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THE JOURNAL OF THE
Textile Trades of Canada.

Vol. XVII.

TORONTO AND MONTREAL, JUNE, 1900.

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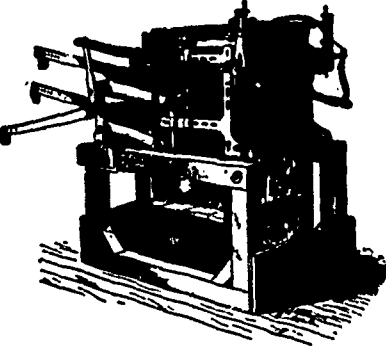
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CANADIAN JOURNAL OF Fabrics

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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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COMPETITION IN THE EARLY WOOLEN TRADE.

BY GEORGE ROGGENHOFER

Anyone who thinks that it is only now that traders have to suffer from cutting duties and other similar burdens, is very much mistaken. At all periods there has been strenuous rivalry in the wool trade, and as a consequence in the dyeing and printing industries. This has been so severe at times that it involved whole countries, and was largely due to the constantly occurring wars. It would appear that India was the cradle of the dyeing art, that France was the first European country to take it up, and that the first technical work on the

subject was published in Italy in 1429. Some, however, maintain that Rosetti's work (Venice, 1540), was the first. It certainly was the chief factor in stimulating the dyeing trade of Europe, especially among the Flemings, who took the art to France, England and Germany. Wool manufacture reached great prosperity in Germany during the Middle Ages and there was a big trade with Holland. But until the 16th century England was at the head of the wool trade. At that period, however, England began to give way to Spain in that direction, while Germany greatly benefited, as regards her cloth industry, by repeated immigrations of skilled workmen from Holland. In 1137, a large number of exiled Dutch arrived in the Altmark, were hospitably received by the Prince, and assigned dwellings in the huge forests of the Salzwedel. Other Dutchmen were allowed to settle at Stendal, Gardelogen, Arneburg, Maydebourg, Meissen, and in the Priegnitz and Mittelmark. The saying goes that they founded Cologne on the Spree. Wherever these colonists came, the wool manufacture soon developed, and from the 12th century we find large businesses in Saxony, Pomerania, Silesia, and other districts. The same thing happened in South Germany, especially in the Bavarian towns of Nuremberg, Augsburg, Regensburg, Passau, etc. Nevertheless, the Germans of the period did not pay the attention to sheep-breeding that England, Italy, and Spain did, and this soon bore fruit. In 1248, an English wool trading company was formed, and soon attained large proportions, and English colonists who went to Ireland in 1289 made very important progress in sheep-rearing and wool manufacture. Of the treatment of Ireland at that period, however, Lord Essex asserted that it reminded him of nothing so much as that of a deer which is thrown to the hounds for every one of them to tear a morsel from it, and it is certain that it was systematically robbed of its developing wool industry. Temple wrote in 1673 to Lord Essex that the progress of wool manufacture in Ireland was becoming a danger to the English trade, and that it seemed imprudent to further it. This was a hint to suppress the manufacture in Ireland, and that was done in 1698 in every possible circumstance of cruelty and injustice.

The prohibition by Edward III. of the importation

of foreign woollens into England and the export of unmanufactured wool from the country was not of much avail, but the misgovernment of Philip II., in Holland, and the consequent decadence of the Dutch industry was. The English trade never looked back from that time, and, with the introduction of machinery, it took the first place among the nations of Europe.

From the 12th to the 16th century the wool manufacture was the chief trade of Germany, and the weavers and finishers had much power and influence. Associated with them were numbers of allied industries, dyers, woad-growers, fullers, shearers, pressers, etc. The woad-growers were influential enough to cause the issue of edicts against indigo and other dyes imported from abroad. They made out that such dyes were highly corrosive and injurious to the fiber, and dubbed them "devils' colors." In Nuremberg, every person who became a dyer on his own account had to take a solemn oath that he would never use indigo. The Italians were the first European nation to make use of indigo, and a bitter struggle ensued, between indigo and woad, which found expression in 1516 in a decree imposing severe penalties on all buyers and sellers of indigo. Indigo, however, won the day, and even at the beginning of the 17th century was well established. The chief importers were the Dutch East India Company, and they raised the ire of the "woad-people" to a tremendous pitch. In England all use of indigo was forbidden during the reign of Elizabeth, and not only was every ship coming from abroad strictly rummaged, but inspectors were sent to every dye-house to confiscate all the indigo or foreign dye-woods they could lay their hands on and burn them. These laws were not repealed until the reign of Charles II. Prohibition in Germany dates from 1577, and the law was re-enacted more than once—in 1654, for example. But times had changed by the end of the 17th century, and in 1699 the French minister, Colbert, modified the law in France to the extent that the use of indigo was permissible, if woad was mixed with it. Indigo was finally freed from all restrictions in 1737, and immediately ran a victorious course over the whole of Europe.

In Germany, the clothmakers attained great power in the 14th and 15th centuries. They altered the municipal by-laws at their pleasure, and turned out councilors who did not suit them. A knowledge of their wealth and independence often caused them to enter into conflicts against the power and predominant rights of the various older hand-working trades. The records of the German towns are full of such struggles, which always ended in favor of the wool people. They gained full burgher rights in 1304 in Speyer, in 1332 in Mayence and Strasburg, in 1342 in Constance and Basle, in 1368 in Augsburg, and in 1378 in Nuremberg. The troubles were worst in Cologne on the Rhine, where the clothmakers played a very prominent part, and they

gained complete victories both in 1370 and 1377. The Flemish guilds even defied the army of Philip II., of Spain.

The wool manufacture of the north of Italy was an overflow from Germany. It is said that two monks named Amiliati, were sent from Italy to Germany as flagellants, and that during a long sojourn in Regensburg and Passau they learned the secrets of the wool weaving, and took them to Florence, so that the trade flourished in that town by 1290, long before the silk industry was developed there. The wool required was obtainable from England and Spain, the finer kinds from the latter country. At the same time, dyeing was so much developed in Florence that 10,000 pieces of woollen cloth were dyed there annually for France and Flanders.

Antwerp had achieved a great reputation abroad for its wool manufacture as early as the 12th century. It reached its culminating point in the 16th century, when the principal Italian and German firms had established branches there. At that time Antwerp had a quarter of a million inhabitants, and a fleet of 4,500 vessels, of which 300 were often in the harbor at a time. Philip, of Spain, however, put an end to this prosperity and that of the Dutch weavers altogether. It is estimated that he caused the emigration of more than 100,000 Protestants, most of whom were weavers. They took their trade to England and Germany.

When the Margrave Jodock, of Moravia, had won over two of the municipality of Iglan, with reference to certain demands of his, the wool manufacturers seized the opportunity, in union with four of the handicraft guilds, the tailors, cobblers, tanners, and curriers, to resist. Although they were unsuccessful on this occasion, they succeeded later in getting the upper hand in the government of the town, and they became exceedingly powerful and arrogant. They went so far as to attack a small neighboring town, Deutschbrad, which they accused of unfriendship towards the woollen manufacture, and plundered it so thoroughly that it never prospered afterwards. Things got to such a pitch, in Iglan and many other places, that the princes had to bestir themselves, and had great difficulty in retaining the reins of power. As was inevitable, the trade only did itself harm in the long run, not having a knowledge of history to show them what the result would be in their case, as it had been with others who got too rich and powerful, the Knights Templars, for instance. Besides, they introduced labor rules among themselves, which checked their technical progress, and drove many from their ranks into foreign lands. Things were even worse in England, where the workmen employed by the wool manufacturers were forced to accept payment in kind for their labor, giving them needles, girdles, and other articles which they had purchased wholesale. A stringent Act of Parliament was directed against this

practice in 1464. Other trade customs were regulated by a further Act of 1483.

By the commencement of the 17th century, dyeing had made such progress in Holland that both from England and France wool was sent thither to be dyed. Under Colbert's rule, France learned to dye as well, and began to be at the head of the cloth trade. Colbert imported Dutch dyers, Scotch, Irish and German cloth-makers, and did his best to promote the wool trade by assisting allied trades, by offering prizes, and in many other ways.

The scarlet dyeing industry was founded in Paris in the 14th century by the Gobelin family. They succeeded in spoiling the German trade in scarlet cloth, which had been highly famed during the 12th and 13th centuries and was esteemed fit to present to the most exalted personages (in 1489 it cost 96 shillings an ell in England), and the Thirty Years' War had a most prejudicial effect on the German wool trade. Scarlet dyeing reached England first in 1645, when Kegler set up a dye-house in London.—From the Deutsche Farber Verband.

GARMENT DYEING.*

BY A PRACTICAL HAND.

The business of garment dyeing has undergone many changes during comparatively recent years. Formerly, the trade was wholly in the hands of the practical man working for himself. Here and there a job dyer had one or two assistants, and they employed comparatively simple and primitive means—a few rinsing tubs and a plain copper or vat in which to boil the goods and conduct the dyeing operations. Now, however, the trade has drifted largely into the hands of large firms, such as Pullars, of Perth; P. & P. Campbell, of Perth; G. Wright & Co., of Stockport; J. T. Holderness, of Ashton-under-Lyne; John Berrie and W. Reynolds, of Manchester; Smith & Sons, of Dewsbury; to name only a few whose names come most readily to our minds. These firms have established agents in various towns either in their own immediate districts or in the case of the Perth firms, all over the country, who collect the goods from the customers and transmit them to the works to be dealt with. The consequence is that such firms have an enormous quantity of material to deal with, rendering it quite impossible to employ the primitive means of their predecessors, and necessitating the introduction of machinery to enable them to deal with larger quantities at a time.

In the introduction of machinery, then, we have one of the changes which have come over the garment dyeing trade. There are machines for carrying on the washing and cleaning operations, whether these be carried out by the old-fashioned plan, with soap and water,

or the newer plan with benzoline. These machines are made to work with hand power or with steam or other mechanical power. Then again the dry cleaner on a large scale finds it worth while to so treat this benzoline that he can use it over again, and so we find benzoline filtering machines and benzoline distilling machines in use in all modern garment cleaning works. Such machines were undreamt of by our forefathers. Then, again, the old fashioned plan of wringing by hand of the garments from the various liquors is really too slow for modern ideas, while there is the great disadvantage of producing creases in the goods. Now we have the modern hydro-extractor, introduced in the dyehouses, with the result that the work is better done, for more liquor can be got out of the goods by the hydro-extractor than by wringing, while there is an absence of creasing in the goods. This is a particularly valuable feature in connection with velvet, plush, and all fabrics with a pile, or with goods which have a raised pattern and with silk goods, all of which are more or less spoiled if they are creased or the pile pressed down in any way, which is inevitable by any system of wringing, but which cannot occur with an hydro-extractor. The old dye coppers were not made very large, perhaps to hold from two to six dresses at one time or a few yards of curtains. Generally they were heated by fire, and were worked by hand, the men stirring up the goods by poles or rakes. Now the machines are made large: for the modern garment dyer, having a wider field for collecting his goods, can depend upon having a large number of garments to dye any particular shade. Then, again, they are heated by steam, which is much more convenient, as well as more cleanly than fire and the temperature can be regulated better. Moreover, they are made to work with mechanical power, thus easing the labor required in carrying out the work. The old garment dyer had to dry his goods in the open air, or before a fire, much as the household laundress dried her week's wash. Now there are drying rooms heated by steam or fire, in which the drying is carried on more quickly and in a more satisfactory manner. In many other minor details we can trace improvements in the machinery and methods of working in the industry of garment dyeing.

