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# CANADIAN Journal of Fabrics

THE JOURNAL OF THE Textile Trades of Canada.

Vol. XVIII.

TORONTO AND MONTREAL, JANUARY, 1901.


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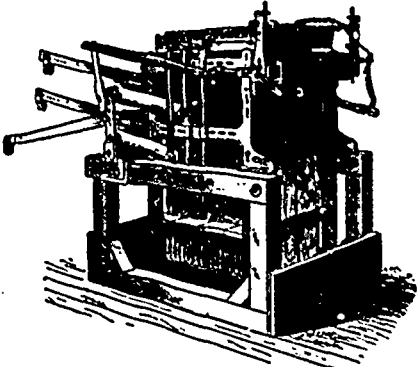
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# CANADIAN Journal of Fabrics

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No. 1

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### THE CANADIAN TEXTILE DIRECTORY

A Handbook of all the Cotton, Woolen and other Textile manufactures of Canada, with lists of manufacturers' agents and the wholesale and retail dry goods and kindred trades of the Dominion, to which is appended a vast amount of valuable statistics relating to these trades. Fourth edition. Price, \$3.00.

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### INFLUENCE OF CLIMATE ON WOOL.

It is remarkable to what a degree climate controls the character of a sheep's fleece. We have seen how, under this influence, the merino sheep when taken to Australia soon surpassed even its own great European reputation for fineness of wool. We know how the same sheep when transplanted to the plains of South America produces a fleece of a good, yet quite different, character. Again every Canadian sheep farmer has found that the merino sheep when bred here begins to differentiate towards the lustre class of wool, unless the blood is constantly renewed with fresh importations to overcome the natural effect of climate. We are forced by the teachings of experience to the conclusion that, generally speaking, only one class of wool can attain the best results in a given climate. The Scotchman's phrase, "A' o' 'oo'", can be put into the

formula—One climate, one wool. Sheep of the Leicester and Southdown classes appear best suited to Canada, for wool growing qualities.

The framers of the present United States tariff, about four years ago, not only did away with free raw wool, but gave the Creator to understand that the above limitations should no longer be placed on the sheep or the climate of the United States. They gave Him three years within which the laws of Nature should be brought into harmony with the Constitution of the United States and the plans of the tariff committee, or it would be so much the worse for the universe. By this enactment Nature would be so far brought under the dominion of the United States tariff that in three or four years the great American sheep could be made to grow either camel's hair, goat's hair, rabbit's hair, mohair, Australian merino, spiders' webs or silk organzine, and all at an enormous profit to the American woolen industry. Four years have gone by, and the predicted results have not been attained, probably owing to the unreasonable refusal of the Almighty to remove sections of the climate of Egypt, India, Australia and Buenos Ayres to the United States, or otherwise change the functions of the hair follicles of American sheep to bring about the desired end without altering the meteorological conditions.

At all events the experience of the manufacturers is that the American wool grower is not able to supply the mills with all the different kinds of wool they require, and he never will unless the mills limit their lines of goods to what he can successfully grow. S. N. D. North makes this clear in a paper in the Bulletin of the Wool Manufacturers' Association, in which he says:

"There has never yet been a time, when the domestic wool production met the domestic needs. For forty years the American wool manufacturer has been wandering in the wilderness, so to speak, and he must continue indefinitely to wander, if he is to wait for the domestic grower to supply—not what is lacking in quantity, but the qualities which that lacking quantity represents. For it is the quality and not the quantity of the deficiency which is significant. No American manufacturer imports foreign wool, and pays the duty upon it, when he can accomplish the desired results in the fabrics he is making, and at the same cost, by the use of domestic wool. There are certain qualities in goods, to produce which, to the most satisfactory degree, requires certain foreign wools, and until the domestic clip supplies wools of these peculiar characteristics, in

the desired quantity it will continue to be inadequate to meet the domestic demand." Then replying to a report by J. R. Dodge, compiled for the U. S. Dept. of Agriculture to show the effect of removing the duty on wool in 1894 Mr. North proceeds:

"Mr. Dodge falls into a most curious misconception of facts when he speaks of the foreign manufacturers as being 'compelled to scramble for supplies in all the wool growing countries of the world.' In truth, they have advantages from which our own manufacturers are excluded, and which are incomparably superior to any which the latter enjoy through reliance upon the domestic clip. It is not possible to exaggerate the degree or the results of these advantages. Chief among them is the ability to purchase precisely the sorts wanted in the condition best adapted to economical manufacture. This grows out of the pains which are now taken in grading, skirting and classifying the colonial wools. Mr. Dodge recognizes the enormous backwardness of our own wool growers in this respect. He reads them a long lecture upon their carelessness and indifference to the requirements of the manufacturer. But he cannot quite bring himself to the point of saying that if the American wool grower is ever to compete with the Australian on even terms he must imitate the latter in skirting his fleeces. The practice of skirting has long been the nightmare of the domestic grower. He has been taught that it is some kind of heathenish device resorted to by his foreign competitors to gain an illicit admittance into the American market, and he has been instrumental in inserting into the tariff acts penal provisions against the proper preparation of wool for the market which remind one of the fourteenth century legislation of England requiring every corpse to be buried in a woollen shroud, or prohibiting the use of indigo in dyeing. The whole of that famous paragraph 356 of the existing tariff is the protest of the American wool grower against being compelled by the laws of trade to keep up with the procession in the world's advance in wool growing."

Mr. North notes the fact that 63 per cent. of the total wool clip of 1900 was produced in states in which the wool growing industry is carried on by the ranch system, which is in no sense a farming industry, and where profits are possible by the use of free government lands. Taking up Mr. Dodge's prophecy that under the present protection we should reach 80,000,000 sheep in a decade or two Mr. North draws attention to the fact that only 40,000,000 sheep were reported in April, 1900, and hence the flocks now raised on ranches must increase at least threefold in order to make good this prediction. He says:

"We have no means of ascertaining the probabilities, but we do not believe the time will ever come when 60,000,000 sheep will be found there. On the contrary, as civilization moves westward, as the lands in these states are more and more given over to legitimate farming, we see no reason to doubt that the number of sheep will begin to recede, precisely as has occurred east of the Mississippi. This recession has already occurred in California, where there are only one-third as many sheep as were found there

in 1880. The farmers of the East, the Middle West and the South stubbornly refuse to take advantage of the tariff and increase their flocks."

### THE BELOVED QUEEN.

The Queen is dead, and the Victorian Age has closed with her life. The mere statement of the phrase, the "Victorian Age," is all that is needed to place in monumental form our conception of the Queen's influence upon the life of the world. It is too little to say that her millions of subjects lament her death. The nations of the whole earth stand as mourners at her grave. In doing so they pay their tribute of honor to a sovereign who strove at all times for peace among the powers, and to whom all war was abhorrent. The secret of her great power among her own people and her own family as well as among the rulers of the great nations was her enlightened Christian love, and her high sense of duty, both of which were tried and proved in countless ways in her long life. As for her reign, it stands unique, not only in the long history of Great Britain, but in many respects in the history of all nations from Chaldea and Egypt to the Kingdoms of the present day. The great monarchs of ancient times who extended their rule over the earth by victorious armies, left the subject peoples whom they conquered pretty much as they found them so far as "liberty and the pursuit of happiness" was concerned; whereas a large part of the marvelous extension of the British Empire in Victoria's day has been brought about by appeals in favor of her rule by the subject peoples themselves, and wherever British sway has extended the natives have been benefited, and their burdens lightened. Under her rule the chains from the slave "dropped off like lead into the sea," and it is only since her reign that other nations have come, by Britain's example, to regard slave holding as a crime. Her good name is not only stamped upon the age itself, but upon every phase of the complex life of the Nineteenth Century. Countries, provinces, counties, cities and towns have taken their name from her, rivers, lakes, bays, mountains, islands and every other feature of the earth's face bear her name, and hundreds of every sort of institution in social, religious, moral and political life have been baptized in her name. And marvelous is this testimony to the exalted purity of her nature, that in not one case has her name been used by an institution calculated for the demoralization of the people. We can only say with Tennyson, "She wrought her people lasting good."

"Her court was pure: her life serene:  
God gave her peace: her land reposed.  
A thousand claims to reverence closed  
In her as mother, wife and Queen:

"And statesmen at her council met  
Who knew the seasons when to take  
Occasion by the hand, and make  
The bounds of freedom wider yet

"By shaping some august decree,  
Which kept her throne unshaken still  
Broad-based upon her people's will  
And compass'd by the inviolate sea."



OUR QUEEN OF HALLOWED MEMORY.

Resplendent as her life has been with multiform examples of Christian duty, and loyalty to the higher interests of her people, we believe her name and influence will be more exalted throughout the world now that she is gone than it ever was during her life.

### SITUATION OF THE WOOLEN MILLS.

The Canadian woolen manufacturers at length realize that the conditions forecast in this journal have come to pass. On the 18th instant a meeting was held at the offices of the Canadian Manufacturers' Association in Toronto at which over forty woolen mills of Ontario were represented. It was decided at this meeting to form a Woolen Manufacturers' section of the Canadian Manufacturers' Association and the following were appointed the first executive committee: J. B. Henderson, of the Penman Mfg. Co. (chairman); Geo. Pattinson, of Geo. Pattinson & Co., Preston; J. P. Murray of the Toronto Carpet Mfg. Co.; R. Millichamp, of Millichamp, Coyle & Co., Toronto; John F. Morley, of the Canada Woolen Mills Ltd.; and W. R. Brock, of the W. R. Brock Co., Toronto. Several subjects are before the organization, but it is no secret that the most pressing problem confronting the woolen manufacturing interests is the preferential tariff in its bearing on the textile industries of Canada. The squeeze which the leading manufacturers foresaw is now beginning to take effect, and will increase with the changed condition of trade in competing countries. This effect has been averted till now by reason of the large orders that were placed in Canada by the British War Office for military clothing, hosiery etc., for the troops in South Africa. These large orders not only kept a number of knitting mills, woolen mills and clothing factories running to their full capacity and overtime, but the ordinary home trade orders which several of them had to turn away at that time were distributed among the other mills and clothing manufacturers, keeping them busy also. This extra activity, due to Imperial favors, has ceased and with its cessation comes the increased importations due partly to depression of prices in Germany, Great Britain and other textile manufacturing countries, and partly to the recent increase in the preference given to British goods. Already some woolen mills have closed down, and others are dreading the outlook. One large woolen mill owner of Ontario remarked to the writer the other day that if he could have known of the preferential tariff before it was promulgated he would have withdrawn every cent of his capital from the business. He maintains that as there is no sentiment in the British tariff there should be none in the Canadian, and that the business of the country should be done on a business basis only. To those who think otherwise there is still a fatal objection to be urged against the preferential tariff. This tariff is intended to favor goods of British manufacture only, but in actual practice it has thrown open a wide door to the smuggling of German and other foreign goods into Canada by way of Great Britain. This is done under pretense that the foreign goods have been either finished or partly made in Great Britain. The amount of manufacturing

or finishing done in England can be of the most shadowy nature when the work is done by the English agency of a German or French house for the purpose of getting goods re-shipped to Canada under the preferential clause. There are some classes of continental fabrics which we know from their nature are not only wholly made, but finished, outside of England, which yet reach Canada at the preferential rate of duty on the ground of some pretended work done in England. And yet the German Government has effectively retaliated against Canadian goods because of our preference for British manufactures, while the Germans go on evading in a wholesale way the conditions of our tariff by means of British agents or manufacturers.

The first year of the preferential tariff—when the preference given to British goods was 25 per cent.—was the year ending June, 1899, in which period the imports of all classes of woolen goods to this country from Great Britain amounted to a total of \$7,686,356 as against 6,203,844 for the previous year. The details which make up this total are given elsewhere in this issue. Since July last the preference has been one-third. What the effect of this increase has been cannot yet be statistically determined, but the imports of woolens during the past fiscal year from Great Britain will not fall short of \$10,000,000, and when it is borne in mind that large quantities of goods were held back towards the close of the fiscal year in order to get the one-third reduction in duties, it will be seen what difficulties threaten the home manufacturer.

In this connection we direct attention to the able paper by "Scrutator," on another page, dealing specifically with the carpet trade. The writer has made a keen analysis of the situation, and many points he makes apply with even more force to the tweed and other branches of the woolen industry. "Scrutator" puts his finger on a very weak spot in the preferential tariff when dealing with the importations from Germany, and confirms the statements made in the foregoing article as to the wholesale smuggling that is going on under cover of the preferential tariff.

Two methods of treatment appear to be indicated from the diagnosis of the tariff as it affects our textile manufacturers. The first is to raise the general duty if the preference clauses are retained. The second is to allow the preference on such goods only as are wholly of British origin and manufacture, and to charge the full duty on all goods that are made wholly or partly in foreign countries, but sent to England for further treatment.

### THE TRADE OF INDIA.

The total trade of India is more than equal to that of Canada and the South African colonies combined. Considering the terrible effects of the drought upon some parts of India, it is remarkable that the trade returns of India as a whole keep up in the way they do, as shown by an abstract of the trade for the fiscal year ending June, 1900, though of course the trade of the year just entered on will no doubt show a falling off. The imports for the past year were 700,712,000 rupees and the exports amounted to

1,057,140,000 rupees. Among imports, cotton goods hold first place, no less than 40 per cent. of the total importations being cotton piece goods and yarns, almost all of which still come from Lancashire. Of the various kinds of cottons, imported yarns amounted to 24,500,000 rupees, piece goods in the grey to 119,830,000 rupees, bleached piece goods to 53,410,000 rupees, and colored, dyed or printed cottons to 65,890,000 rupees. A writer in the Times, summarizing the returns, says it is remarkable how little the growth of the indigenous cotton industry has interfered with the cottons of higher counts supplied by England. It must not be imagined, however, that none of the finer counts of yarns are spun in India, as 15 per cent. of the yarns turned out by the Bombay mills consisted of counts over 20's. Improvement in the native raw cotton, or a more extended use of Egyptian cotton may enable Indian mills to turn out the finest yarns eventually; but this will be a process of slow evolution, and meantime India would seem to be a good field for Canadian cotton manufacturers to turn their attention to, whether the war in China disturbs their present trade with that country or not. India is also a large importer of ready made clothing, and of silk and woolen goods, notwithstanding she is a larger producer of silk and a manufacturer of certain specialties in woolens.

Among the exports tea is a large item and it is interesting to note that the shipments of Indian tea to Canada have increased over threefold in three years, being 594,000 lbs. in 1898 and 1,933,000 lbs. in 1900, while this trade with the U. S. has increased at nearly the same ratio. The export trade in indigo is not flourishing. Bad seasons have affected the quality and quantity of the crop, but artificial substitutes made in Germany have also affected the trade. How far synthetic indigo, which is a real indigo artificially produced at marketable prices since 1897, is influencing the natural indigo trade cannot yet be determined; but there is one patent fact, and that is the consumption of indigo generally has decreased both in Great Britain and the U. S. in the last two years, though Japan has increased her demands for this product. India is a large exporter of hides and skins, of which the U. S. take two-fifths and Germany over one-fifth of the whole.

Among the most important of India's exports of raw materials are cotton and jute. In 1899 the area of land under cotton was reduced owing to the drought and for the same reason the yield was also smaller. Out of a total export of 4,374,000 cwt., Japan took 2,319,000 cwt. of India's raw cotton. India itself consumes about half of its own cotton crop; but last year the high price of raw material in Bombay and the glut of yarn in Chinese markets brought about a crisis among the mills in Bombay, the trouble being made worse by the famine. Still the exports of India-made yarn were large, and it may be noted here that the cotton manufacturing industry of the country is developing in a remarkable way. The number of mills has trebled in India in the last twenty years and their manufacturing capacity has increased in like proportion. She exported yarn to China last year to the value of 65,890,000 rupees. How long this will continue is a question, as Japan is keenly competing in this market, while China

herself is now increasing her mills and turning out good yarns for her home market. By mixing Chinese and Indian raw cotton the Japs are cleverly producing a woolly sort of yarn, which is what the Chinese want, but there is no reason why Indian mills cannot imitate these goods.

As regards jute, another great staple of India, the crops in recent years have been poor. The exports of raw jute last year were, however, 80,000,000 rupees, of which Great Britain took nearly half, Germany over a fifth and United States one-eighth. With one exception all the jute mills are in Bengal. More capital is being invested in the industry and there is a great increase in the capacity of existing mills. The exports of jute manufacturers continue to increase, and have more than doubled in the past nine years. Australia and Great Britain are the best customers for gunny bags, while the United States though importing fewer bags, is a large purchaser of gunny cloth. Like the United States, Canada also imports the gunny cloth and has the bags made up by machinery in her own factories, there being three establishments where this bag industry is carried on.

India produces more fibre plants and more dye-yielding plants than any other country in the world, and these features, with the variety of its raw silks, cottons and raw wools and hair makes, give it a unique position as a producer of raw materials for all sorts of textiles.

#### A NEW COTTON MILL FOR VALLEYFIELD.

As intimated last month, the Montreal Cotton Co. have decided to erect another cotton mill at Valleyfield, Que., on the Buntin property, adjacent to the present mills. The building contract has already been let to Wighton, Morrison & Co., of Montreal, and the mills will be built of brick on plans furnished by Dean & Main, of Boston. There will be two separate buildings, leaving room for extension, if necessary, to over double the size. One mill will be devoted to spinning, and the other to weaving. In the former there will be 38,000 spindles, and in the latter 850 looms. There will also be a dye house. Machinery has been purchased to the extent of about \$250,000. The spinning machinery will be of English make. The new mills, which will be devoted to mercerized goods and fine cotton for ladies wear, are expected to employ about 1,000 hands. This extension will make the total capacity of the Montreal Cotton Co.'s mills nearly 4,000 looms, and 190,000 spindles. The manager of these mills is Frederick Lacey, who recently succeeded Louis Simpson; and the selling agents are Stevenson, Blackader & Co., Montreal, whose abilities not only for selling goods but for judging the tendencies of the trade, have had much to do with the success of the mills.

#### THE WOOL MARKET.

The Toronto market is quiet, but there is a steady demand from the mills for serviceable lots of both foreign and domestic. Canadian fleece is quoted at 15 to 16 cents; pulled super., at 18 cents, and extra, 20 to 22 cents.

Winnipeg prices quoted are 8 to 8½ cents for unwashed, and 12½ cents for washed.

The Montreal wool market has been rather quiet this month, but as generally expected, since the opening of the colonial wool sales, more enquiries are being made, and



sample bales are being sent out, but we have heard of no important lots being sold so far. Prices for all fine merinos advanced  $7\frac{1}{2}$  to 10 per cent.; medium and crossbred, no change, but hardening tendency; Cape quoted  $14\frac{1}{2}$  to 16c., B.A., 25 to 35c.; Canadian fleece, 16 to  $17\frac{1}{2}$ c.

