to that extent we are disabled at the start in the fierce struggle for the survival of the cheapest.

And this is the feast to which Canadian farmers are invited. John Bull is not a sentimental person—he wants wheat, and he invites the world to send its surplus to him. He will not pay one penny more for Canadian wheat raised by labor cost-

ing a dollar a day, than for Indian wheat raised by labor costing less than ten cents a day—he wants everything at the lowest figure, and will purchase the cheapest wheat, no matter where it may be grown. Our farmers are told that if they desire to enlarge their business with this unsentimental person—if they desire to sell him more wheat than what they now have to dispose of, it is necessary that they should be able to undersell all competitors, including the ryots of India, whose services in raising wheat can be had at less than ten cents a day. In other words, if the Canadian farmer desires to pass his home market by and look only to Britain as the best market for the disposal of his wheat, he must cut down his expenses in producing his wheat, so that they shall not exceed the expenses incurred by his Indian competitors whose labor costs less than ten cents a day. How is this to be done? Suppose the Canadian farmer should value his individual services at less than ten cents a day, he must have other help to do the work; and this help must come either from those of his own family—his sons, his daughters and his wife, or he must hire outside help. Where can he obtain outside help for carrying on his farming operations at a cost of less than ten cents a day? Certainly not in Canada. Such help must come from some country where labor is worth much less than ten cents a day, otherwise an offer to come to Canada and work for ten cents a day would not be a sufficient inducement. The *Globe* says that the development of Canadian agricultural lands in the production of wheat, must be done by “securing population from the outside”—that is, from countries where labor can be obtained for very much less than ten cents a day. What countries are there where such cheap labor is to be found? In the zenith of slavery times in the United States negro labor was worth much more than ten cents a day; and the only way the cheapest of negro slave labor could be had for Canadian wheat farms would be by a return to a system of human slavery, and the wholesale importation of human slaves from Africa. This would be probably the cheapest labor that could be had with which cheap wheat could be produced in Canada, but even with such labor Canada could not expect to successfully compete with India, and then outside the *Globe* office and Free Traders generally, a prejudice exists in Canada against involuntary servitude except for crime. There are districts in China whence very cheap labor may be obtained; and the same may be said of India, but Canadian sentiment is averse to employing either Asiatics or Africans as farm laborers, or as any other kind of laborers in Canada.

Under these circumstances we do not perceive how Canadian farmers can hope to successfully compete with Indian farmers in the unsentimental John Bull market. The *Globe* tells us that of late years what are known as “cheap labor” countries have been repairing to the John Bull market with all sorts of products—that steam and electricity have annihilated distance and been instrumental in opening up to cultivation regions which half a century ago had all they could do to feed themselves, without anything being left over for export. This is a fact which Canadian farmers would do well to remember; and they should also remember that, in the language of the *Globe*, “If we wish to increase our foreign trade, we must cut prices to the lowest notch.” This means that if Canadian farmers desire to devote their energies to the production of

wheat or anything else to be sold in Great Britain or any foreign country, they should understand that their success in the business depends entirely upon the cheapness of the labor they employ in that business. “Cheap labor countries,” such as India, China and Russia, can produce wheat at a small fraction of what it costs to produce it in Canada, and, as this great cheapness is the result of very cheap labor, to enable Canada to successfully compete in the John Bull market, labor in Canada must be correspondingly cheap.

THE SURVIVAL OF THE CHEAPEST.

CANADIAN Free Trade newspapers are proclaiming to Canadian farmers that their only hope of success lies in exporting their wheat to England, and that if they hope for success in the business they must cut their prices to the lowest notch, so that they can compete with such cheap wheat producing countries as India and Russia. They say that the great obstacle in the way of this cheap production is the higher prices they have to pay because of the tariff; that the N.P. exalts the price of everything the farmer has to buy, so that the cost of production is augmented, and to that extent Canadian farmers are disabled in the fierce struggle for “the survival of the cheapest.”

In another article is discussed this question of Canadian farmers cutting prices “to their lowest notch,” and how it is to be accomplished. It is shown that in selling wheat in England the Canadian farmer has no voice whatever in fixing prices—“that John Bull is not a sentimental person,” but wants to get everything at the lowest possible figure, and that the cheap wheat of India, raised at a cost of less than ten cents a day for labor, fixes the price for all that is sold.

The *Toronto Globe* gives us some interesting and important facts regarding this wheat raising in India, with which it so strongly urges Canadian farmers to compete. It tells us that the yield of wheat there this year amounts to the equivalent of over 252,000,000 bushels against 24,500,000 bushels in Canada. In 1877-8 the exports of wheat from India were valued at \$14,300,000 while in 1888-9 the value was \$37,600,000, an increase of more than 260 per cent. Railroad construction is experiencing a boom there, to which is attributed in large part the large increase in the wheat acreage, and the removal of one of the disadvantages under which India labored in competing in wheat growing with the American continent. Another disadvantage, the want of grain elevators, is likely soon to disappear, as the Indian Government is now taking active steps looking to the construction of them in that country. “The price of labor and the cost of living in India,” the *Globe* says, “are ridiculously low as compared with the same items in Canada”; and that altogether there seems to be good ground for the statement made in a memorandum issued by the India Office that “the capabilities of India as a wheat growing country are only just beginning to be known.”

The average duty upon imports of British merchandise into Canada is about 20 per cent.; which means that if British merchandise was admitted free that which now costs one dollar might be had for eighty cents. Admitting that Free Trade might be an entirely good thing for Canadian farmers, and that they could buy all their supplies for twenty per cent. less

than they now cost, the question the farmers would have to face would be whether it would be to their interest to lose the home market they now possess, or so much of it as is represented by the demand for farm products by those employed in manufacturing industries, and send their wheat to Liverpool to be sold in competition with Indian wheat. The Free Traders tell the farmers that the only hope of bettering their condition and of gaining more in their wheat growing occupation is to have this twenty per cent. duty removed. Any intelligent farmer can figure out what this means. He can comprehend that if in a year he purchases say five hundred dollars worth of goods, a remission of duty would enable him to buy the same goods for four hundred dollars. To do this, however, he would have to relinquish the income he had previously obtained from selling in his home market, not only his wheat, but those more profitable articles known as farm truck, and in which is included milk, buttermilk, butter, cheese, eggs, poultry, pigs, honey and fruits and vegetables of all sorts. Under the tariff all these things would be in active and remunerative demand for consumption by the workers employed in the factories and workshops in the neighboring town; but under Free Trade these factories and workshops would be closed, and the workers in them would cease to be consumers of this farm truck, and would become producers of wheat in competition with the old farmer. This is a certain and reliable way by which farm labor may become cheap; but the cheapening of it in this way certainly cannot be of any advantage either to the farmer who would employ it, or to the worker who would have to accept the low wages. The whole tendency of the process would be to depress the interests of the farmer until he could obtain his labor as cheap or cheaper than farm labor can be had for in India; and it would steadily depress the price of labor until it was worth as little or less than it is worth in that country. There is no escape from this for either the farmer or the farm laborer, and we defy the *Globe* or any Free Trader to show the contrary.

If all other conditions remained unchanged—if tall chimneys throughout the land continued to belch forth smoke, indicating the presence of workshops and factories in which thousands of workers found employment; if the farmer loaded up his waggon every day and sold out his truck to these employees: if there was always a good demand at remunerative cash prices for all he had to sell, and if his market was at his own door, then if he could supply his wants for dry goods, clothing, blankets, boots and shoes, sugar, coffee and all the other articles included in his constant every day wants for twenty cents on the dollar less than he now pays, he should be accorded the privilege of doing so. But this cannot possibly be done. There is a great difference between the conditions that prevail in England under Free Trade and in Canada under Protection. England is profiting by centuries of civilization and advancement, and surrounding fortuitous circumstances, the like of which can never occur to Canada. As a nation England is full grown and well equipped with every appliance for maintaining her most enviable position. On the other hand Canada as a nation is in her infancy, not yet having discarded her swaddling clothes. England reached the acme of her greatness and glory by and through Protection; and when Protection had done its perfect work, and England was the

commercial mistress of the world, she changed her policy. Other nations are going through the same processes and are reaching the zenith of prosperity—the United States has already done so. Canada will do as England did and as the United States is doing.

TRADE WITH BRITAIN.

In 1889 Great Britain imported 58,000,000 hundred-weight of wheat, the sources of supply being about as follows;

Canada	1,200,000 cwt.
United States	17,000,000 "
Russia	21,000,000 "
India	9,000,000 "
Roumania	3,000,000 "
Australasia	1,400,000 "
Other countries	5,400,000 "

India produced less than 16 per cent. of the total quantity, but because of the cheapness of production in that country, and of her ability to sell at an exceedingly low price, the price for the wheat from all the rest of the world is regulated and made by the price of Indian wheat. We are told that John Bull is not a sentimental person, and whatever he buys will be at the lowest figure. The question we will consider is whether it is worth while for Canada to enter into competition with India in producing wheat for the British market.

Time was, and that within the memory of living men, when the farming interests of Britain were of great importance. They were of so much importance that the strongest sort of tariff Protection was thrown around them—a Protection so exacting that the penalty of death was imposed for certain violations of it. There were other than farming interests, however, and all these, too, were, or had been, fostered by similar protection. She was Mistress of the Seas, and one of her poets sang:

"The wind and waves are Britain's wide domain,
And not a sail but by permission spreads."

Intent upon attaining this supremacy, she had from time to time driven the ships and commerce of all other nations from the ocean. Her merchantmen traded to all foreign ports, and her war vessels protected them in their voyages. At home her iron and coal mines were developed, her furnaces produced iron, her foundries and machine shops converted it into machines and machinery; her factories converted the raw materials contributed by all the world into finished products that were returned to them, and her farmers supplied the food wherewith to feed this wonderful army of artisans, merchants and seamen. But as the manufacturing and maritime greatness of Britain increased, it was found that her farmers and agriculturists were unable to supply the consuming classes as cheaply as it could be done from other countries. Having established her maritime supremacy by force of arms, and having established her manufacturing industries by her system of Protection, until they had arrived at a period when that Protection was no longer required, Great Britain, in the repeal of her Corn Laws, deliberately struck a blow at her farming interests from which they have never recovered.

Ever since the repeal of the Corn Laws the condition of the British farmers has been getting worse and worse. Under the new Free Trade policy, the protection that had previously been extended was withdrawn; and the cheaper

wheat of America and other countries quickly drove British wheat out of the British market, or so crippled the industry that the British farmer was thrown in a suffering and impoverished condition. He was driven out of his own home market, and from the nature of things he was prevented from going into any other market. The value of British farming lands has been depreciating ever since, and as British farms were abandoned for wheat growing, they were turned into sheep walks; and the transition from sheep walks was steadily towards conversion into deer parks and game preserves. The once prosperous farmer with his broad acres and green fields, giving employment to large numbers of farm laborers, gave way to fewer shepherds; and these in turn retired in favor of still fewer game keepers. This accounts to a great extent for the steady migration that has been going on for the last forty years of the sturdy yeomanry of England to the United States, Australia, the Argentine Republic and other countries. At first these disgusted and impoverished agriculturists, abandoning their rural pursuits, flocked into the manufacturing towns; and this is the general course of the movement at this time. These additions to the classes laboring in the manual trades tended to the depression of wages; and the aggravation of this situation has continued to increase, until now the picture is presented of a comparative paucity of occupants of rural lands, and a plethora of impoverished working people in all the manufacturing centres. British philanthropy is actively engaged in devising ways and means for sending the farming element out of the country; and British statesmen are constantly engaged in devising ways and means for still further depressing the condition of this same farming element. Certainly the condition of the British farmer is a most deplorable and unenviable one.

Does any farmer in Canada desire to occupy such a position? Does any farmer in Canada doubt that the conditions that wrought such misery to the British farmer would prevail here if similar influences were at work? Does he suppose that British statesmanship would imply any more consideration for a Canadian than for a British farmer? What has British statesmanship ever done for the Canadian farmer? It offers him free access to British markets for his surplus wheat; but this is not because Britain cannot produce all the wheat she requires. The offer ends right there. But this offer is open just as wide to America, to Russia, to Roumania, to the Argentine Republic and to India as it is to Canada. John Bull is not a sentimental person. His object is to hold and maintain supremacy over all the world as a maritime, a mercantile and as a manufacturing nation. Only this and nothing more. He has no regard whatever for his farmers, none for his farm laborers, none for his mechanics and artisans, none for anything or anybody that he cannot use for his own selfish aggrandisement. His farmers may migrate to wherever they please, he does not care; his farm laborers may flock to the manufacturing towns—that is what he wants—to make labor cheap. His mechanics and artisans, with their wives and little ones, may be dying of starvation; his dock laborers may strike in vain for an advance in wages of a penny an hour; his policemen and postmen may faint and fall by the wayside because their pay does not allow them sufficient food, but John Bull, this unsentimental person, does not care. If the bettering of the condition of these hum-

ble classes means an increased cost in conducting his favorite enterprises, so much the worse for the humble classes, but the ships must sail the sea, the merchant must make his shipments and realize his profits, and the ring of the anvil, the whirr of machinery and the hum of the factory of his manufacturers must be heard.

Wherein is there hope for betterment for the Canadian farmer in this situation? Common sense would say, "Try to be independent of him." Try to create such a condition at home as will enable you to live within yourself. Build up home markets, and cater to the wants of them. Canadian artisans and working people are better and more generous liver than similar classes in Britain. The Canadian farmer can always count on selling at fair prices all the truck he has to sell. If he hauls it to his nearest market he can realize good hard spot cash for it. But he cannot do this if he confines his farm operations to growing wheat for the British market. The ryots of India can grow wheat much cheaper than he can. The foreign trade idea so sedulously preached up by the Free Traders is, to a large extent, a delusion. The farmer can be benefited more by the trade between the tail gate of his wagon and the kitchen pantry of the employees of the factories and workshops in his nearest market town than he can possibly be in the freight carried back and forth across the ocean. The home market is the hope and the salvation of the Canadian farmer.

CHAUTAUQUA

MR. ERASTUS WIMAN, Chief Conspirator, of Staten Island, New York. Hon. J. W. Longley, Attorney-General of Nova Scotia, First Grave-digger. Professor Goldwin Smith, of "The Grange," Toronto.