One considerable innovation must not be omitted; that is the change from the natural dyes, like logwood, fustic and cudbear to the coal tar dyes like magenta, naphthol black, naphthylamine black, acid violet, to name only a few of the vast number now available. In the olden time the garment dyer was much put to it to produce the shade desired, for he could not quite depend upon how his dyes would work. The recipes and formulæ he used then were something truly fearful to contemplate, and it is a marvel that he got any results at all, for it seems as if the dyes and chemicals were put in without rhyme or reason. One followed the other,

*Extracted from the Dyer and Calico Printer.

first soda would be added, then acid, then a blue, then perhaps a red, and so on; in fact, the dyer worked on a rule of thumb system, not knowing why and wherefore he carried out his work as he did. Now the modern coal tar dyer has altered this. The dyer has learned to use as few substances as he possibly can, with the result that he can depend upon getting the shade he desires, and obtain results that were before impossible. For example, it was in the olden days impossible to dye a garment containing both wool and cotton in the same color, for all the then known dyes had such an affinity for the wool that either they would not dye the cotton at all or give it only a slight tint, and the only thing the dyer could do was to unpick the garment and dye the wool portion separately from any cotton linings it might contain. Now, thanks to the discovery of the direct dyes, like Diamine Black, Benzopurpine, Thioflavine S, Titan Scarlet, Diamine Brown, etc., and the neutral dyeing wool colors, like Naphthylamine Black, Scarlet R, Lanacyl Blue, etc., the garment can be dyed in one bath with the certainty of obtaining precisely the same shade on both the wool and the cotton.

NECESSARY PROTECTION.

We referred in our last issue to the request of the woolen manufacturers for a raising of the tariff in view of the increased British preference, coming into operation July 1st. We have heard many valid reasons given why Canadian manufacturers should have a measure of protection against the products of other countries, but there are also being advanced some arguments that are, to say the least of it, not based on facts. Of the former one, as unanswerable as it is true, is that the British manufacturer may run his mill on one line for years and the Canadian must run on many lines at the same time. This means vastly increased cost of production in Canada.

But we cannot allow to pass unchallenged such a statement as that of a contemporary, who says ". . . reducing the duty on all British woolen goods to 23 1-3 per cent. This, the Canadian manufacturer feels, is an inadequate duty considering the present state of the industry and the prospects of competition from low-class British fabrics made largely of shoddy. This class of stuff is not produced in Canada, the machinery and labor in use not being adapted to its production. It is not, in fact, considered a class of material which should be used, because the quality is poor and the fabric not durable. It is against the shoddy goods, and not the finer classes of woolen fabrics made in such perfection in Great Britain, that our manufactures protest." This paragraph contains much that is true, and some things that are misleading. Our manufacturers do fear the competition of "low class British fabrics made largely of shoddy;" but, alas, not because "this class of stuff is not produced in Canada," but because "the labor

and machinery is not adapted to its production," and our manufacturers are unable to make as low grade stuff as the British, who, with superior machinery and specially skilled employees, can produce shoddy goods having a marvellous appearance of genuineness. Our mills, and there are many of them turning out cloths, at fifteen to thirty cents per yard, cannot sell their goods against British goods of equal durability, because the appearance is inferior. It is a pity that protection which is necessary to the existence of the industry should so work out as to stimulate the production of inferior goods, but this it has done in Canada, and the United States as well.

THE LONDON WOOL SALES.

The third series of the 1900 wool auction sales closed May 25th with offerings of 8,285 bales. The selection was fair, and met with a good demand at firm prices. The bulk of the offerings was taken by Yorkshire. The third series of sales opened with an average depreciation of 10 per cent., being most pronounced in inferior and faulty stock. Merchants, considering the statistical situation favorable, would not accept the reduction, and withdrawals were heavy. Upon the announcement of heavy curtailment competition became more animated and widespread. Medium coarse crossbreds throughout were in better demand. This grade opened 7½ per cent. cheaper, and later, upon the resumption of American purchasing, hardened and closed firm at 5 per cent. below the March average. Fine crossbreds followed merinos. Cape of Good Hope and Natal started 7½ per cent. cheaper. Inferior greasy and poor fleeces were hard to sell until refused an additional 5 per cent. Of the offerings during the series, the home trade secured 70,000 bales: the continent, 50,000; American, 3,000, and 167,000 bales were held over. The following were the sales of the closing day: New South Wales, 800 bales—Scoured, 1s. to 1s. 7½d.; greasy, 5d. to 1s. ½d. Queensland, 400 bales—Greasy, 7d. to 1s. Victoria, 800 bales—Scoured, 5½d. to 1s. ½d.; greasy, 5½d. to 1s. ½d.; South Australia, 50 bales—Scoured, 1s. 2½d.; to 1s. 6d. New Zealand, 4,900 bales—Scoured, 6¾d. to 1s. 7d.; greasy, 4½d. to 1s. 10d. Cape of Good Hope and Natal, 1,100 bales—Scoured, 11½d. to 1s. 8½d.; greasy, 5d. to 9½d.

UP-TO-DATE.

The fact that British manufacturers are alive to the necessity of taking advantage of every improvement is shown by the following extract from a textile journal in Great Britain: "E. D. McCrae's new shirt and collar factory in Wood street, Dublin, is supplied throughout with electric light, and all the machinery is worked by electric motors. The electricity is generated on the premises with a Crossley gas engine and dynamo. They have a plant for making their own gas."

CUSTOMS' FRAUDS.

The compromising of cases of fraud upon the customs is a grave scandal, and the people should make their voice heard in the matter. Why should the Government do with impunity an act criminal in a citizen. Either a fraud has been committed or it has not. If the latter, the accused should be acquitted; if the former, he should pay the full penalty; not contribute to the customs' revenue a part of that held back fraudulently.

The Wholesale Dry Goods Section of the Toronto Board of Trade has just passed the following resolution:

Resolved, That the wholesale dry goods section of the Board of Trade have heard with much regret that the Government have accepted a compromise in the customs actions against Thouret, Fitzgibbon & Co., and Fitzgibbon, Schafheitlin & Co. It would appear that the amount claimed against Thouret, Fitzgibbon & Co., \$23,000, represents only the amount of duties underpaid, of which the Government have cognizance; how much more there was it is hard to say, but taking the duties as averaging one-fourth of the value, this represents \$92,000, value of the goods falsely entered, which but for the limit of time having expired, would be a claim also, making the total amount of penalty which the old firm should have paid, \$115,000. Add to this, \$144,000, claim against the new firm, and we have \$259,000, or over a quarter of a million which should stand against this firm. This section has repeatedly pointed out the injustice of allowing such frauds to go unpunished and unjudged year after year, to the detriment of honest importers, and are of the opinion that no compromise should have been accepted. They have also repeatedly pointed out that such firm, doing principally an import order trade and carrying little stock, have usually little assets which the Government can seize. They therefore consider that seizures should have been put on their importations as they arrived. The trade here carry stocks varying from \$250,000 to \$500,000, which are hostages for their good behavior. We know it is stated that the Government cannot get any more than the amount now accepted. But it is not surely pretended that the Government is in such dire need of funds that it is compelled to accept a compromise of less than ten cents on the dollar, thereby giving these parties release and allowing them to go again, when if the claim were pressed for the full amount they would be forced out of business, and the trade would be relieved of dishonest and unfair competition. The difficulties of proving these frauds, and the expense attending them are well known to the Government, and to accept a settlement which does not represent one-half of the amount of which the revenue is known to have been defrauded is, we consider, a direct encouragement to go on again, for it makes it profitable to commit these frauds if a firm can get off with less than one-half of the amount which it has robbed the revenue of and been found out, how much more was not detected no one can say.

—We congratulate George Reid & Co., Toronto, upon their removal into the fine premises, 11-13 Front street East, Toronto. The warehouse is on the Esplanade at Jarvis street, and the offices and show-rooms in Front street East.

—Exports of ready-made clothing from Germany have fallen off one-half in the last three years. This is attributed to the high tariffs of some countries, but in

the case of Canada it is laid to the British preferential tariff. We find that German exports of ready-made clothing to Canada were in the year ending June, 1898, \$109,834, and for that ending June, 1899, \$121,053. The ready-made clothing imported from Great Britain was, in 1898, \$433,468, and in 1899, \$477,133, and the increase for the first four months of 1900 has been from £77,654 to £107,794.

THE WOOL MARKET.

Toronto—Wool is not coming into the market with much freedom, and the market has been slow. There has been paid here 15 cents for washed and 9½ cents, unwashed. There is still large accumulation of Canadian wool of last season held in Toronto by United States buyers. English wools similar to our own have been selling at 7½d. to 8d.

Montreal.—The market decidedly quiet, stocks very small. Canadian mills are holding back from buying, pending receipt of wholesalers' orders. Prices, steady. Capes, 18 to 22c. Natsals, 22 to 25c. B.A., 38 to 45c. No sales of new clip Quebec wool are recorded yet. Next London sales open July 3rd, limit of new arrivals 150,000 bales, already reached.

A sale of sheepskins and wool was held in London, June 14th, and the offerings numbered 3,142 bales. There was an average attendance present, but competition was very unsatisfactory, and resulted in large withdrawals. The result of the sale showed an average decline of 10 per cent., with Australasian merinos selling ½d. to ¾d. and cross-bred ¼d. to ¾d. lower. New Zealand cross-breds were well competed for at a farthing decline.

COTTON MANUFACTURING IN THE SOUTHERN STATES.

The British Consul at Charleston, U.S., reports recently to his Government on this interesting question that cotton manufacturing in the Southern States is steadily growing in importance, most of the mills south being situated within this consular district, in the States of South Carolina, North Carolina and Georgia. The southern mills at this time have 5,000,000 spindles in operation, as compared with 13,000,000 in the New England States of the north. It is not likely, however, that the northern mills will be materially increased, while it is estimated by the best authorities that, from this time on, the southern spindles will increase at the rate of 2,000,000 annually, and as the United States can produce only 2,500,000 spindles a year, it is probable that the southern mills, next year, will absorb almost the entire output. As yet the finer grades of cotton cloths are made in New England and Great Britain, the south having, heretofore, manufactured only the coarser grades. The southern mills, however, are now beginning to turn their attention to this matter, and it is probably only a question of time when they will be seriously competing with the makers of the finer fabrics.

It seems beyond doubt that this country must in future depend largely on the Far East for a market for its surplus manufactured cotton products. Even now a very large amount of cotton goods made in southern mills is shipped to China, Japan, and other Eastern countries, and there seems reasonable ground for the statement that before many years the bulk of the cotton grown in America may be manufactured in the States where it is produced. It is estimated that there are 46,000,000 spindles now engaged in cotton manufacture in Great Britain.

as compared with, say, 20,000,000 spindles in this country. Should, therefore, the English mills remain stationary, the two countries would in the course of ten or twelve years be about equal in their facilities for cotton manufacture, if we assume, as already stated, that the number of American spindles will increase at the rate of 2,000,000 annually during that period. There appear to be no apprehensions by manufacturers of an over production, as they seem to confidently calculate on a proper development of market opportunities now presenting themselves in the Far East.

South Carolina is rapidly taking a prominent position as a cotton manufacturing state, as reports from official sources show that during last year there were 26 new cotton mills chartered with a capital of about \$5,650,000, 16 mills before established also increased their capital by several million dollars, making the total aggregate capital put into cotton manufacturing during the past year \$9,079,000. Other southern states have also had good records, carefully prepared statistics showing that there are now invested in southern cotton mills \$125,000,000, and that these mills yearly consume about 1,400,000 bales of cotton, nearly one-sixth of this year's cotton crop, and it is predicted that in four years' time half the American cotton crop will be consumed by southern mills.

FINISHING HALF-WOOL FABRICS.