The first sales of Colonial wool for the new century opened in London on the 15th inst., with prices showing an advance in merinos of 5 to  $7\frac{1}{2}$  per cent. over the closing sales of last year and an advance of 5 per cent. for fine crossbreds. At the opening there were 339,000 bales available, as against 150,000 bales at the corresponding sales of last year. Upon this circumstance, the American Wool and Cotton Reporter makes the following comments:

A year ago the London wool sales started in for the year with 4,000 bales brought over from 1899. Prices dropped in a phenomenal manner all through the year, notwithstanding which fact 1900 closed with 130,000 bales of wool unsold in London. This of itself is a most striking fact; but in addition, we have to bear in mind that the last colonial clips are slower in reaching market this year than last, and that the great bulk of last season's wool has yet to be offered in London. It is impossible by any stretch of the imagination to figure out a scarcity of wool in London during the coming twelve months. Such being the case, how has it been possible to advance the price of merinos and fine crossbreds 5 per cent. this week? The explanation appears to be about as follows. A great deal of wool was withdrawn from the October London sales by parties who would not accept bids below a certain figure. European manufacturers found that at the prices quoted at the close of the October sales they could make goods and dispose of them at some profit; and when the sales were all over they began to wish they had purchased in larger amounts. The result was, they began to go around among the trade to see if they could pick up further lots on which they could realize a manufacturing profit. This brought them in contact with the people who had withdrawn their wool from the October sales because they could not get their minimum price. These people told the manufacturers that they could have the wool at the withdrawal figure. Hence was established the advance of 5 to 10 per cent. "between sales," and hence was the way paved for an advance of 5 to  $7\frac{1}{2}$  per cent. at the opening of the January sales. The question now is, can the advance be made real and perpetuated? We must leave it to time to determine that fact. One or two facts of an encouraging nature, however, suggest themselves to us. In the first place, a good deal of encouragement may, we think, be drawn from the consideration that after the tremendous decline in the price of wool that characterized the first nine months of 1900, holders of 130,000 bales were in a position at the close of the October series to say, "We will not sell unless we can get better prices than those now current." In other words, it is a fact well worth noting that the large stocks of wool in London to-day appear to be in strong hands, which would seem to augur well for the attempt now being made to rehabilitate wool quotations.

Another very encouraging fact is this. Wool in October at last struck a figure at which the European manufacturer could afford to buy it. The "boom" of 1899 carried quotations a great deal higher than they were entitled to go on their merits. The question now is—if the manufacturer kept on buying longer than he ought when wool was going up, did he not go to the other extreme when the commodity was going down, and put off buying again until prices were lower than were really necessary in order for him to get a profit on his goods? If this question can be answered in the affirmative, then it is quite possible to believe that Tuesday's advance at the London sales will be maintained.

## BARNES' IMPROVED THREE-WHEEL PIPE CUTTER.

This widely known tool is made in eight sizes and the two styles illustrated, and is used in cutting pipe from  $\frac{1}{8}$  to 12 inches in diameter. The cut illustrates Nos. 1 and 2, used for the various sizes of pipe up to 2 inches in diameter.

This design is furnished in six sizes; No. 3 cuts pipe from  $1\frac{1}{2}$  to 3 inches in diameter, No. 4 from  $2\frac{1}{2}$  to 4 inches, No. 5 from 4 to 6 inches, No. 6 from 6 to 8 inches, No.  $6\frac{1}{2}$  from 8 to 10 inches and No. 7 from 9 to 12 inches. The makers of the original Barnes' three-wheel pipe cutter, under the patents issued to E. F. Barnes in 1883, are the makers of the first



three wheel cutters that ever worked successfully. They are also makers of the first cutters to cut pipe over four inches in diameter, and they are recognized as the standard pipe cut-



ters all over the world. There are other three-wheel cutters made to sell on the Barnes' reputation, but all Barnes' tools have the registered trade mark stamped, as shown in illustration.

The cutter wheels are drop forged from Jessop's best tool steel, and while they could be made from American steel at less expense, the makers find that Jessop's steel stands up better under all strains. All genuine Barnes wheels have "Barnes or B. T. Co." stamped on the hubs. For further information address The Barnes Tool Co., New Haven, Conn., U. S. A.

The Dominion Dyewood and Chemical Co., Toronto, have renewed their most acceptable gift of last New Year to their customers, namely, the pad calendar containing a leaf for every day in the year. The pad is accompanied by a very serviceable little memo. book, stamped with the compliments of the company.

## CANADIAN CARPET IMPORTS.

BY SCRUTATOR.

A resume of the imports of carpets into Canada and their bearing on this industry in Canada will be interesting. Many of the points that will be brought out having an influence which has not been regarded by those who criticize protection to Canadian industries.

For many years the only carpets made in Canada were known by the Old Country name of "Kidder" or "Scotch" but this class of manufacture grew to such enormous proportions in the United States that the name "Ingram," which was given by the United States makers, came to be accepted in this country as their title.

It was not until 1894 that returns were to be had which

enables comparison of the importations in classes and from countries. A table is herewith submitted which deserves attention, as it shows the quantities in thousands of yards, and the average value in cents per yard of the importations:

IMPORTATIONS—VALUE IN CENTS PER YARD.								
Year.	Union		Wool		Brussels		Tapestry	
	2 and 3 ply.		2 and 3 ply.		G.B.	U.S.	G.B.	U.S.
	G.B.	U.S.	G.B.	U.S.				
1894	34	26	56½	44½	60¾	80½	30¾	60¾
1895	37½	23¾	53¾	38¾	60¾	86	29½	60
1896	34¾	24	52	42	56¼	78	31¾	44½
1897	34½	26	50	41½	56½	65	30¾	44¾
1898	30¾	27	55¼	38¾	59¾	46¼	32½	48

IMPORTATIONS—QUANTITIES IN THOUSANDS OF YARDS.								
Year.	Union		Wool		Brussels		Tapestry	
	2 and 3 ply.		2 and 3 ply.		G.B.	U.S.	G.B.	U.S.
	G.B.	U.S.	G.B.	U.S.				
1894	33	86	36	18	613	14	1639	20
1895	20	112	28	34	524	5	1216	13
1896	17	133	32	52	509	4	1194	23
1897	13	53	22	32	397	15	1029	41
1898	5	4	21	7	474	12	1199	33

In the year 1896 the change of the tariff in the United States and the increased prosperity withdrew their makers from the Canadian market, which accounts for the marked falling off. The great depression of trade in 1895, 1896 and 1897 is shown by the shrinkage in importations of Brussels and tapestry from both Great Britain and the United States, but a more marked comparison is to be seen in the way the competition of the United States determined to cut values with a view of holding the Canadian market.

In the union ingrain the British maker used some wool while the United States used wholly cotton and jute, which accounts for the difference in value, but the yardage imported from the United States proves they were getting the business. It will be seen, though, that in the wool carpets the United States have cut the cost below the cost of production rather than keep their looms idle. The same thing applies to their Brussels and tapestries. While the British manufacturer has been retaining standard qualities—the value fluctuating by the cost of raw materials—the United States have been reducing qualities until no standard is left and even then sending goods into Canada away below cost.

The change which had come over Canada about the time the United States carpet makers withdrew from the Canadian market, and in the confirmation by the new Government of the protection principal, induced the carpet manufacturers of Canada to enlarge their premises and plant to meet the sudden and great demand on them by the trade in Canada. It might be mentioned here, that when the new tariff was to be formed, the Canadian carpet manufacturers stated they would be sufficiently protected if they had 15% of a custom duty in addition to the tariff on the yarn. The regulation at first placed the duty on the coarse yarn wanted for carpets at 20%, and the duty on carpets at 35%. This would have been satisfactory, but some industries using fine yarns on which was placed a duty of 30%, succeeded in bringing about a reversal of these tariffs. The coarse yarns were raised to 30%, and the fine yarns reduced to 20%, thus cutting the protection on carpets down to 5% on this important industry.

As mostly Canadian yarns were being used, the carpet manufacturers made no efforts to alter matters, knowing that the 35% duty on carpets would give them a fair margin of protection, and so went on with their enlargements and extensions. Large orders were placed for new looms, which are

not built in Canada, and owing to the sudden demand gave no time to develop the manufacture of them, duty was paid, packing charges, which are always heavy, and railway freights. Men were brought from the States to set them up, and an increased staff engaged. The yarn manufacturers had also to increase their plants to meet the unusually large and hurried demands. When confidence had so settled and business expected to run along without interruption, the first preference of 12½% was started, then it was jumped to 25%, and then to the 33¾%, which reduces the duty to 23¾%. Under this tariff the carpet industry cannot advance. The Canadian market is too small to divide with the mills of Great Britain even on an equal footing, and it has frequently been shown in many trade and other papers, it takes from 31% to 35% more to run a woolen factory of any kind in Canada than it does in Great Britain.

It must not be considered that because the different carpet industries in Canada have been augmented by the manufacture of Axminsters, Wiltons, Brussels and Smyrnas that it is owing to any advantage in the existing customs tariff on importations. These enlargements in the mills and plant of the ingrain, and the addition of other branches was a proof of confidence in the stability of the policy of the Government, which has not been borne out, and which improvements would never have been considered had the Government initiated its present regulation when announcing its tariff policy. This is not intended to be a charge against the Government, but as it is believed that it is not the intention that any industry shall suffer from any regulation of the customs tariff, these points are given to show the position of the carpet industry to-day.

It is somewhat difficult to follow up the figures for the year 1899 as they appear in the returns. In some respects they are unreliable, as will be noticed in the values as given under the unions and wool ingrain. Under this heading also are supposed importations from Germany at an absurd value and nearly half of which came through Great Britain under the preference clause. It is hard to understand what work could be put on a carpet coming through Great Britain to entitle it to a 25% preference in the tariff.

	Union Ingrain.		Wool Ingrain.		Brussels.		Tapestry.		
	G. B.	U. S.	G. B.	U. S.	Germany	G. B.	U. S.	G. B.	U. S.
Yards...	2,525	1,327	28,323	5,421	19,433	654,797	14,027	1,421,066	13,934
Value.. \$	1,470	1,041	14,301	1,485	576	406,492	10,222	457,381	7,565
	36c.	71	50½	27½	18½	62		32 1-5	54½

As the 33¾% preference tariff only became effective on the 1st of July, 1900, it would be useless giving figures between then and now, even if procurable, as every one who understands the carpet trade knows that carpet importations for spring are several times greater than those for fall, and further, the buying for fall would be as small as possible to enable the stock of carpets brought in under the smaller preference to be sold.

The great increases in the importations under the 12½% and 25% tariffs, which would be shown in the Government returns for 1900, cannot be given in these tables in detail, as they are not yet issued, but a table, which has been procured specially from Ottawa showing the total yardage and values of each year from 1894 to the end of the fiscal year 1900, is herewith submitted:

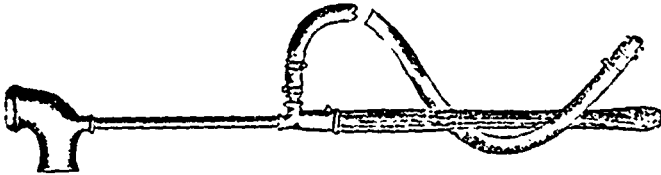
	1894	1895	1896	1897	1898	1899	1900
Yards...	2,466,944	2,281,941	2,062,313	1,631,793	1,861,815	2,204,457	2,759,282
Value.. \$	1,017,212	821,630	874,591	679,214	774,303	922,683	1,162,

This does not include 128,000 yards of a value of \$87,000, which appears under "N.E.S." (not elsewhere specified), imported in 1900. It may be mentioned that the carpet industry in Canada suffers very much from the importations of Chinese matting, and of which there are no reports in the

Trade and Navigation returns. It is also to be noticed in this report that no reference has been made to Smyrna, Turkish, Japanese or other of the many rugs that are forming such a large item in importations, and which have become important competitors in the last few years.

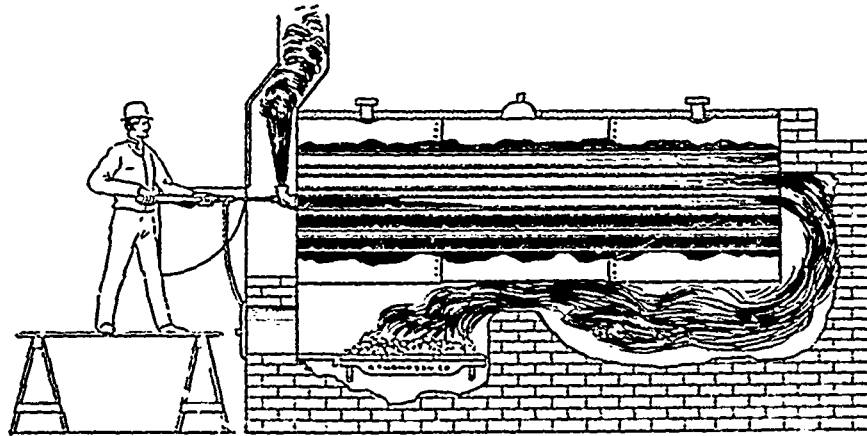
#### AN IMPROVED BOILER TUBE CLEANER.

The advantage of clean tubes in a boiler is admitted by all steam users. Soot is a non-conductor, and when it is permitted to remain in the tubes, heat is wasted. There are a great many appliances made for cleaning boiler tubes, but they do not always clean. Steam blowers are used to some extent, but a



great many object to blowing steam into a tube on account of the moisture, which is liable to make scale. Then a scraper has to be used. This is a slow process, but the only alternative, as the tubes must be cleaned and should be cleaned often.

The accompanying cuts show a form of cleaner that is not open to the objection of steam blowers, as there is no steam admitted to the tubes and it is claimed that it will do the work thoroughly.



By the use of a small amount of steam, which is first superheated by wire drawing through the apertures in the discharge tip, a vacuum is formed, drawing the soot from the tubes, and ejecting it with great velocity up the chimney and into the atmosphere, cleaning the tubes, flue and chimney. The Owen Sound Portland Cement Co., of Shallow Lake, Ont., says of this system: "Our engineer reports that the ejector works very well, and is giving excellent satisfaction. We are well pleased with it." Booklet "C." giving description of this cleaner can be obtained by addressing Richard Thompson & Co, Beard Building, Liberty street, New York.

#### THE VALLEYFIELD STRIKE.

At the monthly meeting of the Montreal Typographical Union, held on the 5th inst., the following resolution was unanimously passed: "Whereas, certain parties involved in the recent strike at Valleyfield have been arrested and committed to stand trial and whereas, W. L. McKenzie King, acting as Deputy Minister of Labor, effected a settlement of the strike on the basis that there was to be no legal prosc-

utions against the men involved, and, whereas, the employees carried out their part of the agreement; resolved, that the Montreal Typographical Union, in regular session, condemn the action of the Cotton Trust for failing to fulfil its part of the agreement, and protest to the Attorney-General against the prosecution of the men who were engaged in a struggle, in our humble opinion, for a living wage."

A copy of the above resolution having been sent to The Witness for publication, the Montreal Cotton Company were communicated with and the following reply received:

"To the Editor of The Witness:

"Sir,—Having been given communication of a resolution passed by the Montreal Typographical Union, in which this company is accused of having violated an undertaking made with W. L. McKenzie-King, the Deputy Minister of Labor, we beg to say, that this company never entered into any undertaking with regard to the prosecution of the men arrested in connection with the recent riots at Valleyfield. Our solicitors received a telegram from the Hon. Mr. Mulock, regarding the strike at Valleyfield, to which the following reply was sent:

"Hon Mr. Mulock, Aurora, Ont.:—Your telegram received re strike at Valleyfield. There is no dispute between the company and their operatives, and no demand has been made by them on the company. They are not working, but for what reason we do not know. The demand for increased wages was made by men who were temporarily employed as laborers in the excavations being made for a new mill.

This work, under any circumstances would have been stopped in about three weeks, and under the circumstances the company have decided to discontinue the work. There is nothing to arbitrate or settle between the company or any of their employees. The company appreciate your kind offer.

(Signed) J. N. GREENSHIELDS."

"This is a complete answer to the charges made in the resolution. No arrangement whatever of any nature or kind was made with Mr. King in this matter. The company took the ground from the beginning as outlined in their solicitor's answer to the Hon. Mr. Mulock. Yours truly,

THE MONTREAL COTTON Co."

Speaking to a Witness reporter a representative of the company said that it was necessary to remember that the trouble arose, not with the regular employees of the company, but with men who were hired by the hour and paid by the hour. Such men could stop work individually or collectively when they chose, and the company could cease to employ them at any moment that might be convenient. In such a case a strike in the ordinary sense of the word was impossible. Further, there were among the seven men prosecuted

for rioting at least one man who was not working for the company at the time the so-called strike commenced.

The enquiry before Judge Sicotte, which has been held from time to time during the past month at Beauharnois, on the cases of the men accused of participating in the rioting at the time of the Valleyfield strike, was concluded on the 4th inst. at Valleyfield. The reason for the adjournment for final hearing to Valleyfield, the scene of the trouble, was in part that it was thought advisable to have the case decided there, rather than elsewhere. The court was crowded. Judge Sicotte in summing up against the eight prisoners referred to the seriousness of the offence. He reviewed the evidence, and explained the nature of the law affecting riots and disturbances of that kind, and afterwards found Celestine Boyer, Ernest Boyer, Edouard Boyer, Etienne Pitre, Frank Decoste, Felix Larin and Charles Poirier to have been participants in the riot, and committed them for trial. One of those arrested, named LeBerge, was acquitted. All had pleaded not guilty, after consultation with the committee of the labor union at Valleyfield, and they will now await trial at the Queen's Bench in March. The Cotton Company state that having had these men sent up for trial, they believe they have done their duty to themselves, and to the town of Valleyfield; and that they will take no further part in the matter; but leave it in the hands of the Crown to prosecute to its final termination.

The Montreal Gazette says the general feeling in Valleyfield is said to be not one of sympathy with the prisoners; an evidence of the fact being that it was almost impossible for those who had not immediate relatives to obtain bail. This augurs well for the future relations between the Cotton Company and the townspeople. Had it not been for the labor union, who supported the defence of the prisoners, the sentiment against them would have been more apparent. This labor union it seems has some influential members; but their success was small.

The account of the expenses incurred in connection with the riots, and amounting to \$4,000, has been made up and submitted to the Government through Lieut.-Col. Roy, D.O.C. This amount includes the pay for the volunteers, who were allowed fifty cents a day while on duty. In incidentals the cotton company spent about \$1,000, and besides this the company estimates its loss by the strike at between \$4,000 and \$5,000. The Government will pay the legitimate expenses and endeavor to collect the same from the Valleyfield Town Council.

### THE CHROME MORDANTING OF WOOL.

BY GEORGE H. HURST, IN THE DYER AND CALICO PRINTER.

(Continued from last issue.)

