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TORONTO, ONT., JULY, 1893

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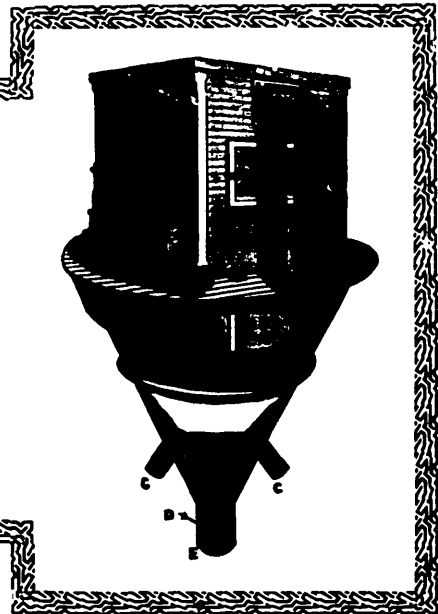
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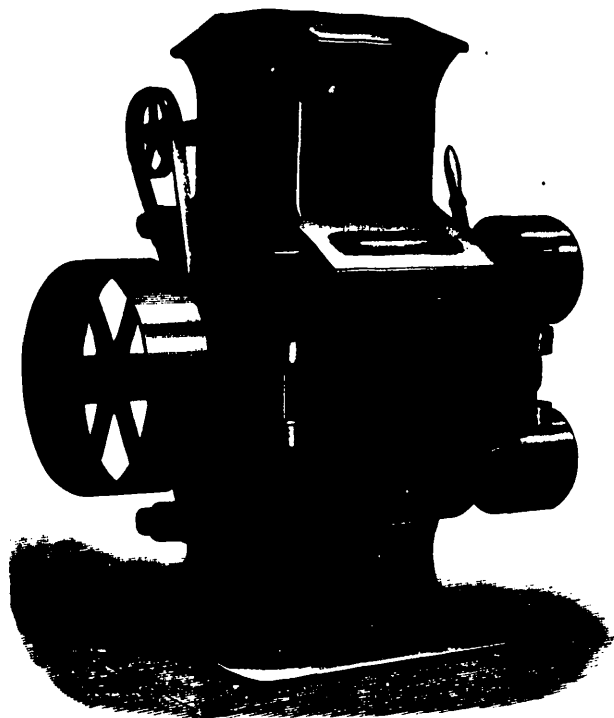
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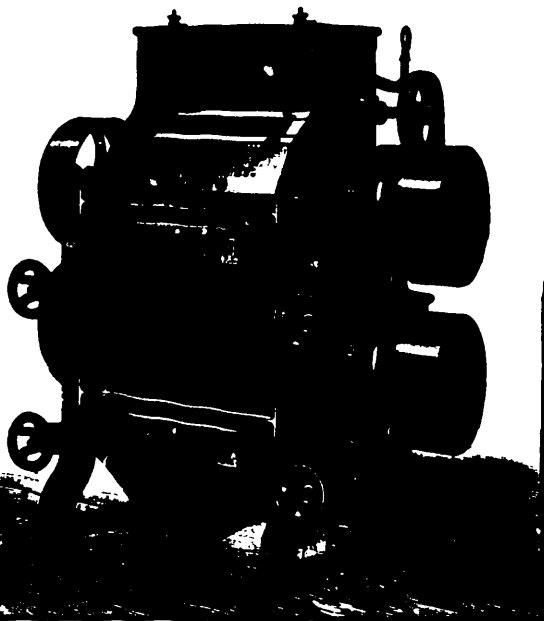
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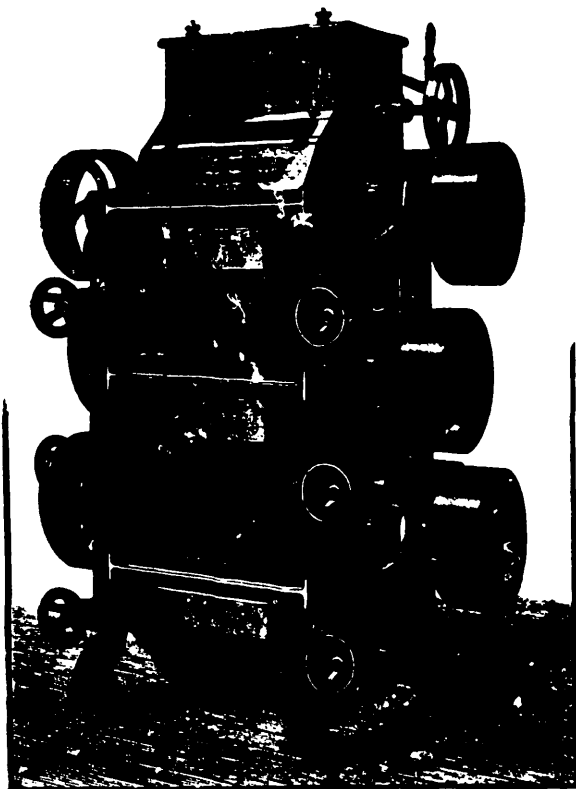
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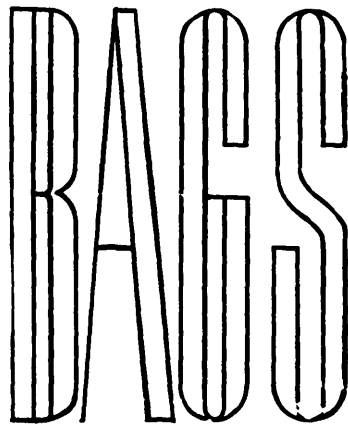
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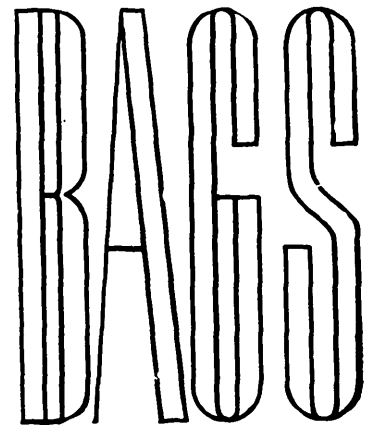
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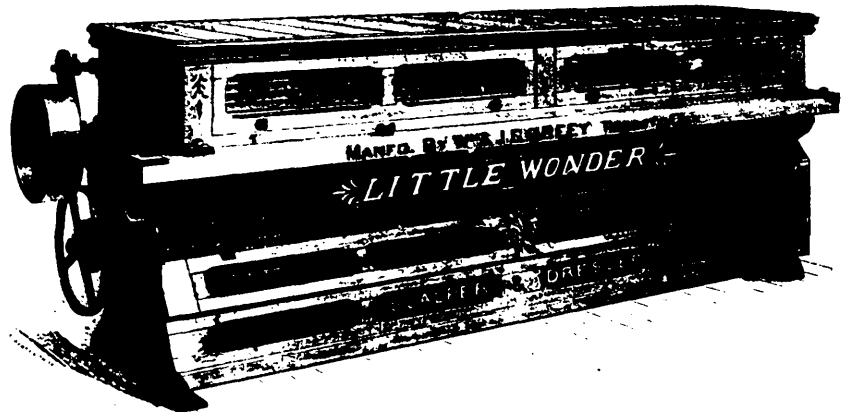
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THE CANADIAN MILLER

OLD SERIES, VOL. XI }
NEW SERIES, VOL. III } NUMBER 7

TORONTO, ONT., JULY, 1893

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BY THE WAY.

THE farmer talks as though he was the sworn enemy of speculation in any form. Is he? A produce dealer hits at our good friend of the plow in this manner: "Talk about speculators, there isn't a greater speculator out than the farmer. If the price of any product goes up he never wants to sell; no matter how high the price, he always wants more. After the price begins to go down he wants to sell, and usually gets a lower price than he might have obtained." On this setting of the case the Rural New Yorker comments: "Unfortunately there is too much of truth in this statement. Every seller wishes to get all possible for his wares. This is natural and right, but it isn't reasonable to suppose that the price will be long sustained."

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Mr. F. W. Thompson, manager of the Ogilvie Milling Co., Winnipeg, Man., in a recent interview, gives some interesting particulars of the operations of this big milling concern. He states that the improvements that are being made on the Winnipeg mill will make it one of the finest in America, the capacity having been increased to 1,800 barrels per day. Mr. Thompson also mentioned that improvements have been carried out in nearly all the company's eastern mills, resulting in bringing up their aggregate capacity to 8,200 barrels per day, thus representing one of the largest milling concerns in the world. The company have registered under the copyright law, special red, white and blue brands of twine, which are being manufactured for their use, so that hereafter the standard brands of flour turned out by this company will be put up in bags, sewn with these colored twines. Experiments are in progress for the testing of their flour at the mill before being shipped.

x x x x

Writing from Buenos Ayres, Argentine Republic, Mr. Wm Goodwin says, in the London Miller, "Low prices do not seem to stop the great increase of wheat acreage, and there is probably no country in the world where wheat can be grown to such advantage for export. The gold premium, of course, has the effect of making labor and rent cheaper and may decline, but the reduction in ocean freights by economical steamers is likely to be permanent, and the distances of railway haulage are very short as compared with the United States, so that railway freight is not a heavy item. Maize-growing is more dependent on the seasons and the destructive powers of locusts, which is greatest in dry seasons, but maize requires so little labor that small plots are grown all over the country, and the crop may any year be very large, and will always be difficult to estimate. Prices to-day are far above export basis, and there is no apparent indication of a surplus, but there may be 150,000 tons or more to spare, and at some unexpected time during the year prices may suddenly fall. It is to be noted that a good crop has this year ripened well in the south of this province, whereas in some previous years it was not good enough for export."

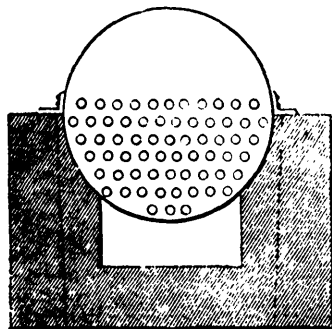
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Even in the item of the bread we eat custom changes. Wheaten bread has almost from time immemorial been viewed as the staple of every meal and of every table, and the argument has been used that as population increased difficulty would be experienced in growing sufficient wheat to meet the requirements of those who people our continents. This is the proposition advanced by those statisticians who have averred that in the United States it would not be possible in a few years to grow sufficient wheat to meet the needs of the

growing population of that country. It is forgotten, however, as a writer on this question points out that the breakfast table in the United States is now almost without wheat in any form. "The American breakfast," it is alleged, "is made up mainly of oatmeal, coffee, tea, eggs, meat, corn cakes and fruits of various sorts. The dinner table is not much better, as the generally large variety of meat and vegetables makes a small call upon wheat bread. In this country, especially among the native-born citizens, the 'bread meal' of Europe is unknown. In other countries the great majority of the citizens have little variety of food, and there they make their meal principally on bread, either wheat, rye, or some compound, with a bit of cheese and a mug of alcoholic beverage. European economists can not understand why the United States can go on annually exporting such enormous quantities of wheat, when their imaginary "per capita consumption" formula calls for the consumption here of all the wheat grown here. The explanation lies in the rich and varied diet of vegetable and animal foods so easily obtained here by all. American flour-makers are directly interested in the general food problem, because the ability to live without wheat bread belongs to the people of this country in a degree impossible anywhere else."

BOILER SETTING.