Many colored half-woolens are fulled immediately after leaving the loom. All the better grade goods, however, receive a further treatment. They are washed in the wash machine with soda and soap (to which, in the case of more delicate goods, an addition of ammonia is made), until the bulk of the dirt is dissolved. This can be recognized when wringing with the hand, the impurities clinging to the latter rather tenaciously in partially dissolved masses. If the threads be clean at the places desired, rinsing is done, and the goods brought as quickly as possible into the hydro-extractor, so that there will be no bleeding of the wool or cotton colors. Next follows the milling, which, as the cotton warp does not full, is performed breadthwise. The use of the sousing apparatus must be dispensed with. After milling, washing and hydro-extracting are done in the usual way. In case the goods are not immediately carded, they must instantly be dried. Only cleaned cards should be used for carding. As the goods are generally but slightly carded, it is sufficient to have from two to three 2-set dull cards. Let the goods run over each card breadth from two to three turns, first in line, and then two or three turns on such side against the line. Cards are then changed, and the manipulation is repeated. For line carding, a fresh set of cards is stuck; card first a few turns upon the first side, change the cards, again card from one to two turns, and then give full water from the spray pipe, while the goods run a turn. Then wash two turns with the addition of water; then again with water so long that everything becomes uniformly moist. In conclusion, stroke with from one to three turns. If insufficient dull cards be at hand, take, between the second and third rows, next to the old, a fresh card-row, filling it with holding flocks.

Drying is done soon after carding. In shearing, the hair is but little shorn, and merely to give a uniform appearance and a round shear. The cylinder is set so high that when the goods first go through, a moderate cut is observed. One may then go a little deeper. Care should be taken, however, not to go too far, as these goods will become considerably shorter in the further stages of the shearing, without having the cylinders set deeper. It is easy to incur the danger of getting the shear too short, which is all the more undesirable, as half-woolen cloths

cannot be improved, like all-woolen, by subsequent carding. The position of the knife, in case the table inclines inwards with its upper edge, should be a somewhat elevated one towards the front, and the edge of the knife must in no case be allowed to come behind the edge of the table, but rather in the middle of the same. After shearing, nap and brush. Follow with a sharp but not too hot pressing.

White goods intended for piece-dyeing are, as usual, milled without being previously cleaned, stronger and more soda-containing soap being used than in the case of wool colored goods. After milling wash, whereupon the goods may lie wet, without having to be dried. One should, however, wash out very carefully, and free the goods from all grease, oil, etc., by the addition of ammonia, so that no cloudy appearance will result in dyeing. In milling, we must keep in mind that the goods will still further shrink by reason of crabbing, dyeing, etc. The further treatment will be according to the sizing, particulars of which it is desirable to obtain. In the close shearing of worsteds, the process is the following:

Pure worsteds are not milled, and carding is also dispensed with. Imitation worsteds, on the other hand, after being washed out, are brought on the carding machine, where the upper felt covering is removed. The carding is to be undertaken with as much moisture as possible. The pieces then come direct from the carding machine—that is, in a wet condition, and breadthwise—on to the steaming machinery, where they are best steamed in horizontal position. The goods are then cooled on the roller, washed, stroked, sheared, boiled in hot water, or in the case of flabby goods, strongly steamed on the roller. Then the goods are dyed, be it in one bath or several. It is recommended to use the jiggers for this purpose. The goods with stripe finish are treated in a different way. Here carding plays the principal part. They must be repeatedly carded, stroked, sheared, etc., whereupon they are subjected to the steaming process. After dyeing, says the *Deutsche Farber Zeitung*, wash, then card, stroke, dry and shear. The pressing should be done lukewarm, in order that no fatty gloss will form, which will readily supervene on account of the cotton.

TEXTILE INDUSTRIES IN SAXONY.

Textiles have taken, in recent years, first place among Saxon industries, says the special correspondent of The Hosiery Trade Journal. Saxony is a kingdom of less than 4,000,000 souls. It is hundreds of miles from the sea, was once famous for its wool, woods and mines. To-day fully one-third of the people participating directly in the German empire's textile trade are located within this little kingdom, and more than one-third of all the people in Saxony are employed in the textile industries.

One very interesting feature of industrial life here is the so-called house or home industry. Hundreds of dozens of gloves, hose, underwear, laces, embroideries, etc., are made in the home. In recent years the movement towards the mills has been gaining strength. Whereas in 1885, 113,341 hands were in the mills, 1895 found 165,459 in the factories. In 1886 the horse power accredited to stationary engines in the textile industries of Saxony was 33,352; in 1895, 81,292. Add to these a very considerable horse power produced by water. The average producing power of the help has been happily augmented by improved machines. Wages went up in recent years, the last five or six fully 25 to 30 per cent. The assertion—argument one cannot call it—advanced by the enemies of Saxony that it is unable to beat its competitors in the world's markets because of low wages, is without foundation in fact.

Saxony's success is due to its marvellously trained help, to

its splendidly equipped schools, technical, industrial and industrial art, to the perseverance, intelligence, thrift and energy of its merchants, manufacturers, and people, to the enterprise of its unions to encourage commerce and manufactures. There is scarcely an occupation of any kind, textile or otherwise, from plough making or bag weaving or watch making, to silk weaving, that is not carried on within the confines of this busy little kingdom. There are, in round numbers, 3,000,000 spindles employed, about 1,000,000 on cotton, 700,000 on shoddies (cotton and wool mixtures), 450,000 on carded, and 850,000 on worsted woolens. One mill, the Leipzig Wool Combing Works, employs about 2,000 hands, producing annually upwards of 13,200,000 lbs. English, worth 1,500,000 pounds. Saxony turns off upwards of 5,000,000 pounds worth of worsted yarns, many of which are sent to England, other parts of the empire and foreign countries. Over 2,000,000 pounds' worth of shoddy yarns are spun. Women's worsted dress goods to the amount of 3,000,000 pounds are run off the looms, woolens worth upwards of 4,000,000 pounds are made. The Greiz-Gera region, often put down with Saxony, turns off woolens worth 5,000,000 pounds. The United States buy huge quantities. They took in 1893 of the Greiz-Gera goods for 599,650 pounds, of Glauchau-Meerane goods for 276,150 pounds; a total of 875,800 pounds. In 1896 the total was 1,249,800 pounds. Flannels worth 2,500,000 pounds are made also, mostly for export to China, Japan and South America. Quite large quantities are taken at home and by European countries. Cottons, linens, half linens, make up in value 4,000,000 pounds per annum. Most of these, when exported, go to South America. Calicoes, linings, buckram, etc., keep 3,000 hands employed in and around Plauen. Besides these over 2,100 hands are making laces for curtains, tuilles, and so-called English laces. Both these industries turn off goods worth upwards of 1,000,000 pounds. Upholstery goods worth 1,500,000 pounds to 2,000,000 pounds, are made here. Over 100,000 weavers are helping day and night to keep this hive of human industry at the head of the textile procession.

Hosiery alone has nearly 50,000 hands turning off an annual product worth more than 5,000,000 pounds. Uncle Sam, the biggest buyer of hosiery that comes here, took on an average 1,500,000 pounds from 1893 to 1896. Since that time the falling off has been very heavy. I doubt whether the purchases made now equal more than half that huge amount. Cheap goods are not going at all. Those the States are turning off are cheaper and better than they could be obtained here. Some say it is only a question of a few years when Uncle Sam will make all his own hose. Fancy woolen goods, embroideries, tambor goods make up nearly another 1,000,000 pounds per annum. Flat stitch embroideries, not unlike Nottingham's or St. Gall's, go out in huge quantities from Plauen. There are more than 2,500 machines, worth 375,000 pounds, in the mineral hills, turning off goods worth 2,000,000 pounds. Then there are 3,000 hand embroidery machines. The total output of Saxony lace is more than 3,000,000 pounds. It takes fully 16,000 persons to do this, of these 10,000 are in factories, and of these 10,000 fully 6,000 are on shuttle embroidering machines. The United States buy about 200,000 to 225,000 pounds' worth of laces and embroideries in the Plauen district every twelve months. Berlin buys large lots of trimming, borders, etc. This branch employs upwards of 14,000 workmen. The total turn-off runs up to 1,250,000 pounds every twelve months. Of these the United States take an annual average of 200,000 pounds. Besides the branches on Saxony's flourishing textile tree one would miss much were he to make no mention of the allied ones of dyeing, printing, finishing, etc. Ten thousand persons are in Saxony's dyeworks. Hermsdorf, alone, employs more than 1,100. His diamond black is as well, if not better known in both Americas, Australia, India and Africa, aye, even in Eng-

land, than in the empire. His success in securing not only a fast black, but uniform results, has helped to spread his fame. Bleaching, dyeing and finishing, employ about 20,000 persons. How has Saxony succeeded? What were the ways in which she walked? Ask your parliamentary commission that came to this empire fourteen years ago, and again two or three years ago, to get at the underlying causes. Ask the French, Belgium and other commissioners; ask the United States consuls, who have made a very close study of this nation's renaissance. Schools! schools!! schools!!! Technical, industrial and industrial art schools is the answer. Go thou and do likewise if thou wilt do as well, comparatively. Remember that this empire is not rich in resources. It must buy its cotton, corn, copper, wool, etc., outside. Professor Blondel, an eminent Frenchman, sent here to study Germany's forces, says, "Success is due—1st, to the temperament of the people; 2nd, to the empire's marvellous system of education, 3rd to the application of scientific methods to manufacturing and merchandizing." The last is a natural corollary to the second. If the English people are wise they will do what Germany has done, and is doing. There is no argument in the empty assertion that England is holding her own. England's average is by no means as big as is the average of this empire. What is the percentage of gain? Not what England has done without such schools, to paraphrase an article by J. C. Monaghan, U.S. consul, addressed to his own people, but what England would have done, or be now had she had these schools.

LITERARY NOTES.

The April number of the Imperial and Asiatic Quarterly Review (published by the Oriental University Institute, Woking, Eng.), contains, besides a thoughtful article on the South African question, a striking paper on Imperial problems, by C. de Thierry. Under the title of "Colonial Sovereignty," the writer proves that the spirit of imperialism is possessed by people of the British colonies as strongly as by people of the British Isles. He takes the history of the leading British colonies such as Canada, the Cape, Natal, New Zealand, New South Wales, and other Australian colonies, and shows how they have taken under their jurisdiction adjoining territories and islands, some of the latter being several hundred miles from their borders. He pays a fine tribute to the courage and breadth of view of Canadian statesmen, the prescience of Sir John Macdonald being especially recognized. Pointing out the fact that it is due to Ottawa and not to London that Great Britain now has a Pacific seaboard in America, and a quick route to the East, he says: "In this, as in nearly all the important steps made by the Anglo-Saxon world towards union, the Dominion led the way. Even before the Act of 1840 faint glimmerings of her splendid destiny lit up the darkness of that critical time, and her prophetic sons saw her the power in the British Empire she has since become. But it was not until the confederation of the Maritime Provinces and the Canadas that her future course marked itself out clearly before her." He then shows that Sir John saw more in the acquisition of the Hudson Bay Territory and British Columbia than the extension of a farming or mining area. After pointing out the difficulties under which the expansion of this country was accomplished he goes on to say, "The Dominion, though she had only just begun to awaken to the call of a national life, had in the storm and stress of nearly three centuries, developed those qualities which are essential to a ruling race—self-reliance, patience, dignity and a strong sense of justice." He then takes up the growth of imperialism in the other colonies, and makes it clear

that in many cases the empire has grown by the force of public opinion in the colonies rather than by imperialism in the British Isles.