It has been recommended to use hydrochloric acid in the chroming of the wool, and it certainly has a stronger mordanting effect than sulphuric acid. It causes the absorption of the whole of the chromium by the wool, and 2 per cent. of bichromate with 6 per cent. of hydrochloric acid gives a stronger mordanting effect than the use of 3 per cent. bichromate and 2 per cent. of sulphuric acid. There seems to be, however, greater liability to unevenness, and so greater attention must be paid by the dyer in carrying out the mordanting operation.

The great trouble is always in using sulphuric acid or hydrochloric acid, otherwise the mordanting can be easily carried out. Some dyers use the bisulphate of soda in place of the acid with a view of obtaining a more level result, and the substance named "Egalisol," which has been used chiefly on the Continent, and is a mixture of sulphuric and boric acids, has been brought out for the same purpose. The advantages of these over the use of

the simple acids is rather problematical, and will need much practical experience on the large scale to demonstrate them.

In dyeing wool with logwood for black, the aim should be to have as much chromic acid deposited on the wool as possible, hence there should be used sulphuric acid or some other acid assistant in the mordanting bath, and the operation should not be too prolonged. The chromic acid mordant is not suitable to be used in conjunction with indigo, as that dyestuff is destroyed by it, this is more particularly the case when the wool is dyed or bottomed with indigo before mordanting, not so much when the indigo bottom is given after the mordanting, although here the non-oxidizing chrome mordant gives the best results.

So far we have discussed the various methods of producing oxidizing chrome mordant on wool; we may now pass on to consider the various ways of producing the non oxidizing chrome mordant from the bichromates of potash and soda. This form of mordant is by far the most useful, for it may be used with every member of the mordant series of dyestuffs, whether of natural origin, like logwood and fustic, or of artificial origin like Alizarine, Diamond Brown, Acid Anthracene Brown, Anthracene Yellow, Alizarine Yellows, Alizarine Cyanines, etc. Many of these are altered in character by the oxidizing chrome mordant, and many of the ill successes which some dyers have obtained in working with these dyes may be attributed to the fact that they have used the oxidizing mordant, which has resulted in the partial destruction of the dyestuff, and so led to impoverished shades being obtained. Of course, it is not every dye of this series which is affected. Some work very well with the oxidizing mordant, such as the Alizarine Blues, and Blacks, but even with these better results are to be got by using a non-oxidizing mordant.

As will be inferred, the use of the bichromates by themselves can only result in the formation of the chromic acid on the fiber, and the principle which must be followed in using them for the production of the non-oxidizing mordant is that the acid bichromate must be treated in such a way as to change it to the basic chromium salts. To do this, advantage must be taken of the well-known oxidizing properties of chromic acid, and its action on various organic bodies which can be decomposed by it, or even certain inorganic substances like the sulphites which are oxidized by it. But oxidation of one body is invariably accompanied by reduction of the oxidant; for instance, if solutions of potassium bichromate and bisulphite of soda are mixed, the latter is changed into sulphate of soda and sulphuric acid, while the chromium is changed to chromium sulphite. This change can be effected on the wool fiber. If the latter be impregnated with a solution of potassium bichromate and then put into a weak solution of bisulphite of soda, the change indicated above is effected and is shown by the color of the fiber changing from yellow to green. In using the bichromates to mordant wool with the non-oxidizing chrome mordant, there must be added to the mordanting bath some substance which will effect the desired change or reduction. A very large number of substances have been used and proposed for this purpose, and, as time goes on, more will be added. There is, indeed, a very large number available for the purpose, particularly substances of an organic nature; argols, tartar, oxalic acid, lactic acid, lignorosine and many other substances may be instanced, and the use and application of these will now be discussed in some detail.

Argols is the crude acid tartrate of potash, obtained in the fermentation of wine, and is the oldest and most widely used of all the assistants added to the chrome bath. When tartar (that is to say, refined argols), is added there occurs some decomposition of the bichromate at the expense of the tartar, while it is very probable that chromium tartrate is formed in the bath. This is partly absorbed by the wool, and partly remains

in the solution in the bath. During the process of treating the wool at the boil, this chromium tartrate decomposes, and chromium hydrate becomes deposited on the wool, which thereby acquires a green color; at first there is always some unchanged bichromate in the bath and on the wool, and in consequence the latter has a yellow color, but as the process approaches completion the bichromate changes, and the color gradually passes through a brown to a green, and the purer the green the more complete is the change.

The proportions required of bichromate and tartar, which give the best results, are, for pale shades, 1 to 1½ per cent. of bichromate, and 1 per cent. tartar; for deep shades, 4 per cent. of bichromate, and 3 per cent. tartar; for all ordinary shades it is usual to take 3 per cent. bichromate of potash and 2½ per cent. of tartar. The mordanting proceeds very evenly and in this respect no better assistant than tartar is known.

Next to tartar oxalic acid claims some attention, and is much used by dyers; it leads to rather more deposition of the chromium on the wool, but the reduction to the green chromium oxide is not so complete as in the case of tartar, and the wool takes a greenish olive appearance indicating the presence of some chromic acid on the wool. By prolonged treatment, it is possible with oxalic acid to obtain a true non-oxidizing mordant on the wool. When it is desired to dye pale or bright shades, with certain of the dyes which are easily altered, the use of oxalic acid is not permissible on account of this incomplete reduction of the chrome, for it is not economical to prolong the operation too much, while the effect of such prolonged action on the wool is undesirable; so oxalic acid is used only when medium to deep shades of browns, olives, blues, and greens are to be dyed. The proportions commonly taken are 3 to 4 per cent. bichromate of potash, and 1 to 2 per cent. of oxalic acid.

Mixtures of oxalic acid and tartar, and oxalic acid and bisulphate of soda, are often sold under fancy names for mordanting of wool, but they have no advantage over the use of tartar or oxalic acid by themselves.

(To be continued).

### THE BURLINGTON MYSTERY.

Editor CANADIAN JOURNAL OF FABRICS:

Sir.—I notice in your issue of December, page 372, that ghosts are running six looms during the night, at Burlington, Vermont. I would say that this mill is filled altogether with Northrop looms. No other loom could be run by ghosts. These looms are being installed largely in our Canadian mills, and I presume that shortly we will have some ghost stories in Canada. The fact of the matter is that where there is good water-power, and wheels happen to be left running in the evening, weavers drop in for a few hours' recreation, and as the looms run so easily, almost automatically, they can sit and read a book while the cloth is being woven, and, as they get paid by the yard, it is a nice kind of amusement. Yours truly,

MILLHAND.

Montreal, January 7th, 1901.

### NEW VIOLETS, BROWNS AND RHODAMINES.

Watson Jack & Co., successors to Jack & Robertson, 7 St. Helen street, Montreal, send the following notes on new dyes: We have much pleasure in introducing two new brands of Basic Violets, which the Society of Chemical Industry in Basle are now just placing in the market, namely, Brilliant Violet 6B and Brilliant Violet 8B. These new brands, whose application on silk, wool and cotton is fully described in shade cards illustrating same, deserve particular attention for the

purity of their bluish shades, compared to their great yielding power. Brilliant Violet 6B dyes the shade of Violet Crystals 5BO, over which it has the advantage of a cheaper price, and the Brilliant 8B shade is bluer and at the same time of a greener hue than Violet Crystals 5BO and Ethyle Violet 6B. These dyestuffs are also suitable for discharge work and for printing.

Sulphogen Browns G, B & D.—We send a few pattern cards illustrating the results of these new colors on different material. The Sulphogen Browns belong to part of the series of Immedial Kryogen Fatigen colors, which are no doubt known. They are remarkable for their great fastness and their excellent properties for mixing, besides they dissolve very easily, and surpass by far above mentioned Kryogen and Kattigen Browns as to liveliness of shades as well as concerns the yielding power of our products; they are therefore of great interest and will no doubt render valuable services to the dyeing trade.

The cards contain a detailed description of the properties of these colors as well as full particulars as to the way of using them; but the agents add that the Sulphogen Browns can also be dyed in cold bath, and that the cotton thread preserves its softness, which is not the case in dyeing with cutch. It is, therefore, as a substitute of cutch that the Sulphogen Browns are recommended. Prices and samples are sent to any dyer on application.

Rhodamine 5G. Patented.—Our principals, the Society of Chemical Industry in Basle, are just bringing into the market a new product, known as Rhodamine 5G. Rhodamine 5G is an excellent substitute for Trisamine G. It yields purer on silk; on cotton printing it appears rather brighter and a trifle yellower and deeper in shade, whilst the general properties of both dyes are about the same. We beg to advise that this product we shall be able to sell at comparatively low prices, as compared to the other products of similar nature.

## Foreign Textile Centres

MANCHESTER.—In raw cotton, stocks are reported heavier in American and Indian cotton, and smaller in Egyptian than at the corresponding period last year. Among manufacturers, the feeling is better in the calico printing section, which has long been under a cloud. Enquiry for mercerized goods is brisk and for mixtures made from them. An effort is being made in Manchester to push the sale of velveteens. The cotton pile fabric has not been to the front of late, and manufacturers are anxious. They have brought out some splendid new designs. For trimmings and articles of that class, the buying for cotton velvets seems to improve. For dress purposes it appears to go down. Silk velvets are also very quiet. They have not been active for some years past, and have not yet recovered from the effects of Continental competition. The Draper's Record correspondent says: The Canadian trade shows signs of improvement. It has been dull for some time, but there are now indications of greater activity in Montreal and Quebec. The inactivity of the New York demand was a source of great disappointment to many firms last year. The staple textile article of consumption—linens—was not enquired for up to recent averages, and with the Havana market down, there has been very little doing on Western account. It was not, however, expected that Cuba would be able to recover for a time, owing to the destruction of machinery in the tobacco plantations. The demand for linen goods has been below the average. Buyers think that shippers are not able to execute their orders at the prices demanded, and are accordingly chary of placing them. The high price of flax has quite checked the operations of spinners. It is fortunate

for linen buyers that cotton, the greatest enemy flax ever had, is so dear. Otherwise there would be a greater reduction than ever in the sale of linen sheetings and other staple articles.

**BRADFORD.**—The Draper's Record correspondent says the improved merino wool outlook is due to the consumption of merino wool fabrics and not to speculation. The very low prices have caused increased buying, not only of fine wool dress goods, but also of Botany Italians and fine worsted coatings. It is, of course, quite impossible to say whether this upward movement in merino wool will be carried much further. In the cheaper kinds of colonial crossbred wools, although there is a hardening tendency in prices, business is still being put through very near the level of the last three months. The colder weather and the improved enquiry for worsted yarns made from these cheaper colonial crossbred wools are certainly some justification for the present firm attitude of worsted spinners who manipulate these wools. These crossbred wools are essentially the wools for "the million," as both dress goods and men's wear serges are produced from them at prices which are quite unapproachable in goods made from any other classes of raw material; and, as the general trade of the country is shown to be still in a healthy condition, there should be at least one year before us when the buying power of the working-classes is not so much impaired that they cannot afford the cost of a serge dress or a serge suit. All classes of English wools are quite firm in price, and some classes, such as pure lustre wools, are rather worse to buy. Raw mohair is quite firm, and there have been some further sales of alpaca hair at fully late rates. In piece goods there is, of course, little doing on home account, as most travellers are only getting fairly to work again, and the New Year's holidays also dry up the demand from the Continent for the time being. There is, however, considerable activity in most of the warehouses, as there is quite an average amount of goods being shipped to the East and the British colonies. There is still every indication that the leading makes of plain mohair dress goods will again be largely sold for the coming spring, and some makes of fancy silk and mercerized cotton fancies for blouse purposes have most of their production for the next six months arranged for.

**LEEDS.**—In worsteds and finer woolen fabrics merchants manifest a disposition to place orders, but are not in all cases prepared to pay the prices asked by manufacturers owing to the firmness of the wool and yarn market. Producers of other fabrics, and especially of medium and low qualities, find business dull; fresh orders are difficult to obtain at rates which will yield a reasonable profit and warehouse sales are of a hand-to-mouth character. The confidence of ready-made clothing manufacturers, who rely almost entirely on requirements of the working class, has been somewhat shaken by the depression in the iron and steel districts, while the severe weather, preventing out-of-door work, is also having a prejudicial effect.

**LEICESTER.**—The hosiery industry revives steadily, and the orders coming to hand for home and Colonial markets are of good extent, while prices are firm. There is a good average volume of business in the yarn market, and consumers buy freely in advance, but prices are remarkably low. The decline in the consumption of fine cashmere yarns is very marked, but lambs' wool and fancy yarns have a healthy and regular trade. Cotton yarns are quiet.

**ROCHDALE.**—There has been a considerable increase in the flannel trade during the year. Government orders being larger owing to the war, and merchants have provided themselves with stocks, whereas in previous years they threw upon manufacturers the responsibility of keeping stocks. Early in the year manufacturers were cleared of stocks, which led to the

merchants giving out orders earlier than usual. These with repeat orders and the Government work have kept the manufacturers fully employed, and some have not yet completed the requirements.

**BURY.**—At this cotton center ten mills stopped at one time recently and many are running short time. In Preston also labor difficulties are hampering trade.

**NOTTINGHAM.**—Buyers of lace and hosiery yarns are placing their orders sparingly. Cotton merino and wool yarns have hardened in value since last week, and some quotations have been advanced, but there is no buoyancy in the demand. Bobbin nets continue firm and well under contract. There is a steady business doing in the warehouse. The exports of lace and hosiery exceed those of the last two years, notwithstanding the disturbing element caused by the war. Valenciennes have had a heavy run, and in consequence of the lace makers' strike at Calais, France, there is talk of American orders being diverted here.

**BELFAST.**—This linen market is quotably unchanged. The utmost firmness prevails, with a very fair amount of buying in some quarters. Stocks are controlled, and, if anything, rather smaller. The spinning end keeps very steady. Orders for tows and coarse lines are readily obtainable at prices equal to the highest ruling last year. A further advance is certain in the immediate future. Manufacturers find difficulty in getting business at remunerative rates. In the brown cloth market demand is quiet. Owing to the stiff prices current, buyers are contenting themselves with purchasing for immediate requirements only. Powerloom linens, for bleaching, are selling quietly at former prices. Cloth for dyeing and holland is in improving request. Unions are in quiet demand at steady prices. There is a very fair business passing in dress goods, and handkerchiefs linen and cotton, are selling steadily and well. Handloom linens for bleaching keep dull.

**DUNDEE.**—The Dundee market has now resumed operations after the New Year's holidays, but the business done is rather restricted. Prices are easier for jute, jute yarns, and cloth. Tow is beginning to show a greater advance in value. The Admiralty have invited tenders from Dundee for over a million yards of duck and two million yards of canvas, besides linens, osnaburgs, hessians, sackings, etc. This will have the attention of the heavy departments of the trade. Several makers of hessians have disposed of the bulk of their production for January. These goods have been bought with a view to shipment either to the Plate or the United States. The latter market is barer of stock than usual, and it is regarded as highly probable that the Plate will make further demands upon Dundee. There is little fresh to report about flax and tow yarns. The former keep moving upward, but a long way in the rear of the raw material, and without much activity in business.

**CHEMNITZ.**—Manufacturers have kept busy on old contracts, and a few duplicates for season's hosiery and underwear have also been received. The outlook is better with the lower prices of raw material and there are expectations of a better trade early on in the new year. Black goods in hose and half-hose have had a great run. Fabric gloves have sold well in medium grades for autumn and winter use. Printed and embroidered hosiery are much wanted, but striking novelties have not been shown.

**LYONS.**—Prices of raw silk are practically unchanged. The statistics of the European silk-conditioning houses show a decrease of 4,500,000 kilos. for the past year and the exports of silk to the United States a decrease of about 1,500,000 kilos. The decrease in the yield of last year's silk crops is put at 2,500,000 kilos., and the decline of prices at from 25 to 30 per

cent. These figures, it is argued, scarcely justify expectations of a further decline. Hopes are expressed that the reports of abounding prosperity in the United States will at least be justified by a revival of demand for silk in that quarter. The demand for French raws in the Lyons' market has latterly been relatively conspicuous. No improvement last week is reported from the Italian markets, and some difficulty in maintaining prices is said to have been experienced there. The sale of silk laces continues to be on a very limited scale, nothing having occurred as yet to stimulate the demand for these goods, and manufacturers are not encouraged to bring out novelties.

**CREVELD.**—In the market for raw silk the year 1900 draws to a close with the unfavorable and depressing features which have characterized the market ever since the early spring still dominant. The buying is restricted to the most needful immediate wants, and prices are depressed. This may be ascribed at present to the unsatisfactory market, with large stocks, at Yokohama—there are some 22,000 bales unsold there—and to the depression of the silk trade in the United States. But stocks in consumers' hands are everywhere almost exhausted, and a change, it is argued, can only be for the better. There is more doing in silks for ties, scarves, etc. and looms making these are well engaged, and prospects are satisfactory. Less favorable are reports as regards silks for dresses, blouses, and trimmings, largely because there is no one leading article. Here we have a whole crowd of new effects, which have a half-hearted reception at the hands of buyers. Plain taffetas can scarcely be called such, and current qualities have become so plentiful that prices have become quite unremunerative. The same may be said of dagnasses and meryeilleux, and stocks in London, *i. e.*, are reported enormous of such goods, so much so that fresh sales are only possible at 10, 20, and 30 per cent. below cost price. The unseasonable warm weather is held responsible for a large share of the present stagnation. Umbrella silks are quiet, much quieter than they ought to be at this time of the year; and sunshade materials, in particular, are dull, only small orders being given, divided over a great variety of patterns among which chines take the lead. The principal colors are sky-blue, pearl-grey, etc. Figured dress and blouse materials are doing fairly well. Linings for mantles and jackets are quieter, but mantle stuffs themselves are in large request, both for ready-mades and on order. Peau de soie is the leading material, while plushes and velvets are also in fair request for this branch. Otherwise, dullness is the rule in velvets and plushes, with the exception of pannes, which are well sold forward. Velvet ribbon makers are likewise well employed, and have in many instances sold their output till next summer.