THESE are three honorable gentlemen engaged in an occupation, the tendency of which is to dishonor Canada. This occupation is an endeavor to make Canada bend the suppliant knee to Hail Columbia. This bending of the suppliant knee business consists in endeavoring to make Canadian farmers believe that their interests are at the mercy of Hail Columbia. It consists further in endeavoring to sell out the manufacturing industries of Canada to those of Hail Columbia. Another endeavor is to show that anything that Hail Columbia can make or produce is much better than anything Canada can make or produce. To emphasize these ideas this trinity of disloyalists arranged to have a grand pow wow last week at Chautauqua, near Niagara-on-the-Lake, to which delightful spot they invited the farmers of the Niagara Peninsula, and of Ontario, and of all Canada, to come and hear what they had to say regarding their fad. The place was well chosen, for the surroundings were pleasant and the accommodations ample. The weather was all that could be desired.—Sweet day, so cool, so calm, so bright—and all that was lacking to make the occasion a most unbounded success was the aforementioned congregation of farmers. But the farmers didn't materialize worth a cent. They had been there before—that is, they knew who Mr. Erastus Wiman was, also Professor Goldwin Smith, for lo! have we not them with us always? and the other card failed to draw. Hon. J. W. Longley, Attorney-General of Nova Scotia, was as new to them as a five cent collar button on the tray of the fakir at a country fair. If Hon. Longley had billed himself as a prancing stallion of some famous pedigree,

the aforesaid farmers might have been taken in, and have paid the ten cent admission fee to the show. But he neglected to do this, but advertised that he was to be seen in company with the other conspirators. The aforesaid farmers didn't "catch on." They knew Erastus, and they knew Goldwin, and if John W. was a bird of that feather they didn't hanker for him. They thought he was that sort of a bird, and they concluded that the flock were degenerate specimens of the genus *Buteo*. The odor of the *Buteo* does not resemble that of strawberries, or peaches and cream. The farmers of the Niagara Peninsula know a good thing when they have it: and they know how to avoid a disagreeable odor. On this occasion they avoided the disagreeable odor these honorable gentlemen had prepared for them. The stench was wasted on the desert air. The farmers didn't materialize. The accommodations afforded seating capacity for probably four thousand persons, but alas! less than four hundred were present. The gate receipts were not large; and at the close of the funeral services, probably because there was no gate money to divide, Mr. Wiman chalked Hon. Mr. Longley's hat and franked him through to New York. Professor Smith had a season ticket on the Chicora, and he, too, succeeded in returning safely to "The Grange." And thus fades away and dissolves the airy castle that Mr. Wiman and his co-conspirators have been working so hard and so long to have materialized into a solid sentiment and a tangible fact. The putrid reminiscence of the Chautauqua fizzle remains and stinks in the nostrils of Mr. Erastus Wiman, Hon. J. W. Longley and Professor Goldwin Smith. There were not mourners enough to give the carcass a decent burial.

EDITORIAL NOTES.

THE home market is the hope and the salvation of the Canadian farmer.

IN the British market India wheat fixes and regulates the price of Canadian wheat.

CANADA should be independent—she should not be compelled to compete with India in the British market.

EVER since the repeal of the Corn Laws the condition of British farmers has been getting worse and worse.

CANADIAN farmers would do well to study history and learn the fate of British farmers on the repeal of the Corn Laws.

THE repeal of the Corn Laws drove the British farmer into exile and the British farm laborer into want and misery.

CANADA does not want to have the protection to her farmers ruthlessly destroyed as was that of British farmers by the repeal of the Corn Laws.

WILL the *Toronto Globe* please explain the difference between "exotic" and "indigenous" industries as applied to Canadian industrial enterprises?

INDIA produces less than 16 per cent. of the wheat imported into England, and yet India, because she is the cheapest producer, fixes the price of all wheat sold in the British market.

THERE is more money for the Canadian farmer in the trade between the tailgate of his market wagon and the kitchen pantry of the factory workman in his nearby home market, than there is in sending wheat to Liverpool to be sold in competition with Indian wheat.

THE *Montreal Herald* persists in saying that bread and meat and clothing only are the commonest necessities of life. To those who have been differently raised, tea and coffee and fruits are also common necessities; and with some a whiff at the pipe after dinner is not a luxury, but a necessity.

THE *Toronto Globe* wants Canadian farmers to enter the fierce struggle in the Liverpool wheat market and compete with India. It speaks of the "survival of the cheapest." This means that if Canadian farmers, whose labor is worth ten times as much as Indian labor, cannot produce wheat as cheaply, they must go to the wall.

IF we wish to increase our trade with John Bull we must cut prices to the lowest notch.—*Toronto Globe*.

The trade the *Globe* speaks of is that of sending wheat to Liverpool. The "lowest notch" is that fixed by Indian wheat in the Liverpool market. Are Canadian farmers making so much money growing wheat that they are willing to "cut prices to the lowest notch" to enable them to compete with the cheap wheat of India? Well, no; not just yet.

IT is said that Canadian Bessemer iron ore, equal in quality to Lake Superior ore, could be laid down in Cleveland, Ohio, for \$3.90 per ton. The *Philadelphia Record* doubts this story, but adds: "If this be correct, it is folly to pay \$6.50 and \$7 per ton. The tariff duty of seventy-five cents per ton ought not to exclude the Canadian article."—*Monetary Times*.

Mr. T. D. Ledyard, who controls a valuable Canadian Bessemer iron mine, says that the ore can be laid down in Cleveland, duty paid, for \$3.90 per ton. American furnace men should bear this fact in mind and investigate the property. The American duty ought not to exclude the Canadian article from the American market.

IN order to enlarge our business with John Bull it is necessary not only that we should develop our agricultural lands by securing population from the outside, but that we should be able to undersell all competitors.—*Toronto Globe*.

This means that if we want to increase our foreign trade—that is, sell more wheat than we now do—we should have cheap farm labor—say Chinese or Indian. If we do this we can possibly be able to undersell India in the Liverpool wheat market. We cannot do this at present from the fact that Canadian farm labor costs more than ten times as much as Chinese or Indian labor. But is it necessary that Canada should compete on these terms with India for the British wheat market?

LAMPREYS have put in an appearance in large numbers in Toronto Bay, and bathers run considerable risk of losing some blood in consequence. Probably the eels feel that they have as much right to bleed Canadians as Sir John's Government and the combines. They appear to have much in common. The lamprey, though belonging to the eel family, is very much like the leech in its appetite for blood, while the protected

combines possess many of the characteristics of the horse leech.—*Montreal Herald*.

The only lampreys that have been discovered in Toronto Bay were some seen clinging to the carcass of a jackass that was seen floating on the water. The jackass in question is supposed to have been an hireling of the Cobden Club that had brayed itself to death running so called funny Free Trade gags about Sir John and the combines. It is more desirable to be a live lamprey than a dead jackass.

FOLLOWING is a law of the Dominion of Canada regarding Reciprocity with the United States that has been upon the statute books for years :

Any or all of the following things, that is to say: Animals of all kinds, hay, straw, vegetables (including potatoes and other roots), salt, peas, beans, barley, malt, rye, oats, buck wheat, flour of rye, oatmeal, buckwheat flour, butter, cheese, fish of all kinds, fish oil, products of fish and all other creatures living in the water, fresh meats, poultry, stone or marble in its crude or unwrought state, lime, gypsum or plaster of paris (ground, unground or calcined), hewn or wrought or unwrought burr and grindstones, and timber and lumber of all kinds unmanufactured in whole or in part, including shingles, clapboards and wood pulp, may be imported into Canada free of duty, or at a less rate of duty than is provided for by any Act at the time in force, upon proclamation of the Governor-General, which may be issued whenever it appears to his satisfaction that similar articles from Canada may be imported into the United States free of duty, or at a rate of duty not exceeding that payable on the same under such proclamation when imported into Canada.—51 V., c. 51., s. 2.

A GOOD deal of money has been sunk (in Canada) beyond hope of recovery in N.P. enterprises, such as cotton and steel making which has no legitimate reason for being.—*Toronto Globe*.

WE should have been ever so much better off as a community had the capital which has gone to establish and operate exotic been invested in indigenous industries, possessing free access to the American market.—*Toronto Globe*.

This is the encouragement this un-Canadian paper offers to Canadian manufacturing enterprises. Cotton goods were never so cheap in Canada as now; and considering the size of the plant, and the capital invested in it, the only steel manufacturing concern in Canada is doing a fine and profitable business. Is the capital which has gone to establish and operate the *Globe* been invested in an exotic or an indigenous industry? Has the success which it is claimed has attended the *Globe* resulted from its "free access to the American market"? If so, why don't it cross over and become American in location as well as in fact? If not so, why does it make its living by depreciating its country and its industries?

FOLLOWING the announcement that the Halifax Cotton Company want to sell out their unprofitable business comes the intimation that Messrs. Wm. Parks & Co., of St. John, N.B., the largest manufacturers of cotton yarn in the Dominion, have suspended. This is the second time that firm has been in difficulties since 1879; previous to that time it did an excellent and paying business, its cotton yarns having an almost continental reputation. The suspension of the Messrs. Parks will be much regretted by all who have known or done business with them. Like other cotton companies, they have had an overdose of the N.P.—*Montreal Herald*.

Charging the unprofitableness of the Canadian cotton industry to the National Policy is exceedingly silly and nonsensical. If

the *Herald* knows anything whatever of the tariff it should know that no duty is imposed upon the raw cotton consumed in the mills; and that it can be laid down in Halifax or St. John as cheaply as at Fall River or Lowell in the United States, or at Manchester in England. Free Traders constantly tell us that it is the duty upon raw materials that handicaps our manufacturing industries, but our cotton mills are not thus hampered. Then why does the *Herald* say that Canadian cotton companies "have an overdose of the N.P.?"

THE National Policy duties on pig iron do not seem to be booming that industry to any extent. The production in 1886 was 22,192 tons; in 1887, 24,827 tons; in 1888, 21,799 tons. In fact, pig iron production seems to be on the down grade. What has it cost the people of Canada to produce these 21,799 tons? First of all there is the duty on imported pig iron which went into the treasury, amounting to \$288,459. Then, as the consumer pays the duty, the \$4 per ton on our own production will be \$87,196. Then the bounty of \$1 per ton will be \$21,799. These three items foot up \$397,454, which the people of Canada pay to enable the highly protected blast furnaces to produce 21,799 tons of pig iron. Is the game worth the candle?—*Montreal Herald*.

The trouble with the Canadian pig iron industry is that the duty is not high enough. In the United States, under a tariff for revenue only, the manufacture of pig iron was in a languishing condition, and England supplied nearly all of the demand. When the duty was advanced to \$9 per ton an impetus was given to the industry that resulted in the multiplying of furnaces and the production of pig iron to such an extent that that country now produces as much of that article as Free Trade England does. But this result could never have been attained under a low and inadequate duty; and the existing duty and bounty in Canada, being also entirely inadequate, can never effect the successful establishment of the industry here. The duty is too low.

MR. WANAMAKER has other new ideas besides pirating an English encyclopedia for his bargain counter. He is winning fame in his official capacity as postmaster-general. He has designed two new kinds of postal cards, which will shortly be issued. One of the new cards, called the ladies' card, is to be pearl grey in color, and adapted for sending shopping orders by mail. In the first place, does Mr. Wanamaker know any woman who can get the whole of such an order on the back of a postal card? The other card is a business man's card of somewhat better quality than the present post card in general use. No one pretends that a great public need existed for these cards, but with a treasury overflowing with money, the surplus must find a vent somewhere.—*The Empire*.

The information Mr. Wanamaker does not possess affecting his duties as postmaster-general of the United States he should seek for in the office of the *Empire*. But why does the *Empire* constantly declaim against Mr. Wanamaker, who, as a private citizen, as that paper says, "pirates an English encyclopedia," while it is constantly offering a bogus Webster's Unabridged Dictionary as a premium for subscriptions? Is this not trying to obtain money under false pretenses? A good dictionary is a good thing, but dictionaries, like other things, become obsolete, and an obsolete dictionary is worse than no dictionary. This is the character of the spurious and unauthorized dictionary the *Empire* is offering as a premium for subscriptions.

A REMARKABLE case of fecundity has come to light in Montreal. A worthy lady of that city has recently died at the age of ninety-two years, leaving behind her 303 living descendants. Had all of her descendants lived they would now number 448 souls. She was the mother of seventeen children, 145 grand-children, and 286 great-grand-children. This speaks volumes for Canada, and shows that when an important industry is properly protected, encouraged and nursed, the results will certainly be most gratifying. Under Free Trade this state of affairs would have been simply impossible. Protection did it.

THE *Mail* says that "booms are not prosperity," that they are simply fevers, and are destructive to commerce. Yet the *Mail* resorts to many tricks whereby to "boom" itself. Thus it offers premiums for advertising, although it proclaims that because of its merits the advertiser will surely be fully remunerated; and it offers premiums for subscriptions, although it assures the public that an investment of the subscription price will be worth all its costs. It offers bogus and obsolete dictionaries as premiums, well knowing that the book is of no value, but a delusion; and some of its efforts to "boom" itself would bring a blush to the jowls of the greediest hog that ever climbed into the swill trough with four feet and a snout.

SPRINKING of the importance of diversified farming, the *Toronto Globe* says:—"The late Mr. Norquay spoke of it in 1882, in a speech which he made to a number of new settlers from Ontario. He also advised them not to put all their eggs in one basket—to go in for mixed farming rather than for all-wheat. The results show pretty clearly that those who have adopted mixed farming have done much better than the one-crop men." We thank the *Globe* for this testimony refuting its usual position regarding the foreign trade question. The "one-crop men" are those who grow wheat for export; and, as we have frequently shown, they can never become wealthy at it, having to contend with the cheap labor of India. It is those who have adopted "mixed farming" who obtain the confectionery—those who, as Mr. Norquay advised, do not put all their eggs in one basket. This diversified farming can only be perfected under Protection; and this fact the farmers will bear constantly in mind. This journal constantly urges the importance of diversified industries, particularly in farming, but the *Globe* has always preached the contrary doctrine. The diversity can come to the farmer successfully only under Protection and in the presence of large numbers of consumers engaged in manufacturing industries.