In reading "The English in Africa," by Hon David Mills, just published by Geo. N. Morang & Co., Toronto, every true Canadian must feel a glow of pride in realizing that Canada is slowly developing a type of public men whose mental horizon is not bounded by parish politics. We are gradually rising to the British conception of what a politician should be. The Hon. Mr. Mills has studied African problems to good purpose, and has given us what may be regarded as a text-book on African politics. In this volume of 371 pages, there are chapters on the history of British dealings with Egypt, with the Soudan, with West Africa, with East Africa, with South Africa and Rhodesia. The South African question naturally occupies the chief place, and the writer—whose knowledge of constitutional questions is not surpassed by any Canadian—completely vindicates the legal as well as the moral position of Great Britain in her dealings with the Transvaal. In some minor points of geography and nomenclature, Mr. Mills is occasionally astray, but he has grasped the main problems with a judicial instinct, and lays clearly before the reader a panorama of the Boer and British policy in South Africa. Dealing with the history of the Transvaal since it was delivered over to Boer rule by Mr. Gladstone, he says: "It is doubtful whether there is another instance in history where any other subjugated people have assumed so arrogant a tone towards those who were their conquerors. In the Transvaal, at the breaking out of the war, the Boers were not more than one-third of the white population. With a fair electoral system they would have been in a hopeless minority. Their system of Government would have been brushed away, and the direction of affairs would have been in other hands. They armed themselves; they disarmed others. They imposed tremendous burdens upon the majority, in order to collect arms and munitions of war to perpetuate their political supremacy and to maintain these political advantages of which by fraud and bad faith they have become possessed. That is not peace; it is conquest. It is supremacy by treachery and by force of arms, maintained by the tribute imposed upon the disfranchized. It is preposterous to call such a Government a Republic. It is a tyrannical oligarchy."

The unveiling this month of a life-size portrait of the late Mrs. Curzon, the authoress, is a fitting tribute to the memory of that lady, as founder of the Women's Historical Society of Canada. Mrs. Curzon deserves to be held in tenderest remembrance, not merely for her pains-taking literary and historical work for her adopted country, but for her courageous, yet always womanly efforts to advance the highest interests of the women of Canada, especially in claiming for them an equality of treatment in the matter of higher education. Premier Ross in presiding at the unveiling of the portrait, well said that Mrs. Curzon, on coming to Canada, saw with a clearer vision than the native Canadian, the romantic and heroic episodes of our history, and entered into their study with all her heart. The fact that Canadians are now beginning to appreciate the heroism of Laura Secord is largely to be credited to Mrs. Curzon's poem on that imperishable adventure, and this alone would entitle her to a warm place in the memory of Canadians. The refinement and sweetness of her character in private life, which became more luminous under the severest domestic trials, were such as only a privileged few could appreciate

—Jack Smith, an employe of the McCormick Manufacturing Company, London, Ont., has gone to take a position at Glencoe, Ont., in the woolen mills there.

Foreign Textile Centres

MANCHESTER.—When Liverpool was celebrating the Queen's birthday startling events were happening in New York—namely, the suspension of Price, M Cormick and Co., a firm which, as our readers know, has made itself conspicuous in the cotton trade during the past year or two. Favored by the statistical conditions of the current crop and the meteorological ones of the forthcoming one, they have been "bulging" the market with all the force they could bring to bear. Among the plans adopted was the novel one of circularizing the trade in the most complete manner, and undoubtedly this had important and successful results, looked at from their point of view. But quite naturally it brought them into conflict with the interests of a very large section of the market, says The Textile Mercury, and this quite as naturally combined for and cooperated in measures of self-defence. The result was inevitable; in such circumstances the destruction of the "bull" has always followed, and this case has not proved an exception. The liabilities have been set down at 13,000,000, and the liquidation was expected to be favorable, though hopes do not appear widespread that business will be resumed.

OLDHAM.—Generally speaking, the spinning mills keep at full stretch, but in some of the auxiliary branches poor trade is spoken of.

LEEDS.—The factories in Leeds are just now principally busy with suits made from the cheaper classes of tweeds and serges which are wanted for the coming holiday season, but there are some good orders coming in on South African account, and for other of the colonies which will follow on afterwards. In all of the woolen manufacturing districts the woolen trade seems to be waiting for wool prices to get settled on to a firm basis, but the outlook is considered good, and the general tone of business is more cheerful than it was.

HUDDESFIELD.—In Huddersfield the demand for high-class goods suitable for the London West-End trade is improving, and there is also some improvement in the shipping demand. Makers of both blankets and flannels continue to be well employed both with Government goods and also on home-trade account. Although fine wools have fallen in price, the other materials, such as noils used in the manufacture of blankets and flannels, are keeping up in price, as the production is just now unusually small, so that any decline in the prices of blankets and flannels is for the present quite out of the question.

BRADFORD.—Probably there never has been a time since the colonial wool trade assumed anything like its present huge proportions when it was more difficult to fix an actual basis of prices, or to fully grasp the real situation of the merino wool trade. Business on "Change" has been to some extent interfered with by the Mafeking rejoicings and the fact that the Queen's birthday was observed as a holiday here, says the Bradford correspondent of The Draper's Record, London, under date of June 2nd. But even in the absence of these breaks into business, it is probable that little business in merino wools, tops or yarns would have been passing, as the prices of 60's combed tops (which are always taken as the standard of the prices of merino wool) shows a continuous decline since the commencement of the year, and the fact that 160,000 bales of colonial wools have been withdrawn from the recent London sales shows that consumers are not yet convinced that a firm basis of action has been arrived at. At the very top point these 60's merino tops reached the price of 2s. 70d. per lb.; now the price is probably somewhere in the neighborhood of 2s., and this decline is in the face of an increased cost of pro-

duction. There appears to be a growing feeling here that prices will not fall further. But, although there are strong reasons why this should be so, it is rarely safe to prophesy about the course of the wool market. The rise in cross-bred colonial wools was never nearly as great as that of the fine pure merinos, and although the sales opened with a slight decline in the prices of these wools, in comparison with the previous sales, there has been a hardening tendency in the coarser and cheaper wools all the time, and the quotations on the closing day were practically equal to those at the close of the previous series. The demand for yarns made from these cheap colonial cross-bred wools has all the time been large; prices have never fallen to nearly the same extent as wool, and it is impossible to buy yarns suitable for making even the cheaper classes of dress serges within 3d. per lb. of the prices current, say a year ago, and at this advance these yarns are being taken all the time in large quantities by continental makers of dress goods. One is often asked how it is that foreign manufacturers can take their yarns from Bradford, and yet compete with the home maker of dress serges, but probably if wearers of dress serges were careful only to buy fabrics composed of pure worsted without extraneous filling, this competition would end much more in favor of the Bradford maker. In English wools there will be, of course, very little business until the country wool fairs start next month, and, as far as one can learn at present, there is every indication that prices will be very much on a level with those at which last year's clip were acquired. Some Irish wool of the new clip has already come to hand, and both the quality and condition appear good; growers are not inclined, however, to meet the prices ruling in this market. There is no change to report in connection with either mohair or alpaca, either in the raw state or in the form of yarns, for which the demand continues steady. Some of the early arrivals of raw mohair from the Cape appear to have been shorn before the usual time, probably to avoid possible loss from raiding, and the hair is, therefore, extremely short and unsuitable for Bradford goods. There is a better demand from the Continent for certain thick two-fold worsted yarns, and if the later orders for these are as large as those placed last spring, the prices of cross-bred worsted yarns will quickly be affected. The demand for piece goods, for present time use, has been very quiet in all the home trade warehouses here, as compared with the corresponding season of other years, as between Easter and Whitsuntide orders are usually plentiful. At first sight, it seems almost inexplicable that with the general trade of the country so good, the dress goods trade should have dropped off so much, just in face of the most popular holidays of the year, but nearly every home-trade house is well ahead with its returns for the year, and the buying by retailers must have been unusually early and extensive. It must also be borne in mind that when trade has been good in Bradford on former occasions, a good deal of the production of both dress and coating looms has been taken on American account, whilst this year these exports have been comparatively insignificant. As the greater part of dress goods produced in Bradford now are of the coating serge character, the average piece is produced in half the time it required to make a cashmere or a fine alpaca, so that the production of the looms here has been practically doubled as compared with that of a few years ago. It is early to tell what will really be the most fashionable fabrics for the coming winter season, but at present the leading makers are doing well with costume cloths of the frieze and vicuna order, and the cut of the most fashionable costumes certainly favors the use of fabrics of a tweedy order.

HALIFAX.—The following is the Halifax Chamber of Commerce trade report for May: **Wool**—The market has been very quiet all through the month, buyers only buying sufficient for

their immediate requirements. Notwithstanding this, there has been very little alteration in prices, merinos perhaps being a shade firmer. Strong wools and crossbreds are unchanged. **Woolens**—This being the quiet season for woolens in this district, there is no change to report. The large production of goods for the army must necessarily keep down stocks; hence it is likely that there will be a scarcity in the autumn. **Worsted Yarns**—Spinners of English and medium grades of crossbred wools have had a fairly satisfactory month, but those who cater chiefly for the supercoating trade have been less fortunate, and have found some difficulty in keeping their frames occupied. Prices low and irregular. **Pieces**—Manufacturers still find business ungenerative, and orders are scarce. Indeed, many find it difficult to get merchants to take up orders already placed. **Spun Silk**—There is little or no improvement to report during the past month, and prices have been weakening. **Cotton**—Bundle-yarns of all kinds are very quiet, with raw material very unsteady. Makers of two-fold warps for home use are fairly well in order at firm prices. There continues a steady output in the fustian and wholesale clothing trades. The latter branch is doing a large Government and export trade. **Carpets**—The output from looms has continued on a most satisfactory scale.

ROCHDALE.—Business was quiet at the flannel market recently, and there is no prospect of any material change until after the holidays. Merchants are pushing business, and they record a ready response upon the part of drapers. Manufacturers are still hard at work on contracts, and trade may be described as in a thoroughly healthy condition. Prices remain without change, and the small variation at the London wool sales has had no effect on the price of flannel.

KIDDERMINSTER.—While some manufacturers find trade quieting down a little, others are being pressed for the execution of orders, and keep all their machinery running full time, says The Shuttle lately. Travelers are not doing very much with retailers just now, who are still busy cutting up body goods, and "repeats" are being received in satisfactory quantities. For the time of the year stocks are by no means heavy, which indicates that even during the usually dull season a moderate demand for carpets will be kept up. There is a decidedly growing impression in the Textile trades that with the satisfactory progress of the war and the probability of peace being soon proclaimed, a very large business—perhaps in the first instance of a speculative character—will be opened out in South Africa. Many of the more enterprising firms are looking round, and to some extent anticipating their requirements in the wool market. This was particularly noticeable at the last East India and miscellaneous sales held in Liverpool. Such wools as can be adapted for a South African trade received a decided fillip. Generally the English trade is awaiting result of the clip which is now coming on the market. A few fleeces have been locally purchased this week. It may be safely stated that the prices will run rather lower than those obtained last year, except in those rather favored districts where Shropshires and Downs are offered, and there it may be that even a shade higher prices will be paid, for these classes of wools are in demand. Spinners are moderately well employed, and the holidays next week will be of the usual length, most of the mills resuming work on Thursday morning.

NOTTINGHAM.—There has been a fairly good demand for lace and curtain yarns. Prices of some counts are slightly irregular, but generally previous quotations are steadily maintained, says The Textile Manufacturer. Hosiery yarns are moving in full average quantities, though buyers of merino and cashmere yarns hesitate to place new orders at actual quotations. The demand for silks does not improve. Mosquito nets are firm in value, and there is an insufficient supply. Bobbin

nets and light tulles remain unchanged. Business in the warehouses is brisk. Manufacturers and shippers are pressing for ward deliveries before the Whitsuntide holidays.

LIVERPOOL.—There is a good demand for fancy elastic webbings. The hosiery industry is brisker and stocks of the soft fabrics are being rapidly cleared. The yarn market continues active and practically the whole of the output is being readily absorbed. Enquiries for new business are more numerous and prices are well maintained. Natural cashmere and fancy yarns are largely consumed, and spinners have heavy orders on their books.