### FIRE AT LAMBTON MILLS.

The large mills of the Canada Woolen Mills, Ltd., on the west side of the Humber, at Lambton Mills, were destroyed by fire on January 19th, entailing a loss of about \$50,000, and throwing about 60 hands out of employment. The mill at Lambton was one of a number in the various parts of the province controlled by the Canada Woolen Mills Co., and was used largely for the manufacture of shoddy and yarn. The fire originated in the drying room, situated in the south wing of the building, near the elevator shaft, and those who discovered it on going upstairs found that the fire had made good headway in the drying room; but what started it may never be known. The dryers were not working and the pipes were cold. There was nothing in the room at the time which was likely to cause the fire. Between the drying room and the next compartment was a fireproof door. This had been

left ajar, and, although a man was working near this door, he did not perceive that the adjoining room was ablaze. This is accounted for by the fact that the fire started near the elevator shaft, which, acting like a chimney, carried the smoke upwards. When the engineer arrived he could not get at the hose on account of the smoke. The hose in other departments was got out and attached to the pump, but the water supply in the well was soon exhausted. Each flat was supplied with automatic sprinklers. These worked satisfactorily, and during the course of the fire a tank containing 11,000 gallons of water emptied itself. But this was not in itself sufficient. There were only three or four men at work in the building at the time, it being Saturday afternoon and a half holiday, and by the time the hose wagon and men from Toronto Junction and the engine from Brockton arrived, the fire had been raging about two hours and a half, and the main building was gutted. The warehouses and offices were all saved; one of the warehouses, containing \$20,000 worth of goods stored in it, being only saved after a hard fight. During the last few months \$40,000 worth of new machinery had been installed; the mills were rushed with orders, and intended to start in a week or so running night and day. The company, of which W. R. Brock is president, and John F. Morley general manager, also own mills at Carleton Place, Hespeler, Waterloo, and Markham. Since the new company came into possession of these mills at Lambton last May, extensive alterations and large expenditures have been made. R. Millichamp, one of the company, gave the value of the property as \$60,000. The loss by the fire will be \$53,000, including damage to the mill, machinery, goods in the mill, and in process of manufacture. This is partially offset by \$2,000 insurance in the New England Mutual Company.

It has been decided not to rebuild the mills here, but to install shoddy machinery in two vacant buildings which the company own at Hespeler. This will be of serious consequence to the village of Lambton, as it has been the great factor for years back in the prosperity of that place. Mr. R. E. Hall, local manager of the mill, stated that orders upon which the Lambton mills was engaged would be promptly filled from the other mills operated by the company.

The Lambton woolen mills, though greatly altered of late, have a history of nearly seventy years, being among the oldest in the county of York. They were originally grist mills, and were built by the late Thomas Fisher, a Yorkshireman, who came to Canada in the early "thirties." For some thirty-five years they were used solely as flour mills, worked by water power, and were known far and wide as the "Millwood Mills." Mr. Fisher's residence, "Millwood," still standing, overlooked them from the top of the hill. For many years Mr. Fisher was assisted in the business by his only son, Edwin C., who died in 1880, six years later than his father, who died in 1874, at the age of 85. Upon his death the mill was converted into a woolen mill in the early "eighties," by Phillips & Berry, and later on the property came under the control of the late Jno. Hallam, of Toronto, the mill being under the management of Wm. Morrison for some years.

### NOISELESS GEARING.

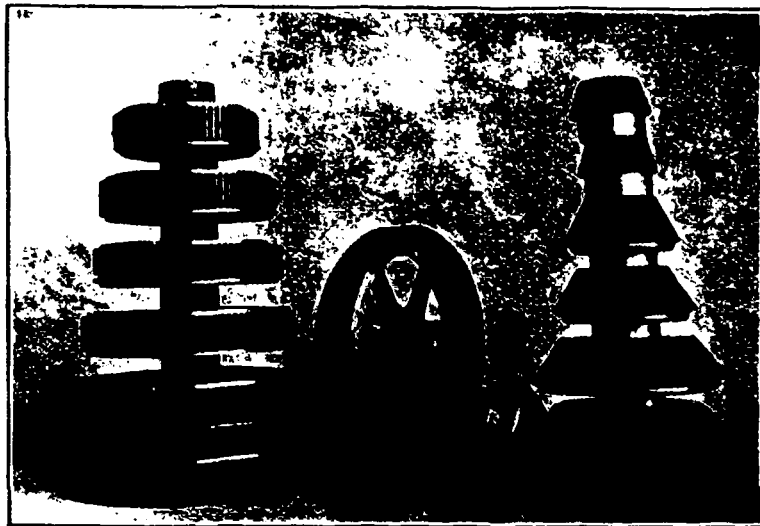
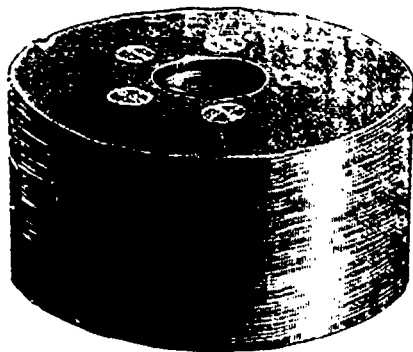
With the constantly increasing use of geared machinery comes a general demand for gearing, which will do away with the annoying humming sound made by metal gears when run at high speeds. Many substances have been tried for this purpose, but the material which seems to be coming most rapidly into use is specially prepared raw hide. The New Process Raw Hide Co., of Syracuse, N.Y., claims to be the only concern in America which makes the raw hide gears



complete from the green hides. This concern has its own tannery where the hides are prepared by a patented process, and a complete machine shop, equipped with the latest gear cutters and other machine tools, where all its machine work is done. The raw hide, after being thoroughly cured, is cut into discs, which are pressed together in cement by a high-power hydraulic press. Then these blanks are riveted, turned

annual wool clip of the United States—a fact which gives the best idea of the great importance of the district as a wool-manufacturing center. The yearly totals above given do not include combed wool produced for their own use by weavers having combing plant, but represent mainly the production of local commission wool combers.

It is noteworthy that hardly any "tops" are bought and



on a lathe, and lastly have teeth cut in them on an automatic gear cutter in the same manner as for metal cut gears.

The smaller of the accompanying cuts shows a raw hide gear blank riveted and turned ready for cutting. The larger cut shows a few samples of large gears recently made by the New Process people for a big eastern manufacturing concern. The largest of these gears are made with metal centers in order to reduce to a minimum the amount of hide required. The largest spur gear ever made by this company, and undoubtedly the largest raw hide gear in the world measured 36½ inches outside diameter. The same people have made a raw hide bevel gear within an inch of this size.

### THE WOOL MANUFACTURE OF ROUBAIX.

The British Consul at Roubaix and Tourcoing, France, makes an interesting report on the rapid increase of the combed-wool industry in the Roubaix and Tourcoing district of France. For many years all the Australian and River Plate raw wools used in the district were bought, the former at the London sales, the latter at Havre, Antwerp, Bordeaux, etc. All this is now changed, direct imports are the order of the day, most of the principal makers send out buyers to Australia, Buenos Ayres, and Montevideo, and those firms who have not a big enough turnover to do so, commission the larger houses to buy for them.

The district not only furnishes "tops" for large local requirements, but sells to nearly every country in the world. The following quantities have passed through the testing-house (Conditionnements Publics) during the last ten years:

Year.	Tons.	Year.	Tons.
1890	34,642	1895	53,167
1891	34,766	1896	59,777
1892	38,372	1897	45,919
1893	43,342	1898	53,179
1894	45,291	1899	63,683

This quantity of wool is about equal to one-half of the

sold without going through one of the public testing-houses to fix the condition on which the invoices are based.

The relative importance of the district is seen by comparing the above figures with those of the whole quantities passed by the five large testing-houses of France—Roubaix, Tourcoing, Reims, Fournies, and Amiens—which amounted in 1897 to 56,189 tons, 63,588 tons in 1898, and 75,305 tons in 1899.

The year saw a remarkable and continuous rise in prices, both of raw and combed wool. It had commenced in 1898, but surpassed all expectations in 1899. The average price of a bale of Australian wool was £12 at the end of 1898, and £19 by the end of 1899. At the Terminal Market quotations for combed wool were 3*l.* 90*c.* per kilog. at the end of 1897, while 1898 saw them at 4*l.* 80*c.*, and by the end of 1899 the price was 6*l.* 70*c.*

The reasons for these rises in prices were clearly explained in the annual report on wool for 1899, published by Helmuth, Schwartze & Co., the London brokers, recording a complete revolution in the value of wool, a jump in various qualities of 35 to 60 per cent., and in fine wools, since 1895, a rise of 100 per cent., but a very much smaller increase in crossbred classes. All this is attributed to the great decrease in production of fine wool since 1895, low prices for merinos during the past decade having led to increased cross-breeding in Australia, and still more in the River Plate, to secure additional profit from the meat trade, while an unparalleled series of droughts in the course of four years reduced the number of sheep in Australia by 21,000,000. The proportion of cross-bred sheep rose from 17.2 per cent. in 1889, to 45.6 per cent. in 1899.

The Roubaix-Tourcoing Terminal Market was started in 1889. Opinions are divided as to its practical usefulness, and a few years ago a determined but unsuccessful effort was made to do away with it. It may be considered chiefly speculative, with many transactions on paper rather than genuine business ones, as will be seen by comparing the previous figures of the amounts passed through the testing-

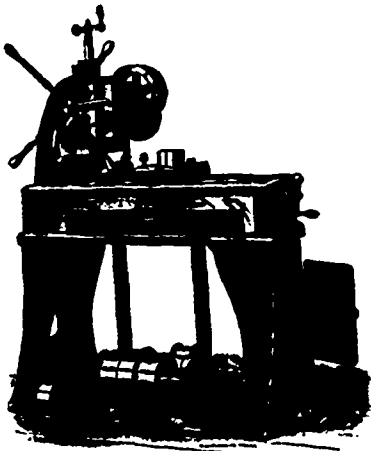


houses with the following statement for the past decade of transactions of the Marche a Terme: For 1890, 49,355 tons; next year, 23,745 tons; continuing, 30,190 tons; 30,380 tons, 53,480 tons, 37,575 tons, 38,250 tons; 21,900 tons; 23,790 tons; to 41,785 tons in 1899. This market has, however, enjoyed great success during the first part of last year, and has had for the first time a direct influence on the other wool markets of the world.

A remarkable change for the worse is reported to have been brought about by speculative operations on this market which, when most of the wool in the colonies and South America had been sold at very high rates, and both manufacturers and top makers might have hoped to enjoy another successful year, brought down prices so considerably as to affect them elsewhere, and so shake confidence that very little business is being done, and no more commissions are coming in. But it is hoped that the really healthy condition of trade will get the better of this speculative movement.

### WHITON'S IMPROVED GEAR CUTTING MACHINE.

The illustration shows a hand gear cutting machine. The design shows great convenience of adjustment and operation upon the varieties of work for which such a machine is found so useful. The cutter and work in the Whiton are always in full view. The work holding spindle embraces features which show that the machine has been carefully studied out, and the frame is a single casting, rigid, and accurately finished. The cutter head adjusts vertically to any convenient height, can be set over at any angle for bevel gear work. The cutter spindle is accurately fitted in a transversely sliding bronze box. Has adjustment for taking up wear, and adjustment for setting gear central, or trimming the sides of bevel gear teeth. The spacing mechanism is protected from chips and dirt, has a set of ratchet discs, uniform in diameter, varying in numbers of teeth, any of which may be applied to the upper end of the pirion shaft, regulated by a pawl automatically spacing the



WHITON'S GEAR CUTTING MACHINE.

blank. While not an automatic machine, it is so simple and convenient that a large amount of work can be produced by ordinary labor without danger of mistakes being made. This machine will cut spur, bevel and worm gears to 30 inches diameter by  $6\frac{3}{4}$  inches face, 6 pitch and finer, and does especially good work on sizes under 15 inches; can also be used to finish special nuts, bolt heads, etc., by means of side or straddle mills, and will perform any radial milling, and with a center attachment will flute taps, camers, either straight or taper. With a vise attachment it becomes a convenient hand-

milling machine adapted to a variety of work, and oftentimes it is a satisfactory substitute for expensive universal milling machines. The machine will divide for all numbers up to 100, even numbers to 186, and a wide range of higher numbers. Rack cutting attachments, and also high speed attachments for brass work, can be supplied. The D. E. Whiton Machine Co., of New London, Conn., also manufacture an improved power feed, or semi-automatic gear cutting machine, similar in construction, provided with a power feed cutting head, and also manufacture a very complete line of lathe and drill chucks. Their lathe chucks having the experience of 40 years behind them can be depended upon when quality, strength and the latest improvements are desired by the machine shop. A complete catalogue, giving names of textile manufacturers, and others, who are using the machines and attachments described above, which also contains very valuable information regarding gear cutters, gear tooth pitches, and standard sizes of hexagonal nuts and bolt heads, will be sent to those interested.

### GREAT FIRE IN MONTREAL.

The most destructive fire in the history of Montreal broke out in the premises of M. Saxe & Sons, clothing manufacturers, corner of St. Peter and Lemoine streets, about 8 p.m. on January 23rd; it was discovered by a Board of Trade employee, who rang in a general alarm; the building burned like tinder, and jumped across the street to H. A. Nelson & Sons, fancy goods, from whence it seized on the magnificent Board of Trade building, and spread in other directions from its starting point, until between three and four acres of ground covered by handsome buildings had been burned over in the very heart of the city, embracing, in addition to the Board of Trade building, over thirty other buildings, chiefly wholesale warehouses, occupied by some of the leading firms of Montreal. The burned district is bounded as follows: East by St. Nicholas; south by Commissioners; west by St. Peter, north by St. Sacrament, and between St. Paul and Lemoine a strip of frontage on the west side of St. Peter some three hundred yards deep. From Lemoine north to Recollet street on the west side of St. Peter Messrs. Laporte, Martin & Co.'s wholesale warehouse alone suffered from fire and water. The wholesale furriers are the heaviest losers; no less than eleven wholesale manufacturers and dealers had their buildings and stocks completely destroyed. The following is a list of losses by the firms engaged in the textile fabrics' trade, with their probable losses and insurance: Silverman, Boulter & Co., wholesale hatters and furriers, loss, \$125,000; J. Bourdeau & Son, importers of hats, furs and caps, total loss; M. Saxe & Sons, wholesale clothiers, total loss; James Coristine & Co., furriers, loss, \$300,000; fully insured; C. A. Chouillou & Co., brokers and commissions merchants, loss, \$25,000; J. Cohen & Co., wholesale clothiers, loss, \$40,000; B. Levin & Co., wholesale furriers, loss, \$100,000; Hiram Johnson, wholesale furs, total loss; Royal Hat and Cap Manufacturing Co., total loss; Bernstein & Wolsey (Star Suspender Co.), loss, \$10,000; Canadian Shirt Co., total loss; Redmond, Greenleese & Co., wholesale hats and furs, total loss; H. H. Levy, wholesale woollens and tailors' trimmings, total loss; Dominion Cord & Tassel Co.; C. J. W. Davies, dry goods commission agent; Corticelli Silk Co., loss, \$60,000. The Board of Trade building, which cost, with its site, \$505,000, and was insured for \$400,000, contained between 200 and 300 offices, a number of them being occupied by manufacturers' agents; those in the textile trade being A. O. Morin & Co., dry goods importers; Archer Robertson, manufacturers' agent; Wilson, Paterson & Co., dye stuffs and chemicals; Woodhouse & McDiarmid, manufacturers' agents; Sandreuter & Waters, importers; Thos.

Donnelly, manufacturers' agent; Canada Straw and Fur Hat Works, office; Paton Manufacturing Co., woolen mill agency; John S. Shearer & Co., manufacturers' agents; J. A. Cantine, commission merchant; Donald Fraser, manufacturers' agent; Holland & Haskell, manufacturers' agents; John Johnston, manufacturers' agent; John Samuels & Brother, agents; John A. Robertson, commission agent; Lucien A. Duverger, manufacturers' agent; William T. Fisher, manufacturers' agent.

It is needless to say that the above tenants of the Board of Trade building lost everything, as did also the Chambre de Commerce, and the Dominion Commercial Travellers Association, whose headquarters were in the building. The loss to the insurance companies by this disastrous fire is over \$2,000,000. No trustworthy information is so far available as to the cause of the fire. Two employees of Saxe & Co.'s establishment are thought to have perished in the building.

**PREFERENTIAL TARIFF AND THE WOOLEN TRADE.**

The following table shows the import trade of Canada in woolen goods from Great Britain and the United States, in the first year of the preferential tariff (25 per cent. in favor of Great Britain), that is the year ending June, 1899, compared with the previous year:

	IMPORTS FROM GREAT BRITAIN		FROM UNITED STATES.	
	1898.	1899.	1898.	1899.
Woolen manufacturers:				
Blankets .....	\$ 39,933	\$ 30,812	\$ 3,482	\$ 8,837
Cassimeres .....	51,820	113,307	....	2,375
Cloths .....	1,045,273	1,358,162	14,042	11,594
Coatings .....	477,527	533,363	1,357	1,789
Overcoatings .....	6,402	7,970		
Tweeds .....	398,986	518,664	380	1,251
Felt cloths, n.e.s., .....	13,451	6,098	24,778	31,882
Flannels .....	51,801	55,368	3,491	3,827
Knitted goods (under wear, n.e.s.) .....	96,071	105,270	25,941	62,411
Shawls .....	42,632	62,682	268	691
Socks and stockings ..	143,283	582,686	1,610	18,525
Undershirts and drawers	24,798	39,487	6,688	21,221
Yarns .....	110,728	207,521	2,834	7,211
All fabrics composed wholly or partly of wool .....	2,197,966	2,598,990	26,696	33,730
Women's and children's dress goods .....	51,677	26,483	48	536
Clothing, ready made ..	433,468	477,133	28,748	157,687
Carpets .....	673,713	893,802	36,749	24,626
Felt, pressed, all kinds	36,708	34,097	23,149	27,204
Other articles .....	27,597	34,465	3,964	13,234
	\$6,203,844	\$7,686,356	\$204,225	\$427,831

N.E.S. means not elsewhere specified.

**COTTON AS A GENERATOR OF ECONOMIC CHANGES.**

An Atlanta despatch says \$5,000,000 is to be invested in ten mills for the making of paper from cotton seed hulls. They will be built at convenient points from North Carolina to Texas, and will be important additions to the industries of their communities. This shows how the wastes of one generation are made useful by the next. It is the latest chapter in the romance of cotton. Little more than 100 years ago cotton fabrics were an Oriental luxury. Then a Yankee schoolmaster had an idea and changed the history of the world. Whitney's cotton gin established great industries in Europe and America

and made cotton the cheapest of clothing materials. It made slave labor profitable in the South, stimulated the search for new cotton fields, indirectly caused the Mexican war and the discovery of gold in California, and directly caused our civil war. Thus Whitney's invention and the desire of men for gold expanded the American people across their continent and made this Republic great. But cotton's power of generating economic revolutions did not end with the freeing of the slave. Its seeds had been deemed worthless, even as fuel. But another scientist saw value in their oil. The cooks of Southern Europe agreed with him, and olive growers were confronted with new conditions. A Milwaukee speculator tried to corner the lard market. He failed because he had not reckoned on buying all the cotton-seed oil as well as all the lard. An enterprising Chicago packer persuaded many American cooks that cotton oil and beef fat were the best "shortening." Hog raisers and dairy-men felt the effects of his efforts. Cottonseed meal was found to be a valuable cattle food, and flax-seed growers found prices declining. Now paper is to be made of the hulls, and the pulp-wood choppers may find less employment. The United States annually produces more than 3,600,000 tons of cottonseed. From this can be produced about 525,000 tons of oil, 225,000 tons of cattle food, and a quantity of paper as yet unknown. The present production of oil is about 100,000 tons, used for food, soapmaking and other purposes. Some of it is said to come back from Italy in decorated bottles, labeled, "Best Lucca Olive Oil." While the possibilities of political revolution in cotton may be exhausted, it evidently affords the material for further economic changes. The revolution-makers of to-day are the inventor and the chemist for the underlying causes of revolutions are largely economic. The efforts of science to utilize waste have changed the aspect of the world during the last century. Without Whitney's invention Spanish might well be the language of San Francisco.—Chicago Inter-Ocean.