THE veteran statesman who finds relief from politics in felling trees and writing essays on the use of pork in the Homeric age, has been telling the English peasantry about cottage-gardening and fruit-farming. Mr. Gladstone's remarks were upon the line of Prince Kraptokine's celebrated papers. He spoke of the success of "small culture" in Belgium, France and Italy, and of fruit farming in England. Cottage gardening, he said, promoted good, wholesome tastes, and increased the comfort and means of laborers and their families, even if they sent nothing to market.—*Toronto Globe*.

The delightful old gentleman can tell the English peasantry

how to raise bananas, oranges and lemons in hot-houses, and how doing this promotes good taste and enables them to have a "sour" when wanted, thereby increasing their comfort, "even if they send nothing to market," but he does not tell them that under Free Trade British farming is a failure. What the British farmer wants is not more knowledge of "small culture," but protection in their wheat raising against the cheap labor of India.

A FEW days ago a young man in a fashionable Toronto retail store was detected in the embezzlement of a few dollars from his employer. He pleaded for leniency, declaring that the money he had stolen had been used for purchasing needed clothing. His salary was five dollars a week only, and he could not pay his board bill and make a presentable appearance behind the counter, as he was obliged to do, on that opulent income. The Magistrate gave the young man a severe lecture, also six months behind the bars. The unfortunate fellow was wrong in allowing himself to be overcome by temptation, but how about the moral wrong by his employer? He well knew that five dollars a week is not sufficient to pay board and enable the recipient to dress decently. This merchant is a generous patron of the daily newspapers, and frequently occupies much space in them advertising the wonderfully cheap bargains he offers to buyers. Are these cheap bargains offered at the expense, in whole or in part, of the clerks who are paid only five dollars a week? It would seem so. The Magistrate expressed much righteous indignation at the dishonorable conduct of the culprit, but he neglected to suggest that the case might have been different if he had been treated with more justice, not to say generosity.

THE *Toronto Mail* ridicules the idea of the Government issuing paper money. It says: "History tells how futile are the efforts to create prosperity by means of paper promises to pay;" and it points to the Argentine Republic as a sad warning, saying that paper money has been the bane of that country, and is now the great drawback to its progress. That depends. If those who manage a nation's finances thoroughly understand their business, there can be no objection to the system; if they do not understand their business, disaster will undoubtedly result. It is with nations as with corporations and individuals. It is no reason to believe all the banks in the country to be unsound and their officials corrupt and incompetent because of the sad experiences of the Central Bank. A judicious use of paper as evidences of wealth is essential in all financial and mercantile transactions. It is not necessary to go to South America to find an example of unsound financeering with paper money wherewith to sustain an argument in one direction, while the unbounded success that resulted from the adoption of such a system can be found in the neighboring Republic in North America. If the injudicious use of paper money led to the disaster in Argentina, the judicious use of paper money was an important factor in the salvation of the United States.

A FREE TRADE contemporary argues that the foreign trade of a country is the only true measure of that country's pros-

perity. The country is prosperous according to the quantity of home products sent to a foreign country, and the quantity of foreign products brought in. The internal trade of the country is not to be considered as an evidence of the country's thrift any more than the trade that is carried on between the corner grocery and the pantry of the consumer. In showing the absurdity of this contention Horace Greeley, who was a strong advocate for American Protection, used this forcible illustration. "Suppose," said he, "that the baking of bread had been an industry totally unsuited to the United States, and that it had to be carried on, and could be carried on successfully only in England; all the flour used in the United States would have to be first exported to England made into bread, and then shipped back again. The volume of the foreign trade of the United States would then be tremendous. Scarcely shops enough would be found for the business, and seamen would be employed by thousands where hundreds answered the purpose. Yet there would be no gain to the world in all this foreign trade, but on the contrary, great loss would ensue." Will our Free Trade contemporaries inform us if, under such a condition, the country would be benefited by the foreign trade; or would it not be better off if the business was all done at home?

In order to divert attention from the unfortunate condition into which the National Policy has brought Canada's once flourishing cotton industry, some of our Conservative contemporaries have adopted the expedient of calling attention to what may be a fact, that there is a depression in the cotton industry in Fall River, Mass., forgetting that it has been brought about by the same cause as that which has played havoc with Canadian mills, namely, over-production under the stimulus of an exorbitant tariff. This is only comparing one Protective country with another. Why not compare the cotton industry in Canada and United States with cotton industry in Free Trade England? There everything is flourishing, the mills running full time and paying handsome dividends to the proprietors and stockholders. Not much wonder our Canadian cotton mill-owners feel lonesome and want to sell out.—*Montreal Herald*.

It is surprising that any one who could write such stuff as the above should be allowed to go at large; perhaps the writer of it is one of the recent escapes from the Longue Pointe asylum. The absurdity of it is in the statement that the over-production of cotton goods in Canada and the United States is the result of "the stimulus of an exorbitant tariff." Wherein, pray, does the tariff unduly stimulate the industry? There is no duty upon the raw material, and the importation of it into Canada is as free and untrammelled as it is into England. It is well to compare the industries in the two countries. In Canada the wages of the operatives are high, and because they are high the mills find it difficult—in some instances impossible—to keep going; while in England, as the *Herald* says, "the mills are kept running full time and paying handsome dividends to the proprietors." That is just the point. In England wages are at the starvation point, and because they are, the mills are paying "handsome dividends." If Canadian operatives were paid only English prices, Canadian cotton mills would be paying dividends also

SPECIAL ADVERTISEMENTS.

Advertisements will be accepted for this location at the rate of two cents a word for the first insertion, and one cent for each subsequent insertion.

TISDALE'S BRANTFORD IRON STABLE FITTINGS.—We lose no job we can figure upon. Catalogue sent free. The B. G. Tisdale Co., Brantford, Canada.

FOR SALE.—Plant for making Washers, consisting of power press, with full set of dies, small shears and tumbling barrel. This is the only washer making machinery in Toronto. Apply to 10 and 12 Pearl Street, Toronto.

A DYER—Blue vats and fancy colors in wool and piece. Fast carriage green cloths, tricots, flannels, etc., etc. Am at present engaged in the States, but desirous of coming to Canada. Address, GUBELINUS, this paper.

FOR SALE.—In town east of Toronto, Two Set Woolen Mill, fully equipped and in good running order; never-failing water-power, main building stone, 50x150 feet, three stories; picker house, brick, 24x30, two stories; railway and water convenient for shipping, will sell with or without machinery. For further particulars, address this office.

FACTORY TO LET.—Ten years lease; containing about 11,000 feet of floor space, fitted up complete with engine, boilers, shafting, steam heating, gas light and water service fixtures throughout; adjoining building can be had if desired; five floors, each 30x110, with hoist. Apply to Samuel May & Co., 111 Adelaide Street west, Toronto.

FOR SALE in Kent County, Michigan, the Buchanan Mill property consisting of a first class lumbering mill the extensive water power in connection with it including the entire power furnished by the river with real estate on both sides of sixteen acres, situate one mile from Main Street of Lowell, a rich farming country surrounding an excellent location for paper mill, furniture factory, woolen mill and the many uses that require power. Also a splendid home and farm of 87½ acres with buildings, fruit, evergreens etc. For further information all at the premises of JAS. R. BUCHANAN, Lowell, Michigan.

TO MANUFACTURERS—The Town of Thorold, Welland County, Ontario, is a splendid site for manufactures of all kinds, and reasonable encouragement will always be given for the settlement of bona fide industries. It is situated on the boundary between the Counties of Lincoln and Welland; population, 3,000; lighted by electricity (public and private circuits); electric street railway connection with the City of St. Catharines, four miles distant; nine miles from Niagara Falls; the New and Old Welland Canals, also the Welland (G.T.R.) and Niagara Central Railways, all run through the town; water power from the canal; bonded debt small; situation, on the brow of the mountain, overlooking Lake Ontario, most picturesque; public health not excelled; five churches; first-class High school, also two Public and one Separate school. Any information desired will be cheerfully given by application to JAMES LAWSON, Mayor.

"GOOD HOUSEKEEPING has an elaborate synopsis of an ancient cook book published in London more than 200 years ago, the recipes of which will make very interesting reading for the housewives of to-day. *Good Housekeeping* is always well filled with articles of interest to lady readers, especially relating to the home and how to beautify it and make it attractive. It always contains exceedingly interesting articles that pay well to read, and the reading matter is always of that description that is welcome to refined households. Clark W. Bryan & Co., Springfield, Mass.

THE *London Advertiser* has sent us a brochure in which is contained the press comments on the banquet tendered Mr. John Cameron, late Editor in Chief of the *Toronto Globe* on the occasion of his retirement from that position to resume the active management of the *Advertiser*. Mr. Cameron is well known in journalistic circles, and this souvenir cannot but be acceptable to his many friends, embodying as it does the editorial expressions of many of the leading newspapers of both Canada and the United States. Politically, Mr. Cameron is "our meat" whenever we can get a bite at him—personally he has our highest respect. The little publication before us is artistic and beautiful, and shows what the *Advertiser* Printing Company can do in that direction.

"DARWINISM AND POLITICS," by David G. Ritchie, M.A., Fellow and Tutor of Jesus College, Oxford; to which is added "Administrative Nihilism," by Prof. Thomas Henry Huxley, F.R.S.—paper, 15 cents: The Humboldt Publishing Co., 28 Lafayette Place, New York. In his able essay Mr. Ritchie contends that the phrase "survival of the fittest" is very apt to mislead, for it suggests the fittest or best in every sense, or in the highest sense, whereas it only means, as Professor Huxley has pointed out, "those best fitted to cope with their circumstances."—The publication of Professor Huxley's "Administrative Nihilism" is well timed, and fits in with the preceding essay. The two essays form a very interesting number of "The Humboldt Library of Science."

MR. GEORGE W. CHILDS, proprietor of the *Philadelphia, Penn., Public Ledger*, has sent us "Recollections of General Grant," to which is added the story of the Stratford-upon-Avon memorial fountain; an account of the memorial window to Herbert and Cowper in Westminster Abbey; the window commemorative of Milton in St. Margaret's church, London, and the Andrews and Ken reredos in Winchester, England, all of which were gifts of Mr. Childs. There is also much other interesting and appropriate matter in the book, including a portrait of the author. It does not require the unbuilt monument in Riverside Park, New York, to remind the world of the great General, the recollections of whom Mr. Childs has so pleasantly written. Being dead, the hero of Appomattox and of the Rebellion lives in history and in the hearts of all lovers of popular government. Englishmen, generally, also have cause to love and respect Mr. Childs for what he has done in perpetuating the memory of some of the greatest names of England, and for this alone his book should find wide sale in Canada.

"WIDE AWAKE," for September, presents a *menu* of most appetizing and tempting description. Its table of contents include a beautiful frontispiece, "Along the Trout Brook," "The Last Baseball of the Season," "Helen's Tower," "Rijane," a continuation of "The Quest of the Whipping Boy," a continuation of "The New Senior at Andover," and many other delightful literary dishes, served with illustrated sauce. The illustrated article, "Capturing a Sea Cow," is exceedingly interesting and truthful; the tragedy, "She Did Not Go to Cooking School," imparts a lesson that all young ladies might study with profit; "The Little Hohenzollerns" give an insight into the domestic life of the German Emperor who wants to be the grandson of his grandfather. Of course no family where there are young people can afford to be without literature appropriate to them upon the reading table, and this literature should be of the very best description. This being the case, of course *Wide Awake* is what is wanted—it is "just the thing"—and the price, 20 cents a number, \$2 40 a year, places it within the reach of all. D. Lothrop Co., publishers, Boston, Mass.

HON. L. E. MUNSON, of New Haven, Conn., has sent us a recent number of *Yale Review*, in which is published an article by him, entitled "A Commercial Union with Canada." A perusal of the article impresses the idea that the writer had been a guest of Mr. Erastus Wiman and had listened to some of that gentleman's yarns about the desire of the people of Canada to be annexed to the United States. Many of Mr. Munson's facts have been stated time and again by Mr. Wiman, Mr. Butterworth, Mr. Hitt, and other American Annexationists, and are not new, though the publication of some of them is suppressed in Canada by the Annexationists here for obvious reasons. Mr. Munson's great and vital mistake is in supposing that Canada desires political union with his country, in

that she is ready and willing to sacrifice her manufacturing and industrial interests to those of the United States for the sake of obtaining free access to that market for our raw products. Canada will never do this thing, and this fact should be constantly borne in mind by our American friends. It is unfortunate for both sides that so much prominence and importance should be attached to the misleading utterances of un-Canadian Canadians. If Mr. Munson could make it convenient to visit Canada and investigate the question he would change his mind concerning it.

HON. JOSEPH NIMMO, JR., late of the United States Bureau of Statistics, has sent us the following publications: "The Inter-State Commerce Act, the Commercial Interests of Boston and of the New England States, and the Canadian Question," the same being a statement addressed to the United States Senate Committee on Relations with Canada, in reply to inquiries propounded by the chairman, Senator Hoar, and other members of the Committee; and "The Chimera of Commercial Union with the Dominion of Canada," a reprint of a letter written by Mr. Nimmo to the *New York Tribune*. These pamphlets discuss the subjects indicated in the titles from an ultra American standpoint in a manner which Mr. Nimmo occupies exclusively. The gentleman does not seem to have any love for Canada, or at least for her as a competitor with the United States for the highest honors of continental nationality. Canada, in Mr. Nimmo's view, would be a good country to annex to his; but it makes him furious to think that Canada would rather carve out her own destiny than allow her Yankee neighbor to do it for her. He barks furiously, but the noise don't hurt, and there is no danger in it. We would be glad to have the gentleman come over to this side and stay long enough to discover what good fellows Canadians are, and how they are persistently working to make their country the successful rival of his in all that makes a nation great.

CARPET making is just now a little slack, but the prospects for fall trade are becoming better. It is strange that Canadians do not call for better grades of carpet than they do, as manufacturers have demonstrated that we can produce designs and styles which would be a credit to any country. The Elora carpet was a proof of this, but the demand for low goods proved a damper to all ambition in that line.

EVERY season shows marked improvement in the binding machines and mowers offered to Canadian farmers, and simplicity and strength in the parts where it is most required, are marked features. The knoter has always been a source of trouble in the harvest field, but we know that the binders for 1891 will embody a simplicity in the construction of this important adjunct which will be hailed with pleasure. The prices of binders are now down to the ordinary cost of a reaper some years ago, which places this wonderful labor-saving machine within the reach of all.