SOUTH OF SCOTLAND.—Wool manufacturers in the South of Scotland are still grumbling at the scarcity of orders. Warehousemen are very backward in confirming winter orders, and the season is now too far advanced for anything more than an average year to be looked for. The price of wool is firming, and this may help business a little.

KIRKCALDY.—All the branches of the linen trade are very active, and, while recent prices are maintained, prospects are good. The floorcloth and linoleum industry is in a most prosperous state, and on the Continent and abroad Kirkcaldy-made cloths are in increasing request, having a firm hold of the markets.

DUNDEE.—At the present time Dundee manufacturers are complaining regarding the question of broken time on the part of their workers. It is stated that irregularity in attendance at work is very general all over the town, and, notwithstanding that trade is remarkably brisk, the production is down from 10 to 15 per cent. contrasted with this time last year. One manufacturer stated that irregularity had followed in the wake of the increase of wages, and the opinion was expressed that a number of workers, being able to live on a certain sum a week, had not in any way benefited by the increase. The rate of wages was higher than what was paid a year ago, but many were not taking more money away at the end of the week, as they were not working full hours. It seems that the default for the most part is in the mornings and on Saturdays, when there are any number of looms standing. With a view of in some measure remedying matters, it has been suggested that meantime work should be suspended on the Saturday forenoons. It is stated that it would pay many firms to do this, in respect that expenses of management and other incidental expenses run on, no matter how many temporary vacancies there may be in an establishment. One mill owner said that a very common grievance was the want of punctuality on the part of workers at meal hours. Formerly it was the case to shut the door at 10 o'clock and 3 o'clock respectively, but at present the workers knew there was a scarcity of labor in the town, and many were in the habit of turning up late, and, if reprimanded, they generally retorted that there was plenty of work to be had in other establishments.

BELFAST.—Business in the linen market lately has been similar to that of recent weeks—quiet and steady. New orders keep dropping in, and though individually not of large amount, they tot up to a fairly respectable total. Prices maintain their high level practically unchanged. The yarn market is dull. Orders on hand will keep spinners employed for some time, and before they are completed there will probably be renewed activity in demand. Prices remain as before. It is estimated that the acreage under flax in Ireland this year will amount to from 45,000 to 50,000 acres, an appreciable advance over last year, but far below what was formerly sown. Advices from Russia indicate that there will likely be an increase in the acreage under flax there. Meanwhile the high rates for flax that have been current for some time are fully maintained. The demand for brown cloth keeps fairly steady. Powerloom linens

for bleaching continue to meet with a regular sale, the lower grades being most in request. Unions are selling freely at full rates, and cloth for dyeing and hollandes continue in steady demand. The handkerchief trade keeps brisk. The demand for damasks and household linens has been moderate. Handloom linens for bleaching have sold easily. Home demand for bleached and finished linens is rather quiet. A fairly steady trade is passing in damasks and housekeeping goods, and the making-up factories are kept fully employed. Business with the United States is of only a moderate character, but other textiles do not seem any better off in this way than linens. What effect the increased duties will have upon the Cuban trade is uncertain. In the meantime orders are being despatched as fast as possible. The South American markets are taking a little more. Colonial demand is also growing, and orders from the Continent are fully average.

LYONS.—The silk goods market in Lyons is not very active but there is a fair current business for requirements. Paris is sending in supplementary orders, while for the London market business is improving and a good demand for muslin for that market has shown itself. Liberty satins, which were expected to remain favorites for next season, have not shown activity of late, but this is believed to be only temporary. There has been a fair demand for plain chameleon effects in various weaves. Taffetas continue in demand and find a ready market in the cheaper grades. The outlook for the future seems to indicate a continuance of favor for fabrics of the taffeta class. Muslin and maline tulle continue in demand, and there are orders booked which will keep the looms busy for some time to come on these fabrics. Jardiniere effects in muslin find takers and some orders of relatively large size have been booked. In taffetas, effects such as changeable stripes, checks, etc., find a market. Piece dyed linings are in demand and cotton-back satins have sold fairly. In fancies, business is small and is represented only by some occasional orders. Fancies, as a rule, have not been much favored in the last two or three seasons, and a source of employment for hand-loom weavers has thus been lessened, fashion having been much in favor of light and piece-dyed fabrics. Printed effects promise to retain full favor next season and for spring of next year. These, together with the goods of the taffeta class, will, from present indications, again constitute the leaders of the future. For the United States, Lyons manufacturers anticipate another good season for muslin. While the indications about the future leaders and the favorites of next season become more defined, manufacturers are not securing as much fall business as they should. There are buyers in the market and it is known that some of them have important orders to place, but the question of prices is holding them back. They are waiting for the last moment in order to secure as low prices as they can and while six months ago they used these tactics to prevent an advance, now they use them to further a decline. Velvet and panne give every indication of a good demand next season. While velvet will be a good favorite, panne is being produced in large quantities and will find a market in plain, printed and fancy effects as well as with embroidered applique. In novelty velvets, manufacturers also have orders. Ribbons are active, with a good call for staples. A demand exists for light shades in taffeta ribbons, pastel plaids and warp printed effects. Black velvet ribbons are very good sellers.

The Lambton woolen mills, which are owned by the Canada Woolens Co., will in future produce shoddy only. Of the carding, three sets have been removed to the Brodie mills in Hespeler, Ont., and two sets will be kept in Lambton for yarns. All the looms are being removed to the Hawthorne mills, Carleton Place.

PATENT TENTERING CLIP.

The Winsor & Jerauld Mfg. Co., 55 Clifford street, Providence, R.I., has placed on the market a non-rupturing spring clamp tenter clip, which can be applied to either new or old style machines. The following are among the difficulties of the present "so-called automatic" in use at present: The entire chain runs on top of the rail, making the friction excessive, and requiring more power to drive machine; it requires a heavier rail on the machine to support the chain, and when the vibratory motion is on, it causes the machine to rock back and forth, because it is top heavy; the chain cannot be easily washed or cleaned while running; it is claimed by the best bleachers or finishers, that all classes of goods do not work successfully on an automatic clip, hence it is desirable to have a chain that is convertible; the movable jaw is apt to stick or bind on its pivot, so that it does not drop freely when released by the controller to grip the cloth, and when operating on heavy cloth the jaw may pull right through, damaging the clip and the links next to it. The manufacturers of this new clip claim to surmount all these troubles and to make an old machine run with one-third less power; that it will accommodate itself to any thickness of cloth, and save over 50 per cent. in labor by requiring only one operator; that the machine can be cleaned or washed while running and when different colors are used; that it will not injure the goods, and that the clip itself cannot be injured when releasing the goods. The company also manufacture tentering machines of various designs. A circular issued by the company describes and illustrates the patent self feeding clip.

PROPOSED COTTON MILL IN TORONTO.

We presume the negotiations mentioned in our last issue as going on between the Board of Trade of Ottawa, and L. C. Simpson for the establishment of a cotton mill have been dropped, owing to the fire, as the Toronto Board of Trade has taken the matter up, and a special meeting of the council of the Board of Trade was held recently for the purpose of affording Mr. Simpson, late manager of the Montreal Cotton Co., Valleyfield, Que., an opportunity of addressing the board with reference to the establishment of a cotton mill industry in Toronto. R. J. Fleming, assessment commissioner, also addressed the council. Among those present were: A. E. Kemp, Jas. D. Allan, A. E. Ames, Wm. Ince, Jr., Wm. Stone, J. F. Michie, J. L. Spink, Peleg Howland, Hon. Geo. A. Cox, W. L. Brock, J. W. Flavell, P. H. Burton, A. B. Lee, M. McLaughlin, John Pugsley, S. Caldecott, W. B. Hamilton, D. Mackay, W. B. Rogers, J. Herbert Mason, J. P. Northey, H. Lowndes. The meeting looked favorably on the project, and passed a motion to the effect that the city would be warranted in granting a free site and exemption from taxation for a term of ten years, with the right to renew, in order to induce the location here of a cotton mill industry employing in the neighborhood of 1,000 hands. The following committee was appointed to confer with Mr. Simpson as to the best means to be adopted to further the establishment of this industry: A. E. Ames, M. McLaughlin, W. E. H. Massev, S. Caldecott and J. W. Flavell.

CLOTHING IN THE YUKON.

Superintendent Wood, in charge of the detachment of Canadian Mounted Police in the Upper Yukon, reports to the Ottawa Government the kind of clothing required by the men. The report will contain some hints to those doing business with the north country generally. He says: "A good quality of boot, like the Elcho field boot, is the article required for either walking or riding; they stand the water well, whereas the long

black boots go to pieces in a short time when used on river work, the long tan boots sent up for issue on repayment should take their place. The red leather ankle boots are a strong, comfortable boot, and wear well.

"Underclothing—The present issue is inadequate, especially the socks and stockings. The issue should be increased. Men on the trail can wear out about 20 pairs of socks in the winter alone; this applies also to moccasins, the issue should be increased to four pairs. I would strongly recommend that a mitt with a large cuff, lined with some cheap fur, be issued, the regulation buck mitt being worthless on the trail, though good for barrack work.

"The last consignment of Stetson hats are a great improvement on the other shipments. The Yukon fur cap is a first-class article, combining lightness with warmth, and could not be improved upon. The lately-arrived brown duck "Parkas" are very serviceable, and will answer the purpose. The coyote robes received from Regina are the best for dog driving, being light and warm. They wear fairly well.

"The last consignment of sweaters are very thin and very large in size. Instead of fitting closely, as sweaters should, they sit loosely on the largest men. I would strongly recommend that pea jackets be made a free issue in the Yukon. One every two years would be sufficient, and they are the most serviceable and smartest article of clothing in use."

WANTED MORE ELASTICITY IN UNDERWEAR.*

BY A. SCOTLAND.

First, what is the use of making a better garment than your competitor if you cannot get a better price for it? Answer. As there is no difference in price the public will buy only the better one; so that, while the profits may be smaller on a single sale they will be much greater in the aggregate. Second. How can you get the public to know your make is the best? Answer. If both articles are brought prominently before the public both are certain to be tried, and the public will very quickly pass judgment on them and use only the better one.

Elasticity as wanted, the method of producing knitted underwear by a system of looping yarns or thread together, as is done on the knitting frame, has a special advantage over all other methods, making it the one universally adopted for underwear of all classes. The elasticity of a knitted garment is its special feature. Therefore it is necessary in all the progress through which the fabric passes that none of its elasticity shall in the slightest degree be injured. But I am free to say that such attention is not paid to this part as its importance demands: for a large percentage of our best and high priced goods have not the elasticity they should possess. The cause of such is chiefly in the knitting, although there are others, which I shall notice later.

First, in the knitting process proper, the threads should be formed into such loops that the greatest uniformity and stability can be had, and at the same time maintain all the elasticity possible. What is known as stiffness in knitting can be carried too far, to the detriment of the elastic quality of the goods. A safe course to pursue when starting a high grade article is to knit a small piece, say enough for one or two garments, and have it seamed, etc., and put through the regular course of washing, with some other goods of the same style. Put a special mark on them so they may be easily distinguished; remembering at this point that great care should be exercised and the garment not unduly stretched onto too large drying forms. The effect of such may be easily seen by comparing with garments that are all O.K. For if undue strain is put upon the

*Reprinted from the Textile World.

garment it will lose the greater part, if not all, of its elasticity. So it is very essential that garments should not be stretched or boarded beyond their normal width; for where this is done the elasticity cannot be attained.

It occasionally happens a width is required that is beyond the normal width of the fabric, and to obtain this the fabric must suffer by being boarded on a larger form. This, however, should never be done if it can be helped, for the elasticity will be injured.