**Among the Mills**

Co-operation is one of the guiding principles of industry to-day. It applies to newspapers as to everything else. Take a share in "The Canadian Journal of Fabrics" by contributing occasionally such items as may come to your knowledge, and receive as dividend an improved paper.

A large amount of new machinery is being put into the Kingston penitentiary binder twine factory.

C. F. Barnes, late of W. F. Humphrey's woolen mills, has been appointed to a position on the I.C.R.

The engine and boilers have been installed in the Elmira Felt Co.'s new factory at Elmira which will be running this month.

The new works of the Imperial Cotton Co., at Hamilton, are to be driven by electric power, and a 1,000 h.p. transformer is being installed there by the Cataract Power Co.

James Hall, one of the overseers at the Paton Manufacturing Co., Sherbrooke, was presented with a case of meerscham pipes on the occasion of leaving to take a place in a woolen mill near Boston.

The Alaska Feather and Down Co., of Montreal, agree to establish a business in Coaticook, provided the town will grant them a bonus of \$25,000. The company agrees to employ 150 hands, and pay out \$50,000 annually in wages.

John Shuh, for many years president of the Waterloo Woolen Co. (now the Canada Woolen Mills, Ltd.), and for a term president of the syndicate, died on the 21st inst., in his 73rd year. He filled many local offices of trust in Waterloo and Berlin and was much respected.

The Vienna, Ont., woolen mill is offered for sale.

George Rumpel, of the Berlin Felt Boot Co., is visiting Manitoba on a business trip.

Fire completely gutted R. Parker & Son's dyeworks on Sparks street, Ottawa, at 3 o'clock a.m., on the 24th Dec. The loss was placed at \$10,000 partially covered by insurance.

Alexander Laviolette, a machine tender in Hamelin and Ayers' woolen mills, at Lachute, was the victim of a painful accident a few days ago. He was tending a tulling mill when his hand caught in the machine and three fingers were severed before he could extricate himself.

At the annual meeting of the Dominion Woolen Manufacturing Company, Ltd., held in Montreal, the following were elected for the ensuing year: W. McIntyre, president; A. E. Smail, vice-president; directors, W. Strachan, Geo. Ross Robertson, Senator Ogilvie and E. A. Robert.

While working in the dyehouse of the Excelsior Woolen Mills, Montreal, on the 9th inst., Emile Maitre, 19 years old, fell into a vat containing carbonate of copper heated to a high degree. Before he could be got out by his companions he was badly burned. The ambulance from the General Hospital was called.

The Stormont cotton mill and Hodge's woolen mill at Cornwall had a very narrow escape from fire last month, when the Cornwall Milling Co.'s flour mill was burned. Had it not been for the thickness of the stone walls of the flour mill, both mills would have taken fire.

Lieut. A. Clyde Caldwell, of the first Canadian contingent to South Africa, is the eldest son of W. C. Caldwell, of the Lanark woolen mills. Lieut. Caldwell, who had passed through the military college, was in charge of the mapping section of the field intelligence corps. He was given a rousing reception on reaching his home in Lanark on Christmas Day.

The Journal of Fabrics desires to acknowledge with thanks the receipt of calendars from the following firms: John M. Henderson & Co., manufacturers of cableways and hoisting and conveying machinery, etc., Aberdeen, Scotland; Ashton Valve Co., Boston, Mass., U.S.A.; Philip Carey Mfg. Co., Lockland, Ohio, manufacturers of flexible cement roofing, etc.; News and Advocate, St. Johns, Que.; John Morrow Machine Screw Co., Ingersoll, Ont.; Mining Engineering, Wigan, Eng.; La Patrie, Morton, Phillips & Co., manufacturing stationers, James Robertson Co., Ltd., manufacturers of paints, saws, metals, etc., Montreal, Que.; Northern Assurance Co., Western Assurance Co., Beardmore Belting Co. and Dominion Dyewood & Chemical Co., Toronto; B. Greening Wire Co., Hamilton, Ont.; Standard Tool Co. Cleveland, Ohio; Hamilton Facing Mill Co., Hamilton; Publishers' Collection Agency, New York, N.Y.; A. R. Clarke & Co., glove manufacturers, Toronto.

The Canada Woolen Mill Co., which has expended during the past six months a very large amount of capital in enlarging and improving its property here—the Hawthorne and Gillies mill—putting in new looms and dyeing machinery and building towers in which are placed large water tanks, from which not only a system of waterworks is obtained, but a plan of piping has been arranged so that in case of fire breaking out in any flat dozens of sprays are at once started to play automatically upon the flames, being put into motion by the heat in the immediate vicinity. Other improvements have also been made and the mills have been kept running steadily up till this date. But the fluctuations of the market are likely to tell upon our industries shortly unless some unforeseen change takes place. The mill at Markham has been closed, and we regret to hear that those here are likely to go on short time right away.—Carleton Place Herald.

In an effort to reduce expenses in the cotton mill, at Stephen, N.B., some old hands have been discharged.—St. John Sun.

R. Westwork, lately foreman in one of the Guelph carpet factories, proposes to start a small carpet factory at St. Catharines.

A Truro paper says: An old lady at Economy, N.S., Mrs. Sarah Beattie, an octogenarian, during the year 1900, spun 240 skeins of yarn on one of the large spinning wheels; and wove in her loom 70 yards of cloth.

It is reported from Magog, Que., that a number of the weavers connected with the strike at the Dominion Cotton Co.'s mills there have received notice that their services are no longer required.

At a meeting held the other day, in Ottawa, the Keewatin Power Co. decided to go ahead with the building of a pulp mill having a capacity of 100 tons per day. Alex. Fraser, Ottawa; A. MacLaren, Buckingham, Que., and Wm. Gibson, Beamsville, are directors of the company.

The Brantford Courier of 16th inst. says: It appears that the new addition to the Chalcraft Screw Company's building, on Dalhousie street, is for the manufacture of binder twine. The company applied to the manufacturers' committee last night for exemption and this will be recommended to the council.

Holt & Kitchen, who operate a small carpet factory at Dunnville, Ont., are approaching the corporations of St. Catharines and Almonte to ascertain which will give the most aid to their factory in case they remove from Dunnville. In the case of Almonte the negotiations are not likely to come to anything.

A serious accident occurred at the Penman Manufacturing Company's mills, Coaticook, on the 8th inst. A young woman, named Jennie Hopkins, was caught in one of the shafts by the hair. Her scalp was torn completely off, and one ear almost severed from the head. She was taken to the Sherbrooke hospital.

The Ottawa & Hull Power & Mfg. Co., Hull, Que., has applied for incorporation to manufacture pulp, paper, etc., and woolen and cotton goods, to develop water power and electricity, etc. Among the applicants are W. C. Edwards, Rockland, Ont., and J. C. Edwards, R. G. C. Edwards and R. L. Blackburn, of Ottawa.

The career of the new Canning, Ont., Woolen Co. has been short lived. The old Kitchen mill at Canning was taken hold of last year by Fred. Ferry and R. J. Tatham, from the United States, as mentioned in our November number. They started to manufacture yarns, but assigned last month to Sheriff Brady, of Woodstock, Ont. The liabilities are about \$1,200. The assets were alleged to be \$812. but they will probably not realize more than \$500. The principal creditors are E. T. Carter, George Reid & Co., and J. E. Brown, Hamilton. Geo. Terry, a relative of one of the firm, is also a creditor.

Alexander Little, who has for some years been successfully engaged in the manufacture of excelsior, at York Mills, N.B., is now about to engage in a more extensive enterprise. During the summer and fall he has nearly finished the building of a new woolen mill, on the site of the old mill, destroyed by fire a few years ago. The building is of wood, with a stone foundation, 30 x 55 feet, and three stories high. The machinery, which is much superior to that of the old mill, has mostly been placed in position, and the mill will be in operation in the spring. A dye house will be built in the spring. It is a one-sett mill and will employ about a dozen hands. It is understood that Mr. Little is associated with one or two others, but he is the leader of the project, and will be likely to make it a success.—St. John Telegraph.

William Gray received a handsome parlor lamp from the weavers of the Canada Cotton Mill, Cornwall, at Christmas.—Cornwall Standard.

Albert Ashton and family have moved from Almonte to Cornwall, where he has secured a situation in one of the woolen mills.—Almonte Times.

A by-law was passed at Danville, Que., on the 15th inst., granting a \$30,000 loan to Whitford & Angus, to aid them in establishing a paper mill on the Nicolet, two miles from Danville.

The Chatham, Ont., Binder Twine Company has been formed with a capital stock of \$125,000. A factory having a capacity of five tons a day will be erected at once. The stock will be owned mostly by farmers. The institution will employ about 50 hands. Further information elsewhere.

New York parties are negotiating with some Toronto and Weston men, looking to the establishment of a wall paper factory at Weston. It is proposed to utilize the buildings and power privileges of the old Weston woolen mill, which has been lying idle since the collapse of the shoddy mill there.

Thomas Ritchie and Charles Mackenzie Reid, merchants; William Henry Gordon, accountant; Agnes Ritchie, spinster; and Mary Ritchie, married woman, all of the city of Belleville, have been incorporated as the Ritchie Company, Ltd.; to manufacture clothing. Head office, Belleville, Ont.; capital \$100,000.

William W. Gibbs and Clayton E. Platt, both of Philadelphia; Francis Hector Clergue, and Bertrand Joseph Clergue, and Henry Coulthard Hamilton, all of Sault Ste. Marie, Ont.; have been incorporated as The Canadian Electro-Chemical Co., Ltd.; for the manufacture of chemicals and mining machinery. Head office, Sault Ste. Marie; capital, \$100,000.

Letters of incorporation have been issued to the Dominion Cordage and Manufacturing Co.; capital, \$400,000; head office at Peterborough. The following are the first directors: Adam Hall, J. Armstrong, G. L. Hay, J. A. Bennett, and J. L. Latimer. The company propose to manufacture cordage, rope, binder twine, etc., and the promoters are all Peterborough men.

T. B. Caldwell, of Lanark, Ont., has purchased the woolen mill of J. Adam Teskey, at Appleton, near Carleton Place. The purchase includes the water-power and stone dwelling; and Mr. Caldwell is now refitting the mill and installing electric lights, etc., with a view to reopening it early next month. W. H. Boyle, of Lanark, has been appointed manager, and Walter Scrimger, of Carleton Place, mechanical superintendent.

At 1 o'clock on the morning of the 17th inst., a fire broke out on the premises of the German newspaper, Rundschau, and the Regina felt factory, at Regina, N.W.T. Both establishments are owned by Rudolf, Boez & Co. Engines were soon on the spot, but could not save the building or contents. The former was gutted, the latter completely destroyed. It is surmised that the fire started in the wool room. The felt factory was insured for \$1,000.

Justice Curran, in the Superior Court of Montreal, allowed \$250 and costs to a man named Dussault, a stonemason, who had one of his eyes destroyed while working for the Montreal Cotton Company, at Valleyfield. The action was taken against the company for \$10,000. The court found that the defendant's foreman was negligent in placing the stones too near together, thus causing the accident. At the same time the plaintiff should have called the attention of the foreman to the danger, and it is because he did not do this that the amount of damages granted was reduced.—Montreal Star.

Wm. A. Canfield late of the St. Hyacinthe, Que., knitting mills, is now overseer of the knitting factory of J. M. Jones, Fort Valley, Ga.

J. F. Gordon, Athens, Ont., has added to his woolen mill one 64 spindle ring twister for yarn from A. B. Tutkin, Providence, R.I.

Over 200 farmers in the district around Guelph hold stock in the Walkerton Twine Co., the new concern lately organized to manufacture binder twine at Walkerton.

The Century Cotton Mills, South Boston, Va., have placed their entire order for speeders with the William Firth Co. These speeders will be made by the firm of Asa Lees & Co., Ltd., Oldham.

The Merchants' Cotton Co., of Montreal, Canada, have placed a large order for revolving flat cards, with the firm of Asa Lees & Co., Ltd., Oldham, through their American agents, the William Firth Co., 67 Equitable Building, Boston.

The question of establishing a national textile chamber of commerce was discussed at the thirty-sixth annual meeting of the National Association of Wool Manufacturers, held in New York on the 9th inst. The project was referred to the executive committee for examination.

The premises of the Central Agency, the Canadian representatives of the Coats' English thread syndicate, in Debresoles street, Montreal, collapsed the other day, through the breaking of the joist in the floor, and precipitated a \$100,000 stock of thread into the cellar.

The Galt Reporter says: We are sorry to hear that Sylvester Weber, son of D. L. Weber, of the Chicopee Woolen Mills, is very low at present, so much so that grave doubts are entertained of his recovery. It is hoped that he may soon recover.

The Stark Mills, Manchester, N.H., are just receiving the first of a larger order for hard waste breaking-up machines, recently bought from William Tatham & Co., Rochdale, England, for whom the William Firth Co., of Boston, are sole agents for the U.S. and Canada.

The Hadley Co., of Holyoke, Mass., which is one of the American Thread Co.'s mills, have recently placed a large order for card clothing with the William Firth Co., 67 Equitable Building, Boston. This clothing will be of the well-known make of Jos. Sykes Bros., for whom the William Firth Co., are agents in this country.

The well-known dry goods firm of Manchester, Robertson & Allison, St. John, is to be incorporated into a company. The capital is to be \$800,000, and the chief place of business is to be the city of St. John, with a branch house in London, England. The applicants are James F. Robertson, Joseph Allison, W. Hazen Barnaby, Walter C. Allison, and T. E. G. Armstrong, the first three to be provisional directors.

We understand that the despatch from Chambly, Que., last month referring to the damage done to the Richelieu woolen mills by the bursting of the Chambly power dam, was greatly exaggerated. The facts are that none of the machinery was destroyed. In the dye-house a dye vat was floated by the rise of water, and the flooding of the lower flat of the mill caused some inconvenience, but we are informed that the damage was trifling and the mill was stopped less than two days in consequence. While the big dam is being repaired, the mill has been able to fall back on the old dam from which it formerly derived its power. Meantime, the mill is changing its motive power to electricity, and new 2,500 h.p. dynamos are being put in, making it the first large electrical installation applied to a woolen mill in Canada.

W. B. Gifford, of the Dominion Leather Board Co., and the paper mills at Saut au Recllet, near Montreal, has assigned. The liabilities are about \$37,000, of which \$6,000 is secured to the Quebec Bank.

Henderson and Cummings, who organized the company lately formed at Walkerton, to manufacture binder twine, have promoted a similar industry at Chatham, Ont., where a company is being formed this month with a capital of \$125,000. It is proposed to erect two buildings, one as a factory, 200 x 45 ft., one story, and the other as a warehouse, 200 x 45 ft. It is proposed to have the factory in running order in the spring. At a meeting held this month, a considerable amount of stock was subscribed, and the following provisional directors were elected: Robt. Smith, M. J. Wilson, Abster McKay, John Houston and James Chmnick.

The project of a new binder twine factory at Brantford has now reached such shape that the concern has acquired the buildings and lands of the old Cordage Company in West Brantford, and orders have been placed for machinery, of which the first carload will arrive in a few days. A 150-horse power engine is to be installed and the factory will open with a number of hands about March 1st. The authorized capital is \$100,000, and the officers are: Honorary president, S. G. Kitchen, St. George; president, D. G. Hammer, Mt. Vernon; vice-president, F. Chalcraft, of Brantford; secretary-treasurer, A. H. Elliott, Brantford. Directors: S. G. Kitchen, D. G. Hammer, F. Chalcraft, A. H. Elliott, C. W. Gurney, C. L. Messer, J. G. Hammer, C. H. Cook, and Dr. Marquis.—Brantford Courier.

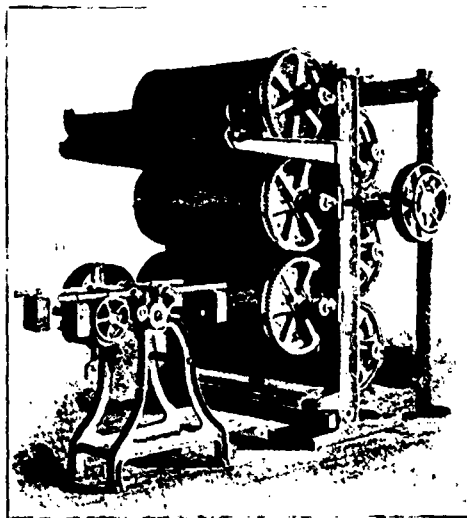
A distressing fatal accident occurred on Saturday, 12th of January, in the finishing room of the Canada Woolen Mills (Gillies' Mill), at Carleton Place. James D. McIntosh, eldest son of James G. McIntosh, was engaged to feed the cloth to the drying cylinders. On Saturday afternoon, he, with another boy, were alone in their room when they observed a loose belt running to another machine. McIntosh endeavored to throw it on with a broom. This failed, and he then tried with his hand. In a twinkling, he was caught in the belt and wound up on the shaft, where he was whirled about until word could be sent to the basement and the machinery be stopped. The right arm was twisted off near the shoulder, the right leg was fractured at the knee and several ribs were broken. Medical aid was obtained without delay, and everything possible was done to relieve the sufferer and save his life, but the shock was too great, and after three hours, during which time he retained consciousness, the spark of life went out. The bereaved parents have the deep sympathy of the whole town in their sorrow. The father was at the Gillies' Bros. mills, near Folger, eight miles from the telegraph station, and received the message near midnight. He left at once, and by driving across the country and getting relays of horses, arrived home on Sunday afternoon, too late to see his son alive.

### NEW MACHINE FOR COLORING YARN.

The accompanying illustration shows a new machine, invented by F. & H. Fries, of Winston-Salem, N.C., and put on the market by the well-known dyestuff manufacturing firm of A. Klipstein & Co., of New York.

The object of the machine, and the process for using it, which are covered by patents in the United States and abroad, is to take the yarn in the dry state directly from a section beam, upon which it has been wound on an ordinary warper, and passing it through this machine and over the drying cans so that it comes out dry and ready for use either as long chain warp or filling, without having been subjected to the numerous and expensive processes of handling incurred by old-fashioned methods.