THE Brandon Manufacturing Company, Toronto, have sent us their new illustrated catalogue of fall and winter goods manufactured by them. In it is found represented all the old and well known lines of the company's goods, and in addition some new ones to which they invite special attention; and in this connection they mention the fact that they have made a number of changes in children's sleighs which make them more than ever desirable. They speak of the general excellence of the workmanship and material of them, and of their elegant finish. The company have facilities for manufacturing on a larger scale than ever before.

ONLY a century ago charcoal iron was produced to the extent of 30,000 tons yearly; twenty years later the product was but 53,000 tons. Even Great Britain in 1788 produced only 68,300 tons, not so much as some furnaces in the United States now turn out yearly. The manufacture of steel was just beginning in the States; twenty years later only 917 tons were produced in this country. The coarsest pig iron then cost about as much as steel rails do now. Last year the American product of pig iron was 9,480,739 tons, and the highest price of best foundry pig was \$21 a ton. The output of steel rails was, in round numbers, 1,350,000, and the best price \$31.50. A single American railway now buys more iron than both Great Britain and the United States made a century ago. There were neither railways, iron bridges nor buildings; no petroleum pipes, for there was no petroleum; no gas pipes, for there was no gas lighting even in Europe until later. Washington lived in an age of darkness; instead of the electric light, the people had candles costing about two cents apiece. The steamboat was practically unknown, and the railway entirely unknown until forty years later. In fact, a new world has been created in this century.—*London Iron.*

Manufacturing.

This department of the "Canadian Manufacturer" is considered of special value to our readers because of the information contained therein. With a view to sustaining its interesting features, friends are invited to contribute any items of information coming to their knowledge regarding any Canadian manufacturing enterprises. Be concise and explicit. State facts clearly, giving correct name and address of person or firm alluded to, and nature of business.

MR. G. C. GRONES, of Fergus, Ont., will build a flour mill at Austin, Man.

MESSRS. S. TAYLOR & SONS, will remove their woolen mills from Columbus to Oshawa, Ont.

MR. F. W. GALBRAITH'S saw and planing mills at Bethany, Ont., were destroyed by fire Aug. 23rd.

MESSRS. JOWETT & Co's sash and blind factory at Paris, Ont., was destroyed by fire Aug. 23rd, loss about \$2,000.

THE Hanover Spring Bed and Upholstering Company, Hanover, Ont., has been incorporated with a capital stock of \$25,000.

THE Peterborough Lock Manufacturing Company, Peterborough, Ont., will increase its capital stock from \$50,000 to \$200,000.

MESSRS. CLIFF & FORSTER are asking the town of Lucknow to loan them \$5,000 wherewith to establish a furniture factory there.

THE town of Lucknow, Ont., has voted to grant a loan of \$5,000 to enable Messrs. Cliff & Foster to establish a furniture factory in that place.

THE planing mill of the Cobban Manufacturing Company, Toronto, was damaged by fire on August 29th to the extent of about \$14,000.

THE American Whip Company, Hamilton, Ont., are applying for incorporation with a capital stock of \$100,000 for the manufacture of whips, lashes, etc.

THE factory of Messrs. Lowell & Co., manufacturers of curtains, rugs, Paris, Ont., was destroyed by fire Aug. 23rd., and machinery and stock totally consumed.

MR. LAVELL, an American, is establishing a fruit evaporating factory at Brockville, Ont., which will give employment to about forty hands. Score another for the N.P.

A PORTION of the hardware and stove manufacturing works of Messrs. H. R. Ives & Co., at Longueuil, near Montreal, was destroyed by fire August 20th, loss about \$25,000.

THE Standard Needle Company, Paris, Ont., who are the only makers of sewing machine needles in Canada, are now meeting with gratifying success in the manufacture of these goods.

THE Diamond Glass Company, with head quarters at Montreal, has been incorporated with a capital stock of \$10,000, and will build a factory and manufacture window glass and glassware.

THE town of Aylmer, Ont., has voted to grant a bonus of \$30,000 to Messrs. James Hay & Co., as an inducement for them to remove their furniture factory from Woodstock, Ont., to that place.

MR. H. CALCUTT, Ashburnham, near Peterborough, Ont., has commenced an addition to his brewery for the manufacture of lager beer, which he will have in running order for the next season.

PENMAN'S No. 2 knitting mill, Paris, Ont., is being put in first class order during the period of low water in the river, and necessary repairs are being made to the water-wheel, bulkhead, etc.

THE foundry and machine shop of Messrs. A. Robb & Sons, Amherst, N.B., together with a considerable quantity of machinery and machines, were destroyed by fire August 28th; loss about \$50,000.

MR. D. MCPHADEN, Victoria, B.C., is building a planing mill and sash and door factory at that place, the machinery for which will be supplied by the Waterous Engine Works Company, Brantford, Ont.

MESSRS. WILEY & Co.'s wincey mill, in Paris, Ont., is running night and day, and the proprietors are crowded with orders for their goods, which seem to have met the wants of the trade to a remarkable degree.

THE Dominion Railway Supply Company has been incorporated with a capital stock of \$100,000, and will erect works at Windsor, Ont., for the manufacture of railway appliances, machinery, tools and supplies.

THE Dominion Government have contracted with the Pictou Foundry Company, Pictou N.S., for the construction of six fog alarm apparatus to be placed at important Canadian headlands for the benefit of navigation.

MR. GEORGE COXON, Toronto, is bringing out a new machine for the manufacture of wire heddles. The new machine will turn out more than double the quantity in a given time than can be produced on his present machine.

IMPROVEMENTS are being made on the premises of the Truro Foundry and Machine Works. The moulding shop is being raised, improved and enlarged, preparatory to a more extensive output of machinery.—Truro, N.S., *Sun*.

MESSRS. MARTIN, MITCHELL & Co., Winnipeg, Man., are advertising for tenders to build an elevator of 12,000 bushels capacity at Martinville, Manitoba, on the Morris-Brandon branch of the Northern Pacific and Manitoba Railway.

MESSRS. HENRI CHATEL and Vilbon Monast, of Central Falls, R.I., will establish extensive saw mills on or near Lake St. John, in Eastern Quebec. They will bring their own operatives and prepare lumber for the American market.

THE Westminster Woolen Mill Company, New Westminster, B.C., has the only woolen mill in the Province. It is a one-set mill, and its products are blankets and flannels. The local supply of wool is about sufficient to supply the mill.

THE James Smart Manufacturing Company, foundrymen and manufacturers of stoves, ranges, etc., will move their works to Toronto if suitable inducements are offered them. If the change is made they will give employment to about 200 hands.

MR. J. ROUSSEAU, New Westminster, B.C., has recently put considerable new machinery and appliances into his tannery works. His products are sole, harness, skirting and saddle leather, and lace and belting leather, of which latter he makes a specialty.

THE Auburn Woolen Company of Peterborough, Ont., of which Mr. James Kendrey is manager, has recently made extensive improvements in their premises, making their several acres of ground among the most beautiful and attractive spots in Canada.

A COMPANY has recently been organized in Halifax, N.S., to work the extensive marble deposits at Marble Mountain near West Bay, that Province. Active operations will be commenced at once. The company is chartered as the Bras d'Or Marble Company, Limited.

THE Breithaupt Leather Company, Berlin, Ont., has bought out and succeeded to the tannery business of Messrs. Louis Breithaupt & Co., of that town. Messrs. Louis J. and John C. Breithaupt, who composed the old firm, are the principal stock-holders in the new company.

THE Waterous Engine Works Company, Brantford, Ont., recently furnished the machinery for a new saw mill erected by Mr. J. Lineham, at Calgary, Man. This machinery consisted of a sixty-horse power engine, circular saw, shingle mill, planer and other articles of machinery.

MR. J. H. SCHOFIELD, of the Paris Manufacturing Company, Paris, Ont., is in the Maritime Provinces, in the interests of the works of which he is manager. Mr. Schofield is a tireless hustler after orders, and generally manages to keep up with the procession when knitted goods are wanted.

MESSRS. REID & CURRIE, New Westminster, B.C., have recently added a new building to their foundry and machine shop, 188x36 feet. They manufacture brass and iron castings, and do general work in building and repairing machinery, engines, etc., giving employment to about thirty hands.

MR. THOS. NICOL, of Wawanesa, Man., is bringing lumber from Minnesota to build four new elevators on the Morris-Brandon branch of the Northern Pacific Railway, in Manitoba. The elevators will be located at Balda, Hilton, Wawanesa and Brandon, and will have a capacity of 33,000 bushels each.

SHIPBUILDING is brisk in Cumberland county, N.S. At Two Rivers two schooners are on the stocks; at Advocate Harbor two vessels are being built; at Spencer's Island, at Etonville, at Ward's Brook, at Balchford's River, at Diligent River and at Brockville five vessels are rapidly approaching completion.

THE capacity of the flour mill of the Lake of the Woods Milling Company, at Keewatin, is placed at 1,600 barrels per day. When it is known that the mill is kept running constantly, day and night, it will be seen that when running at its full capacity, something over a barrel of flour per minute can be turned out.

A LARGE iron steamship has been chartered to load lumber at the Moodyville mill, Burrard Inlet, B.C., for Melbourne, Australia. She will carry 1,500,000 feet. This is a new departure in the lumber trade, as heretofore only sailing vessels have been engaged in the export lumber trade of British Columbia.

Messrs. W. T. COSTIGAN & Co., of Montreal, have rented the lobster factory at Campobello, N.B., for the purpose of canning hardines in oil and mustard. They have put in a new plant, and it was expected the factory would be running full swing by the beginning of the month, employing forty or fifty hands.

THE Alderly Brick and Terra Cotta Company has been formed at Victoria, B.C., with a capital stock of \$50,000, for the manufacture of first class pressed facing brick, common brick, drain pipe, terra cotta mouldings and ornaments, flower pots, etc. The company have acquired extensive and valuable clay beds.

IN view of the immense Manitoba grain crop just harvested, and which is to be moved to market, the Canadian Pacific Railway Company have ordered the construction of 1,000 grain cars to be ready for delivery by October 1st. The orders were placed with the car works at Ottawa, Cobourg, London and Kingston, Ont.

THE Berlin Piano Company, Berlin, Ont., has been incorporated with a capital stock of \$100,000. The names of the first directors of the company are a guarantee of the success of the concern. The names of these gentlemen are Messrs. H. L. Janzen, J. Kaufman, Benjamin Schlichter, L. J. Breithaupt and Martin Nelson.

THE council of South Cypress, Manitoba, at their last meeting introduced a by-law to grant a bonus of \$3,000 to induce some one to build a roller mill at Glenboro, Manitoba. The adjoining municipality of Argyle will, it is expected, give about \$2,000 more, making it \$5,000, which it is thought will secure the erection of the mill.

THE Londonderry Iron Company, of Acadia Mines, N.S., are making preparations to work the extensive deposits of spathic ore at their mines at that place. Gas kilns for roasting 250 tons of ore daily are being erected. The old blast furnaces will be raised fifteen feet, and capacity of each increased to 500 tons pig iron weekly.

THE Stormont Cotton Company, Cornwall, Ont., requiring more storage room, are erecting a building for that purpose near their mills. It is of frame, 100x36 feet in dimensions, and is capable of holding between 1,500 and 2,000 bales of cotton. The side walls are fifteen feet high. The building rests upon ninety six stone piers, two feet square.

WOOD STONE is the name of a new compound material composed of sawdust and calcined magnesia. The mixture, having been well worked up with water, is put into moulds and pressed into whatever shape may be desired. A scientific authority says it is incombustible and impermeable to water, is susceptible of a fine polish and is adaptable to numerous uses.

Two new and improved Davis & Furber mules are being placed in the Hawthorne mills. A new burr picker, a very heavy machine, and a new brush machine have been put in, and other improvements are in contemplation which, when carried out, will make the mill one of the best equipped for turning out fine work in the Province. —Carleton Place, Ont., *Herald*.

THE Bras d'Or Lime Company, which has been carrying on the manufacturing of lime at Marble Mountain, has just completed the construction of their second patent draw kiln. This company is now producing 1,500 bbls. per week, and as the demand for its product is good the company will erect more kilns at an early date. —North Sydney, N.S., *Herald*.

ALL the Gurney factory premises in Dundas, Ont., except the warehouse, have been bought by Jas. Chegwin, who will proceed to put a dam across the creek to furnish power. He will utilize part of the building himself and rent the rest. Just now he is busy getting out a contract for between two and three hundred Anthony steel plate furnaces for J. M. Williams, of Hamilton.

THE Vancouver City Foundry and Machine Works Company, Vancouver, B.C., are having all the work they can well attend to. In connection with this establishment are a foundry, machine shop, blacksmith, boiler and pattern shops, etc. Marine, saw mill, can-

nery and general machinery work is turned out. About fifty men are employed. Enlargements of the works are in contemplation.

MR. EDWARD BEST, of Carleton Place, Ont., is organizing a company to be known as the Edward Best Car Axle Box and Lubricator Company, with a capital stock of \$25,000, and headquarters at Ottawa, for the manufacture of car axle boxes and car axle lubricators, under a patent issued to Mr. Best on these inventions.

THE Provincial Natural Gas Company, of Toronto, with large properties in natural gas in Welland County, Ont., has entered into a contract with the Buffalo Natural Gas and Fuel Company, and the papers have been signed and approved by the various parties thereto. The Canadian company will pipe the gas to Buffalo under the Niagara River, and it will be received there by the local company and served to consumers.

THE town council of Peterborough, Ont., will submit a vote to the people to raise \$11,000 to purchase a site for the works of the Edison General Electric Company, and \$4,000 to construct a sewer and drain for the works. This is the carrying out of an agreement between the parties looking to the establishment in Peterborough of extensive works where the dynamos and other machines and apparatus necessary for their Canadian business will be manufactured.

THE Queen's Hotel, this city, has, until quite recently, been running its laundry machinery with power from an engine and boiler located in the building. This made the surroundings too hot; and Commodore McGaw said that if he could only move the thing out into the yard thirty or forty feet away he would be happy. A rope drive was suggested; the Dodge Wood Split Pulley Company were consulted; the drive was put in, and now the laundry girls, the Commodore and everybody else smile and are happy.