HAVING seen a way of setting boilers which is new to me, I send the inclosed sketch, writes a correspondent of Power. The bridge wall is run up to within 12 inches of the boiler, and the opening is only 34



BOILER SETTING.

inches wide being proportioned about as shown in the sketch. The boiler is 54 inches in diameter by 14 feet long. If the boiler is ever burnt or blistered I think it will be at a point just over the bridge wall. Besides, I am of the opinion that this setting materially reduces the heating surface of the boiler shell.

MILLERS' MEETING.

THE dates of the annual meeting of the Dominion Millers' Association are August 9th and 10th. Place, Toronto; and every miller should be there. An attractive, and what will undoubtedly be, a profitable programme, has been prepared by the executive.

FLAVOR IN FLOUR.

IT is well enough to remember that you cannot get a palatable flavored flour from wheat, a part of which has been too closely garnered, put away too damp, or allowed to heat in bulk, or wheat diseased by smut. There is no treatment that will restore a natural flavor to such wheat; nor can the best miller and best mill in the world atone for a very small amount of the bad mixed with a very large amount of the good.

THE DEPRESSION IN WHEAT.

THE Cincinnati Price Current, remarking that prices of wheat have fallen to a level without precedent since American wheat markets have had any important relation to those of foreign countries, discovers as some of the inducing causes, miscalculations of official reports, concerning the extent of production in this country. Speculation hindering the outgo of the surplus the last six months with the culminating influence of the monetary situation affecting all carrying wheat, whether in warehouse or in the interior. Concerning the future it asks:

"On what basis can calculations as to the future of values be reasonably considered?" and proceeds "It is plain enough that the winter wheat crop in this country is to be materially deficient falling possibly 50,000,000 bushels below the average for the past five years, for which period official figures point to 323,000,000 bushels as the average, while it is doubtful if the production this season will exceed 270,000,000 bushels. This is not an estimate, not a prediction. The possibilities may be regarded as higher but not the probabilities, in the light of acceptable evidence. The spring crop is surrounded with more of uncertainty. The start is fairly favorable, and the possibilities may be accepted as approximating the average indicated for the past five years, which official figures show to have been 163,000,000 bushels. It is not reasonable to count on a greater production than this, of spring wheat, nor an excess over say about 435,000,000 for the entire crop. This, it should be understood, is not an estimate, but may with propriety be considered as the reasonable basis on which to make calculations as to the future. With the surplus to be carried over the position in this view, will be practically equivalent to an incoming crop of about 5,000,000 bushels without available surplus from the preceding crop.

"This is the fair position to take as to the outlook on wheat supplies in this country for the incoming year. The domestic requirements may be reckoned as 370,000,000 bushels. The exportable surplus 130,000,000 bushels, if the minimum production be realized. The exportation for the year now closing will be about 185,000,000 bushels; the preceding year it was 225,000,000 and much smaller previously; for the past five years an annual average of 143,000,000 bushels.

"In Europe the outlook is for an under average production of wheat this season, so that the chances are that if the production of wheat in this country should not essentially exceed the quantity herein suggested, the surplus for the year will in time all be wanted by foreign markets. But no urgency of demand is likely to arise in the early part of the crop year, and only problematically later. Investors, however, will not wait for an urgent demand. They will see the almost certainty of a fair recovery from the abnormal depression now existing, and this will not only check the downward tendency, but help in restoring confidence.

"There is nothing of the staple products of the earth so cheap as wheat to-day. Compare it with gold, with cotton, with animal products, with the market price of labor, and the relative position of wheat is found to be abnormally low. It is a creature of a combination of adverse circumstances and conditions, affected by influences which have measurably spared other products of industry, and the price of labor. A readjustment must be expected."

EXTENSION OF THE TROLLEY.

THE legislature of New York has appropriated \$10,000 for the purpose of conducting experiments on the Erie Canal to determine the feasibility of the application of the trolley system to canal transportation.



PUBLISHED ON THE FIFTEENTH OF EACH MONTH

BY
ARTHUR G. MORTIMER

OFFICE:

75 CANADA LIFE ASSURANCE BUILDING
TORONTO, ONTARIO

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J. S. ROBERTSON, EDITOR.

THE CANADIAN MILLER AND GRAIN TRADE REVIEW caters to the Miller and all his associates, and to the Grain Dealer with all his interests.

The only paper of the kind in Canada, containing full and reliable information on all topics touching our patrons, and uncoloured as an organ with any manufacturing company, we will always be found honestly and earnestly endeavoring to promote the interests of our subscribers.

Correspondence is invited from millers, or manufacturers on any subject pertaining to any branch of milling or the grain and flour trade.

BEFORE TOO LATE.

THE words of caution to business men expressed by Mr. Clouston, general manager of the Bank of Montreal, in his annual address to the shareholders, are worthy of being "posted up in some conspicuous place" in every office, store, factory and mill, or wherever men do business. They are not the words of an alarmist. No attempt is made to shake confidence in the commerce of the country. On the contrary, it is very clearly pointed out that Canadians have large ground for encouragement in the shape they find trade and commerce. But we are simply warned that these conditions can be spoiled if we do not take into consideration other conditions that also have an existence. "The coming year," Mr. Clouston tells us, "must be a year of caution, also a period of economy, and that applies to governments, cities, and municipalities as well as the commercial community, for we have been spending too much money, too much in subsidies to railways, too much in expensive works; and there has been too much good money wasted."

Around about us financial affairs are perturbed. In Australia no release comes to the stringency in money, and wreckage of monetary institutions that have brought disaster, broad and deep, to that country within the past twelve months. Not since 1873, their own journals tell us, have financial conditions in the United States been in a more depressed and uncertain state.

There, troubles might to a large extent have been obviated, if "governments, cities and municipalities, as well as the commercial communities" had conducted their affairs on the lines that it is suggested will prevent Canadians from falling into a similar snare.

No matter how bright may be the prospects, if the drain on current capital is too large, a crippled treasury soon follows. This is where Australia stumbled. She has been spending money as a government and municipally for years far in excess of her ability to realize on the expenditure in any reasonable period. And when this is the policy of governments the individual citizen is invariably led into similar extravagances.

Canadians have not themselves been free from these faults, though we have not been hit in the manner of other countries. Let us see that we do not invite the disaster which in being forewarned we may escape.

BOOKING ORDERS AHEAD.

COMPLAINT is made that the millers of the United States are meeting with the same difficulties in filling orders for flour that we chronicled some months since as common to the flour handlers of London and Liverpool, Eng. and Glasgow, Scotland. There the bakers would place their orders with the miller for some months ahead. If prices declined during this term, as has been the rule during the past twelve months, the baker kicked, and if he took the flour ordered, at all, it was only at a reduced figure. United States millers, we are told, are

in many cases, carrying orders for three, six and nine months, and then, as with the British bakers, the sale is not completed except at a reduced price. The United States Miller commenting on these conditions says: "We fail to call to mind any other product, sold on the market, where the buyer is not bound equally with the seller. The miller, when he buys his wheat for future delivery, must not only sign a contract, but must also put up a necessary margin, in cash, as security against any advance in the market, and a time for delivery is specified. In case a longer time is wanted for delivery it is paid for by an increase in the price. This is the business like method in which trading should be conducted. Flour, only, seems to be an exception, and as a result of the loose manner in which the flour trade is conducted, good customers are lost, for, in their desire to take advantage of any break in the market, they must buy of some other mill, for, if they buy of you, they know you will ship out the old orders first, on which they must meet a prompt loss. What if they buy of a new seller? They reap their profit at once, and you, in the meantime, are selling at low prices to some other miller's customers, and the flour you sold to your buyer at a margin is turned out to the low-priced customer. No wonder trade is demoralized and millers are blue." Canadian millers have everything to contend with in the shape of slow sales, and demoralized prices, but there is little, if any, trouble from looking ahead, as with their congeners of Great Britain and the United States.

EDITORIAL NOTES.

THE Montreal Journal of Commerce comes at the mendacious Buffalo Milling World in this fashion. "The Buffalo Milling World keeps up its sneers at Canada, making our Northwest a permanent target for its mendacious, elephantine humor. In its last issue it tells an English paper to 'lay hold of facts when it tackles commercial matters.' In the very article in which this sarcasm appears the Milling World makes 4 times 17 to be 66, and goes into elaborate calculations on that basis. We advise our snarling friend to learn the multiplication table 'before it tackles commercial matters.'"

THE Salvation Army cannot well be equalled for novel methods. The General is rich in resources and plans for the extension of the Army. One of the latest moves is a scheme for a big exhibit of grain in Toronto on the same dates as the Toronto Industrial. The Army purpose giving invitations on the first of September to hold harvest festivals throughout the country and every corp will be asked to send to the exhibition to be held at Toronto whatever they can collect in the shape of products. Manitoba being one of the finest wheat growing countries in the world they proposed asking the province to contribute a carload of the best Manitoba wheat. When the exhibit is over the intention is to turn it into flour, and in this way manage to supply cheap food and shelter to needy ones in connection with their Toronto and Montreal lodging houses.

THE annual report of the Millers' Trading Bureau of the United States shows that for the year ending May 1st, 1893, the number of sacks traced have been 1,308,992, as compared with 970,831 sacks for the period from July, 1891, to May, 1892. During the past year the export business of most members is said to have been light as compared with the previous year. The prejudice and objection that the transportation lines showed when the bureau was first organized in furnishing information desired and otherwise assisting the bureau is said to have been successfully overcome. "The transportation people seem," says the secretary, "to have finally come to the conclusion that the bureau is not hostile to them, but is rather their friend and has no desire to interfere with the conduct of their business or trample upon their prerogatives."

THE aversion of young men in Jamaica to agricultural pursuits is greatly deplored by the Colonial Standard in an article of recent date. It may be remarked that Jamaica is not the only country where this aversion to follow the plough is common. In Jamaica, we are told, the soil is the sole source of industrial wealth, and

a rare opportunity for getting on in the world is overlooked when the calling of the farmer is neglected. A difficulty, however, in securing the needed capital is pointed out as a serious drawback to farming in Jamaica, and the Standard suggests the establishment of an agricultural loan bank, which would advance money to tillers of the soil at moderate rates of interest, as is done by many of the Scottish banks. This suggestion was made not long since as a means of aiding farmers in Ontario, the purpose, however, was to relieve them of the exorbitant rates that it is alleged they are forced to pay the loan societies. Any practical effort that can be put forth to encourage the cultivator of the soil should have encouragement, for in Canada, as in Jamaica, the disposition to forsake the farm by our young men is disastrously prevalent.

THE crop bulletin of the Manitoba Government, the first bulletin of the season, places the average of 1893 in comparison with that of 1892 as follows:

	1892	1891
Wheat	875,990	1,003,640
Oats	333,974	388,529
Barley	97,644	114,762
Potatoes	10,093	12,387
Roots	17,497	20,919
Followed for crop	250,255	274,588
Fall ploughed	325,717	473,410

These figures show a considerable increase over last year's average. The area under rye is 3,229; under flax, 9,637; and area under corn, peas, etc., 1,059. The total area under all crops is 1,533,262 acres, while that of last year was 1,341,270 acres, showing an increase of 211,992 acres. It is pleasing to notice that there is a decided increase in the number of acres followed, while special attention was given to fall ploughing. So much land being prepared for seed last fall has enabled the farmers to put in seed this spring in a very short period of time. Over 5,000 men are now employed as hired help, and reports indicate that about 2,000 extra men will be required to assist in taking off the harvest. It is expected that these 2,000 men will be obtained from Ontario and Quebec. The wages paid for hired help run from \$15 to \$25 per month with board. The bulletin reports great scarcity of female help, and every inducement will be offered to secure females from the eastern provinces.