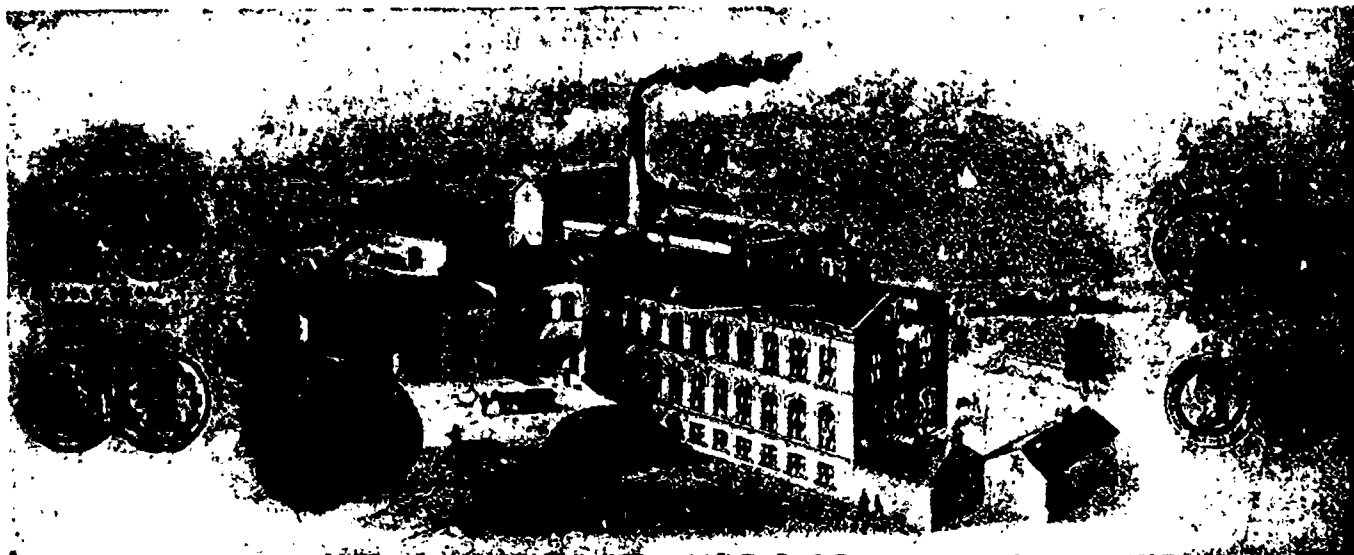
That it is equally applicable for the coloring of tapes and braids is demonstrated by the successful operation of the machine, which has been installed at the works of the Cascade Narrow Fabrics Co., of Coaticook, Que. This, by the



way, is the first time this machine has been applied to tapes and braids—having been used heretofore on long chain warp or filling yarn—but its success for the new work is complete. A. Klipstein & Co., 122 Pearl street, New York, are the selling agents for the machine in the United States and Canada, and their Hamilton office, or their traveling representatives will be pleased to give any further information on the subject.

### SUSPENSION OF WM. PARKS AND SON, LTD.

The suspension of the cotton manufacturing firm of Wm. Parks & Son, St. John, N.B., on the 10th of this month, came as an unpleasant surprise to the cotton trade. The company, whose president and general manager for many years has been John H. Parks, owned two mills at St. John, one known as the New Brunswick Cotton Mill, containing 120 looms and 15,000 spindles, and the other known as the St. John Cotton Mill, and located in the Courtney Bay district of the city, having a capacity of 300 looms and 15,000 spindles. The former mill produced cotton yarns and bleached and colored goods, and the latter grey cottons, drill, ducks, and shirtings. The two mills, when run to full capacity, employed about 600 hands. The Courtney Bay mill was established in 1882, but the New Brunswick mill was built in 1861 and was the oldest of the existing cotton mills in Canada, as Mr. Parks was the oldest cotton manufacturer in the Dominion. It may be remembered that some years ago these mills got into financial difficulties and their affairs were thrown into court. As it was important to local interests that the industry should be preserved in St. John, Judge Palmer, before whom the case came, personally undertook the management of the mill, and such was the business ability he displayed that he safely piloted the concern through its difficulties, releasing it from the claims of the Bank of Montreal, and the mills paid handsomely till a year after Judge Palmer's death. The mills then passed under the financial control of Simeon Jones and the late W. W. Turnbull, two local capitalists, for whom the late George A. Schofield acted as financial manager. These gentlemen advanced over \$200,000 in the form of a loan; but in spite of the interest of 7 per cent., which this loan had to bear, and a salary of \$2,000 a year to Mr. Schofield, the debt on the mills was reduced from \$200,000 to \$134,000, and the burden might have been lifted but for the death of Turnbull and Schofield. "The former," says the St. John Sun, "left



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instructions to his executors to have the debt discharged. Mr. Schofield, in his capacity as manager of the Bank of New Brunswick, had from time to time advanced the mills money for the purchase of cotton, and at the time of his death there was a liability to the bank of about \$50,000. This and the obligations to the Turnbull estate and to Mr. Jones are said to be the only heavy liabilities, but there is no ready cash with which to continue operations, and as under existing conditions none of the interests are willing to make advances sufficient for the needs of the business, it has been found necessary to shut down the plant." The regular annual meeting was to be held February 19th, but it has since been proposed to hold a special meeting to see if anything can be done to keep the mills going. For some years past the mills have failed to advance with the times, and it is realized that a good deal of new machinery will have to be put into both mills to bring them up-to-date. Those having control insist on a new management, as well as new machinery, and these matters are being considered. The name of George W. Jones, son of Simcon Jones, has been mentioned as financial manager, and J. B. Cudlip, of the Gibson mill, as a possible superintendent. At the time of the suspension, David Kay, the Montreal selling agent, was lying critically ill with pleurisy. The late Wm. Hewett was for many years selling agent in Toronto for the mills, but on his death was succeeded by his son-in-law, J. Sproule Smith. Besides the debt due under the loan mentioned there is about \$50,000 due the bank. The future of the mill lies in a choice between reconstruction under local management, or a sale to one of the two cotton mill syndicates of Montreal.

#### FABRIC ITEMS.

Fire broke out in the wholesale woolen warehouse of M. B. Alison, Colborne street, Toronto, on the 19th inst., caused by an overheated register. Loss about \$500, covered by insurance.

J. P. Seybold, H. B. Seybold, G. C. Seybold, E. L. Seybold, and Miss A. W. Seybold are asking for incorporation under the name of the Seybold & Sons Company, with a capital of \$95,000, to carry on business as dry goods merchants at Ottawa.

Henry Hamilton, Nap. E. Hamilton, Henri Hamilton, Jr.; Auguste Singer, and George Hamilton, are asking for incorporation under the name of the Hamilton Company, Ltd., with \$200,000 capital, to carry on a general dry goods business at Montreal.

The George Ritchie & Co., clothing manufacturers and dry goods dealers, Belleville, has been changed into a joint stock company, to be known as "The Ritchie Company, Ltd." Capital, \$100,000; provisional directors: Thomas Ritchie, C. M. Reid, W. H. Gordon, Agnes Ritchie and Mary Ritchie.

The Berlin News Record reports that the new factory of the Star Whitewear Co. is progressing under the management of J. G. Wing, and that it is intended to increase the number of hands to over 100. The company manufactures ladies' whitewear, wrappers, shirt waists, and children's whitewear. The factory is operated by electric power.

Clayton & Sons, wholesale clothing manufacturers of Halifax, N.S., announced, a year ago, that they would admit their employees, who number about 400, into a profit-sharing scheme with the firm. The share payable to each was to be graduated according to the responsibility of the position held by the worker. The year was up the day before Christmas, when the firm divided \$2,410, the amount of profit accruing to the hands under the arrangement. This is the first effort of the kind in Nova Scotia, and it seems to have been successful and will be continued.

An extension of time, spread over 12 months, has been granted the Imperial Clothing Manufacturing Co., of Montreal, who started business less than a year ago. They owe \$16,000, and claim assets of about \$20,000. It is said they will discontinue manufacturing, but will continue their retail branch at Ottawa.

The Parker Mills, No. 1, of Fall River, Mass., after thoroughly investigating the different makes of revolving flat cards, have placed a large order for these machines with the William Firth Co., 67 Equitable Building, Boston. These cards will be made by the well-known firm of Asa Lees & Co., Ltd., Oldham, England, for whom the William Firth Co. are sole agents for this class of machinery in the United States and Canada.

A new company, called the King Shirt Co., has been formed at Belleville, to manufacture men's shirts, collars and cuffs. The provisional president is Thomas Ritchie, the well-known dry goods merchant of that city, and the general manager is A. E. Fish, the inventor of the "King" shirt, the manufacture of which will be one of the specialties of the company. The "King" shirt is made with a front that is separable in the lower part from the body of the shirt, and it is claimed that the front will not wrinkle, push up, or cause any other unpleasant sensation, incidental to the ordinary shirt front, especially when worn by stout men. The company will open in the old Commercial House building, which will be refitted and enlarged to make a building 70 x 23 ft., four stories. The city is expected to grant exemption from taxation, etc. The factory, which will have a steam plant, is to be in operation in February, starting with about 75 hands. It is expected, however, that the number of hands will be increased to 200.

**Wanted** Situation as boss finisher by a man capable of taking charge from loom to case. Understands all classes of woolen goods. Highest references. Address "OVERSEER," care of Canadian Journal of Fabrics.

1-3

**A WELL ESTABLISHED KNITTING CONCERN** in the city, with good wholesale connection would remove to country town if advantageous offer was proposed. Address "BONUS," care Canadian Journal of Fabrics, Toronto.

1-2

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Stone Building No. 3 (85x35)—5 stories, each flat 10 ft. from floor to ceiling.

Stone Building No. 4 (30x20)—3 stories, each flat 10 ft. from floor to ceiling.

Stone Building No. 5 (14x9)—2 stories, 1st floor engine room, 2nd floor superintendent's office.

Building No. 6 (50x26)—2 stories, stone warehouse.

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Young Bros., Almonte, have lately supplied S. T. Willet, Chambly Canton, Que., and T. B. Caldwell, of Lanark, Ont., each with one of their latest friction drive fulling mills, also cloth washers to the Kingston Hosiery Co., Kingston, Ont., and to Logan Bros., of Renfrew.

The Beaver Rubber Clothing Co., Montreal has been incorporated with a capital of \$60,000, to acquire and continue the

business at present carried on by Eleazer L. Rosenthal, in Montreal, as manufacturer of rubber clothing, under the firm name of The Beaver Rubber Clothing Company. The charter members are: Adolphe V. Roy, civil engineer, Arthur Roy, gentleman; Eleazer L. Rosenthal, manufacturer; Edouard Gauthier, agent; Adolphe Masson, manufacturer, all of the city of Montreal.

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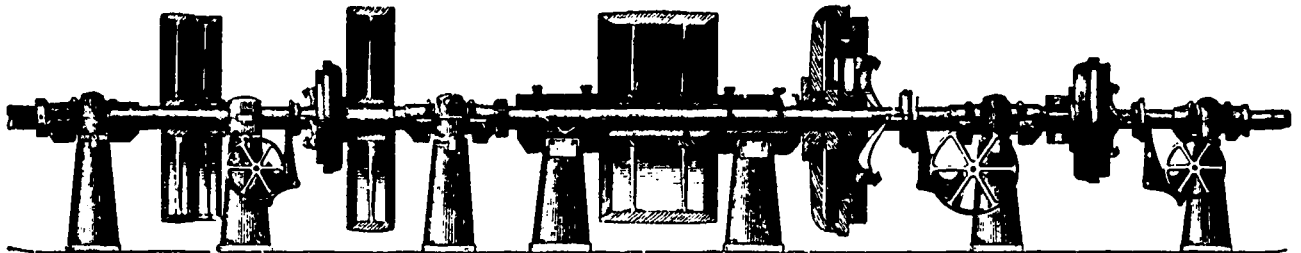
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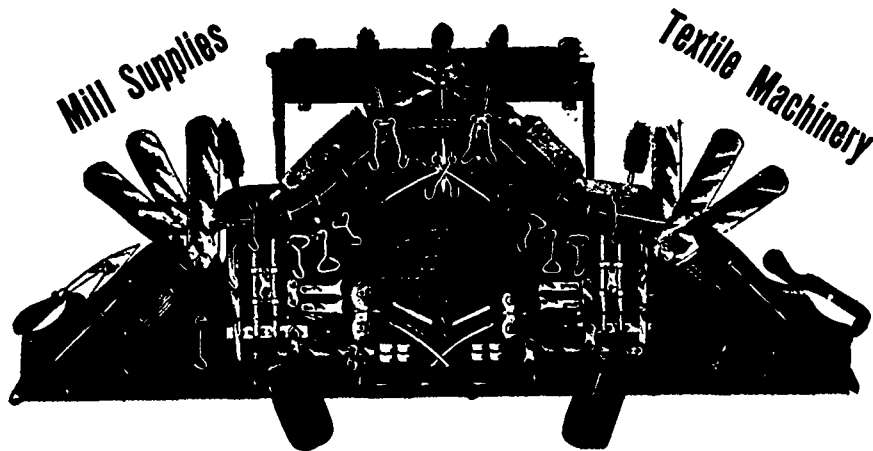
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- D. Fisher, Paisley, Ont., Etoffes and Tweeds.
- John J. Achley & Co., Bradford, Eng., Dress Goods and Worsteds.
- Hornor, Determann & Co., Barmen, Germany, Buttons, etc.
- S. W. Whitham, Leeds, Eng., Woolens.
- Merrinack Print Mfg. Co., Lowell, Mass.
- Burton Bros. & Co., New York; Linings, &c.
- H. T. Lamkin & Co., Cotton Brokers, Vicksburg, Mississippi Long Staple Cotton a specialty

**GOP TUBES**  
Cones & Shells.  
WORSTED TUBES.  
CONICAL TUBES.  
MAILING TUBES.  
Haworth & Watson, LOWELL, MASS.



TEXTILE PUBLICATIONS.

In order to accommodate readers of The Canadian Journal of Fabrics, the publishers will be pleased to mail any book in the following list on receipt of the publisher's price, duty free. Books on technical and practical subjects, not in this list, can be obtained and mailed at publisher's prices. In ordering, please give full address, written plainly:

- Loom Fixing; a handbook for loom fixers working on plain and fancy worsteds and woolens; containing chapters on shuttles and bobbins, and their management; head motion; putting in warps; filling; adjusting and starting new looms; chain building, etc.; 104 pages, by Albert Ainley .....\$1 00
- Technology of Textile Design; explains the designing for all kinds of fabrics executed on the harness loom, by E. A. Posselt ..... 5 00
- Structure of Fibers, Yarns and Fabrics, the most important work on the structure of cotton, wool, silk, flax, carding, combing, drawing and spinning, as well as calculations for the manufacture of textile fabrics, by E. A. Posselt ..... 5 00
- Textile Machinery Relating to Weaving, the first work of consequence ever published on the construction of modern power looms, by E. A. Posselt..... 3 00
- The Jacquard Machine Analyzed and Explained; explains the various Jacquard machines in use, the tying up of Jacquard harness, card stamping and lacing, and how to make Jacquard designs, by E. A. Posselt..... 3 00
- Textile Calculations; a complete guide to calculations relating to the construction of all kinds of yarns and fabrics, the analysis of cloth, etc., by E. A. Posselt.. 2 00
- Wool Dyeing; an up-to-date book on the subject, by E. A. Posselt ..... 2 00
- Worrall's Directory of Cotton Spinners, Manufacturers, Dyers, Calico-printers and Bleachers of Lancashire, giving the mills of the British cotton district, with

- number of looms and spindles, products of the mills, cable addresses, etc .....\$2 00
- Woolen and Worsted Loom Fixing. A book for Loom fixers, and all who are interested in the production of plain and fancy worsteds and woolens; by A. Ainley..\$1 00
- Worrall's Directory of the Textile Trades of Yorkshire, comprising the woolen, worsted, cotton, silk, linen, hemp, carpet, and all other textile mills, giving looms and spindles, and the various lines of goods manufactured, etc .....\$2 00
- Worrall's Textile Directory of the Manufacturing Districts of Ireland, Scotland, Wales, and the counties of Chester, Derby, Gloucester, Leicester, Nottingham, Worcester, and other centres not included in preceding works, with capacity, products of mills, cable addresses 2 00
- The Wool Carder's Vade-Mecum, by Bramwell; third edition, revised and enlarged; illustrated; 12mo..... 2 50

CHEMICALS AND DYESTUFFS.

The demand for chemicals and dyestuffs, as is usual at this time of the year, is light, and there are few if any changes to note in prices. Alkalies are slightly higher and getting scarce.

Bleaching powder .....	\$ 2 75	to	\$3 00
Bicarb soda .....	2 00	"	2 05
Sal soda .....	0 75	"	0 80
Carbolic acid, 1 lb bottles.....	0 50	"	0 60
Caustic soda, 60° .....	2 35	"	2 60
Caustic soda, 70° .....	2 60	"	2 85
Chlorate of potash .....	0 13	"	0 15
Alum .....	1 35	"	1 50
Copperas ..	0 65	"	0 70
Sulphur flour .....	2 00	"	2 50
Sulphur roll .....	2 00	"	3 00
Sulphate of copper .....	6 00	"	6 25
White sugar of lead.....	0 08	"	0 08
Bich. potash.....	0 11	"	0 12
Sumac, Sicily, per ton .....	75 00	"	80 00
Soda ash, 48° to 58° .....	1 30	"	1 40
Chip logwood .....	1 90	"	2 00
Castor oil .....	0 09	"	0 10
Cocconut oil.....	0 10	"	0 11

NEW BLACK FOR COTTON



DOUBLE STRENGTH

Unequaled for depth of shade. Users of black should investigate Fastest Black on the market.

**F. E. ATTEAUX AND CO.**  
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CANADIAN BRANCHES:  
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*Chemicals & Dyestuffs*

Fast Color for Wool—Dry Alizarine, Phenocyanine, Gallocyanine  
Direct Cotton Colors—Auramine, Congo Red.  
Azo Colors—Naphthol Yellow, Orange, Scarlets, Fast Red.

HEADQUARTERS FOR

- Caustic Potash 90%
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**TOLUYLENE DIAMINE** (DISTILLED)

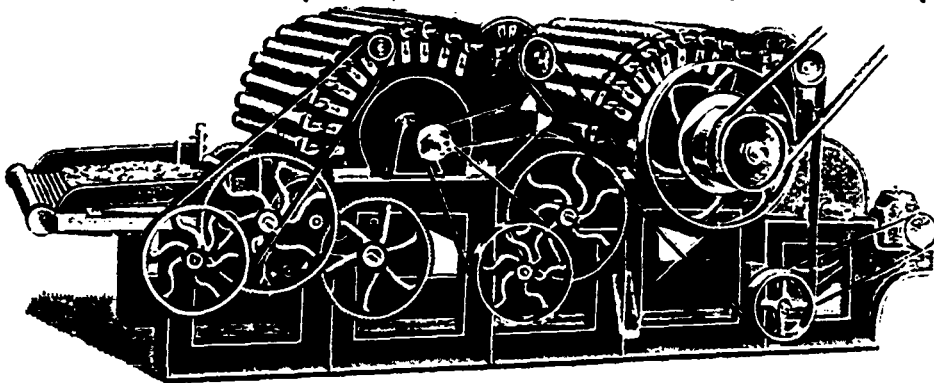
**Bismarck Brown, Chrysoidine,** Crystals and Powder. Largest makers in the world.  
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Specialties for Cotton, Wool and Silk Dyers, Paper Makers etc.