THE Vancouver Tannery, owned and operated by Mr. C. H. Strutt, Vancouver, B.C., makes a specialty of tanning buckskin for mits and gloves. A very large number of deer are killed every year in British Columbia, and at the last meeting of the Legislature an Act was passed prohibiting the export of deer skins from the Province. This will give a large home supply of skins. Deer were being slaughtered for their skins in large numbers, and it was wisely decided to stop the export of skins, with a view to preserving the deer.

THE towns of Vancouver and New Westminster, B.C., are to be connected by an electric tramway. The contract for this has been let to the Thomson-Houston Co., of Lynn, Mass., and will be commenced immediately. The Lulu Island electric tramway will also connect Vancouver with Ladner's Landing by way of the North Arm and Lulu Island, a distance of over twelve miles. This line will carry light freight and thus prove of very great importance, not only to the city of Vancouver, but in developing the rural constituency through which it will pass.

THE Cumberland Foundry and Machine Works are situated opposite to the I.C.R. station at Amherst. They intend manufacturing rotary mills, lath, trimming, shingle and clapboard machines. The lath machine will cut ninety thousand laths a day, while the trimmer and edger is an improvement on the old style. They also make a band saw for heavy work, which is expected to be a very superior machine, and are prepared to supply columns and general castings. They employ five men in the moulding shop, five in the machine shop, and two pattern makers. —Halifax, N.S., *Critic*.

THE Hastings' mill is now shipping three pieces of square timber, each of which is sixty feet long by three feet square. Each stick contains 6,480 feet, board measure, and will weigh from twelve to thirteen tons. The three pieces are being loaded on two flat cars coupled together, the sticks lying on four bolsters, two on each car —those on the extreme ends being fixed on a swivel and the centre ones sliding, so that there will be no trouble in going round sharp curves. The timbers are consigned to Montreal, where they will be utilized as anchors for a large dredge. —Victoria, B.C., *Colonist*.

Messrs. KELLAE & BERRIS, proprietors of the pottery works at Victoria, B.C., are manufacturers of sewer pipe, terra cotta work, chimney tops, drain tile and general pottery work. They have four kinds of clay on their property, suitable for use in the works. The bed of clay is forty feet deep, in four layers, each layer suitable for a different kind of pottery work. One layer is a fine blue clay. Plaster Paris ornamental work is also made, some very fine work in this line being turned out. The establishment covers nearly three acres, and gives employment to thirty men. About \$25,000 is invested in the enterprise.

MR. PETER HAY, proprietor of the Galt Machine Knife Works, Galt, Ont., has sent us his new illustrated price list having reference to the goods manufactured by him. Among the illustrations

are those of planer knives, small flat knives, moulding knives of all descriptions, stave knives, stave jointer knives, mitring, tenn- ing, shingle jointer and other irregular shaped knives, cheese box or veneer knives and other special large knives; gauge lathe knives, splint knives, paper cutting knives, rag knives, leather splitting knives, straw knives, etc. There is a no more reliable and skilful knife manufacturer in Canada or out than Mr. Hay, and those who may desire anything in his line should communicate with him.

THE Walkerville Brewing Company, Walkerville, Ont., has just completed their new brewery, erected at a cost of \$180,000, which is claimed to be the best equipped concern of the kind in Canada. It is to be operated on the Pfandler vacuum fermentation system, by which an absolutely pure beer can be produced and matured in one week against the four or five months required by other processes. Much, perhaps all, of the machinery and appliances embodied in this brewery were produced in Canadian workshops. Messrs. E. Leonard & Sons, London, Ont.; Messrs. Booth & Son, Toronto, and the Barnum Wire and Iron Works, Windsor, Ont., supplying much of it. Mr. Hiram Walker is President of the Company.

THE proprietors of the Dufferin mines, Salmon River, are now erecting a new mill and crusher. This mill is to be self-feeding, with rock breaker and all the latest improvements. It will have twenty stamps and will be so constructed that its crushing capacity will be fifty per cent. more monthly than the present thirty-eight stamp mill. There will be quite a gold "find" when the plates of the old mills, in use for ten years, are subjected to the decomposing process of the retort. This mill is also to be manufactured in Truro, as well as one of ten stamps capacity for the Boston Gold Mining Company at Molega, whose very promising areas are under the masterly control of Manager F. K. Ballou.—Truro, N.S., *Guardian*.

A RECENT application of electricity to heating the ironing rolls of a laundry has been made in St. Paul, Minn., where it is giving great satisfaction. It is surprising to learn that this method gives an economy, by meter measurement, of more than 25 per cent. over that of gas at \$1.25 per thousand, as formerly used for this purpose. The extreme simplicity of the device by which the heating effects are obtained is not its least remarkable feature, consisting, as it does, of German silver wire wound on a cylinder of asbestos paper which slips inside the iron roll. The current is obtained from the commercial lighting circuit and is paid for at the same rates and under the same conditions as that used for lighting, the current passing through a meter.

THE Western Woolen Manufacturing Co., which recently secured control of the Woolen Mills at St. Boniface, just across the Red River from Winnipeg, has now everything in order and running smoothly. The new company will manufacture cloths, sheetings, flannels, blankets, yarns, socks, mitts, etc. Some new machinery for the manufacture of heavy cloths is being procured from Leeds, England. It is also intended to put in some new power knitting machinery to replace the present hand machines for the manufacture of socks, mitts, etc. Only pure woolen goods will be turned out. Electric lighting will be put in to enable the work to go on, night and day, as orders are now a long way ahead. The factory is under the direction of John Ryan, formerly of the Rapid City woolen mill.—*Winnipeg Commercial*.

THE Dominion Government has sanctioned the widening of the Government dry dock at Kingston, Ont., from forty-eight feet to fifty-five feet. The dock is now in course of construction, and the change of plan comes at an opportune time when it will be easily possible to obtain the increased width. The effect of the change will be to enable the largest class of vessels on the lakes to enter the dock for repairs. Under the original specifications such vessels as the Chicora and Cibola would not have been able to enter. The increased width of entrance does not necessitate any other changes, and when completed the dock will be of the following dimensions: Length on the floor, 280 feet; width on the floor, forty feet; width at coping level, seventy-two feet; depth from coping to floor, twenty-six feet depth; of water on sill at low water, fifteen and a half feet.

AMONG the most important industries of Vancouver are the workshops of the Canadian Pacific Railway Company. Vancouver is the headquarters of the Pacific division of the railway, extending from Donald to the Coast, a distance of 259 miles together with branch lines, which have or may be built. This is known as the Pacific division of the road, and is under the general superintendency of Mr. H. Abbott. The workshops of the Pacific division of the road are located on False Creek, within the city limits of Vancouver. They include round-house, machine shop, foundry, etc.

The workshops are modeled on the same pattern as the shops of the company at Winnipeg, and they are gradually being extended as occasion requires. The total number of men employed by the company at Vancouver is about 650. This includes the men employed in the head offices of the division, at the depot, about the extensive wharves of the company, etc., as well as in the workshops.—Vancouver, B.C., *Commercial*.

THE Dominion Iron and Steel Company has been incorporated at St. John, N.B., with a capital stock of \$500,000. The company is formed for the purpose of erecting and operating mills for the manufacture of rolled and hammered iron, bar iron, cut nails and spikes, horse-shoes, railroad and other spikes, fish plates, polished shafting and other articles. The plant is to be built in the vicinity of the city of St. John, on the Bay of Fundy, accessible by vessels and adjacent to lines of railway that connect with all points East and West. The building will contain four train rolls, ten furnaces, nail and spike factory with fifty machines, a horse-shoe machine, with a general machine shop and shafting department. The mills will be built, equipped and operated in the most modern and approved manner, and will strive to equal the output of similar concerns in the United States. The capacity of this plant per month is to be 240 tons cut nails and spikes, 760 tons scrap iron bar and forty tons of horse-shoes, besides shafting and other articles of manufacture.

THIS is a reproductive age. I went into a house the other day and sat in a hall chair upholstered, Venetian style, in what appeared to be grand old Italian leather; it was not, it was stamped paper. At the windows hung shades in what looked like Holland linen, but it was simply paper. The wall tilings were in the friable, hard-baked, ceramic sort that seemed as though transferred from a Cordovan cottage; paper again. At the windows a soft, sacerdotal light stole in through what was apparently stained glass; but it was colored oil paper. The ceiling was in heavy cross bars in relief, like mediæval rafters; again paper. On the walls hung a breast-plate, crossed with arms which spoke of the days of heraldy and romance. But they, like the rest, were only paper. Papier mache, I ought to say for it is in this pulpy condition that paper is first worked to mould it to the hundred and one purposes it now serves. A bronze plaque, a foot and a half of surface diameter, the head of Shakespeare, or any other subject in relief is worth about \$100. But the other day we saw one of the most perfect reproductions imaginable in this papier mache for \$4.

A LIST of shipping, issued in the shape of a blue book, under authority of Mr. Tupper, Minister of Marine and Fisheries, has been published. The total number of vessels remaining on the register books of the Dominion on the 31st of December, 1889, including old and new vessels sailing vessels, steamers and barges, was 7,153 measuring 1,040,481 tons registered tonnage, being an increase of eleven vessels and a decrease of 49,161 tons registered. As compared with 1888 the number of steamers on the registry book on the same date was 1,348, with a gross tonnage of 205,632 tons. Assuming the average value to be \$30 per ton, the value of the registered tonnage of Canada on the 31st of December last would be \$31,213,430. The number of new vessels built and registered in the Dominion during last year was 280, measuring 34,346 tons registered tonnage. Estimating the value of the new tonnage at \$45 per ton it gives a total value of \$1,545,570 for new vessels. The total number of ship and steamers given in the Province of Quebec were 1,455, with a tonnage of 168,500. The number at Montreal was 488, with a tonnage of 79,206, and the number at Quebec was 875, with a tonnage of 84,532.

A NEW system of marine lighting—new, at least, in Canada—is to be put in operation shortly on the St. Lawrence river. So far all the gas buoys have shown a fixed light, but with the new system it will be possible to have as great a variety of lights from gas buoys as from the lighthouses along the coast. These show alternating, revolving flashes or occulting, which give the necessary variety whereby the various stations are distinguished, the different effects being produced by machinery. In the case of these gas buoys the mechanism is worked automatically by heat generated by the gas flame. They have been in use for some time in England, where they have given great satisfaction. The Department of Marine propose to make the first trial of the new automatic light on the gas buoy at the west end of Beau Jeu channel, will thus be changed from a fixed to an occulting light, and be rendered more distinguishable. It is proposed also to change the color of the gaslight on the buoy at the east end of the same channel from white to red. The experiment with the automatic light will be watched with interest, as, if successful, its adoption will give a variety to the buoy lights in use that will be of inestimable value to masters and pilots.

THE production of copper and nickel ore from the mines of the Canadian Copper Company, at Sudbury, Ont., for last year, is officially stated to have been 60,000 tons. No. 1 furnace was blown in for the first time on December 24, 1888, and ran from that time to December 31, 1889, 259 days of twenty-four hours, using 31,268 tons of ore and producing therefrom 3,849 tons of matte, averaging probably about 18 per cent copper and 13 per cent nickel. In this operation there were consumed 3,950 tons of Connellsville coke, costing about \$6.50 per ton at Sudbury. Smelter No. 2 started September 4, 1889, and ran seventy-three days from that period to December 31st, using 9,740 tons of ore and producing 1,210 tons of matte, averaging, probably, about the same per cent. copper and nickel as No. 1. This furnace consumed 1,169 tons of coke. Shipments have been made to Philadelphia, New York, Swansea, Liverpool and Hamburg. Coke is shipped by boat from Cleveland to Algoma mills, and thence over the Canadian Pacific Railway to Sudbury. The shaft at Copper Cliff Mine is sunk at an angle of 45°. On December 31, 1889, it had reached a depth of 502 feet, and the width of the ore deposit at that depth was 65 feet; the present depth (on slope) is about 458°; about 300 men are employed.

THE rice mill of Messrs. Hall, Ross & Co., Victoria, B.C., is an important industry of that city. There are only two rice mills in Canada, and this is one of them. This mill supplies the trade with rice as far east as Winnipeg. The mill was established in 1885, and is now quite an extensive business, over 3,000 tons of rice being handled annually. The buildings are of stone. A fine large wharf and sheds extend down to the water front into deep water. The power for the machines is generated by a 160-horse power Corliss engine, supplied with steam by two large boilers. Rice meal, rice flour, chit rice and granulated rice for malt, are prepared. The latter is used for malt in the manufacture of lager beer, and large quantities are exported to San Francisco for this purpose. The value of the plant is over \$75,000, and thirty-five men are employed. The company owns its own ship, named the *Thrompelce*, a 1,000-ton vessel, and one of the fastest sailers on Pacific waters. The ship is engaged constantly in bringing rice from Japan and Siam, principally, for the mill. The prohibiting of exporting rice from China prevents bringing rice from that country to any extent. A large brick warehouse 90x45 feet is being erected for storing the manufactures of the mill. A roller flour mill is also being established by the company, and this will be operated in connection with the rice mill. The flour mill is a solid stone building 45x120 feet, and the mill will have a capacity of 200 barrels of flour per day. It will be full roller process. The mill will be completed in September. The company imported a quantity of hard wheat from Manitoba last spring, and distributed this free among the farmers of Vancouver Island and the neighboring mainland, with the object of inducing them to grow wheat. If the experiment proves successful, it will be a great advantage to the Province. It is the idea to send the company's ship to Asia loaded with flour, when on her trips after rice. This would give her a cargo each way.—*Commercial*.