It is commonly remarked that there is no longer any money in farming. Wheat is down to sixty cents, the barley market is closed out to the Canadian farmer, thanks to the McKinley tariff, and fates are against farm products in general. Unfortunately it is too true, whatever the facts are regarding the farming community that many lines of business have been depressed of late years. Pessimists say there is no money in business of any kind these days. The man, however, whose liver is out of order, does not often reflect conditions as they actually exist. It is of the farmer. According to Mr. B. F. Walker, general manager of the Bank of Commerce, the farmer's lot is not such a hard one. He says, referring to last year's grain crop: "The price of wheat was, of course, quite unsatisfactory. The Ontario farmer cannot raise wheat at these prices, but it is quite clear that he does not need to raise much wheat. From every part of Ontario our managers make pretty much the same report. The farmers have more than offset the low price for grain by the high prices for cheese and hogs. Or, we are told that the farmers, owing to the low prices of wheat, are year after year turning their attention more to dairying, cattle grazing, fattening hogs, or fruit growing. Again we are told that in many counties the farmers are still holding last year's wheat, and in some localities two or three years' crops of wheat. This may be a very foolish thing for a farmer to do, but let us bear in mind that he is financially able to do it. From the same counties we have the information, in fact, there are very few exceptions throughout Ontario that the deposits in the banks are increasing, that farmers' notes for implements are promptly paid, that he does not want to borrow from the banks, and is meeting the interest, and to some extent reducing the principle on his mortgages. Also that there is no demand for mortgage loans, and upon mortgages subject to repayment many good farmers are demanding a reduction in the rate of interest."

VIEWS AND INTERVIEWS.

Size of The Tire.

As a means of providing improved roadways it has been made a law in Massachusetts that the tires of wagon wheels shall not be less than three inches in width. It has been found that the narrow tires cut deep into the road and soon render it quite unsafe for travel. Other vehicles come along and get into the same rut and cut further down aggravating the unfavorable conditions already existing. With the wide tire not only is the danger of cutting up the road reduced to a minimum, but the constant passing over of waggons with wide tires has the effect of a roadway roller of pressing down the material of which the road is composed and making it more solid and firm. Massachusetts' example could be followed by other municipalities with profit to the roadways of the country, and all who travel over them. Business men of quick intuitions will be ready to make another application of Massachusetts' example in the construction of roadways. A large number of men do not succeed in business. One reason is that their methods are constructed on the principle of the narrow tire vehicle. They have cut down into a rut and in that rut they travel everyday. Such a thing as taking a new course where more progress might be made they never think of, for they are in a rut. The subject can be amplified ad nauseam, but the shrewd dealer will make his own application. The other fellow will remain in the rut and stick.

The Labor Problem Clearly Stated

What is the solution of the labor problem is a question that confronts one wherever one turns. Social economists have, and are, proposing many remedies, but the trouble grows apace. In every land, monarchial, republican, or otherwise, the unemployed embrace a large percentage of the population. What is to be done to relieve the pressure? Mr. Carroll D. Wright, a statistical writer of some eminence, has recently written of conditions in the United States. Relatively, his figures may be made to apply to Canada. His propositions are certainly clean-cut, vigorous and forceful. He estimates that in the States there are over twenty-two millions of persons who are "engaged in gainful occupations." "Subtracting from sixty-five millions," he says, "most of the wives and daughters, all of the decrepit and aged, and all the school children, it will be seen that we are a work-a-day nation in its shirt sleeves. The class of do-nothings because they have too much money, and the other class of do-nothings because they are born loafers, do not count for much either in number or influence." But Mr. Wright adds "that not only is the aggregate of those who do work on the increase, but also the aggregate of those who are willing to work, but can't get it. There's the rub. That is the reason for the existence of labor organizations, for strikes, and for the unceasing conflict between capital and labor. The remedy? There is but one. Skilled labor is nearly always in demand. A first-class workman is seldom out of a job. It is necessary, therefore, for the new generation to cease dawdling, to give up being jacks of all trades, to give themselves vehemently to some special department, and to become master of that. There never yet was a time when it was not easier to earn \$4 a day because you are worth it than to earn \$1 a day at work which a million others can do as well as you."

Market Quotations.

A question has been raised as to the position a trade journal should take in reporting current market quotations. The man who would like to use the trade journal to bull or bear the market to help his own particular schemes is known to the conductors of trade journals whatever branch of trade they may represent. It need hardly be said that the journal that would allow itself to be used by this class would soon lose the confidence of its readers. There is another class, however, who, though not taking so bold a position as the class we have already named, yet think there is less or more market news that should be given publicity very gingerly for the general good of the trade concerned. These people, says the Iron Age, hold that the trade journal "should hide bad news as long as possible and proclaim

favorable developments with the utmost alacrity. When an advance has taken place it must be chronicled at once. A decline must be kept back, and quotations must remain stationary while still a stray buyer exists who has not heard of the lowering in prices. The true office of the trade journal, according to these critics, is to constitute the rear guard in retreat and the picket line in advance." All such suggestions are based on the theory that there is something to be gained by withholding part of the truth. Someone, it is true, will probably be a gainer in cases of this kind. It is equally true that someone will be a loser. A trade journal can never successfully perform its mission occupying the position of a mere time-server. As the journal from which we have already quoted further says: "We hold that it is the function of the commercial reporter to seek the truth persistently and diligently, and to present it fairly and candidly. If developments are unfavorable, the sooner their significance is generally understood the better. It will make the weaker sellers quicker to abandon hope and will make buyers more watchful of their opportunity, thus aiding in steadying the markets. The idea that secrecy was the only safeguard of merchants and manufacturers has been long since abandoned in all the markets of the great staples, such antiquated business methods being now regarded as childish. No one attempts the dangerous and unsatisfactory role of being the special guardian of any commodity, protecting it against untoward declines, or blowing it up during the brief days of expansion."

SHORT MILLING IN ENGLAND.

COMMENTING on the short system under the head of "Later-day Break Systems," Liverpool, England, Milling says: In a recent number the question was asked, was there any "short system" of milling advocated in England. It is doubtful whether there is any actual short system advocated by any English miller, but there is among most of them a decided tendency to shorten some of the operations in recently designed mills, and we think we may safely say that a 10 sack mill of to-day is projected and planned with fewer machines than a mill of the same capacity erected six or ten years ago. That part of the milling system that there is the most decided tendency to shorten is the breaks, and the effect of this is felt throughout every other part of the mill. It is interesting to trace the evolutions of the break system in gradual reduction milling. Some of the earliest roller mills were built with four or at least five breaks, and many of them, especially those in which the output of the mill was kept within the designed capacity, continued to do fair work. In others, in which the output was increased, the break capacity was not found sufficient, and one or two breaks were added. This practice was followed in new mills, and six and in some cases seven break mills became common and continued the prevailing type for some years.

Then came the discovery that the much talked about "crease-dirt" had for all practical purposes no existence, and that the blue flour made in the first break "splitting" process was not crease-dirt at all, but was the result of imperfect wheat-cleaning. When this discovery was clearly understood, heavier breaking on the first-break rolls was inevitable, and was tried with such excellent results that some millers remodelled their break system by dividing their available roller surface into four instead of six breaks. This is undoubtedly a movement toward "short system" milling, but it has much to recommend it to the practical miller. As we have said before, theoretically, the products of the break system should be well-shaped middlings and broad bran; in practice it is not found possible to obtain these two products without an admixture of flour, fluff, bran powder, small bran and large "nubs," or middlings with particles of bran adhering to them. Now it is evident that the system which in practice produces the largest possible percentage of the two first-named products and the smallest percentage of the five last named is the best one for the miller to adopt.

We contend that this desirable result is produced by a well-designed four-break system. If this is intelligently worked, the break-flour will be very small in

quantity, much smaller than in most six-break mills. In some of these the production of break-flour was excessive, chiefly because the miller seemed afraid to let his earlier breaks, where the best middlings should have been produced, do their full share of work, and from reasons that we could never understand, broke very slightly on his first three breaks, leaving far too much work for the fourth and fifth, with the result that these rolls are always over-fed, working hot, and consequently are making an abundance of flour and very few middlings. Small bran was also a result of this method. So much of the breaking was left to be done on the finely corrugated rolls that the bran was incessantly cut up by them, and the percentage of broad bran was very small. In a modern four-break system these evils are practically non-existent. With perfectly cleaned wheat it is possible to come down heavily on the first break without any fear of back flow, and with properly corrugated and speeded break-rolls a very large percentage of well-shaped semolina and middlings can be made with an almost infinitesimal percentage of break-flour. In addition to this the tail of the first-break scalper is left in such a condition that they may be effectually cleaned by the remaining three breaks without unduly heating in the grinding or making small bran.

Thus we have proved by actual experiment a system well known to us, formerly working six breaks and making six sacks of flour per hour, yet notwithstanding this increased output on the same roller surface, the total quantity of break-flour is considerably less than before, while the percentage of middlings is much greater. This exceptional result is due to the special corrugations of the rolls, but during the last few months two well-known millers, whose mills have been altered at our suggestion, have expressed their greatest satisfaction at the change and state that the results obtained were infinitely superior to the old process. Of course there are factors in the case other than the mere change in the number of breaks. Well-constructed roller-mills, sharp rolls, ample roller surface, perfect parallelism and exact adjustments, and right shape and number of corrugation and skill in manipulating are equally necessary in the short as in the long system, but these are what we expect to find in every well-ordered mill. If these are present, then a four-break system, with the first break breaking so heavily that all the germ is released and eliminated by it, and none is left to go the second-break hopper, will give better results with less power than any six or seven break system we have ever seen.

EXPORTS OF WHEAT AND FLOUR.

THE exports of wheat and flour in wheat (reckoning 4 1/2 bush. wheat to a barrel of flour) from all United States ports as reported by the Chief of the Bureau of Statistics of the Treasury Department monthly for four years were as follows:

Months.	1891.	1892.	1893.	1894.
January	14,046,408	20,182,534	9,155,588	7,997,354
February	13,248,860	15,255,824	7,791,015	9,379,793
March	13,618,827	15,625,600	10,599,208	10,077,054
April	12,210,494	14,395,140	10,872,949	9,913,515
May	14,343,490	16,142,082	10,242,119	8,884,630
June		14,928,274	10,422,770	6,857,143
July		13,720,154	13,694,899	7,862,532
August		19,533,231	26,269,582	9,428,115
September		17,966,491	25,797,085	5,418,085
October		20,687,559	16,016,040	7,571,682
November		17,847,112	20,705,320	7,177,941
December		17,423,590	23,089,308	9,613,712

STRENGTH OF SHAFTING.

IT is generally pretty well known that a shaft will transmit power in proportion to its running velocity, and, therefore, the faster a shaft runs the lighter it should be within reasonable limit. The use of extremely heavy shafting is not advisable under any circumstances unless actually needed to perform the work required. That there should be an ample margin of strength no one will deny, but shafting multiplies in strength so rapidly as sizes increase, that the unenlightened are apt to make the selections much too large when aiming at only strength margin. To show how easily uninformed mechanics may make mistakes of that kind, it is only necessary to say that a three-inch shaft has nearly three and one-half times the transmitting strength of a two-inch shaft. None unaware of the fact would ever guess at that difference and may fall into the error of selecting a three-inch shaft to safely do the work of a two-inch.