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**WORLD WIDE  
REPUTATION**

TELEGRAMS: Garnett, Cleckheaton.

TELEPHONE No. 9, Cleckheaton Exchange, Under Dewsbury.



**T**HESE MACHINES have a world-wide reputation. They are made in various widths up to 60 inches on the wire, and with one, two, or three swifts. They can be clothed as fine as 24 rows per inch so as effectually to open the finest threads.

Waste Opener or Garnett Machine, for Opening Hard Twisted Woolen and Worsted Waste.

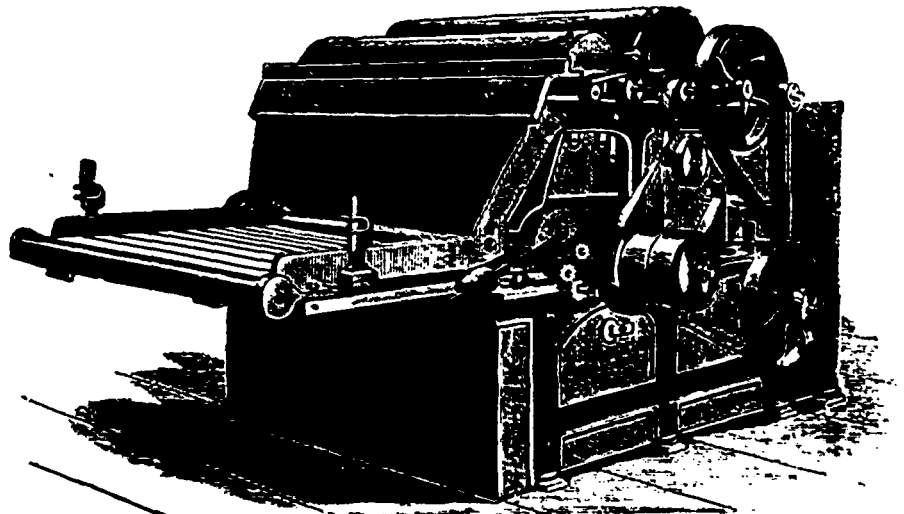


Garnett Wire. This Wire is used for covering iron rollers, breasts of woolen cards, lickersin of cotton cards, comber doffers, etc.

Garnett Wire, or Metallic Card, made with any form of tooth, in Swedish Charcoal Iron or Cast Steel, with points hardened by electricity.

## Patent Garnett Clothing Apparatus

By means of this simple and inexpensive apparatus parties can reclothe the rollers of their waste-opening machines in their own mills—and so save an immense amount of trouble and expense in sending their rollers away to be done.

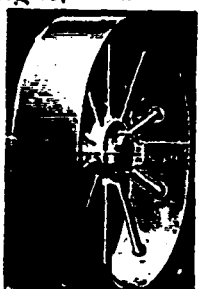


Improved Wool Cleaning or Burring Machine.

Capable of cleaning 1,500 pounds of wool per day. The very best and most economical machine made for the purpose.

## Wrought Iron Pulleys

Light, True and Unbreakable

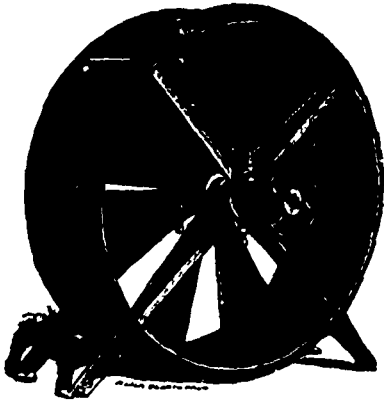


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Iron and Steel Shafting, Couplings,  
Flummer Blocks, W. I. Collars,  
Hangers Wall Boxes, etc.

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Manufacturers ofExhaust Fans, Blowers  
Ventilators & Sheet  
Metal Pipes.A workroom well ventilated  
will increase its production.Our Exhaust Fans are used exten-  
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heat and for drying by air circula-  
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Consulting Chemist of the Canadian Pacific Railway Company.

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Tested and Analyzed.**Analytical and Consulting Chemists**

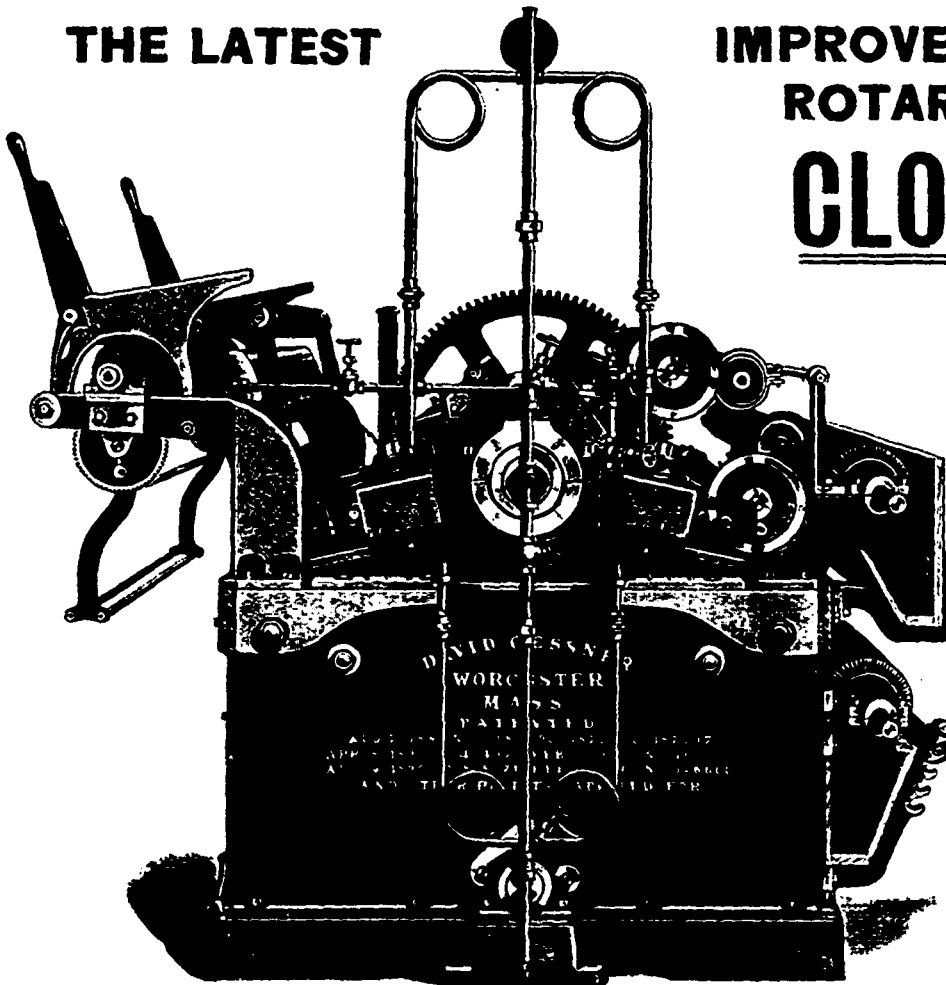
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**YARNS**William Hollins & Co., Limited, Nottingham; Cashmere, Worsted, Merino Yarns  
David Sandemann & Co., Glasgow; Worsted and Woolen Yarns.  
William Aykroyd & Sons, Bradford; Mercerized Yarns.  
James Smethurst & Sons, Manchester and Bolton; Cotton Yarns.  
Bent Ley Silk Mills, Melham; Spun Silk Yarns.  
J. & R. Young, Belfast; Linen Yarns.

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**THE LATEST****IMPROVED DOUBLE-BED  
ROTARY****CLOTH PRESS**

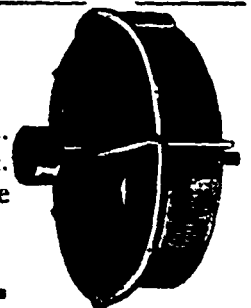
The bed plates are self-adjusting, the levers that operate them being mounted upon sliding steel fulcrum bars within the frames. The trussing apparatus of the bed plates is so arranged as to permit not only a forcing of the centres of the bed plates in a forward direction, toward the cylinder, but also away from it, which is of the utmost importance if the bed plates should ever become sprung. Bed plates and cylinder after being cold finished, are ground absolutely true while heated by steam at 75 lbs. pressure, insuring perfectly straight and uniform pressing surfaces. Pressure is applied and removed instantaneously, and by power.

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For drying of Wool, Cotton, Cloth, Blankets and other materials. Fans for ventilating and removing refuse, hot and foul air, etc. The Fan system of heating and ventilating large buildings. Write for particulars to

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**SOLE AGENTS FOR**

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JOHN PERRY, Limited—Worsted Machinery, on French and English system, also patent wool washers and special silk machinery.

GEORGE ORME & CO.'S patent hank indicators, etc.

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JOSEPH SYKES BROS.—Hardened and tempered steel card clothing for cotton.

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**PATENT  
UPRIGHT  
CONE  
WINDERS**

For Hosiery purposes,  
Winding from Cop, Skein or Bobbin

**SKEIN SPOOLER**

with adjustable skein holders for cotton wool and worsted, Upright Quillers, quills from cop, skein or bobbin, Ring-Dresser, Spooler and Reel Spindles, Cop Skeiners, Warp Spools, Spooler Guides, Bolsters and Steps made and repaired at short notice.

Geo. D. Forbes, of the R. Forbes Co., worsted and knit goods manufacturers, Hespeler, Ont., has been elected mayor of that town by acclamation.

In an article last month on the Utilization of Waste in Cotton Mills, quoted from an American paper, an error occurred in the address of E. A. Leigh, agent in Canada and the United States for the machinery described. It should have read "Mason Building, Boston, Mass." and not Washington, D.C.

**EVAN ARTHUR LEIGH**

Successor to E. A. LEIGH & COMPANY

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**Textile MACHINERY**  
Etc.

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BY FAR THE LARGEST MAKERS OF TEXTILE MACHINERY IN THE WORLD

Platt's Cotton, Woolen and Worsted Machinery.  
Sole makers of Brown's Patent Carding Rollers for wool—give woolen yarn a worsted appearance.  
New Patent Noble Comb—increased production, better work.  
Platt's Special Machinery for making English and French Worsted Yarns.  
Platt's Special Machinery for making Cotton Waste into Yarns.

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Bleaching, Dyeing and Finishing Machinery and Archbutt-Deeley System of Softening and Purifying Hard Water.  
The Best System on the Market.

Wool Washing and Drying Machines. Garnett Machines. French and English Napping Machines. Card Clothing for Cotton (Sykes's). Woolen and Worsted (Critchley's). Varey's Fallers and Circles, etc.  
Fine Cotton and Worsted Yarns. Machinery delivered duty and freight paid.

**Lowell Machine Shop**

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**COTTON  
MACHINERY.**

**Revolving Flat Cards**  
**Railway Heads**  
**Drawing Frames**  
**Roving Frames**  
**Ring Spinning Frames**  
**Twisters, Spoolers**  
**Warpers, Slashers**  
**CLOTH ROOM MACHINERY.** **Looms**

**TEXTILE EXPORTS OF GREAT BRITAIN TO CANADA.**

The following are the sterling values of the exports of wool and textile fabrics from Great Britain and Canada for November and the 11 months ending Nov. of 1899 and 1900, as taken from the British Board of Trade Returns:

	Month of Nov.		November.	
	1899.	1900.	Eleven months of 1899.	1900.
	£	£	£	£
Raw wool .....	5,294	4,860	24,137	40,339
Cotton piece goods.....	43,216	37,203	486,511	606,620
Jute piece goods .....	7,778	10,618	103,352	132,742
Linen piece goods .....	9,939	10,994	155,761	172,341
Silk, lace .....	1,108	306	13,955	12,698
Silk, articles partly of ...	4,403	2,286	48,541	49,376
Woolen fabrics .....	13,784	9,650	290,751	389,875
Worsted fabrics .....	27,316	19,019	501,560	539,861
Carpets .....	9,764	7,423	177,363	208,254
Apparel and slops .....	13,940	6,204	219,117	243,278
Haberdashery .....	5,455	6,248	149,300	146,853

**"WHAT MORE THAN WAGES?"**

Employers—some of them—are coming to believe that their "hands" have a greater interest in the prosperity of their business than is represented by the wages they receive. What it is feeling has led to, in some cases, is set forth in an illustrated article by William Howe Tolman, printed in the December Century, under the title, "What More than Wages?"

This is an industrial question that is being asked by men, some of whom feel that the labor share of their wealth production should have a larger reward than the mere payment of wages. Other employers are sufficiently far-sighted to recognize that whatever makes the worker more human, more contented, more skilled, is a positive industrial asset in the business, and is a large factor in industrial stability.

An employer doing a business of half a million asked the writer if he could commend to him any young man or woman, preferably some one just graduated from college, hence of trained intelligence, who could go into his establishment with the status of a private secretary, for the sole purpose of studying and advising, by personal contact with the working staff, so that the employees could be made of more value to themselves, in the first instance, and to their employer, in the second.

One more fact will show that these movements for industrial betterment are in the air. Last spring the writer was asked if he would entertain a proposition to go with a large concern about to start a plant in the suburbs of a large city. The firm wished someone to take the general oversight and planning of all kinds of movements that would tend to improve the conditions of their employees, in education, recreation, sanitation, and so on.

After an inspection of a plant where nearly four thousand men are employed, the superintendent asked for suggestions looking toward industrial betterment. I gave him several that were perfectly obvious.

"Why," he replied, "we can't give the time to following out those suggestions, which are eminently practical; we are too busy—we must do our own work."

"Of course you are too busy," I said, "and for that very reason you need someone on your staff whose sole business will be the planning and direction of movements to improve industrial conditions. In other words, you need a social engineer."

Social engineering, accordingly, is a new profession, and the above facts show that there is already a demand for experts in this line.

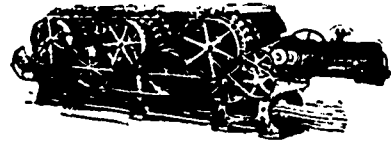
**COMBINED TANNING AND DYEING.**

A process has been patented by Herr F. W. Wartenberger, for dyeing and tanning a skin simultaneously. Two baths are used, the first consisting of a solution of picric acid in about 70 times its weight of water and containing a suitable aniline dye. The excess of picric acid is then reduced and removed, and the dye is fixed by a hyposulphite bath, consisting of about 20 parts by weight of water, 4 of hyposulphite of soda, and from 1 to 3 parts of hydrochloric acid. The skin is first prepared as if about to be tanned in the usual way. The tanning liquor (the picric acid), acts as a carrier for the dye, and thereby ensures greater penetration and levelling than when the dye is applied to the already tanned hides.

Young Bros., Almonte, have installed an electric light plant in the mills of James Paris, White Lake, Ont.

**Improved Cylinder Adjustment,  
Positive Feed and Doffer Drive,  
Ring Oiling Bearings,  
Method and Character of Clothing**

All contribute to the unquestionable  
superiority of "PROCTOR"



# Garnett Machines.

"CYCLONE" DRYERS,  
CARBONIZERS, YARN SCOURERS,  
WILLOWS, BURRING MACHINES,  
BREASTS, METALLIC FEED  
ROLLS, Etc.

ARE LEADERS IN THEIR CLASS.

**Philadelphia Textile Machinery Company,**

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**The Denn Warping Machinery.**

**Linking Balling  
Slasher Beam**

# WARPERS

100 to 3,200 Ends.

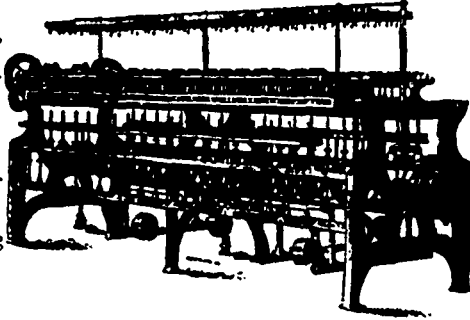
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ters, Drum Spool  
Winders, Reels,  
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Mac's. Ring  
Twisters, Card  
Creels,



Dead Spindle Spooler for Warp or Dresser Spools,  
Pat. Double Acting Gigs, Dyeing Machines.

**Canadian Colored**  
**Cotton Mills**  
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<b>Cottonades,</b>	<b>Zephyrs,</b>
<b>Tickings,</b>	<b>Skirtings,</b>
<b>Denims,</b>	<b>Dress Goods,</b>
<b>Awnings,</b>	<b>Lawns,</b>
<b>Shirtings,</b>	<b>Crinkles,</b>
<b>Flannelettes,</b>	<b>Cotton Blankets,</b>
<b>Ginghams,</b>	<b>Angolas,</b>
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any description of Machinery  
With Methods of Determining the Purity and other Properties of Oils, etc.  
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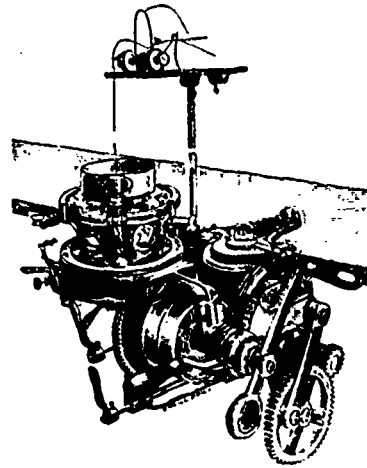
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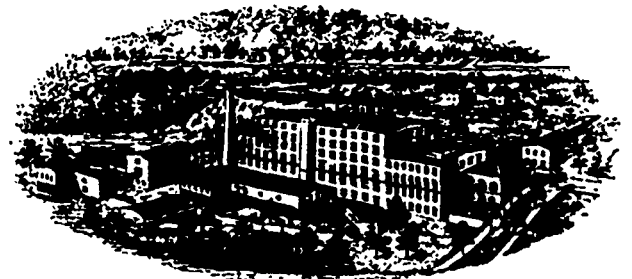
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Colors warranted as fast as the best British or Foreign goods.