The elasticity of the garments may suffer from excessive washing or milling, which should be avoided, for when this is the case, neither the width nor the elasticity can be obtained. It is necessary a washerman should understand his business properly, for one bad milling, if not kept separate from the better goods, will cause trouble ahead, and the manufacturer may not know of it until he hears from the trade.

I will cite a case in the city of Boston a short time ago, when I was in Jordan & Marsh's large establishment. A lady came in to purchase two suits of the best all wool underwear, full fashioned, for her husband. She was wide-awake, knowing what she wanted. After a careful examination she rejected our American goods, and purchased foreign goods, on account of their elasticity. This simple transaction showed me how careful our manufacturers should be not to injure the elasticity, especially in our highest priced goods, for if goods are stretched beyond their normal width, against the nature of the fiber, the principle of contraction is such that it cannot be done without detriment to the garment.

These remarks apply to all wool, or ninety per cent. goods. If the washerman understands the method of treating woolen goods with a small percentage of chlorine it will prevent the goods from felting. Should the garment get felted, its elasticity is greatly impaired. If too much chlorine is used on white goods it will give them a dingy yellow shade, and a harsh feel. The knitter should be able to understand the quality and nature of wool, also the amount of twist required in the yarn to make a good elastic fabric. If the wool is of a wiry nature, it requires less twist, if soft and fine, the yarn requires more twist. If strict attention is paid to the above remarks, more of our best and highest grades of goods will be used, and good prices secured, with a good margin left to the manufacturer. It appears to be almost the unanimous opinion of men who have had the responsibility of large textile plants, that, whenever a troublesome affair is encountered, the overseers, through whose departments the damaged, or defective goods pass, endeavor to throw the odium of the blame on to someone else. Seldom is a man found who openly and fearlessly comes out and acknowledges that an error has been committed by anyone under him, and for whose bad work he or she is responsible.

I do not write this to throw any suspicion upon knitters, washermen, or any others, for it is quite probable that in none other of our great textile industries are men better qualified to be found, or more intelligent, but the fact above recited remains. The writer therefore offers a few timely suggestions to the manufacturers, that, if strictly adhered to, will be of great benefit to them, so John Doe may not have it to say, this and so did not occur in his department, but must have happened in some other. First, the stock should be number one; second, a low or cheap grade of oil should never be used, for right here, oftentimes, a serious blunder is made which cannot be rectified easily, for on medium and good grades of stock, no mineral oils should be used, no matter who else uses it. If other manufacturers wish to oil their stock with such oil let them. Let me say, nearly all the oils of late contain more or less mineral matter, a substance which no doubt makes a good lubricant on some grades of stock, but which is extremely difficult to remove with satisfaction to all concerned. The prime object in

oiling wool is to lubricate it, so it may card, spin and knit well. After all, this, when the garments are made and go to the washerman, must be removed. If it is a good and easily saponifiable oil, not much if any harm will follow, and the elasticity of the garment will not be injured in the least, if proper care has been used. But if mineral oil has been freely used, no amount of scouring will remove it without killing the elasticity in the garment. In the former case, a light soap bath of neutral soap will answer admirably, leaving the garments in a soft and elastic condition. But in the case of a mineral oil, a vigorous treatment has oftentimes to be resorted to, with an overcharge of soap and soda, leaving the garments in a bad condition, and destruction of elasticity in the garments. Elasticity is of extreme importance. Scouring mixtures are of great benefit when properly made, and should not exceed a certain reasonable proportion of soda. I have seen solutions made up so strong with alkali that the soap would not dissolve, but float on the surface as ice will on the top of water. The object of such a strong scouring bath is for the purpose of eradicating the effect of the mineral oil on the goods.

I say freely, there are too many mixtures and scouring compounds on the market to-day, which are offered to manufacturers at tempting prices. Oftentimes recourse is had to the old method of soap, soda or other alkali. As a matter of fact, soap made nearly as neutral as possible, from good stock oil or tallow, and strengthened only as occasion requires with soda crystals, not ash, cannot be very well bettered if attended to intelligently. Seldom, if ever, any complaints will arise in the washing department if this is followed. A cheap grade of goods may use a cheap oil soap and to some good advantage, but the above is written solely as a warning to manufacturers who are making, or trying to make, an *At* article and a reputation for themselves. Of late three different parties who are making high priced underwear wrote me about their trouble and sent me goods to examine. I discovered where it was, after the nature as stated above. This is of extreme importance to manufacturers. I came in contact the past season more than ever before, with troubles of this character. Certain soaps cause a heavy precipitate, which are not only a pecuniary loss to the manufacturers, but are injurious to the elasticity of the fabric, and largely responsible for the spotted effects when goods are dyed, unless they are very carefully rinsed after washing. This is something for dyers to think of. Elasticity in underwear must not be destroyed. The object of the scouring of knit underwear is, of course, the same as that of loose wool, yarn, or any textile fabric, that is, the removal of all impurities. The substance present as impurities depends greatly upon the character of the article. If it has been dyed in the condition of loose wool, the garments will contain the oil added before carding; also any dirt contracted during the process of manufacturing. In the gray or undyed, both grease and dirt will be present. If the yarn has been dyed and scoured previous to being knit, little dirt will gather in the course of knitting, looping, seaming, etc., if proper care is exercised in these processes. The method of scouring should therefore depend upon the nature of the impurities, the character of the goods, and the coloring matter with which the wool or yarn has been dyed. This is of considerable importance for the elasticity of the garments.

Gray goods (wool carded, spun and knit in an undyed condition), will contain grease as the principal impurity, and may be scoured either with pure soap or soda, or a mixture of both. In the case of certain grades of goods, which have a tendency to shrink in scouring, the utmost care must be exercised, or else the elasticity will be destroyed. In the case of wool or yarn being dyed, the scouring process should be conducted so the elasticity of the garment is not injured.

Wool felted, or shrunk in scouring, is very injurious to the

staple and the elasticity of the goods, leaving the yarn in a dead state, with no stretch or elasticity to it, and the best of knitters will fail to produce the elasticity required. The carder and spinner may do their best, and it will not avail, for wool, if felted, kills the elasticity, no matter whether the yarn is twisted soft, medium or hard. When the wool is all O.K., the best results will be obtained from a medium twist, producing a beautiful elastic garment, providing the knitting is also O.K.

It is a fact not generally understood by washermen, that chlorine has the effect of preventing wool from felting. It would, therefore, presumably prevent wool fabrics from shrinking, for it is the mechanical felting properties of wool that bring about the shrinkage during the scouring operation. The trouble with many washermen is that they are still working in the old rut of five or ten years ago, and don't think of trying to improve, until by circumstances they are compelled to.

I discovered this very forcibly the past season, at a place where I was called to give instruction. The washerman in charge had been there nine years, failing to improve on a fine line of goods. He was using a very poor grade of soap, which is the principal agent employed in scouring. It is so liable to adulteration that a thorough knowledge of its composition and manufacture is of great utility. There are, of course, various substitutes in the market to use in conjunction with it, but these often-times have an injurious effect on the fibers of the wool. They are extensively used in cheap soaps, and were it not for their cheapness, would be discarded altogether. On the whole, nothing is so satisfactory to cleanse first-class woolen underwear, than a pure unadulterated soap, and if proper care be taken, the elasticity will not be injured, and the garments will feel nice and soft. An A1 garment made of two extra fine threads, run in together (not doubled and twisted) will make a beautiful, durable, elastic garment that will be noticeable for firmness and elasticity for athletes, equestrians, etc. It is not necessary or desirable, far less advisable, to use all wool, for a better article may be made with a small percentage of sea island, or a high grade of long stapled cotton, from 2½ to 5 per cent., no more.

THE BRITISH COLUMBIA SEALING CATCH.

The total catch of seals this year is larger than last year. The total catch for the 34 schooners which hunted off the British Columbia coast this season was 17,480 pelts, an average of 514 to the schooner. Last year 19 schooners made a total catch of 10,472 skins off the coast, an average of 551 to the schooner. The catch on the coast in 1898 was 11,055; in 1897, 6,100, and in 1896, 10,703.

BUSINESS CHANGE.

Messrs. A. R. Clarke & Co., the widely known glove and leather manufacturers of Toronto, whose business was established in 1852, have issued the following circular announcing changes in their business: Owing to the great increase in all the branches of our business, and the necessity of providing larger premises and better facilities for carrying on the several departments, a reorganization has been effected as outlined below. Two companies have been incorporated as follows: Messrs. A. R. Clarke & Co., Ltd., (Mr. Alfred R. Clarke, president and managing director), and Messrs. Clarke & Clarke, Ltd., (Mr. Frederick G. Clarke, president; Mr. Charles E. Clarke, vice-president and treasurer). Each of these companies has taken over certain branches of our business as stated below:

A. R. Clarke & Co., Ltd., manufacturers of glazed and dull kid, black and colors; glazed boxed and dull chrome calf, black and colors. Clarke & Clarke, Ltd., leather manufacturers.

Sheepskins, in colors and blacks; for beading, facing, lining and button fly. India kid and glazed black sheep. Bookbinders' leather, in sheep, roan, calf and goat; all varieties. Skivers, in all kinds, for all purposes. Russets, Saddlers, bag and shoe.

The general offices and works of both companies are 199-209 Eastern avenue, Toronto, with up-town office at 28 Front street east. Branches will be maintained at 22 Lemoine street, Montreal, (G. S. Hubbell, agent), and at 492 St. Valer street, Quebec. The cable address of A. R. Clarke & Co., Ltd., is "Arc," Toronto, and that of Clarke & Clarke, Ltd., "Clarkes," Toronto. The splendid trade built up by this firm in its long career of nearly half a century will no doubt be greatly extended under the regime of the two new companies.

IMPORTANT CUSTOMS REGULATIONS.

The Customs Department has made some important new regulations by which goods bona fide exported to Canada from any country but passing in transit through another country, shall be valued for duty as if they were imported directly from such first mentioned country. The bill of lading to secure this rate of duty must show that the destination of the goods was a Canadian port from the original shipment, and no entry for consumption or warehouse can be made. Goods subject to an ad valorem duty not imported in conformity with these regulations, shall be valued and appraised at their fair market value, as sold for home consumption in the principal markets of the last country whence the goods were transported into Canada, as at the time when the same were exported from such country.

This will go far to secure direct importation from Great Britain to Canada.

EXPORTS OF ALKALI AND BLEACH.

The following returns, which are taken from the official foreign and colonial statistics of the United Kingdom, give the amount and value of alkali and bleaching materials shipped to the undermentioned countries for March, 1900, as compared with March, 1899:

Port.	ALKALI.			
	1899. Cwts.	1900. Cwts.	1899. £	1900. £
Russia	5,081	2,589	1,560	1,057
Sweden		2,212		902
Norway	4,742		1,261	
Germany		1,477		474
Holland	4,920	10,077	1,258	3,138
France	13,701	10,427	2,884	2,547
Spain and Canaries.....	3,919	1,438	1,412	629
Italy	36,785	31,710	11,958	13,586
United States	29,540	31,195	8,650	10,760
Australasia	63,889	95,664	13,382	20,019
British North America..	20,572	27,183	6,290	8,750
Other countries	8,456	9,700	1,924	2,686
	110,622	151,116	81,865	49,016
Total	302,227	374,788	82,394	113,573

Port.	BLEACHING POWDER, ETC.			
	1899. Cwts.	1900. Cwts.	1899. £	1900. £
United States	79,717	121,839	18,159	35,010
Other countries	37,411	26,452	10,669	8,541
Total	117,128	148,291	28,828	43,551

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.

Geo. Upton, Alliston, Ont., has recently added two broad looms to his blanket mill.

A new clothing manufacturing firm will begin business in Toronto next month. Hamilton, Ont., capital is interested.