The particular purpose of this department is to create an increased market for Canadian mill products—flour, oatmeal, cornmeal, rolled oats, pot barley, house and split peas, etc.—at home and abroad. The interested miller who reads the grant will lose thoughtful consideration. Any matter that is likely to lead to an improvement of conditions in the local market of any of the various provinces of the Dominion will be carefully considered in this department. A close study will be made of the foreign markets with the aim of further developing the Canadian export trade. The MILLER reaches into every crevice of the field of flour handlers and buyers of mill products, not only within the borders of the Canadian confederation, but in New Zealand, the West Indies, East of Britain and other far-off corners. This department will be made valuable to them in discussions of the conditions of the market in this country, reliable market data, the manufacture of mill products, methods of transportation and shipping intelligence in their business, and in relation to the milling industries. We invite correspondence from millers, shippers, and lawyers on any matter involving the import or export of grain.

HELPING NEW MARKETS.

A VIGOROUS effort is being put forth in Halifax to extend the trade of Canada with the West Indies and South America, and a joint stock association is to be organized to effect this purpose. Messrs. Spun, of Halifax, and McKay, of Demerara, are moving actively in the matter. They claim, and Mr. McKay speaks from eleven years' knowledge of these markets, that Canada is the natural source of supplies for these countries. There was a large trade to be developed in Canadian products, flour and other products of the mill being the more important. There was a large consumption of bread and biscuit amounting annually to 6,000,000 pounds. This trade was at present largely controlled by the United States, who dealt with the Indies in other articles. The plan of the proposed association would be to divert this trade into Canadian channels. Men of responsibility would canvass the trade, working up profitable business connections, receiving their pay on a commission basis. These agents would also solicit and secure return consignments of the various products of those countries, largely consumed in Canada and largely imported indirectly. The suggestion is to divide the stock of the proposed company as follows: \$25,000 for Nova Scotia, \$25,000 for New Brunswick and Prince Edward Island, and the remaining \$50,000 between Ontario and Quebec. This would prevent any one province having a controlling interest in the stock.

CONFERENCE ON UNDER-BILLING.

The deputation of President McLaughlin and associates of the Dominion Millers' Association, who held a conference with the managers of the C.T.R. and C.P.R. at Montreal on the 24th ult., re the question of under-billing of grain and flour shipped on cars, were given every assurance of the co-operation of the railway companies to put a stop to this practice. Mr. McLaughlin suggested that if, whenever a greater weight was found in a car than marked on the shipping bill the surplus be charged at full local part car load rates, it would have a salutary effect. Also, that legislation should be sought by the railroads which would make under-billing a criminal offence, and make not only the shipper and receiver but also the railway agent, if privy thereto, subject to heavy penalties. Mr. Sergeant sympathized with the millers, and would join with them heartily in every possible way to suppress this crying evil. The Grand Trunk had weighing scales at 30 points, and by increasing the billing to the correct weight had succeeded in increasing their receipts from this source alone about \$100,000 a year, and still the rascally practice of "under-billing" was not extinguished. Indeed some of their customers had kicked, and said if they did not stop weighing their cars they would cease shipping by them. In the States this evil had grown to such an extent that under the "Interstate law" "under-billing" had been made a criminal offence punishable by imprisonment for two years and a minimum fine of \$5,000. The railroad would be glad to assist in getting similar legislation passed next session, and would assist the Dominion Millers Association in enforcing the railway act in seeing that equal privileges were given to all. Mr.

Shaughnessey, of the C.P.R., said that his company had been seriously defrauded by this practice. Some of the cars originating at G.T.R. as well as C.P.R. points had been under-billed to the extent of 200 bags or 200,000 lbs., which meant not only a loss of about \$50 a car in freight, but what was much more serious the grave probability of the car breaking down owing to overloading, and perhaps wrecking a train and thereby causing damage and perhaps loss of life. He would assist with all his influence in obtaining legislation to make under-billing a criminal offence, both for agents and shippers, and would join with the Grand Trunk in a joint circular to agents, and charge double rates or local part carload rates on all overplus. Both general managers agreed from this time forward to notify the secretary of the Dominion Millers' Association of all cases of under-billing of flour, grain, etc., giving full details of the same, with the names of the shippers and receivers.

CURRENT COMMENT.

The Miller, of London, Eng., says: "That the sellers of American patents have had uphill work during the past three months is perhaps the loudest echo of Mark Lane market. The pecuniary embarrassments of certain firms have led to the forced sale of a good deal of imported flour, and although perhaps low grade has made up the largest item in this bill, yet no inconsiderable amount of excellent patent flour was thrown on the market and bought at very low figures. A case in point is the purchase of 1,000 sacks of a well-known patent at 23s. a sack. That price was secured by a factor, who, having a sound circle of custom among metropolitan bakers, could turn his purchase to good account by competing with higher-priced brands, of which the quality was little, if at all better."

A sign of the times, which will not be relished by English millers, says the Mark Lane Express, is the establishment of a "forward market for American flour. The London produce exchange, from and after June 1, has established a basis type, which is called "American bakers' flour." The weight is 280 pounds, or a full sack, and the competition is with Norfolk and other sorts of English country flour. The opening prices are 17s. 3d. per sack for delivery at a later date, up to the end of October, does not look like much practical belief in scarcity as a result of the short American crop of the present year."

A DISTINGUISHED VISITOR.

The coming visit to Canada of Professor William Jago, an English baking engineer and chemist of international repute and an accomplished lecturer, is an event of no uncommon interest to Canadian millers.

Professor Jago is honorary chemist to the National Association of British Master Bakers and Confectioners, and his purpose in coming to America is to bring the actual producers and consumers of flour in more direct touch with each other. For this purpose each mill visited will be dealt with in a special paragraph of the report and the following particulars will be given:

1. Name and location of the mill.
2. Varieties of wheat used and district from which obtained.
3. Varieties of flour produced, names of brands under which sold, list of British factors importing and handling same.
4. Route of transport to Great Britain, and average time occupied in carriage from mill to British port.
5. Properties of flour as claimed by the miller.
6. Results of analysis of the flours. These will include reports as to color, strength, quantity and quality of gluten, and water absorbing power.
7. Baking tests. These will be specially adapted to the proposed uses of the flours. Speaking generally, the report will give particulars as to water taken by each flour, weight of fermented dough produced, and yield in bread. The character of the dough will be described; also that of the baked loaf, including color, flavor, volume, pile and bloom of crust.

Biscuit, cake and pastry flours will be subjected to special baking tests.

For inclusion in this report, a fee will be charged to each separate mill, depending somewhat on its actual location. This fee will cover the analysis and reporting on two samples of flour. Additional flours will be included at a fixed charge per extra sample. The fee is payable at the time of visit being made and samples taken.

The samples, weighing 14 pounds each, will be taken and sealed personally, and must then be delivered, carriage paid, to port of embarkation for America.

A complete copy of the report will be forwarded to each subscriber to same.

Under no circumstances will any mill, or series of flours, receive preferential treatment in this report. It is proposed to classify the results into natural geographical districts, arranging all mills in purely alphabetical order. Nothing in the nature of a trade puff will be inserted, but the report will be so couched as, so far as possible, to be of genuine service to the producers and handlers of all flours included in same.

Any step taken that will give British consumers a more perfect knowledge of the real nature of the flours turned out from our Canadian mills will certainly work for the gain of the Canadian miller. He need have no fear of the severity of the test or the character of the competition. The Canadian miller knows how to make first-class flour.

Professor Jago is expected to sail from England so as to reach Montreal about the 20th inst., and millers who desire to place themselves in communication with him will address: Wm. Jago, care of Messrs. H. & R. Allen, Montreal, Que.

THE FLOUR MARKET.

There is hardly any possibility of giving variety to the flour market of late. The story is one of continued dullness. Not a few of the mills in Ontario are running on short time, the demand for either export or local consumption being small. Prices show very little alteration.

PRICES OF FLOUR AND MEALS.

Toronto: Car prices are: Flour (Toronto freights), Manitoba patents, \$4 to \$5.10; Manitoba strong bakers, \$3.70 to \$3.80; Ontario patents, \$3.40 to \$3.70; straight roller, \$2.85 to \$3.10; extra, \$2.65 to \$2.70; low grades, per bag, \$1 to \$1.25. Bran, \$1.10 to \$1.2. Shorts, \$1.30 to \$1.5.

Montreal: Flour—Straight rollers have been offered at \$3.15 to \$3.25 and extras at \$2.90 to \$3.05. We quote: Spring patent, \$4.10 to \$4.15; winter patent, \$3.90 to \$4.10; Straight roller, \$3.10 to \$3.25; Extra, \$2.90 to \$3.05; Superfine, \$2.60 to \$2.90; City Strong Bakers', \$3.80 to \$3.90; Manitoba Bakers', \$3.65 to \$3.80. Meal and Feed (Oatmeal quiet but steady and stocks small. Standard in bags, \$2.10 to \$2.15 and in barrels \$2.30 to \$2.35; granulated \$2.15 and \$2.35 respectively. Rolled oats, bags, \$2.15; brls., \$2.25. Good demand for feed and shorts scarce. Bran \$1.3 to \$1.4; shorts, \$1.7 to \$1.8 and mouille \$2.0 to \$2.3.

Manitoba: No change to be noted. Patents, \$1.90; strong bakers', \$1.70; XXXX, 80c. to 95c.; superfine, 60 to 70c. Oatmeal, etc., irregular in price. Rolled oats, \$2.10 to \$2.30 per sack. Granulated varies from \$2.10 to \$2.30; standard, \$1.90 to \$1.95; cornmeal, \$1.60 to \$1.65; beans, \$1.40 to \$1.50 per bushel; split peas, \$2.40 to \$2.50; pot barley, \$2.50; pearl barley, \$4 per sack.

CHANGE IN OWNERSHIP.

SOME time ago there was a rumour that the milling business of Mr. W. R. McAllister in Pembroke, and W. R. McAllister & Son, Pakenham, were to be converted into a joint-stock company, but this is not to take place, as Mr. C. R. McAllister has bought out his father's interest in the Pakenham mill, and the business of the mills at Pembroke and Pakenham will be conducted under the firm name of W. R. McAllister & Son. Mr. Charles R. McAllister will take sole management, with head office at Pembroke, and Mr. D. H. McAllister takes charge of the office at Pakenham. The firm will open an office and salesroom in Montreal, with Mr. J. DeWitt as agent and manager. This gentleman has had considerable experience in the flour milling business, having been seventeen years managing salesman for W. W. Ogilvie, Montreal, and as evidence of his faith in the new firm he has invested quite a sum of money in it.

WHEAT GROWING IN INDIA.

THERE are those who pretend to despise the importance of India as a wheat growing country, but in the opinion of Wilder Grahame, who contributes a paper on the subject to the Northwestern Miller, India is to be ranked as a formidable competitor in the wheat growing industry, and a competitor which will become more formidable in the course of time, by the introduction of modern machinery and modern commercial facilities.

The area of the country is large, the regions most suitable for wheat covering an area of 10,000 square miles. The climate is very favorable. Two grain crops can be grown each year; the first grain season beginning about the middle of June, with the harvest in September and October. Another crop can be immediately sown which is ready to cut in March and April. The dry season follows the second harvest in March and April, during which garden stuff is grown to some extent.