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**WOOLEN GOODS, TWEEDS, Etc.**

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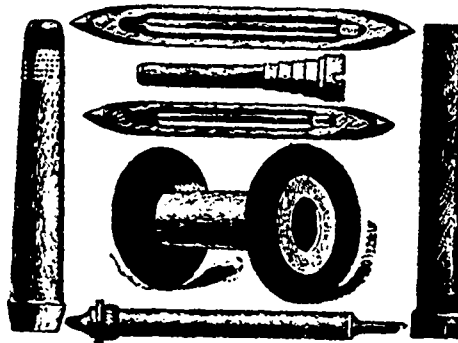
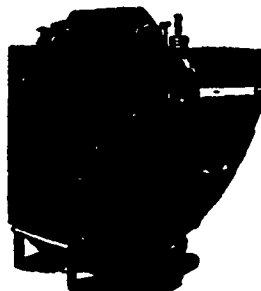
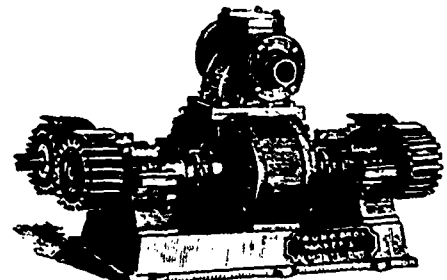
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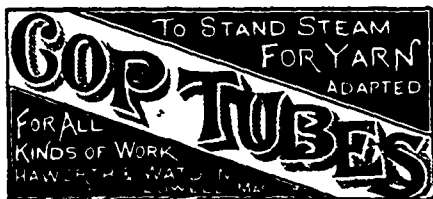
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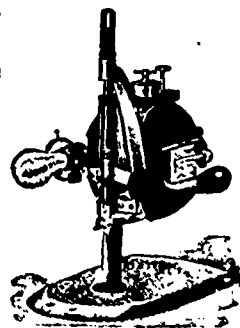
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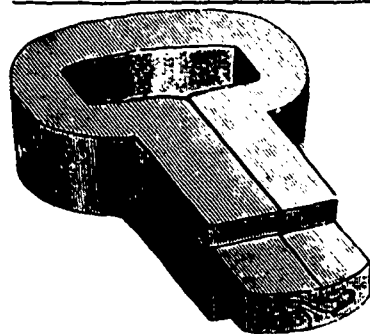
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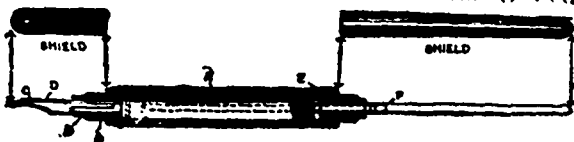
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This cut represents Barlow's Pat. Bow Picker with solid interlocking foot. Pat. Feb. 26, 1889



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ADDRESS **BICCAR, SAMUEL & CO.,**

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A disastrous fire occurred on the night of January 18th, in the premises of Thomas May & Co., the large wholesale millinery and fancy dry goods firm, on the corner of McGill and St. James streets (Victoria Square), Montreal. The loss will aggregate over a quarter of a million dollars, covered by insurance. The fire broke out about 10.30 p.m., and the firemen were quickly on the scene, but owing to some delay in the working of the apparatus, the fire got a firm hold in different parts of the building; it took about half an hour to get the big water tower into action, owing to many vexatious delays, but it did splendid work then; several break-downs occurred with the engines and a few minor accidents, and the firemen suffered from cold and frost bites; but the fire was got under control about midnight. It broke out again in the morning, but was got under control, until finally extinguished. The street railway's service was badly demoralized all the next day, and the Electric Light Co.'s wires had to be cut out of that section of the city. The stock was valued at nearly \$300,000. The following firms had offices in the building: Colonial Bleaching &

Printing Co., Belding, Paul & Co., Silk Manufacturers, Medical Alliance, of America; also Henri Audette & Co., wholesale dry goods, and the British Importing Co. (J. H. Jacobs), worsteds and woollens, both carrying stocks; Paris, Milne & Co., dry goods commission merchants, and the Irving Umbrella Co., of Toronto, also had offices in the building.

The Montmorency Cotton Mills Co. about a month ago made an issue of \$550,000 new bonds, which were well taken up. These bonds were to cover the cost of new extensions. The company now operates 60,000 spindles and 900 looms, and employs nearly 1,200 hands.

H. Friedman, formerly of Montreal, but for three years in the clothing business at St. John, N.B., is reported in embarrassed shape. He owes \$7,000, and shows about \$4,000 assets.

Wm. J. Matheson & Co., Montreal and New York, agents for Lepold Cassella & Co., dyestuff manufacturers, have issued during the past month several books of sample colors, whose qualities have to be seen to be appreciated.

## Dominion Oil Cloth Co'y,

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## New England Ventilating and Heating Co'y.

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Manufacturers of

Richardson's Revolving Ventilator

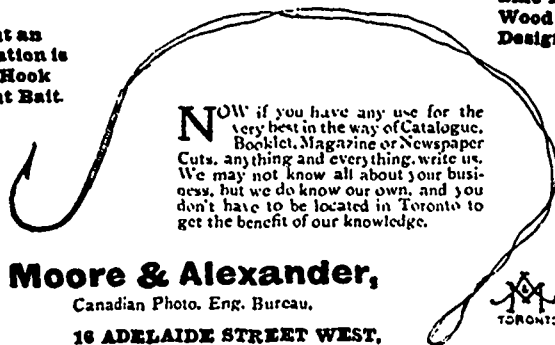
For use where power is not available.

This Ventilator is balanced, has ball bearings and revolves with the least perceptible current of air, having no obstruction to its outlet, and never fails to give satisfaction. Specially adapted for Mills, Dye Houses, Workshops. They are so completed that any carpenter can erect them.

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## Moore & Alexander,

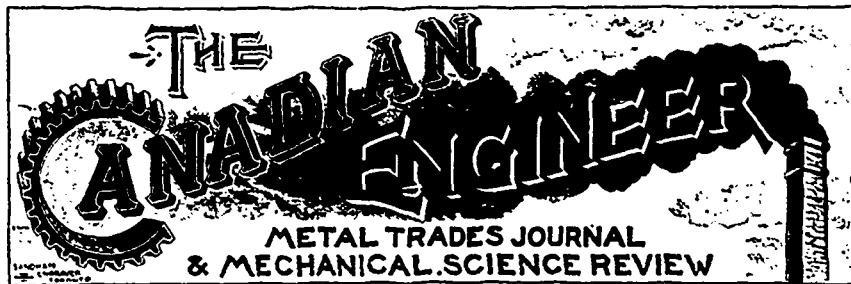
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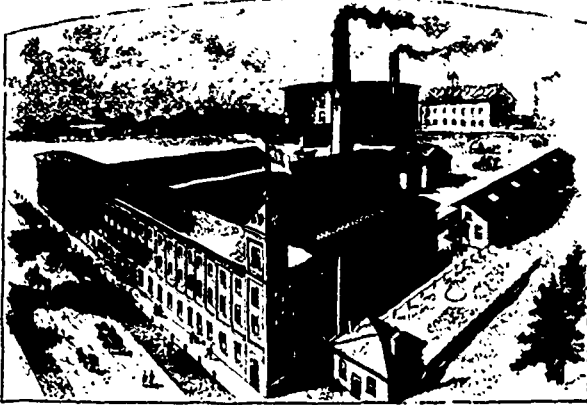
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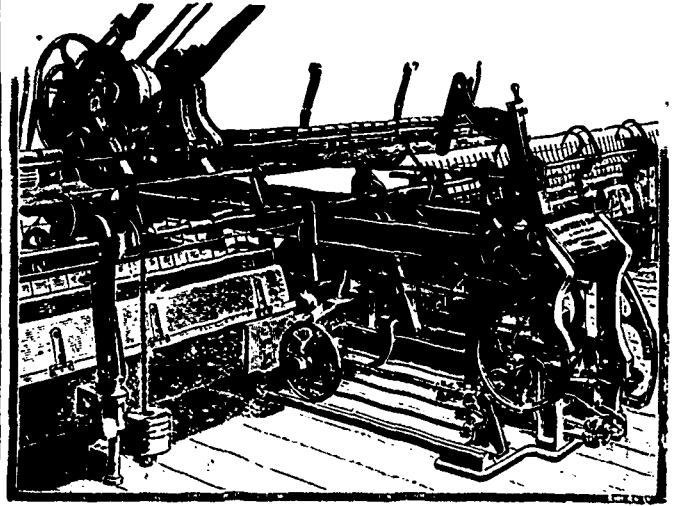
WM. B. STEWART, 18 Front St. East, Toronto.  
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—The Dundee Advertiser estimates that 72,000 people are employed in the linen and jute trade of Dundee, and that the capital employed in the linen trade there is £2,500,000, and in the jute trade, £11,500,000.

—We regret to record the death from heart disease last month of Thomas Spurrier, of Montreal, father of the late Hartnell Spurrier, who was for a considerable time on the staff of this journal. Mr. Spurrier, senior, was born in Gloucestershire, Eng., and was educated at Oxford. He was confirmed in the Church of England by Bishop Wilberforce, but afterwards joined the Baptist community, being a deacon of a London church for thirty years. He instituted an important church literary society and young men's Bible Class out of which have come several ministers and missionaries. Among these was Thomas J. Comber, pioneer missionary to the Congo, who was followed there by his two brothers, also as missionaries. While in London, Mr. Spurrier was in the customs department for a time, and was the first to enter that service under the competitive examination then introduced; and after a time in the Admiralty he went into mercantile pursuits. After being elected on the Camberwell vestry he became one of the members of the first Public School Board of London, and always maintained a great interest in educational matters on coming to Canada. He was one of the best Greek scholars in Montreal, and was often consulted on this subject by both teachers and students. He was a man of modest and retiring disposition, and a most lovable character in his social life.

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LOCKWOOD, HUDDERSFIELD, ENGLAND.



Winding Machinery, Improved Self-Acting Mule, Suspended Steam Driven Centrifugal Hydro-Extractor, Tenting and Drying Machines, Patent Wool and Cotton Dryer, Patent Wool Scouring Machine, Cross Raising Machine, Patent Crabbing and Winding-on Machine, Warp Sizing, Cool Air Drying and Beaming Machine, and other Woolen Machinery.

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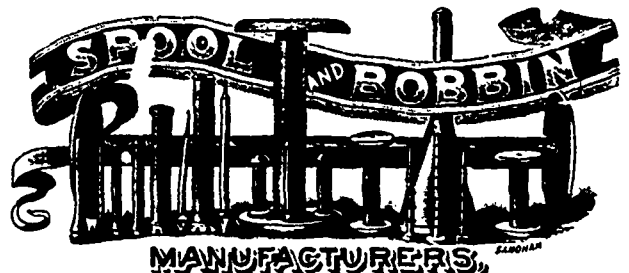
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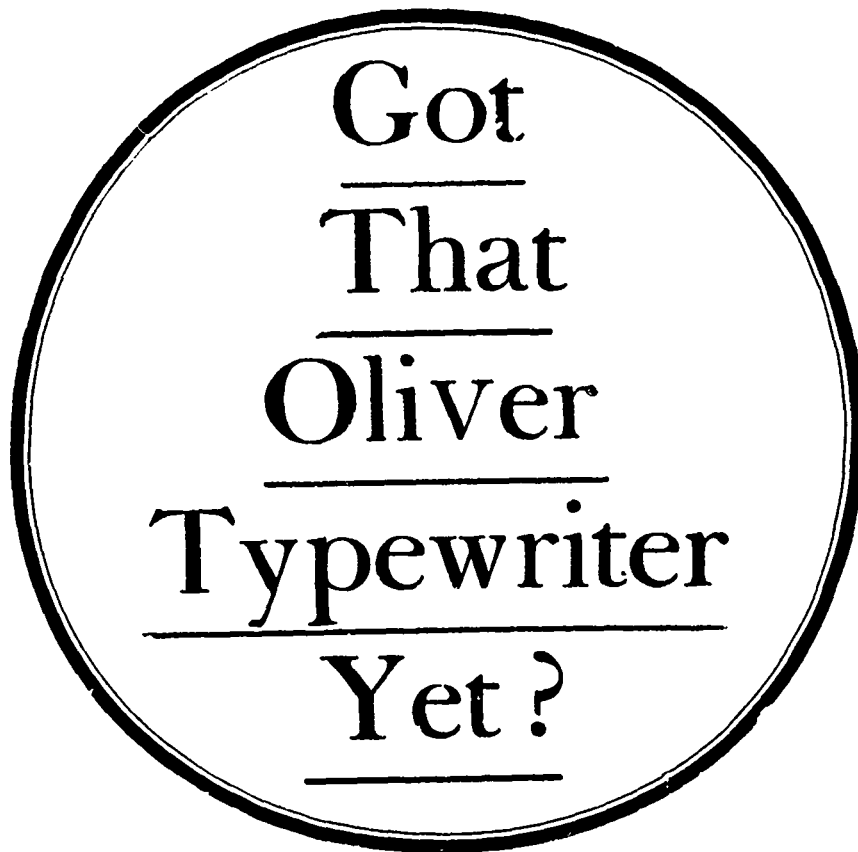


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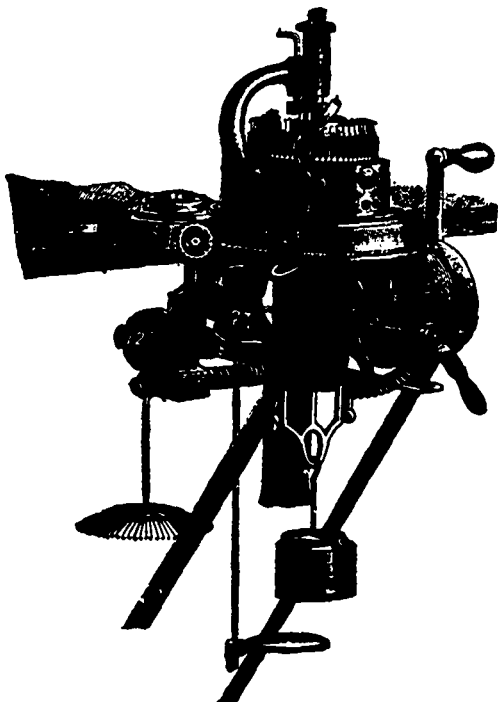


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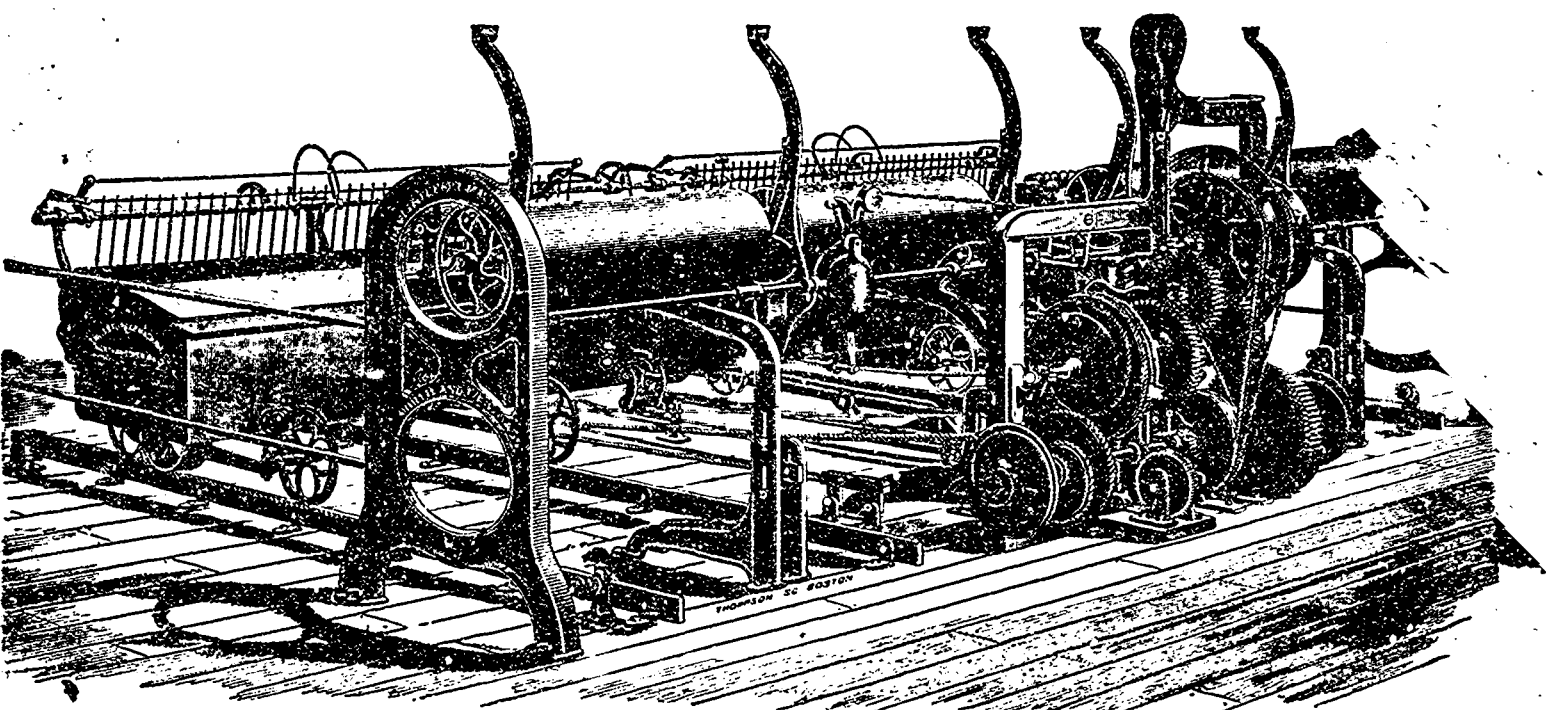
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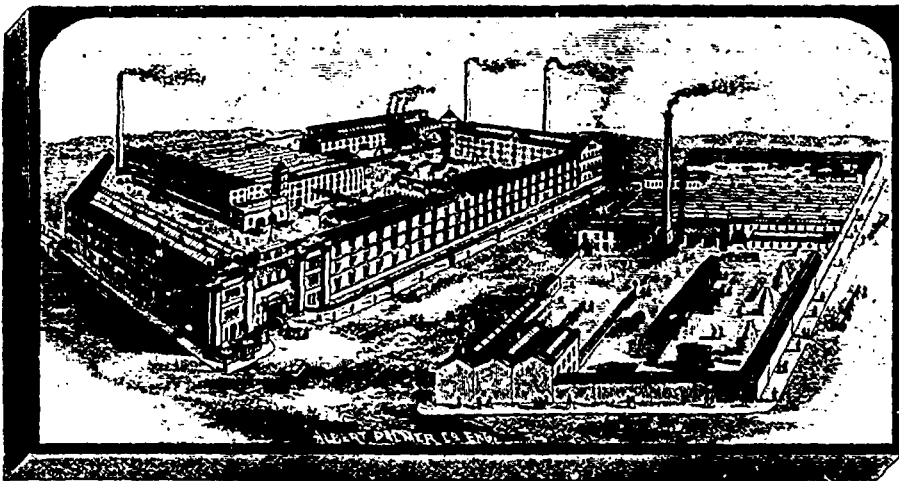
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