NOBODY over here can object that the manufacturers of Sheffield or of any other town in England shall make protest against the passage of the McKinley Tariff Bill. The fact that interests us is that they have no power to do anything more than to protest. There was a time, little more than 100 years ago, when the same feeling that is now manifesting itself in the Sheffield protest expressed itself in legislation in the British Parliament forbidding Americans to engage in manufactures. Englishmen had then the same motive that they have now, namely, a purpose to secure for themselves the profits to be picked up in this market. It is significant that one of the Sheffield manufacturers, in speaking of the proposed protest, suggested that it would "tend to strengthen the hands of the American opponents of the Bill." The Englishmen know their friends in this country. They fully recognize that the McKinley Bill is intended to promote the interests of Americans, and that the Americans who antagonize the measure are trying to promote the interests of Englishmen. One of the most active of these friends of the British interests, the *Philadelphia Record*, explains to its readers that the real motive of the British protestors is that "they wish to keep on buying of us, but they cannot continue to trade if we will not buy of them." This has the genuine British Free-Trade ring to it. The *Record* can depend upon it that England will never fail to buy from us what she wants when she can buy it here at lower prices than she can obtain elsewhere. So long as we retain our supremacy as cotton growers, for example, American cotton will go to England in large quantities, even if we do not purchase a dollar's worth of British manufactures. Just as soon as India can supply England with all the wheat she requires at prices lower than are demanded for American wheat, England

will buy no American wheat even if we should give her free entry to our markets for all her wares. Every protest made in Europe against the McKinley Bill is an argument for the swift passage of that Bill, for it is simply a protest against the transfer to Americans of industrial profits which are now pocketed by foreigners.—*The Manufacturer*.

THE Meriden Britannia Company, of Hamilton, Ont., manufactured the magnificent trophy won by the 54th Battalion, of Windsor Mills, Que., at the recent matches of the Dominion Rifle League. This prize, when brought from the factory at Hamilton, was on exhibition in the office of THE CANADIAN MANUFACTURER, where it excited unbounded admiration. The design embodies an immense cup standing upon a salver, or base, and surmounted and surrounded by appropriate figures. The salver is of oval shape twenty-two inches long and nineteen inches wide, supported upon four feet, and surrounded by a rail or guard supported by ornamental posts. The cup stands upon and is attached to this salver, and surrounding it are, on opposite sides, figures of two Canadian soldiers kneeling and in the act of firing their rifles, and two miniature steel field cannon, beside which are pyramids of ammunition. Upon the obverse side of the cup is an etching in which is represented a scene on the firing ranges, riflemen being seen in the act of discharging their pieces. Below this, attached to the cup, is the Dominion Rifle League badge, on which is seen the League's Coat of Arms. The cover of the cup supports a figure of a rifleman in undress uniform standing at rest. This figure is seven inches high. Besides the figures and characters alluded to, the ornamentation of the cup includes a number of heads and other figures of Assyrian design and exceedingly beautiful. A band around the salver is composed of this work, and both above and below the handles of the cup are similar bands. The reverse side bears an inscription explanatory of the affair. The entire piece is composed of what is known in the trade as "oxydized and old silver work," being an exceedingly heavy plating of coin silver upon a foundation of white metal; the only exception being the two cannon, which are made of polished and burnished steel. Mr. W. R. Pringle, the secretary of the League, is to be congratulated upon the production of this trophy; for it is due to him in large part that it was manufactured in Canada, and not in England, as has been the unhappy custom in some directions for some years past. It shows that whenever the opportunity is presented, Canadian artists and Canadian workmen can produce objects in quite as high degree of excellence as anywhere else in the world.

THE Dominion Typograph Company, of Windsor, Ont., have on exhibition at the office of the CANADIAN MANUFACTURER, 63 Front Street West, one of their typographs, the new type-making machines heretofore mentioned in these pages. This machine makes each line of type in the shape of a slug, and as these slugs are produced they are thrown automatically into a stick, from which the matter is removed and placed on galleys, as is ordinarily done in printing offices. The machine somewhat resembles the type-writer in common use. There is really no types used, the letters being formed in the slugs by the compression of melted type metal upon brass rods which are arranged in position for that purpose, being actuated in their movements by the pressure upon the buttons of the finger board, each button corresponding with the characters of the alphabet, numerals, punctuation marks and other arbitrary signs. The operator simply presses the buttons as in type-writing; the brass rods fall into place, and when the line is full the fact is made known automatically. When the line is full the movement of a lever brings a proper quantity of melted type-metal into a matrix in which are the rods containing the characters. This operation is performed very quickly, and the return of the lever discloses the slug, and this slug, by the reverse motion of the lever, is thrown into position in the stick. If, upon inspection, any typographical or other error is discovered in any slug, a new and correct one is substituted for it, and the defective slug returned to the melting pot. The melting pot is a part of the machine, and so arranged that a sufficient quantity of melted metal is admitted to the matrix wherewith to form the slug; the metal being kept constantly in a melting condition by a gas jet or other simple heating arrangement. It requires only ordinary intelligence on the part of the operator to manipulate this machine; and one adept operator can set as much matter as four adept printers working in the ordinary way. The *New York Tribune* is printed from type slugs, made on what is known as the Mergenthaler or linotype machine, which is a very heavy piece of machinery, weighing about 3,000 pounds while the machine here alluded to, while doing fully equal work, weighs only about 450 pounds. The machine is exciting a great deal of interest among practical printers and newspaper and book publishers; and already the company have received orders for quite a number of them for use in Toronto.

A LONG ROPE DRIVE.

We have received from the Dodge Wood Split Pulley Company, of Toronto, the following description of what is probably the longest rope transmission in Canada:—The drive is in operation at the flour and grist mills of Thos. Cook, Esq., Carville, York County, Ont. Mr. Cook runs his mill by water power, but of late has experienced considerable trouble in getting sufficient power during the summer months owing to low water. As a remedy he conceived the idea of using his waste water a second time by damming it at the lower end of a field, some 1,350 feet away from his mill, and putting in an auxiliary water wheel at this point, conveying the power from there back to the mill by means of the "Dodge" patent system of rope transmission.

As stated, the distance between centres in this case is 1,350 feet, the power transmitted is 20 h.p., and rope travel is 3,400 feet per minute.

The driving pulley is 42 inches in diameter with four grooves. It is placed direct onto the upright wheel shaft, from which two wraps of rope are carried to the driven pulley over twelve pair of carrier or idler pulleys located at intervals across the field at a distance of about 100 feet apart. The driven pulley on the main shaft at the mill is 55 inches in diameter, with four grooves, and in front of both driver and driven pulleys is placed a winder pulley with two grooves, placed there solely for the purpose of gaining adhesion or surface contact. This explains why the laboring wheels have four grooves while the others have but two. There is also the carriage or tightener pulley placed on a travelling carriage at the driven end, which keeps the rope at an even tension at all times. Both the ropes in this case lead directly on to the carriage pulley, thence back around a winder and on to the driven pulley, the tightener thereby having direct control over the rope at all times, whether running or standing still. The track or carriage run being sufficiently long to either take up all the slack, or to pay out enough to overcome all contraction and expansion which might occur where such a long stretch of rope is exposed to the weather.

The stations for the carriers consist of poles similar to ordinary

telegraph poles, and are firmly set in the ground in pairs braced at the top, the carriers running on loose spindles between. Each pair of pulleys is neatly housed over for protection from the weather. The rope at the lowest point permits of a load of hay passing under it without interference, there being no noticeable sag throughout the line. The drive is perfectly noiseless and is as complete a success as could possibly be. It has been running steadily for the past two months and gives perfect satisfaction.

By an ingenious contrivance the water at the lower wheel is turned off and on from the mill by means of a small cable which runs over the drive stations and connects at the wheel with a suitable gear.

The rope used consists of about 5,000 feet of $\frac{3}{4}$ inch pure manilla, tallow laid "Firmus," made expressly for this purpose, and is kept in perfect condition and made impervious to weather by a special dressing. Mr. Cook has many visitors to his drive, and all who see it admit that "it's a great scheme." We think he deserves no little praise for his enterprise in undertaking this job, and the drive itself speaks volumes for the ingenuity of the Dodge Wood Split Pulley Company as conveyers of power.

It was a California woman who invented a baby carriage, which netted her \$50,000; while to Mrs. Catherine Greene, the wife and widow of Washington's ablest officer, is due the honor of inventing the cotton gin, which is one of those distinctly American inventions, the value and importance of which have been recognized by the whole industrial world. A horse-shoe machine, which turns out completed shoes, was the invention of a woman; also the reaper and mower, the idea of which came into the brain of Mrs. Ann Manning, of Plainfield, N. J.; to whom is also accredited a clover cleaner. Mrs. Manning seems to have stimulated the inventive genius of her neighbors, for a few years after her reaper and mower was patented Mrs. Elizabeth Smith, of the same State, took out a patent for an improvement on the machine, being a device for changing the knives without stopping the wheels. One of the most complicated machines ever made is that for the manufacture

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of re-enforced bottom paper bags. It is so curiously ingenious that how it was contrived passes the ordinary comprehension. It was the invention of Miss Maggie Knight, who, from it and other inventions in the same line, realized a large fortune. A street-sweeper of great merit was devised and patented by a New York lady, who had a costly dress ruined by the mud splashed on it by a defective machine. Most remarkable of all is the invention of Mrs. Mary B. Walton for deadening the sound of car wheels. She lived near the elevated railroad in New York, and was greatly annoyed by the sound of the roaring trains passing her house. The most noted machinists and inventors of the country had given their attention to the subject without being able to furnish a solution, when lo! a woman's brain did the work, and her appliance, proving perfectly successful, was adopted by the elevated roads, and she is now reaping the rewards of a happy thought.

THE CHIGNECTO SHIP RAILWAY.

It appears that at present over 1,200 men are employed in the work of this construction, while hundreds more are providing material. One hundred and fifty men are quarrying and preparing stone on the Bay of Fundy side of the isthmus. As many are at work at the same business on the Bay Verte side. The enterprise is pushed at all points, and every man engaged in it, from the directors, chief engineers and the contractors to the day laborers, has a personal pride in the undertaking. There is no longer any doubt about the success of the project from the engineering standpoint. Referring to the commercial point of view, Mr. Ketchum explained that the traffic between the water on one side of the isthmus and the other was so great, that first the railway from Moncton to Shediac was built and a line of steamers constructed to connect its eastern terminus with Prince Edward Island. Then followed the Pictou road and another line of steamers. Lastly there was established a line of steamboats connecting Prince Edward Island with Halifax and Boston by way of the Straits of Canso. Then there is an immense amount of traffic by sailing vessel. The ship railway would not destroy the Shediac traffic, and probably not seriously

interfere with the traffic by way of Pictou. It might be expected to divert the Straits of Canso business, or a part of it, to a new route by way of the ship railway and St. John. A company has been formed to establish a line of steamships between Charlottetown and St. John, and the boats will be put on as soon as the road is completed. Discussing the various sources of business, Mr. Ketchum gave some interesting facts about stone. It is pretty well known that about the best building stone and the best grindstone in America is found in unlimited quantities on both sides of Chignecto Bay, at the west end of the railway and on the south side of Bay Verte at the other end. Wood Point, which is very near the Fort Lawrence dock, has magnificent stone quarries. To-day the owner is engaged on a contract for 7,000 tons for a city building in Toronto. This stone has to be shipped to Sackville and forwarded by rail. Contracts for Buffalo and Chicago are filled the same way, or the stone is shipped to Portland and forwarded by rail thence. Now the proprietor of the quarries says that he could afford to pay a dollar a ton to get the stone across to Bay Verte, from which point it can be sent by the gulf, the canal and the lakes to any of the cities mentioned. It is not proposed to charge any such rate as that suggested by the quarryman, as a much lower price would leave a good margin. The Wood Point man has named 50,000 tons as the amount of annual output which he could furnish for traffic. Wood Point is one of two or three places on the Bay of Fundy side where stone quarries are in operation, and one of many where they may be worked with profit if sufficiently cheap transport is afforded. At Lower Cove, above the Joggins on the Nova Scotia side, is a quarry which is doing a large business and has been for many years. It is not expected that building stone will go only one way over this railway. It happens that the product of the quarries at Northport, Wallace and other points on the Bay Verte side is a popular building stone in New England and the Middle States. This stone is of a different color and texture from that of the Bay of Fundy. The Annapolis public building is built of Northport freestone. Thus, while Wood Point and Lower Cove building stone is crossing the isthmus eastward on its way to the Northwestern States and Ontario, that of the Gulf Shore will be moving in the other direction *en route* to Boston and the South.—*St. John Sun.*

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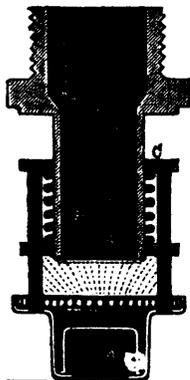
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JAMAICA EXHIBITION, 1891.

AN EXHIBITION will be held in Kingston, Jamaica, in January, 1891, of Island products, manufactures and works of art, together with exhibits of works of art, machinery and industrial and agricultural products from Great Britain, other countries and colonies.

In view of the geographical relation of the Island of Jamaica with the sea ports of Canada, and the nature and extent of the imports of Jamaica, as well as the products of the Island, the Government of Canada accepted an invitation of the Government of Jamaica to participate in such Exhibition, with a view of obtaining an extension of markets for the products and manufactures of Canada.

The Canadian Government will undertake to pay freight of all approved exhibits. Entries must be made not later than September 30th next; and the latest date at which exhibits can be sent forward from Halifax, N.S., or St. John, N.B., will be about October 20th, as all exhibits must be in Jamaica early in December.

Mr. Adam Brown, M.P., has been appointed Honorary Commissioner to represent Canada at the Exhibition.

Forms of application and general information can be obtained on application to the Honorary Commissioner, Hon. Adam Brown, at Hamilton, Ont., Mr. H. B. Small, Secretary Department of Agriculture, Ottawa, or Mr. Frederic Nicholls, Secretary Canadian Manufacturers' Association, Toronto.

By order of the Minister of Agriculture.