Implement of cultivation are very inferior. The plow is a primitive wooden affair, which simply ruts up the ground, and does not turn the soil. The plow costs about forty cents, and a complete outfit for plowing, including a yoke of cattle, plows and fastenings, is worth about \$8.50 in India. The Indian oxen are said to be about one-third to one-half the size of our cattle. After plowing, a log or slab of wood is dragged sideways across the field to crush the lumps and smooth the surface. Seeding is done by hand, either sprinkled along the rows after the final plowing, or introduced into the furrow through a hollow bamboo rod fastened to the plow. From 100 to 150 lbs. per acre are sown. In some sections the wheat is carefully weeded, and the weeds utilized as food for both the people and cattle. Irrigation has to be resorted to nearly everywhere, three times being perhaps, the average number of floodings for each crop. The methods employed vary considerably with different localities, but the process is usually accomplished at a cost not exceeding \$2.25 per acre.

About five months from the time of seeding, the grain is ready for the reaper. The reaper is a blade of iron six inches long, one inch wide, and curved like an old-fashioned sickle. The straw is cut handful by handful, and laid aside by the harvester, who sits upon his heels and moves himself forward by a peculiar waddle, quite comical to the observer. About one-twelfth of an acre per day is his stint, for which he receives 50 without board. A binder follows this primitive reaper and gathers the grain into sheaves, much like our own. These are shocked and are allowed to stand a day or two before they are carted to the threshing floor.

Perhaps says the writer, at no stage of the entire process is there a greater difference in the procedure between the wheat grower of America and India than in the threshing. In the centre of a bit of hard ground a stake is driven, around which is piled the grain. A rope attaches the stake to the horns of the cattle, which are then driven around until the straw is trampled fine, into what is termed "bhooza," which is the principle food for the cattle. To any other process the natives vigorously object, claiming that the straw must not only be cut but flattened, just as this method does it, which our machinery will not do, to get the greatest food value from it. There is too much force in this objection to be easily overcome, and it is not probable that threshing machines will be successfully introduced until some such devices as the silo have been firmly and widely established.

After the tramping process is completed, the "bhooza" is winnowed, by allowing it to drop from a sort of basket screen before the wind. This separates the chaff from the grain. The former is gathered into bins and fed out very carefully; the latter either played at once upon the market or burned in a mole to await higher prices. Very little of the wheat is eaten by the people themselves, as it is too expensive for ordinary use. The weeds and coarser grains furnish the natives with life, leaving it for the wheat to furnish him with money or the necessities that must be purchased.

The cost of raising an acre of wheat is put at the following:

Rent per acre	\$ 4.00
Carriage of manure	1.25
150 pounds of seed	1.00
Flowing twenty times	.75
Sowing by hand	.45
Winnowing three times	2.25
Reaping and carting	.60
Threshing	.35
Winnowing	.97
Total	\$10.02

On good irrigated land the average yield is 17 bushels per acre, and to or 11 on dry lands, which, however, may be had for much less rents. The average price is 68¢, which brings the returns from the acre of wheat to \$11.50 and the straw to \$3, or \$14.50 in all. This leaves a profit of \$3.94 per acre. The expense, however, as estimated, includes the work of the farmer himself.

A large proportion of wheat raised is thrown upon the foreign markets, where it comes into competition with our own, for the average natives too poor to use it himself, except as an occasional luxury. Not so very long ago, however, he could not afford to send it away, on account of the high freight rates, consequently what little was raised was used for local consumption, or, rather, no more could be raised than could be disposed of locally. At that time an ox cart would haul 2,400 pounds, or 40 bushels, 12 miles, or one day's drive, for 40 cents a cent per bushel. From Cawnpore to Calcutta is 684 miles, and the transportation alone made the wheat worth 57 cents per bushel at the latter place.

The introduction of the railway into India has changed all this, and made the price of wheat depend upon the price in foreign markets.

BRITISH IMPORTATION OF WHEAT AND FLOUR.

FOLLOWING is a table showing the importations of wheat grain and flour into Great Britain during April for three years, and during the first three months of each of the same years, together with the sources of supply.

WHEAT.	Month of April		
	1891	1892	1893
From Russia	2,104,007	70	4,072,000
Germany	98,002	11,240	47,000
France	11,057	1,705	—
Turkey	8,000	10,000	5,777
Roumania	12,000	1,000	—
Egypt	77,774	538,000	—
United States	—	—	—
On the Atlantic	58,000	1,277,000	1,000,000
" Pacific	10,000,000	180,000	607,000
China	47,000	80,000	60,000
Argentine Republic	450,000	207,000	200,000
British East Indies	500,000	270,000	100,000
Australasia	100,000	50,000	100,000
British North America	—	—	—
Other Countries	1,000	20,000	10,000
Total	3,000,000	1,800,000	5,000,000
WHEAT MEAL AND FLOUR	—	—	—
From Germany	100,000	2,000	2,000
France	50,000	2,000	50,000
Austrian Territories	100,000	1,000	100,000
United States	1,000,000	1,000,000	1,000,000
British North America	—	—	—
Other Countries	100,000	20,000	50,000
Total	1,800,000	3,200,000	2,000,000

WHEAT	Three Months Ended April		
	1891	1892	1893
From Russia	4,724,000	8,800	11,000,000
Germany	400,000	10,000	100,000
France	40,000	10,000	—
Turkey	100,000	10,000	100,000
Roumania	100,000	10,000	—
Egypt	100,000	10,000	—
United States	—	—	—
On the Atlantic	1,000,000	1,000,000	1,000,000
" Pacific	1,000,000	1,000,000	1,000,000
China	100,000	100,000	100,000
Argentine Republic	1,000,000	1,000,000	1,000,000
British East Indies	1,000,000	1,000,000	1,000,000
Australasia	100,000	100,000	100,000
British North America	—	—	—
Other Countries	100,000	100,000	100,000
Total	10,000,000	10,000,000	10,000,000
WHEAT MEAL AND FLOUR	—	—	—
From Germany	100,000	100,000	100,000
France	100,000	100,000	100,000
Austrian Territories	100,000	100,000	100,000
United States	1,000,000	1,000,000	1,000,000
British North America	—	—	—
Other Countries	100,000	100,000	100,000
Total	2,000,000	2,000,000	2,000,000

TELEPHONING OVER TELEGRAPH WIRES.

AN apparatus has been constructed for telephoning simultaneously over telegraph wires. The system has been in operation for some time on the telephone line from Budapest to Sregeedin, a distance of 121 miles. The results were satisfactory. The apparatus can easily be inserted in a telegraph circuit and used at once. It is said that simultaneous telegraphy along the wire does not in the least interfere with telephoning, and that the effects of induction and all disturbing noises are completely removed.



Office of the CANADIAN MILLER, 1 July 15, 1893.

THE GENERAL SURVEY.

A SLUMP of over two cents a bushel in the price of wheat on the last day of June made matters lively on the Chicago market and added interest to the markets generally. No. 2 wheat for July delivery touched 61¢, the lowest figure yet recorded. The cause of the slump was attributed to Beerholm saying that five districts of India raised 50,000,000 bushels more wheat than last year. With others the change was credited to the silver news from India. The truth is that financial affairs in the States at the present time are rocky enough to take away the newness of any surprise. The remark of an old operator that "Americans are completely cleaned out of money" is probably nearest the mark.

The New York Sun has been making a careful investigation into the cause of decline in wheat prices, and expresses the view that the present abnormally low price is due mainly to financial stringency, which forces borrowers who hold wheat to sell. There is also a surplus of about ninety million bushels from last year's American harvest, and the crop will be in a few months. But there has also been a steady decline during the last decade, for the reason that the cost of production and transportation has fallen. In 1882 and 1883 the average price of wheat in New York was \$1.28; in 1886, 80 cents; in 1887 90 cents; in 1890, 97 cents; in 1891, when European harvests failed, \$1.08. Last year's quotations began at \$1.05 1/2, closed at 78 1/2 c, and averaged 90c for the twelve months.

Railroad building, says the Sun, has opened up immense stretches of new wheat lands, especially in the Northwest, where the length of the summer day more than compensates for the shortness of the season, and where Scotch Fife, Blue Stem and other sterling varieties thrive. Great improvements have been made in farm machinery. Gangs of four ploughs are not uncommon on prairie farms. Sowing and reaping are carried on with great rapidity. Farm machinery has fallen in price. A farmer in Minnesota or Dakota can buy a plough, a tedder, a rake, a seeder, a harvester and self-binder for from \$350 to \$400, according to size, quality and distance from the railroad. If his farm is not large enough to warrant his getting a thresher and cleaner of his own, he can join a club and share with his neighbors in the use of a machine easily dispatching two bushels a minute. Another cause of cheapness which The Sun notes is the advance of agricultural science, tending to make the crop more easily raised and more plentiful.

These views were voiced in an interview with a prominent miller and grain merchant of western Ontario in the MILLER columns a few months ago.

Reports of the coming harvest have changed little since our last writing. On the whole both on this continent and in Europe there has been improvement.

THE NORTHEY MANUFACTURING CO.'S NEW PREMISES.

The Northey Mfg. Co., of this city, manufacturers of pumping machinery, have just completed and equipped a new factory at the King street railway. A representative of THE MILLER recently paid a visit to the new works, and was taken in hand and escorted through the premises by the court levis secretary treasurer of the company, Mr. J. E. Fell.

The main building is laid out on the most approved modern lines, and divided into three wide bays of about 30 feet each. This building is 250 feet long, and the pattern shops, brass foundry, boiler house, pattern storage, offices and subsidiary buildings are on a proportionate scale. The side bays are to be used for the small tools, and the centre bay for the heavier tools, erecting, testing, etc.

This division is equipped with surface and overhead transportation machinery of the latest and best description, working in connection with private switches from the Canadian Pacific and Grand Trunk railways. The handling and shipping facilities are thus most complete.

The tool equipment includes the best special modern machines for single and duplex pump manufacture, turning and boring machines, gang milling machines, screw and turret machines, etc.

Fuel gas is used for boiler firing, heating of factory, forges and brass melting pans; electricity for lighting factory and working travelling crane.

This is by far the best equipped and largest hydraulic works in Canada, and turns out work which commands a large and increasing sale.



CANADA.

White's mill at Pilot Mound, Man., is doing a good custom trade in flour.

The Mossburn Elevator company, limited, Man., has been sold out by the sheriff.

W. L. Griffith's elevator at Emerson, Man., was, on the 2nd inst., totally destroyed by fire with 20,000 bushels of wheat.

The steamer Sitka, which struck the Cause rocks, near Pt. Arthur, Ont., suffered damage to about 10,000 bushels of wheat.

The bill granting \$5,000 to aid in the erection of a flour mill at Prince Albert, Saskatchewan territory, has been carried.

Wm. A. E. G. Greay, mill builders, Toronto, are building a 75 barrel flour mill at Stenhook, Man., for Reimar, Barkman & Co.

Robin, Atkinson, Clarke, Crowe, Rawlf and Mitchell desire incorporation as the Northern Elevator company, with headquarters at Winnipeg, and capital of \$250,000.

The grist mill at Kinton, Ont., which has been idle for some time, has been purchased by Mr. Cawthorp. It is to be removed to Thymesford, and used as a storehouse for flour, wheat and other grains.

Phillips & Richardson, of Portage la Prairie, Man., intend commencing building operations on their elevator this month, and with 100,000 bushels of wheat in view, Lumsden will be one of the best wheat markets in the Territories.