The American Moistening Company, Boston, has a repeat order for humidifiers from the Montreal Cotton Company, Valleyfield, Que.

J. Cherrier, an employee at the Hamilton cotton mills, fell down the elevator shaft at the mill recently, his arm being broken in two places in the fall.

At the annual meeting of the Standard Shirt Co., Ltd., Montreal, held last month, Samuel Bell was re-elected president, and Charles B. Gordon managing director.

Arthur Morrice has been appointed successor to the late Mr. Muldrew as Toronto representative of D. Morrice, Sons & Co., selling agents of the Canadian Colored Cotton Co.,

The operatives of the Rosamond Woolen Co.'s mill, Almonte, Ont., are going to have a picnic on a large scale limited to themselves and their families. The date selected is Saturday, July 14th.

Sherbrooke, Que., has passed a bylaw discharging the mortgage held upon the plant of the Dominion Brussels Carpet Co., Ltd., as the factory has been sold to English capitalists, who will enlarge it as outlined in our last issue.

The machinery for the new mill of the Merchants Cotton Co., Montreal, is now arriving rapidly. This machinery is of John Hetherington & Sons' make, Manchester, England, and was supplied by the William Firth Co., 67 Equitable Building, Boston, Mass.

Evan Arthur Leigh, of Boston, agent in the United States and Canada for Messrs. Platt Brothers, of Oldham, Eng., the largest builders in the world of textile machinery, accompanied by Mrs. Leigh, will go abroad about June 20, on a trip of about three months, visiting in the meantime the Paris Exposition.

The Canada Woolens Co. has taken over the mill of Gillies Bros., Ltd., Carleton Place, Ont. It will be run in connection with the Hawthorne mills, the one power plant situated in the Gillies mill to operate both; the Hawthorne to be run by electricity. W. Morrison, Lambton, Ont., will be local manager of these mills for the Canada Woolens Co., Ltd.

A procession of mill hands marched up the track to the Elmsdale flannel mills on 31st May (the Pretoria celebration). When they got near the factory a white flag was hoisted, the steam whistle blew, and operations in the mill ceased instantly, the Elmsdaleans joining the crowd. It was a case of unconditional surrender, and was carried out in fine humor.—Almonte, Ont., Gazette.

Dundas, Ont., is to have a factory for the making of cotton batting. The Dundas Pad Works have built a large brick addition to be used as a picker house, and have amalgamated with the Toronto Cotton Batting Co., and the latter is now moving its plant there. The product of the works will be mattresses, stair pads, and cotton bats, and it will be known as the Canada Cotton Batting Co.

Telford Bros., Collingwood, Ont., have put in two additional broad looms to their blanket mill.

The Montreal Cotton Company has acquired the Buntin property at Valleyfield, and will take possession Aug. 15th.

S. B. Brush, who has been general manager of Brush & Co., Toronto, since that firm succeeded Clinton E. Brush & Bro as manufacturers of Ball's and B. and C. corsets, etc., has bought the whole business.

The Harris Woolen Co., Rockwood, Ont., has installed recently two full fancy Crompton looms, supplied by Geo. Reid & Co., 11-13 Front street east, Toronto. This company has also secured from the same importers a Bramwell feed for first breaker with Geb attachment.

The well known firm of Geo. Reid & Co., mill supplies, etc., Toronto, has moved into larger and much finer business premises. The office and showrooms are at 11-13 Front street east, and the warehouse is at the foot of Jarvis street, on the Esplanade. With these increased facilities for handling business Mr. Reid will undoubtedly retain the strong position he has in the mill supply trade.

At the annual meeting of the Canadian Colored Cotton Mills Co., held in Montreal, May 25th, the financial statement and annual report were presented, and found to be highly satisfactory. The following were elected directors for the ensuing year: Hon. Geo. A. Drummond, D. Morrice, president; C. D. Owen, vice-president; E. J. Clouston, T. King and D. Morrice, jr. At a subsequent meeting of the directors D. Morrice was re-elected president, and C. D. Owen, vice-president.

Robert S. Fraser, Montreal, has just installed one of the Garnett Company's celebrated machines for reclothing garnetting machines, metallic brests, rollers, etc., and he is now prepared to execute orders for all such work promptly and satisfactorily. Hitherto this work had to be done in United States or Great Britain, entailing heavy expense and much loss of time. Mr. Fraser is to be congratulated on his enterprise in equipping his establishment with this new feature.

A. F. Gault, president of the Montreal Cotton Co., accompanied by Messrs. Grenier and Stevenson, directors, have held a long interview with the Valleyfield, Que., town council, said The Montreal Herald some time ago, where they propose to erect a new cotton factory to employ about 400 hands. It is understood that certain proposals were made which, if accepted by the council, will cause the cotton company to immediately commence the erection of the proposed factory.

Millichamp, Coyle & Co., have moved into the new warehouse east of the new McKinnon building, corner York and Wellington streets, Toronto. The offices of the new Canada Woolens, Ltd., of which Millichamp, Coyle & Co. are selling agents, are in the same building, and here J. F. Morley, the general manager of the Canada Woolen Works, has his headquarters. The management of the Brodie mills is still, we are informed, in the hands of A. W. Brodie, though the mills are included in the combination.

The Almonte, Ont., Gazette recently reports that John Ballantyne, jr., formerly of Almonte, is a leading man in Boston, and is coming to the front politically. His brother James, who was a reporter on an Almonte paper up to the time he left Almonte, afterward studied law, and is now a partner with his brother, enjoying a lucrative practice. J. Ballantyne, sen., formerly superintendent of the Rosamond Woolen Co.'s mill, is now United States traveler for a big woolen machinery supply house in England.

Such are the continual changes in the methods of drying various materials that the Philadelphia Drying Machinery Co., 6721 Germantown avenue, Philadelphia, finds constant use for the experimental drying machine which it has placed in its plant for the purpose of determining in a practical way the best and most economical method of drying the many materials that are presented for test. New problems are constantly arising and although past experience may point out the way to approach the new conditions, an absolutely reliable opinion can only be based upon practical tests. Much valuable information is thus obtained, and as these facilities are now at the disposal of any manufacturers who may wish to avail themselves of them, those interested in the improved methods of drying would do well to take advantage of the opportunity now offered.

The sailing of Wm. Firth and family, of Boston, a few days ago for a trip to Europe was attended by many of his friends, who chartered a boat and went down the harbor for their final leave-taking. The Saturday before he sailed a number of Mr. Firth's friends, consisting mostly of cotton manufacturers, gave him a complimentary dinner at the Hotel Reynolds, in Boston, showing their high regard for the interest he has taken in the development of that industry by the introduction of high grade machinery for our cotton mills since his residence in this country. Mr Firth returns to England to take an active management in the large textile machinery manufacturing firm of John Hetherington & Sons of Manchester, Eng., of which he has for eighteen years been the American representative. Mr. Firth's business here was some weeks since organized into the Wm. Firth Company, of which he is the president, which will endeavor to conduct it in the same business-like manner as it has been conducted by Mr. Firth, the company being composed of practical men who have been for a long time associated with him. Mr. Firth expects to return again with his family to the United States about the 20th of September, and will take up his residence in Boston for the winter.

GARMENT DYEING.

Fabrics are now used in the manufacture of ready-made clothing which are composed of a mixture of wool and cotton in various proportions; sometimes the two fibres are mingled together in the same thread, at other times there are woven together threads of cotton and wool. Then, again, there are certain fancy fabrics, in which part of the decorative effect is obtained by using cotton and wool threads in a special manner. The job or garment dyer is frequently called upon to deal with articles made of these mixed wool and cotton threads. How to tell them is by no means easy, and there is no simple rule or test which can be followed. However a little experience in handling these fabrics seems to give the dyer a kind of intuitive knowledge that enables him to say definitely, and without being often wrong, whether he is handling a cloth made of wool and cotton.

This class of fabric, and garments and articles made from them, offer special difficulties to the dyer, for the wool and cotton have not equal affinities for the dyes. There are many dyes; especially the azo and acid colors, which will not dye cotton although they will dye wools very well, and the ordinary basic dyes which may be used are not very easy to work with.

However, there are some dyes which are capable of dyeing wool from boiling baths containing Glauber's salt only, and among such the following are worthy of mention: Naphthaline Yellow, Indian Yellow, Tropaeoline OO, Orange extra, Orange ENZ, Rhodamine, Brilliant Cochineal 4R, Croceine AZ, Azo Red A, Formyl Violets, Thiocarmine R, Naphthol Blues, Naphthol Blue Black, Alizarine Blacks, Lanacyl Blues, Lanacyl Violet.

Then there is the great range of the direct colors for cotton, among which may, perhaps, be mentioned the Diamine Colors of Messrs. L. Cassella & Co., (Wm. J. Matheson & Co., Ltd., Sole United States and Canada Agents), which can be dyed on to the cotton from baths which contain Glauber's salt. The dyeing of blacks has been much simplified by the introduction of the direct blacks, by using Oxydiamine Black BM or Union Black S shading with a little Diamine Green B, and using Alizarine Black 4B to work on the wool, a fine level bloomy black is got on a mixed fabric article. The operation is easily carried out; only the boiling must not be too severe, or be too prolonged, as then the wool might be dyed too deep. However, by working in a tepid soap bath the shade may be reduced somewhat and brightened.

Blues of all shades can be got by using Diamine New Blue R, Diamine Blue R, Diamine Dark Blue B, Formyl Violet, Naphthol Blue Black, Browns, by using such dyes as Diamine Brown M, Diamine Catechine G, shading off with Oxy-Diamine Black BM, Union Black S, or Diamine Green B.—The Dyer and Calico Printer.

THE POWER IN A POUND OF COAL.

Let us take a pound of what we will call average coal, containing, say, 10,000 heat units. This would be somewhat smaller in size than a man's fist. A pound of this coal, if expended in mechanical work, would give us 236 h.p. Imagine at the time of the Pharaohs two long lines of men, extending over half a mile, all pulling steadily, at the command of the task-master, at a great rope to raise some huge obelisk, and, as you see them sweating, tugging and straining, think again of this small lump of coal in which nature has placed an equal amount of power. In some countries men who have been specially trained as porters to carry heavy loads on their backs, will, as a full day's work, carry a total of from 350 to 600 pounds a distance of one mile. And yet each has expended but one-third of the power stored up in the pound of coal.

An exceptionally strong man has been known to do one-half horse-power of work as his mightiest effort; but in two and a half minutes' work at this rate exhausts his muscular force. Let us suppose one hundred men putting forth such extreme effort at rope, or crank, or crowbar; as they fall back, red-faced and puffing to catch their breaths, we might imagine this little black lump saying to them: "I can do as much as your whole company and then can stand it for fully two minutes longer before I am exhausted!"

Let us now turn to another portion of the human race. From the earliest times spinning has been a much-prized accomplishment of the fair sex. We need look back to our own grandmothers. We can picture them, from their own stories told us when we were children, as rosy-cheeked damsels sitting around the open fireplace and spinning from early candlelight till bed time, let us say possibly two hours. Let us then consider for a moment the thousands of spindles rattling and whirling in a modern cotton factory, impelled by the power locked up in coal. One pound of this coal carries the potential energy to do the work of three thousand such spinsters.

In sawing wood, a man may work at the rate of about 60 strokes a minute and consider himself a "top sawyer," and his saw blade may have progressed five feet a minute; but a circular saw, driven by machinery, may be put through 70 times that distance and saw 70 times as much wood. And yet this one little pound of coal contains power enough for 190 such saws.—E. D. Meire, in Cassier's Magazine for May.

—Brock & Paterson, wholesale milliners, St. John, are extending their premises.

THE FUTURE OF AUSTRALIAN WOOL.