H. B. SMALL,
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Ottawa, July 24, 1890.

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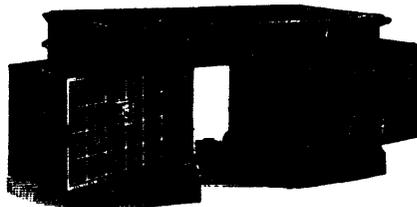
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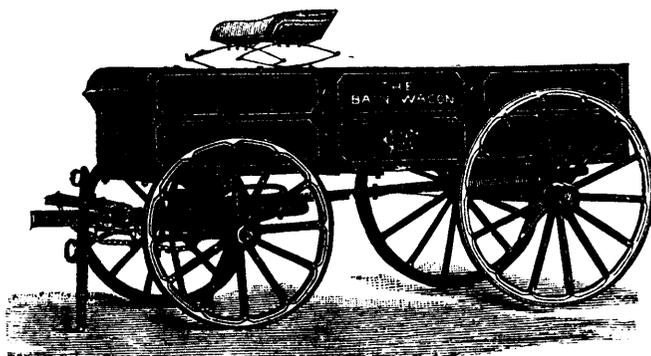
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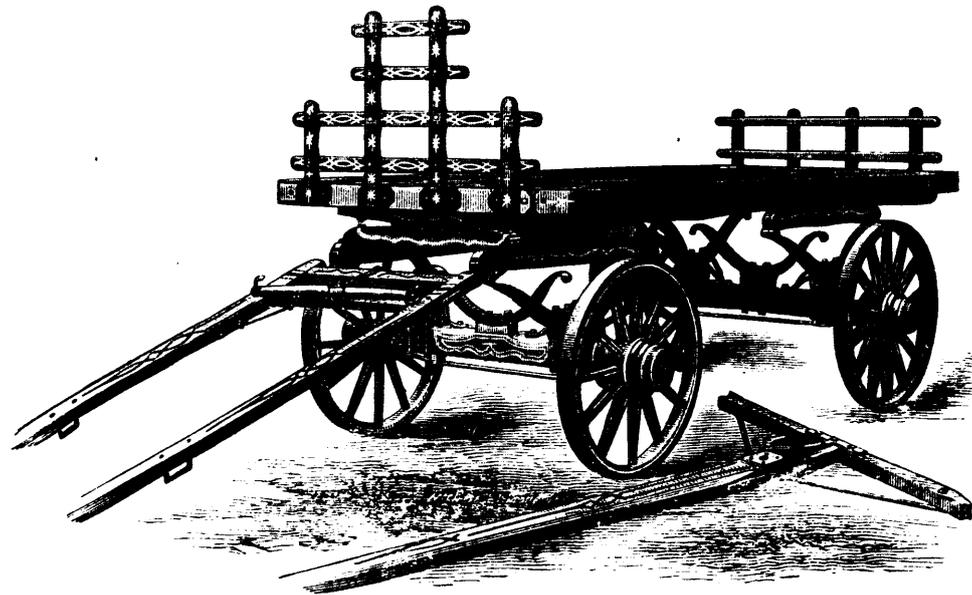
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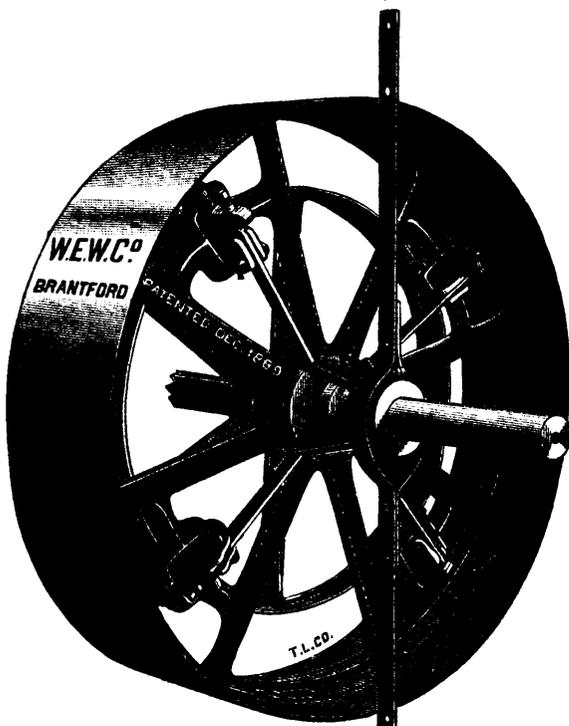
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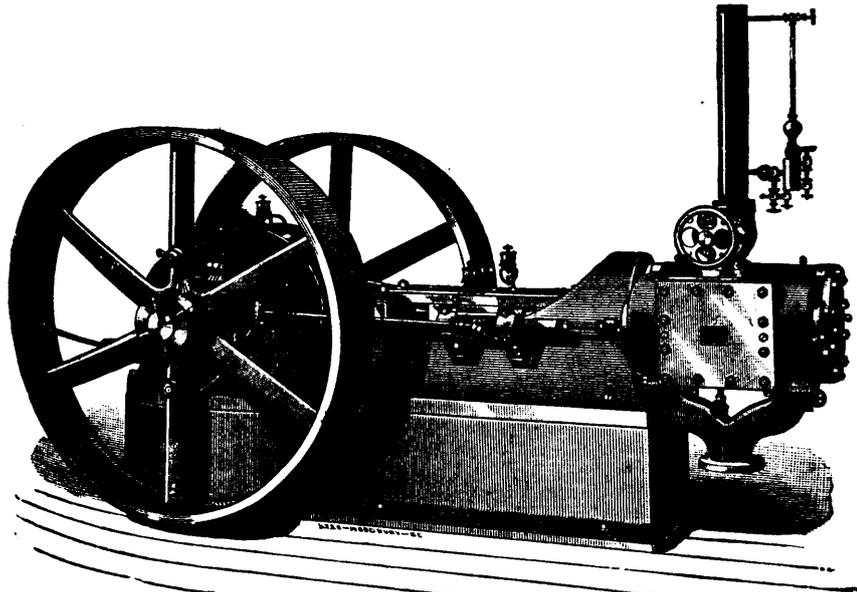
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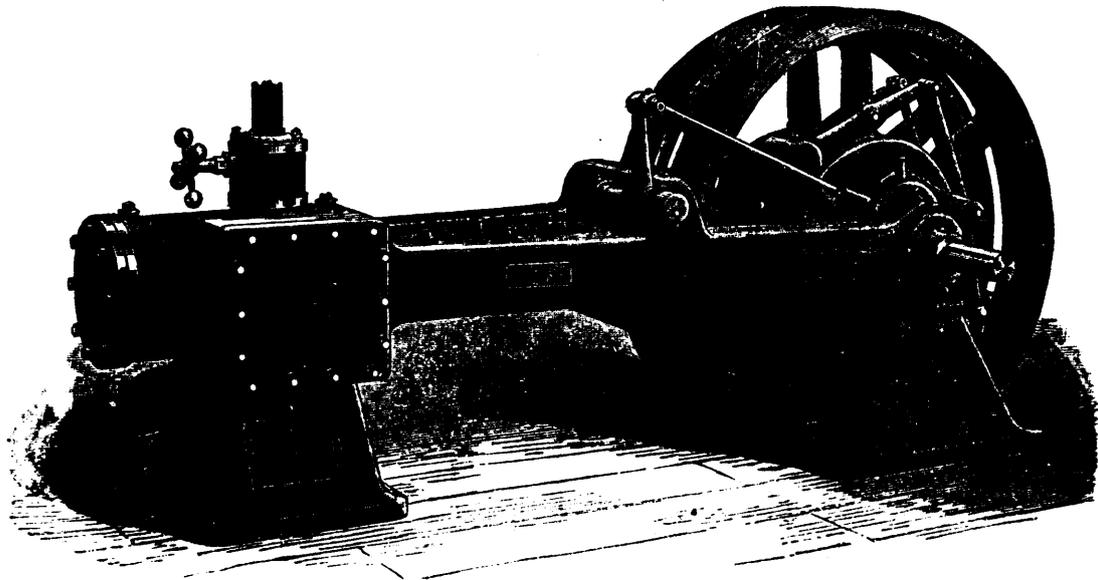
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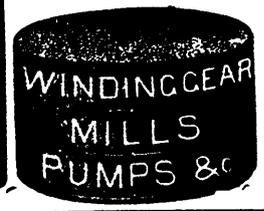
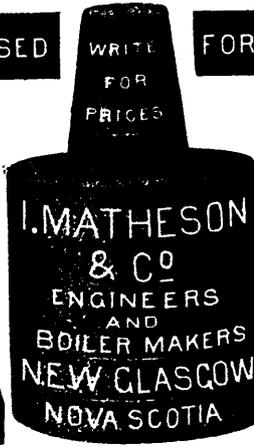
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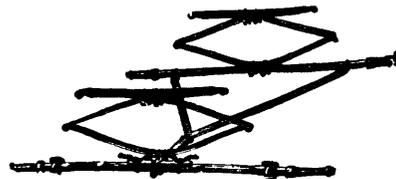
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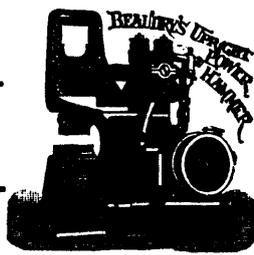
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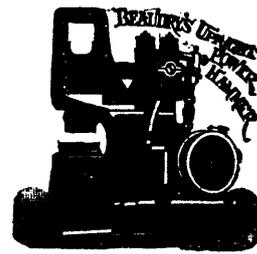
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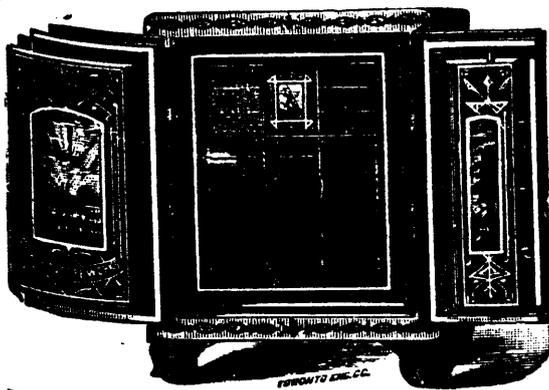


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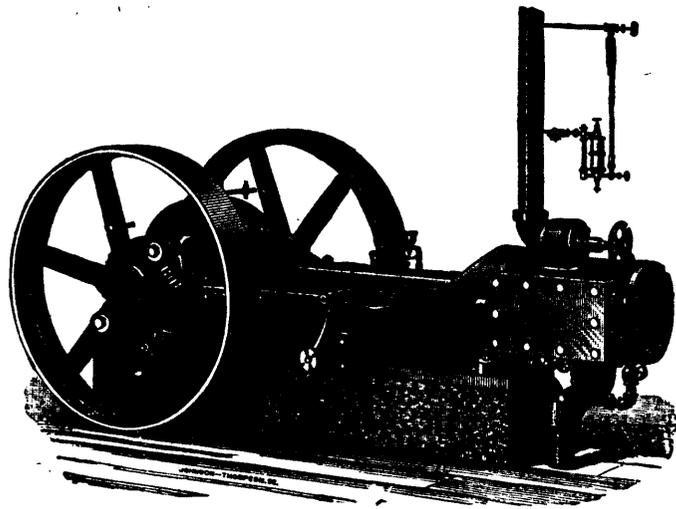


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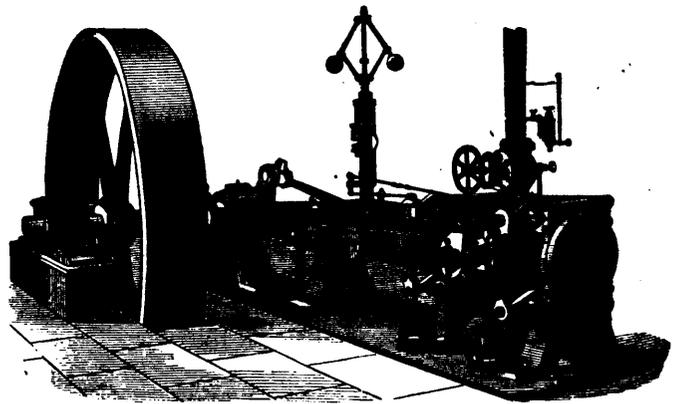
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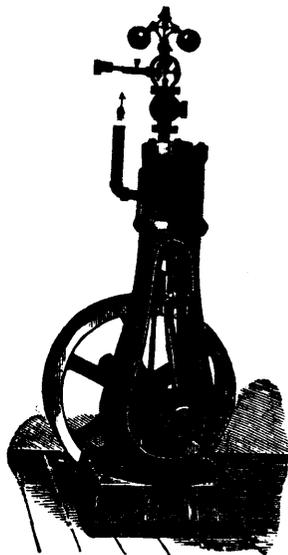
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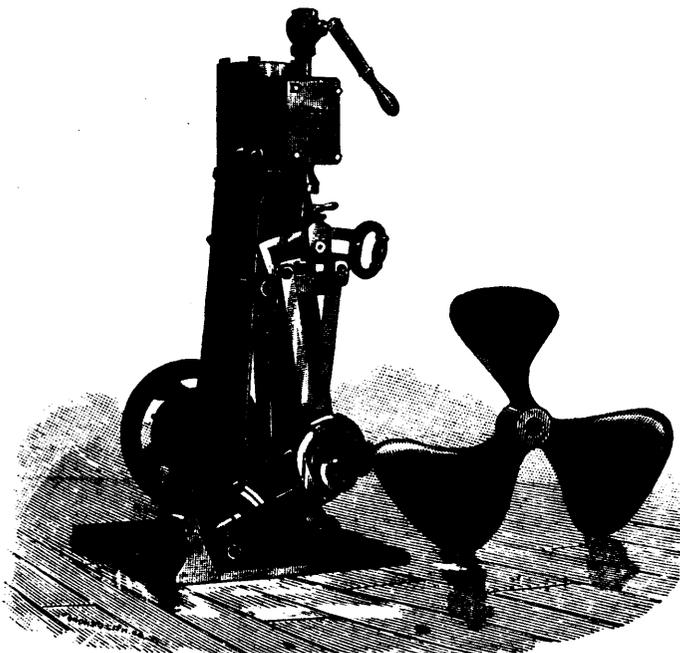
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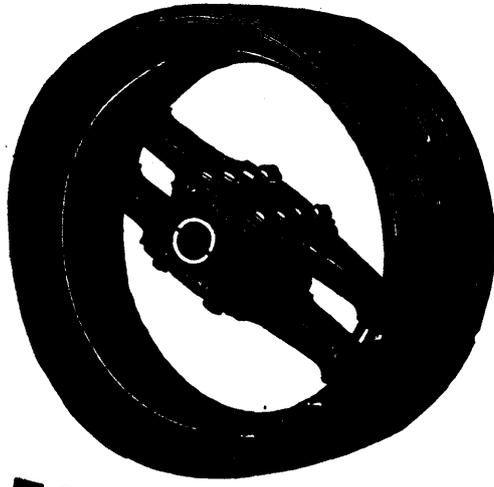
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70 PER CENT. LIGHTER THAN CAST IRON

And 50 per cent. Lighter than Wrought Iron or Steel Pulleys.