Walker and Carson propose erecting a flour and oatmeal mill at Carman, Man., with a capacity of 200 barrels of flour and 75 of oatmeal. They ask a bonus of \$5,000 and a municipal by-law will probably be submitted upon the bonus question.

The Ogilvie Milling Company's cash prize of \$125, offered for the best twenty five bushels of Red Fife wheat shown at the Winnipeg Industrial Exhibition is to be open for competition to the Territories as well as Manitoba this year.

Grubs are reported to be doing considerable damage to wheat in some parts of Manitoba. The big plain north of Carberry has had several fields destroyed. The damage is mostly confined to summer fallows, that were allowed to grow up in woods and so furnish a resting place for the larvae.

Dow & Curry, of Pilot Mound, Man., have purchased the mill and engine at Clearwater and they will move it from there to Pilot Mound where it will be used in the construction of their oatmeal and barley mill. They expect to begin work upon the building immediately. Mr. Dow is a miller of large experience.

Forwarding companies were never kept as busy handling grain on the St. Lawrence as this season. Since April the Kingston & Montreal Forwarding Company has received 1,072,000 bushels and handled at Ogilvensburg 600,000 bushels additional. As much grain has been received up to the present as was handled in the whole season before.

J. M. Larch & Co., Wakefield, Que., are having a survey made with a view to having a branch from the main line of the C. T. R. run up to their mills where they intend building a large grain elevator. It is learned also that this firm, in the near future, intend to put in an electric plant for lighting their own flour mill, woollen factory, store and offices.

The machine, wood working, and tin shops, comprising the principal building of the North American Mill Building Company's works, were destroyed by fire on Monday, 3rd inst. When first observed, between nine and ten o'clock, the fire was confined to a few square inches on the roof, having evidently caught from a spark. The fire company attached to the works were quickly on hand, but owing to the bursting of a hydrant were unable to reach the spot with water, and in a short time the whole building was a roaring furnace of flames. When water was obtainable efforts were directed towards saving the adjoining buildings, with success. The building contained a large quantity of machinery in course of construction necessary to the filling of several contracts which the company have on hand. The loss on buildings and stock is estimated at \$30,000. The insurance companies interested are London and Lancashire, Royal, Western, Perth Mutual, Etna, London and Liverpool and Globe, and Phoenix.

FOREIGN LETTER BOX.

RUSSIA.

THIS year's grain in Russia will be conspicuous for big kernels and high natural weight. Crops in the south are looking well.

BUDAPEST.

Flour is very stagnant. Little is moving for either home or export trades and stocks are more than sufficient to meet all needs. Crop prospects have improved some during the month with weather more favorable. Spring wheat presents a poor showing. The Pester Lloyd, under date of June 22, says that recent rains have improved the Hungarian wheat 50 to 75 per cent. Cereals have fully recovered, and potatoes are in excellent condition. The meadows are improving so rapidly as to remove all anxiety on the part of the farmers.

GREAT BRITAIN.

At London, Liverpool and Glasgow the flour market is very depressed, and buyers are tenuous abstainers in buying. Ocean rates are still higher than they were a week ago, this being particularly applicable to London, and, in nearly as great a degree to Liverpool. Glasgow has changed little. Other ports have also been subject to higher rates, notably Antwerp and Leith. This has surprised local shippers, and they are unwilling to believe that present rates will be long lived. The only apparent cause for the heavy advance is the increased amount of grain being exported.

MINNEAPOLIS.

We have been writing of dullness in the flour market for some time past and it cannot be said that any improvement has taken place within the past month. The output of the mills is variable, but on the light side. The Northwestern Miller says: "Domestic trade is light at the best, and consists, virtually, of small orders from old customers. Prices, while not apparently lower, are rather weaker. Foreigners are fairly good bidders. They seek flour for future shipment as October. Millers, however, figure that it costs 7c. per barrel per month to carry flour, and not very many are found that are willing to sell ahead so far. Some millers continue to find the export trade better than the domestic, while others report business about as good from one quarter as the other. More or less low grade has lately been sold here for exportation to Holland, and at fairly satisfactory prices. Considerable inquiry has been made for bran, but millers, as a rule, are unwilling to bother with this sort of business, as deals in the past have not proven satisfactory."

PERSONAL.

Mr. M. F. Rice, who has been second miller at the Ogilvie mill at Winnipeg, Man., has been removed to Montreal, where he takes the position of head miller in one of the Ogilvie mills there.

Mr. James Hargreaves, who left Minneapolis a short time since to run one of the Ogilvie mills at Montreal, has returned to Minneapolis, where he has taken a position in the Standard mill.

Mr. G. A. Thomson, of Montreal, has been spending a fortnight in Duluth looking after grain interests and shipping grain to Montreal.

Mr. W. B. McAllister, who has recently retired from the milling business in Pembroke, Ont., intends devoting his energies towards developing his mining properties in Hastings and Frontenac. As noted in our news columns, the milling business has been purchased by Mr. McAllister's sons.

Mr. J. C. Leslie, of Toronto, who died at the age of 90 years a fortnight ago, was one of the oldest traders in Canada, having been in business for nearly 70 years. He opened the first flour and feed store west of Kingston and was a pioneer in the nursery plantation business.

NEWS AND NOTES.

The flour mill at Kincaidline, Ont., has been purchased by K. M. Watson, and put in first class working order.

An elevator, unoccupied, on Canal St., Montreal, Que., was destroyed by fire on the 7th inst. Loss, \$30,000.

The municipality of Wawanesa, Man., offer a liberal cash bonus and other inducements to a practical man who will operate a grist mill in that locality. Particulars are furnished in our advertising pages.

The News, Truth, N.S.: THE CANADIAN MILLER, Toronto, is right up to the times in all matters pertaining to the milling industry.

STEAM PUMPS



Duplex AND SINGLE Steam AND POWER Pumps

If you require a pump for any duty, of the latest and most improved pattern, and at close prices,

WRITE US

NORTHHEY

MFG CO.

LIMITED

TORONTO - ONT.

COOPERAGE.

There is a close affinity between the work of the cooper and the business of milling. The miller is either his own cooper, having a cooperage as an adjunct to his mill, or else he resorts for his supplies on an outside cooperage. The cooper in any case finds one of his best customers in the miller. The object of this department is to bring each in close touch with the other and to materially advance the interests of both.

THE MONTH'S TRADE.

WE are pleased to say that since our last report the cooperage business all over the country has materially improved, the mills are running much heavier than they have been doing for some time and coopers are beginning to make apple barrels for the fall. Up to the present, prices have not been affected, and we do not expect they will go higher at present, as there are ample stocks of staves, hoops and heading on hand at the different factories to be able to meet any demand.

Some of the millers have shown an inclination lately to make their barrels with half round hickory round hoops, the same as are used very extensively in Minneapolis. Others are going into using the patent wired hoop, as used by an English syndicate in Minneapolis on their barrels; this hoop is the ordinary patent elm hoop, with a groove running down the centre in which is inserted a coppered steel wire. The hoops are colored for ornamental purposes, and a very pretty barrel is the result. The great strength of the wire prevents the hoop from breaking or coming off even when broken, and when kiln dried stock is used with these hoops, such a thing as leakage of flour is never heard of.

COOPER'S CHIPS.

James Innes, of Sutherland, Innes & Co., Chatham, Ont., when in Minneapolis a few weeks since, said to a reporter that while barrel stock is not in very brisk demand, his firm is doing considerable business in the east, and particularly at Buffalo. The apple crop, both in the United States and Canada, is of the most promising sort, and No. 2 stock will be required in large amounts from that quarter. For No. 1 elm staves, \$6.75, delivered at Minneapolis, is as low as manufacturers can afford to sell. While at Minneapolis he closed a contract with L. Christian & Co., for 20 cars of elm staves.

Letters patent have been issued incorporating the Bain Wagon Company Ltd., Woodstock, Ont., capital \$100,000. This company, besides the ordinary wagon business, will acquire and hold the necessary real and personal property, including the business heretofore carried on at the said Town of Woodstock, by James Hay, the Elder, and James Hay, the Younger, also The Chatham Wired Hoop Company, Ltd., capital \$50,000, to manufacture and sell coopers' supplies and materials, etc.

During the last month, the new stove and heading mill of Schliehauff Bros., at Hiram, was burned down, the heading kiln containing heading boards was also burned. It is the intention of Messrs. Schliehauff Bros. to rebuild just as soon as possible, and have the mill in operation inside of a month.

June Stiles, miller, of Flint, Mich., had his arm broken in eight pieces.

PUBLICATIONS.

The fact, that "The Present Position of Roller Flour Milling" by Henry Simon, M. Inst., C. E., of Manchester, Eng., is written by one of the largest mill furnishers in Great Britain does not detract from the sterling merits of the book. The author has undoubtedly every faith in the Simon system of flour milling and the work before us is illustrated with a map of the world showing the developments of the Simon roller system, together with plates of typical mills and illustrations of the machinery used therein. But the merit of the book is in the historical account that is given of the development of flour milling and the various progressive steps taken in this development. As a practical mechanic and a master of the science of mill-building, Mr. Simon discusses with great clearness many matters of detail touching the engine room, and departments of the mill where the machinery is located. The volume is 9 x 11 inches, bound in cloth, gilt edge, faultlessly printed, on finely finished heavy paper, embracing about 100 pages.

"Ontario's Parliament Buildings, 1792 to 1892," by Frank Veigh, private secretary to the Commissioner of Crown Lands, is a book that will take prominent rank among the historical works of the Dominion. It was an opportune time, just on the completion of the magnificent pile in the Queen's Park, in which all Ontarians, and indeed Canadians from whatever province, have much pride, to take a retrospect of provincial legislation for the past century. Mr. Veigh has shown large industry in the collection of historical incidents and facts related to the subject matter of the book and has compressed into this one volume a mass of data that will be new to not a few Canadians, who doubtless consider themselves well-read on the affairs of their country. To the general reader the information will be, in no small measure, entirely new, and to everyone it must be very valuable. The book is written in an easy, sketchy style, that marks whatever comes from Mr. Veigh's pen, and contains many illustrations of prominent legislators and of different places of meeting of the legislature during the past hundred years. Bound in cloth and well printed. The Williamson Book Company, publishers, Toronto.

ANNUAL MEETING DOMINION MILLERS' ASSOCIATION.

THE order of proceedings at the annual meeting of the Dominion Millers' Association to be held in the Board of Trade Building, August 9th and 10th next, will be of a most interesting character. The programme has not been completed at the time the CANADIAN MILLER goes to press for July, but enough is known to assure everyone of a gathering alike profitable and enjoyable. How can the acme of first-class flour-making be attained; where the best markets and how to further cultivate them; what can be done to protect the honest dealer against the rascals who insinuate themselves into business; the grain trade, its outlook, and its relations to successful milling—these are but suggestive of the class of subjects that will be discussed and of their importance to every miller. The social side of the miller will not be forgotten, and something specially attractive and unknown in connection with former meetings is being planned. Remember the dates, August 9th and 10th.

WHAT GIVES OUT.

THE arms of pulleys as they are usually constructed have but little to do with the centrifugal strain upon the rim, and, so far as observation may go, it is quite evident that when a pulley is thus broken the rim is the part that first gives, and but few cases have come under observation where it was otherwise.

WANTED AND FOR SALE

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

TO MILLERS AND GRAIN EXPORTERS.
Advertiser wishes to represent a good miller or grain merchant in the London market on commission, references exchanged. T. H. BONES, 26, The Strand, London, England.

GRIST MILL FOR SALE.
SOUND PROCESS, DOING A FAIR BUSINESS, ample water power. Will be sold cheap. For particulars apply to
G. M. SHEPPEY,
Falkirk, Ont.

MACHINERY FOR SALE.
FOR SALE, ONE HORSE-POWER SET OF ROLLS 27 1/2" on bed-stone 4 1/2" dia. Spindle of cast-iron and driving gears, 14 1/2" dia. of lifting.
Address
P. LOCKS,
Hudson, Ont.

FOR SALE.
3 1/2 IN. DIAM. WATER WHEEL, RUNS 33 against the sun, has driven plate—good as new, also lot of heavy iron pipe and best graining. Apply
TORONTO RUBBER CO.
OF CANADA, LTD.,
17 King Street W.

TO MILLERS
FOR SALE.
NATIONAL ROLLER MILLS, BRUSSELS.
One capacity 100 barrels per day. Cheap easy terms of payment. Address
"R. C.," P. O. Box 65, Toronto.

IMPORTANT TO MILLERS.
LIBERAL CASH BONUS, FREE MILLER SWITCH, etc., offered to a practical man who will erect and operate a grist and flouring mill at Wawanosh, Man.
Location one of the best in Manitoba.
Correspondence invited.
JOS. CORNELL,
Secy of Ratopey's Committee.

AUCTION SALE
VALUABLE MILL PROPERTY

UNDER A POWER OF SALE, IN A MORTGAGE there will be sold at Martin's Hotel, Toronto, on
Tuesday, the 25th day of July, 1893
at 10 o'clock p.m. the Port Albert Mill Property in the County of Huron.
There is a first-class Roller Flour Mill, Saw Mill, Stave Factory, and Cooperage, two Dredging Houses, Stone, Stable and Laying shed. The mill is driven by water power, and its capacity is 25 barrels per 24 hours. The water power is one of the best, being on the Nine Mile River.
Port Albert is situated on the east shore of Lake Huron, 2 miles from Ewingham, and 100 miles from Godwin, in the county town. A large amount of money is now being expended by the Dominion Government at Port Albert harbor.
For further particulars apply to the auctioneer, A. C. HASKINS, Esq., Port Albert, or the Vendor's Solicitor.
Dated 10th June, 1893.
CAMERON, HOUL & HOULMES,
Vendor's Solicitors, Godwin.
THOS. GRANTON,
Auctioneer, Godwin.

SUBSCRIBE FOR

Canada Lumberman
YOU'LL LIKE IT
ADDRESS: TORONTO

MILLERS' & MANUFACTURERS' INS. CO.

ESTABLISHED - 1885
32 Church Street, Toronto

The President, James Gable, Esq., in moving the adoption of the report on the business of 1892, said: I have much pleasure in drawing your attention to the fact that this company has verified, in a marked degree, every expectation set forth in the original prospectus when organized in 1885.

Up to the present time the insurers with this company have made a saving, when compared with the current exacted rates, of \$91,000.20. And in addition thereto bonus dividends have been declared to continuing members amounting to \$21,522.72.

Besides achieving such result, we now also have, over all liabilities including a re-insurance reserved (based on the Government standard of 50 per cent. (50%), a cash surplus of 1.93 per cent. to the amount of risk in force.

Such results emphasize more strongly than any words I could and the very gratifying position this company has attained. Therefore, with this concise statement of facts, have much pleasure in moving the adoption of the report.

The report was adopted, and the retiring Directors unanimously re-elected. The Board of Directors is now constituted as follows: James Gable, Guelph, president; W. H. Howland, Toronto, vice-president; H. N. Baird, Toronto; Wm. Bell, Guelph; Hugh McCulloch, Galt; S. Neilson, St. Catharines; George Pattinson, Preston; W. H. Storey, Acton; J. L. Spink, Toronto; A. Watts, Brantford; W. Wilson, Toronto.

HUGH SCOTT, THOS. WALMSLEY,
Mgr. and Secy. Treasurer

WEBSTER'S INTERNATIONAL DICTIONARY
The successor of the "Unabridged."
Ten years' experience, ten editions employed, and over 200,000 copies expended.
Everybody should own this Dictionary. It answers all questions concerning the history, spelling, pronunciation, and meaning of words.
A Library in Itself. It also gives the facts often wanted concerning origin, present and modern, modern etymology, present and places, the countries, cities, towns, and natural features of the globe; translation of foreign quotations, words, phrases, and proverbs, etc., etc.
This Work is Invaluable in the household, and to the teacher, scholar, professional man, and self-educator.
The Globe, Toronto, says:—
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If you want **Staves, Hoops, Heading or Liners**
 For Flour Barrels, Meal Barrels, Apple Barrels, Salt Barrels, Bean Barrels
 or any other kind of Barrels, write to

... THEY MAKE THE BEST STOCK ...

SUTHERLAND, INNES & CO., CHATHAM, ONT.




"Build to-day then,
 Strong and sure,
 With a firm and
 ample base."
 — Longfellow.

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 will bring you
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MYERS' ROYAL CATTLE SPICE
 TESTIMONIAL
 DEPARTMENT OF AGRICULTURE
 ONTARIO,
 Toronto, March 17th, 1901
 Gentlemen: We have used Myers' Royal Cattle Spice
 during the present winter with both cattle and sheep.
 It seems to be equally valuable for both. I noted
 especially the benefit on a lot of weaning rams. The
 change in their appetite and appearance was easily
 perceived after the first week or two days feeding, and
 they have steadily and profitably gained since. Your
 very truly,
 (Signed) JOHN DAVIES,
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 Gilbey's Patent Dust Precipitator
 protects the nose and mouth from
 inhalation of poisonous dust. In-
 valuable to operators in every in-
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 Perfect protection with perfect ventilation.
 Market placed everywhere by mail, train, or package p. Can-
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 ROLLED OATS
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 Special terms made with Flour Millers for
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FLOUR BARREL STOCK
 ... STAVES HEADING ...
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AYTON, CHT. **N. WENGER & BROS.**

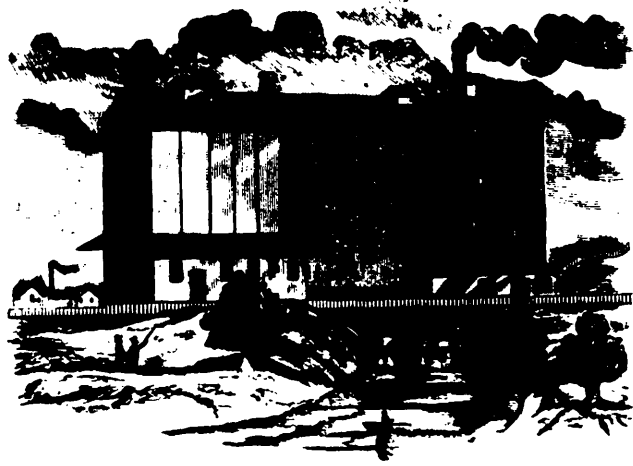
RESULTS —COME FROM—
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SPARKLING RIVER



Unsurpassed for Uniform Quality



GREENFIELD MILLS + AYR. ONT.

D. GOLDIE, Prop.

Daily Capacity 500 Barrels



3 1/2 Cents a day —

That isn't much money, is it?

About twenty-five cents a week or so.

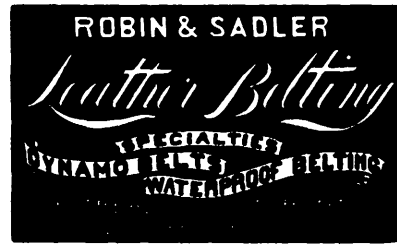
And a man must be pretty hard up if he hasn't that much to spend every week.

Times are hard, they say; but if they are hard now to your family and yourself, what will they be to your family without you?

That's worth thinking about

We think that no man should be without life insurance when it can be had at such a low rate as 3 1/2 cents a day from the Manufacturers' Life, Yonge Street, corner Colborne, Toronto.

Write to us and we will give you all particulars.



Send for sample of our new SAWMILL BELT



- Royal Mills, capacity 1,000 bbls.
- City Mills, 1,100 bbls
- Glenora Mills, 1,200 bbls.
- Goderich Mills, 1,200 bbls.
- Seaforth Mills, 600 bbls.
- Winnipeg Mills, 1,200 bbls

DAILY CAPACITY
7,100 BBLs.

HIGHEST QUALITY

Hungarian Patents
AND
Strong Bakers'

FIRST PRIZE, DIPLOMA AND
GOLD MEDAL, EXHIBITION,
JAMAICA

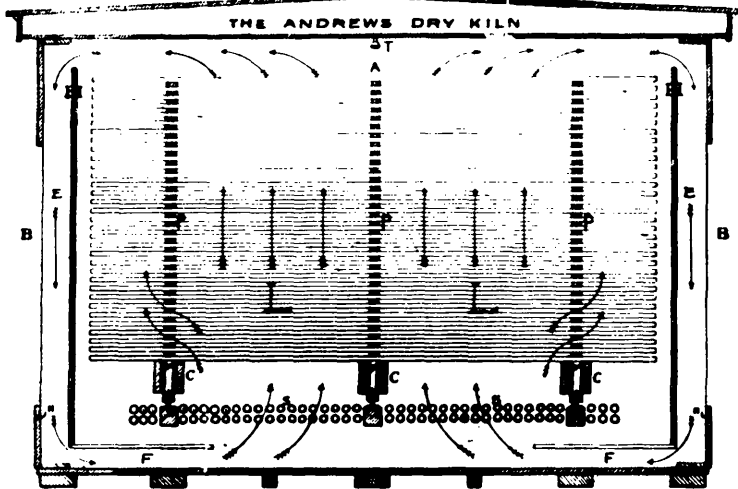
FLOUR

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HEAD OFFICE:
MONTREAL, QUE.

THE ANDREWS DRYER

For Lumber, Shingles, Staves, Heading, etc.



This system and apparatus covered by letters patent

A—Drying Room. B—Brass Condensing Walls. C—Lumber Cars. D—Down Air Flues. E—Bottom Air Flues. F—Brass Gutters for receiving condensed moisture. G—Sticks between Lumber. H—Double Steam-Cocks. I—Automatic Steam Fire-Extinguishers. Arrows show direction of currents of air on cars.

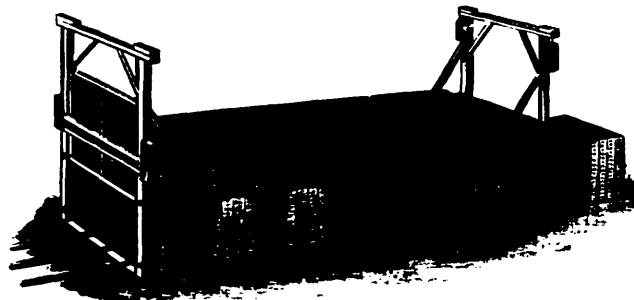
THIS DRYER

HAS PROVED TO PURCHASERS TO DO WHAT IS GUARANTEED IN SAVING THEM MONEY IN

Freight, Insurance, Time, Interest, Expense, Capital, Yard Room, Labor

There may be persons who do not appreciate the advantages of the artificial drying of lumber. But the shrewd men, in the manufacture of furniture and other woodwork where reputation would be sacrificed by a lack of proper material for good gluing and finishing, recognize a good system of drying as an important element of their success. High scientific authorities and thoroughly practical men are now agreed that the hot-blast and rapid-current systems ARE WASTEFUL, and that steam heat is the only safe means for artificial drying. The mode of applying steam heat most efficiently and economically is therefore now the essential point. The Andrews Dryer accomplishes this result more surely than any other known system.