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SHATTO & DENNIS, MINNEAPOLIS, MINN. } STILLWATER, MINN., August 15, 1884. }
Gentlemen: You ask why we use the Dodge Patent Pulley. I answer because }
we consider them the cheapest, most convenient and satisfactory in all particulars. }
Yours truly, } S. R. STIMSON, General Manager.

OFFICE OF NEWTON WAGON CO. }
C. L. RICE, AGENT, CHICAGO, ILL. } BATAVIA, ILL., Feb. 17, 1885. }
Dear Sir: Replying to your favor, will say that after using the Dodge Wood }
Split Pulley for a year or more we are satisfied they are a good thing, if not the best }
Pulley made, and shall use them hereafter in preference to any other we know of. }
Yours truly, } NEWTON WAGON CO.

We have sold these pulleys for one year, and they have been put to every kind of }
service, and their popularity is wonderful. We refer to the following users for proof }
of the above statements: Pillsbury & Hulbert Elevator Co., Minneapolis; R. M. }
Pratt & Co., Elevators; Northern Pacific Elevator Co.; The Pacific Elevator Co.; }
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Co.; Willford & Northway; Washburn, Crosby & Co.; St. Paul Electric Light Co.; }
St. Paul Roller Mill Co.; Minneapolis Brick Co.; N. W. Mfg. & Car Co., Stillwater, }
Minn., and very many others. } SHATTO & DENNIS, MINNEAPOLIS MINN.

THE WORLD'S INDUSTRIAL AND COTTON }
CENTENNIAL EXPOSITION. }
NEW ORLEANS, March 19, 1885. }
W. H. DODGE, PRES. }
DODGE MFG. CO., MISHAWAKA, IND. }
Dear Sir: I have a number of your Patent Wood Split Pulleys in use here at }
the Worlds Fair and Cotton Centennial Exposition, driving Dynamos for Electric }
Lighting. They are doing heavy work, and are held upon the shaft by the compression }
of wood on iron. They hold firmly, and do not slip. I have watched with a }
great deal of interest the many Pulleys of your make running at this Exposition; and }
I think them the best Pulley I have ever seen. I believe them to possess the following }
points of merit over any other Pulley: All Pulleys being split or in halves; best }
belt surface; best shaft fastening; best method of utilizing Pulleys to shafts of different }
sizes; best balance; lightest on the shaft; strong, and I believe durable. I }
heartily recommend them. }
Yours very truly, } S. H. GILMAN, }
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According to the best scientific authority it costs one horse power to keep in motion }
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Wood Split Pulleys now in use. Our capacity being now equal to 100 Pulleys per }
day, we shall hereafter keep in stock for immediate shipment all sizes.

Send for Illustrated Circular and Reference List.

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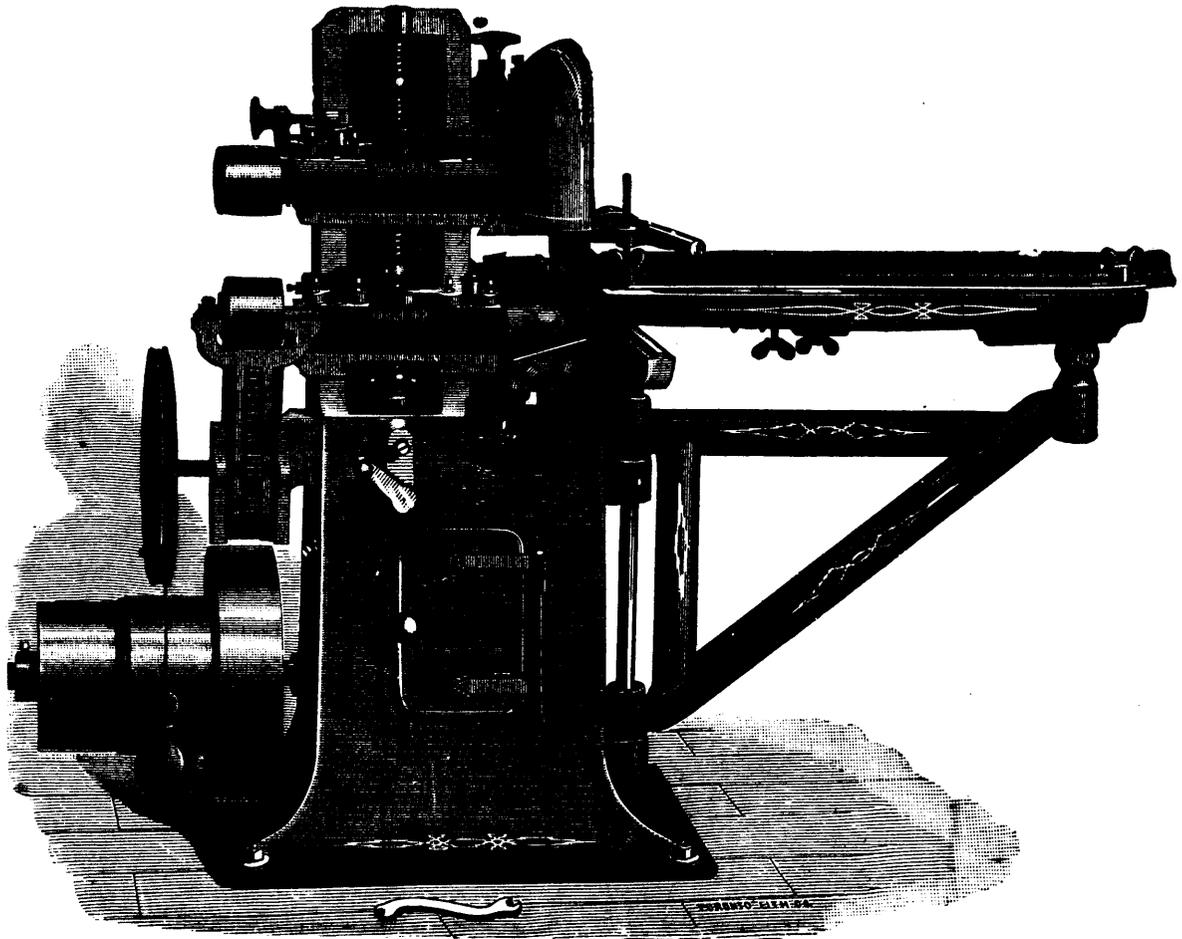
TELEPHONE 2080.

TAKE NOTICE:—Our List of Prices for the DODGE PATENT WOOD SPLIT-PULLEYS is for ALL SPLIT-PULLEYS.

We beg you will note this fact when comparing our List with others which are for SOLID RIM, and NOT for Pulleys in HALVES.



NEW AND IMPROVED *Pedestal Tenon Machine.*



This is an entirely new style of Tenon Machine. The frame is cast in one piece, and the working parts stand solidly on a pedestal, avoiding all vibration.

The Cutter and Cope Heads are connected and are moved all together, or separately, as required. The Upper Head and Boxes also adjust horizontally to suit shoulder of tenon, the Cope Knives moving with the Heads to prevent re-adjustment.

A special feature in this machine is the Bed, or Carriage, which is at once light and strong. The outer end works on rollers and is moved very easily.

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This Machine is supplied with single or double Copes, as ordered, and for furniture work it is without Copes, and with an adjustable cut-off Saw.

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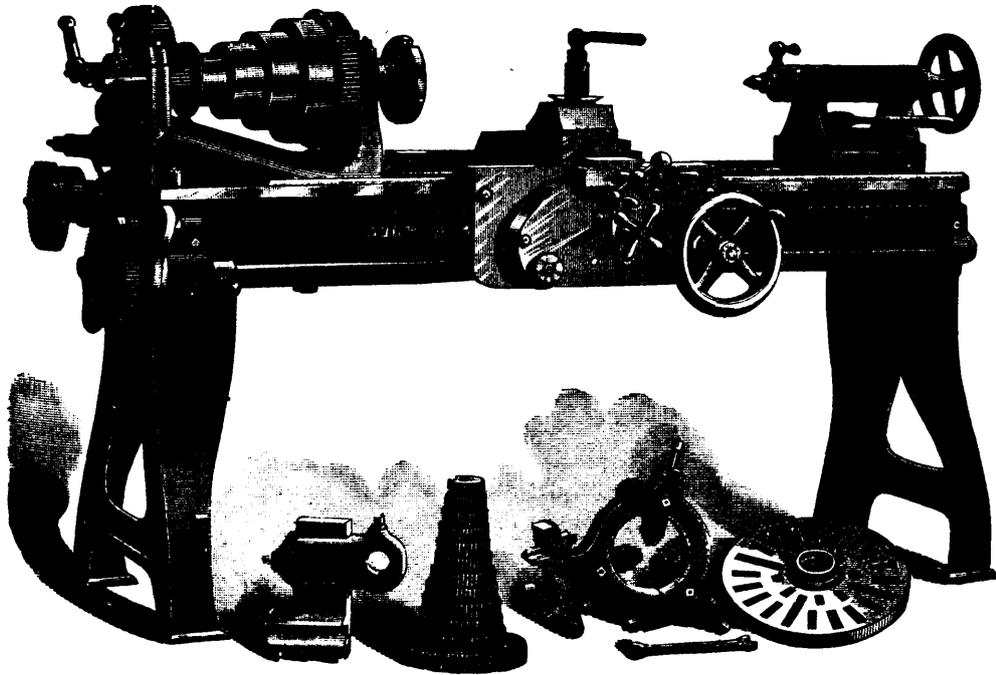
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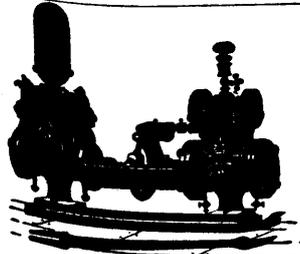
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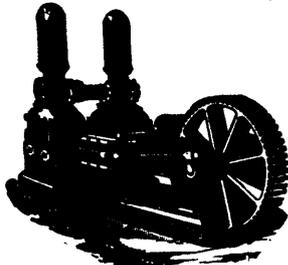
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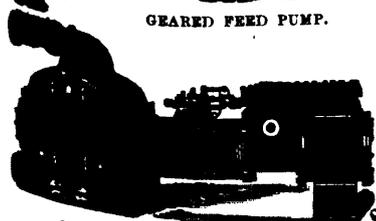
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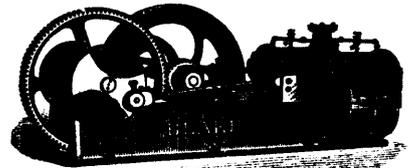


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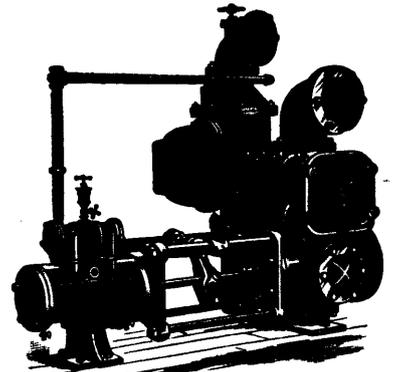
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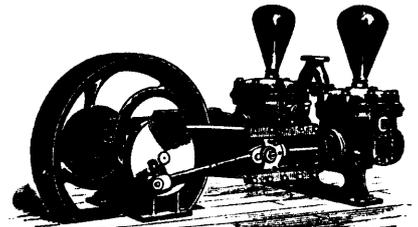
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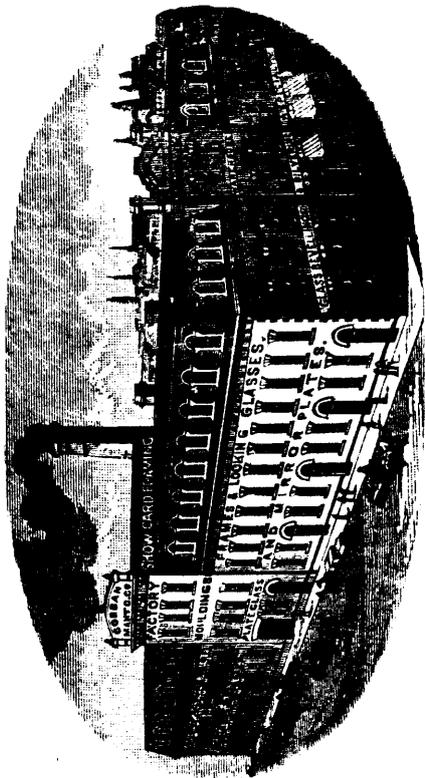
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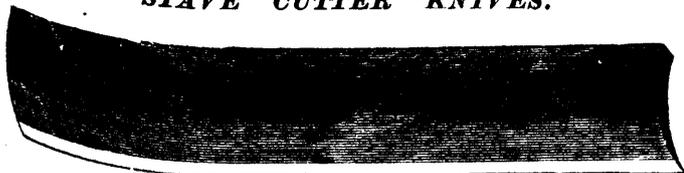
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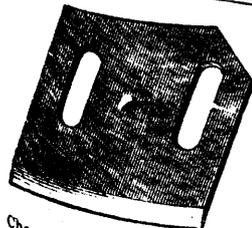


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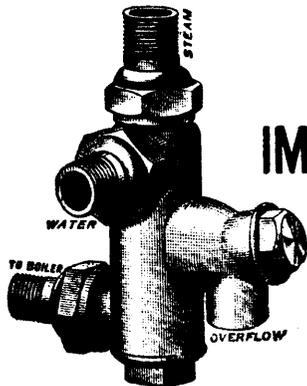


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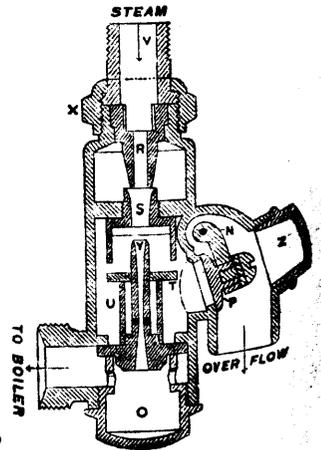
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