- NO FAN
- NO ENGINE
- NO SMOKE
- NO CHIMNEY
- NO SPECIAL FIREMAN OR FUEL
- NO EXPENSIVE BRICKWORK
- NO RISK OF FIRE
- NO CHECKING OR WARPING
- NO CASE-HARDENING
- ... NO EQUAL ...



Outside View of the Andrews Progressive Kiln, showing Lumber placed crosswise the building, on cars.

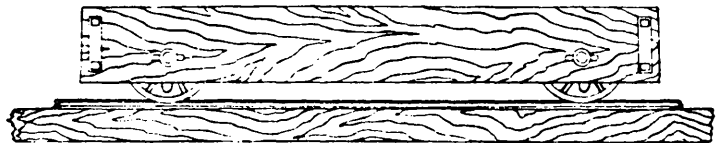
"WE PUT GREEN SPRUCE IN DRIPPING WITH WATER, AND IN EIGHTEEN HOURS IT WAS DRYER THAN LUMBER THAT HAD BEEN STUCK UP IN THE YARD ALL SUMMER."

This is the verdict of a Quebec lumber firm, and we can give equal results every time.

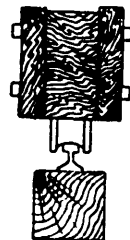
The Andrews Lumber Dryer

Has been proved to possess the following points of excellence:

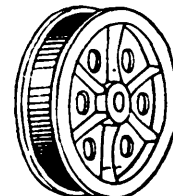
- 1st. That its drying is rapid and perfect
- 2nd. That external and internal checking and discoloration are entirely avoided by this method
- 3rd. That the drying is done by a CONTINUOUS system and the temperature of the kiln is under absolute control at all times
- 4th. That our Dryer is free from the varying air currents always wasteful incident to all fan and open draft kilns.
- 5th. That our drying is done by the slow continuous movement of a large body of slightly-moistened air
- 6th. That our condensing surface is so very large as to be adequate to precipitating the moisture of the saturated air with the least amount of movement
- 7th. That our piping is tested by high pressure and every outfit is fully guaranteed
- 8th. That by our improved system of drainage the freezing of pipes becomes impossible



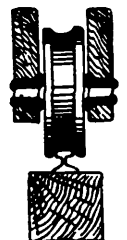
SIDE VIEW OF CAR AND TRACK.



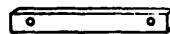
DOUBLE FLANGE WHEEL ON SINGLE TRACK



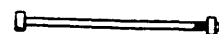
CAR WHEEL, DOUBLE FLANGE



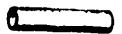
SECTION OF CAR TRACK, SHOWING AXLE BOX.



STRAP WASHER



BOLT



AXLE

SEND FOR CIRCULARS

DOMINION DRY KILN COMPANY

CANADA LIFE BUILDING TORONTO, ONT.

A POOR THING IS DEAR AT ANY PRICE

THAT IS WHY IT PAYS BEST TO PROCURE

... THE GENUINE ...

DUFOUR & CO'S BOLTING CLOTH

... IT IS THE BEST IN THE WORLD ...

A large stock of all numbers in Heavy, Extra Heavy and Double Extra Heavy Qualities from 0000 to 16 always on hand.



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CLOTHS MADE TO ORDER TO FIT ANY SIZE REEL OR SIEVE ON SHORT NOTICE.

ALSO PLATED STEEL SCALPING AND BOLTING WIRE FROM 10 TO 100 MESH.

TEMPERED STEEL BRAN DUSTER WIRE FROM 36 TO 70 MESH.



SPECIAL WIRE FOR ALL PURPOSES:

Perforated Zinc, Leather, Rubber, Cotton and Link Chain Belting, Sprocket Wheels, Cockerell Steel Wire Scouring Cases for Wheat Cleaners, Elevator Buckets, Bolts, Caldwell Steel Conveyor, all sizes, Flour Triers, Grain Scoops, Dust Protectors, and a Host of other Articles and Supplies for Millers, all of the Very Best Quality at Reasonable Prices. Orders by mail receive ready attention and prompt despatch.



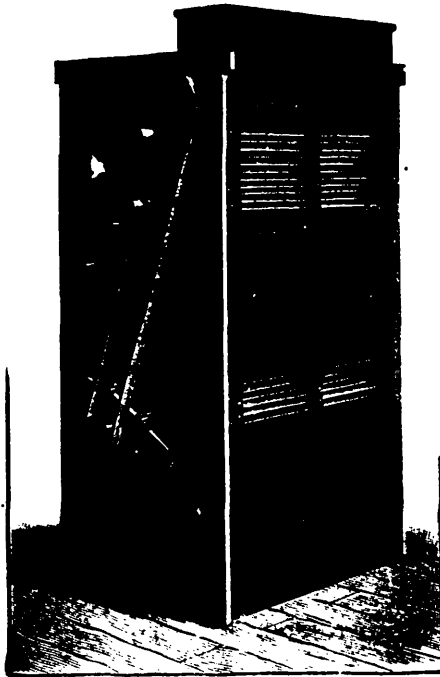
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WM. & J. G. GREEY, 2 CHURCH STREET . . . TORONTO, ONT.

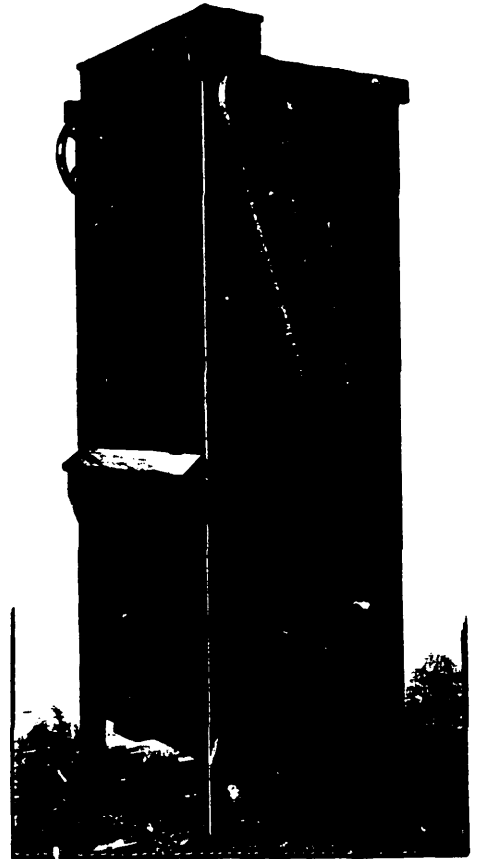
Standard Curved Sieve

AND THE IMPROVED NEW ERA SCALPERS

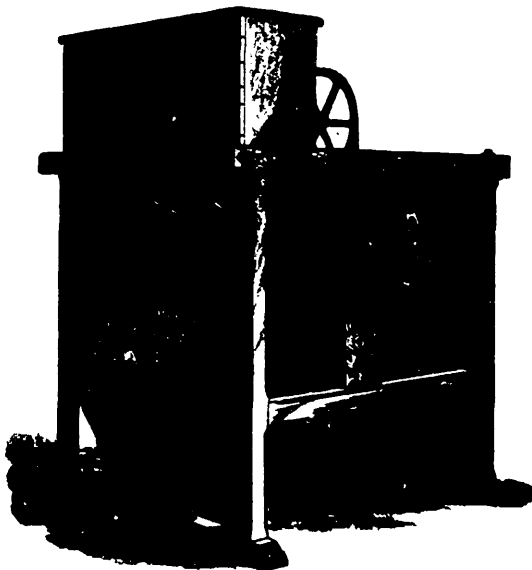


2 SIEVE SCALPER.

ARE
THE
POPULAR
MACHINES
FOR
HANDLING
BREAK
STOCK
AND
GRADING
MIDDLINGS



3 SIEVE SCALPER AND GRADER.



IMPROVED NEW ERA SCALPER.

- One 1 Sieve New Era will scalp the breaks in a small mill . . .
- One 2 Sieve Standard Machine will scalp the breaks and grade the coarse middlings in a small mill!
- One 3 Sieve Standard Machine will scalp the breaks and make two grades of middlings



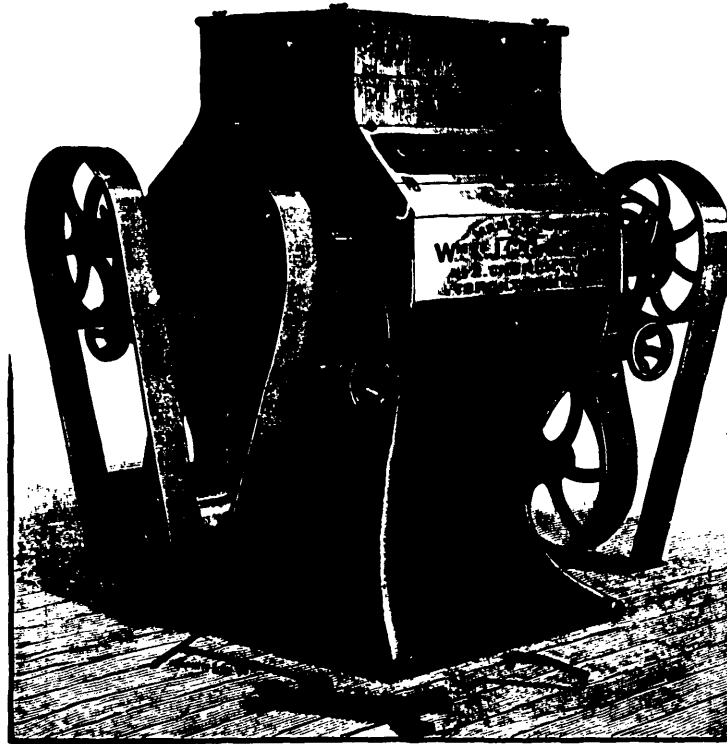
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Are always in better working condition
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LAST TWICE AS LONG AS OTHERS

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1875	24.71	1885	11.34
1876	23.95	1886	11.34
1877	23.16	1887	11.34
1878	22.32	1888	11.35
1879	21.54	1889	11.41
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Total Paid in 30 years. . . \$911.29

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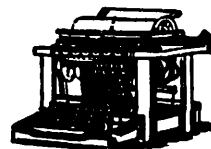
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Toronto Agent: FRANK T. BARR, 48 Wellington Street East, Toronto

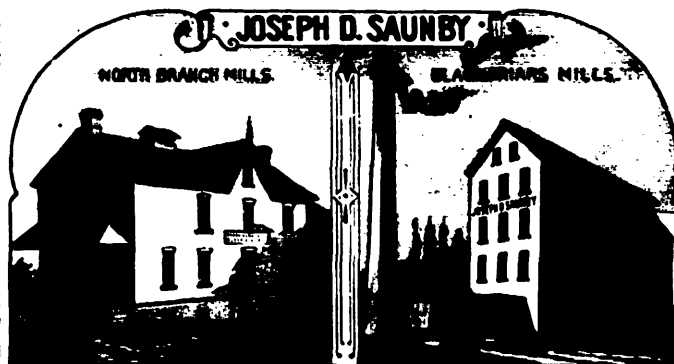
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