Owing to the flourishing state of almost every industry, the wool trade has shared, in common with other trades, in the wave of prosperity which has passed over our own and other countries during the past few months. The Textile Manufacturer in a discussion of the subject in its May issue said that this state of things has had a tendency to raise the price of almost all raw materials, wool being included in the list. In this manner the shortage of Australian wool was felt more than it would have been under ordinary circumstances, although the probability is that had trade been slack we should have heard little about it, and felt less. There is every appearance of the causes of the present shortage being repeated, if shortage it can correctly be called, for the production of the past season of the five principal colonies was 1,307,000 bales, against 1,401,000 the previous year. This means a decrease of 94,000 bales, which, large as it may seem, is only about 7 per cent. This is out of all comparison with the rise in prices, and is still further reduced in significance by an increase of 9,000 bales on the New Zealand shearings. The reasons for the Australian shortage are largely summed up by the troubles caused by droughts and dust storms, but these are constantly-recurring evils, and are thought by many to be on the increase rather than otherwise. In the pre-settlement days, though the drought raged and the wind blew, there were bushes that defied the one and checked the other, while the roots of the dead grass remained to steady and hold the soil together. But with the advent of stock and rabbits, these counteracting forces have been removed. The destruction of the bushes has left the wind without check or break, the destruction of the roots (for which the rabbits must be held principally responsible), has left the soil hopelessly at its mercy, whilst the constant traffic of stock served to still further loosen and disintegrate a soil invariably friable and frequently little more than pure sand. As these several causes combined to bring about the result described, the mere passing away of one of them will not suffice to undo the evil. In other districts, such as those at the head of the Darling, the effect of stocking has been to consolidate soil originally loose and ash-like. But on soil such as has been described, the effect is directly opposite. On tens of thousands of acres the very roots have been eaten, trodden, or blown out, and it would take an unusual run of phenomenal seasons, with the lightest possible stocking, to induce a fresh growth, even if the soil were in its original state. It is now very far from that state, and there appears to be no process by which, under any possible treatment, it can be brought back even approximately to it. The soil is gone, and the exposed clayey subsoil is about as productive as a paved courtyard. Even where this full extent of damage has not been achieved, so much of the surface soil, which at best is very shallow in this locality, has been carried away, that the productivity of the remainder is seriously diminished. In view of all the circumstances, it is impossible to avoid the unpleasant conclusion that permanent deterioration, amounting over large areas to practical destruction, has taken place throughout this portion of the colony. This is a description not only of the vast western district of New South Wales, but also of the equally vast northern areas of South Australia. The moving dust columns, moreover, are covering the wire-netting fences and the tanks, after a very great expenditure has been incurred. It is plain that little or no increase in the production of wool in such country as the western district of New South Wales is to be looked for under existing conditions, and any increase must come from the improvement of lands well adapted for the pastoral industry. In many cases arrangements have been made for providing a plentiful supply of water on stations, throughout the severest droughts, but such does not,

in any appreciable manner, provide for the large amount of forage which is required, and which cannot be grown under such conditions. The reaction which has recently been strongly felt in wool prices is probably the result of the purchasing limit being reached, although the past inflation of prices is in itself sufficient to bring this about sooner or later. Our Australian contemporaries, however, do not attribute the present depression to either of these causes, but to the fact that London held its sales before the season in Australia was over. This is said to have thrown wool out at both ends of the world at the same time to buyers whose wants were already supplied with direct purchases. Whether this is true or not, such an arrangement of sales must have undoubtedly fostered speculation, and it is not surprising that those whose business it is to buy as cheaply as possible should resort to bear tactics. It is useless to reproach commercial men for making the most of their opportunities, but it is regrettable that any arrangements should be made which should increase the speculative element, and put legitimate commercial business at a disadvantage.

WOOLEN MILLS IN INDIA.

According to statistics received at the Board of Trade, London, Eng., from the India Office, the woollen industry in India expands but slowly, compared with the expansion of cotton and jute mills. There were only four mills at work at the close of 1899—one at Cawnpore, one at Dhariwal in the Punjab, one in the city of Bombay, and one at Bangalore—containing 22,506 spindles and 578 looms. The capital employed in it is also relatively small, amounting only to Rs.445,000. Only two of the mills, those at Cawnpore and at Dhariwal, are of importance, the capital of those two concerns (Rs.320,000) representing nearly three-fourths of the whole. These two mills weave cloth for the use of the army and police, and generally articles of more or less superior quality, using for the purpose an admixture of Australian wool. There is, however, not much demand in India for woollen goods except for descriptions which could hardly be profitably made in India in competition with the European mills, and any large expansion of the industry can hardly be anticipated. There are in various places factories for the weaving of carpets and rugs, and of pattu and pashmina, but, though these industries are in the aggregate extensive, they are individually small, and the weaving is done on hand-looms.

ARTIFICIAL SILK.

Although this substance has not yet met with the success which was expected, it has come in very extensively for fringes and braids, as such articles are usually carefully guarded from damp. Curiously enough, much more money is given for such articles in artificial than in real silk, in the spring of last year even three times as much. Even now artificial is dearer than natural silk. The reason of this is the superior lustre, in spite of the sensitiveness to the action of water, and the inferiority in elasticity of the artificial product. Lustrated yarn and artificial silk at present play the two principal parts in the manufacture of braids and fringes and similar articles.

—The novelty of the season is said to be mercerized linens. They are said to be very fine. Even the all-black is beautiful, which is more than can be said of most washable black goods. The shepherd's plaids are reported exquisite, too. In some instances the checks show the silky quality even more than the plain colors. Both the black and white and the blue and white are delightful. As for the plain colors, they are even more interesting. One looks like a magnificently heavy pongee.

ACID COLORS IN WOOL DYEING.

The use of the so-called "acid colors" in dyeing of wool, requires the presence of a certain amount of free acid in the dye bath in order that the operation may proceed properly and produce level colors or shades. The addition of this acid is for a double purpose, first and of the most importance, to decompose the dyestuffs by forming a salt of the alkaline base and setting free the color radical, which has a much stronger affinity for the wool fibers than the dyestuff itself; and also to cause an opening out of the "scales" that cover the surface of the individual fibers, thereby allowing better penetration to the dye liquors. If an excess of acid is used, that is, more acid than will suffice to produce the results above noted, there is a strong probability that the fibers will become injured to such an extent that they may become troublesome in the weaving. As wool-dyeing generally proceeds at a boiling temperature, at which point it is quite soft and plastic, the presence of an undue quantity of acid will cause a permanent "set" to the fibers which will greatly impair its possibility of fulling, besides giving a very serious harsh feel which is quite undesirable. Owing to duration of time in which the wool is being subjected to the boiling acidified dyebath, and the usually short time of washing from the same bath, there always remains in the fibers a certain quantity of acid which manifests itself occasionally after the wool has been dried; and if our remarks apply to yarn, it will be found that one end of each of the hanks has become so much rotted by the drainings of the acid liquors toward the lower ends that the lot is quite likely ruined. As a rule, not more than 4 per cent. of acid should be used in the dye bath, and, if possible, as much less as possible, so as to be on the safe side, even if the dyeing should be prolonged. There are many new dyes which are applicable for wool, which can be dyed without the aid of free sulphuric acid, and are remarkable for their peculiarly level dyeing properties, but there is a strong feeling on the part of dyers to give up the old-established custom of using sulphuric acid. Many complaints, too, have been heard about the use of an excess of acid, when upon investigation it was found to be not an excess of acid, but an insufficient amount of washing.—Kuhlow's German Trade Review.

WASTE IN THE DYEHOUSE.*

Could the walls of some dyehouses speak, and so be able to tell us their experience of the work being carried on within them and of the workers, many of them would tell tales of considerable waste of drugs and of hours of labor. The extravagance of many dyers is most reprehensible, and it mostly arises from the want of thought. A good dyer having finished off one lot of goods will reflect that he has got sufficient liquor left that, by the addition of a certain proportion, the old bath can be made to do service for another job, and he straightway sets to work to economize his drugs. A careless dyer will, however, either through ignorance or unconcern for his employer's interests, throw away his old liquor and prepare another bath for the next lot of goods. What a boon it is for master dyers to get hold of employees who will study the question of economy. No question of a few shillings extra per week should for one moment influence a master dyer in the selection of his hands if he be a wise man, for having the run of the drug room (as it is necessary his employees should have) they can either economize or waste his drugs just as they may seem disposed, and most frequently, we are sorry to say, they seem to prefer the latter course.

There have been dyers who practice the absurd system of measuring their drugs by hand instead of by weight. We are

aware that there are some hands who despise weights and scales and look upon them in the light of toys, and such dyers often go so far as to judge their fellow-workers' capabilities as soon as they go to the drug room. If they weigh their drugs they put them down at once as being inferior to themselves, who trust to their hands to determine the correct quantity of the dyestuffs being put into the copper. We would venture to say that there is no greater source of waste than this, and that system should be discontinued by every dyer that practices it. It is wasteful both in time and drugs. Let the reader give one moment's thought to the matter, and he will at once see the truth of this statement.

The dyer has so many yards of stuff to dye, and for his bath he requires a certain amount of several kinds of drugs. He enters the drug room and thrusts his hand into the casks and tins containing the drugs, and forthwith throws the drugs into the copper. What guarantee has he that he has taken up sufficient drugs or has not grasped too much with his hand? Absolutely none, and the consequence is that a deal of time is wasted in watching the goods in the copper to see if they are coming to the right shade. Perhaps he has too much blue or too much red, and then in goes some acid to get matters right. It is such a very simple matter, the despiser of weights and scales says, to tone down the shade. That may be, but what does toning down the shade mean? It means the destruction of certain good coloring matters which have been added to the bath in excess of its requirements, and the waste of acid for that purpose together with an amount of time spent over the operation. No, the weights and scales dyer is not an inferior workman, but is justified in assuming the first position as a workman, and not the rule-of-thumb man. Such a man knows by the exercise of his thinking faculties that the goods before him, to get the desired shade will require so much of this drug and that acid, and to work he goes with his scoop and weights, and into his copper he throws his dyeing materials with an assurance that conceited handful brother never understands with his foolish reliance on the grip of his hands. Then, again, the latter runs a great risk of doing some injury to the goods by the use of too much dyestuff needing the addition of adjusting agents. Many jobs are seriously injured in this way. No argument whatever that will stand a moment's consideration can be urged against the use of weights and scales. Let then every dyer not already using them take to measuring his drugs and he will soon find out the advantage of so doing. There are some shades of color which are so delicate that no intelligible weight of the dyestuffs can be given for dyeing them. We allude more particularly to cream, pink, ecru, ivory, pale blue, and other light shades. In such cases we recommend dyers to keep in solution several of the colors that are most generally required. We advise the following to be dissolved and kept in some vessels ready for immediate use, viz., magenta, saffranine, violet, phosphine, soluble blue, brilliant green, which will answer for ivory, cream, ecru, mauve, pink and rose, on wool or silk. It is best to dissolve one ounce of each of the above mentioned dyes in a gallon of water, and to use a gill mug for measuring out the dye solution when required.

Port Dalhousie, Ont., voted a bonus of \$6,500 to the Toronto Rubber Shoe Co., May 21st.

Prescott, Ont., has given the Imperial Starch Co., Ltd., a site, valued at \$8,000, and tax exemption for twenty years. The town also agrees to furnish the company electric energy for one hundred lights and supply them with one hundred thousand gallons of water daily free of charge, for the period of twenty years. In return for this the company will grind 1,000 bushels of corn daily.

*Reprinted from the Dyer and Calico Printer.

TEXTILE IMPORTS FROM GREAT BRITAIN.

The following are the sterling values of the textile imports from Great Britain, for the months of April, 1899-1900, and the four months including April, 1899-1900.

	Month of April		Four months to April.	
	1899.	1900	1899.	1900
Wool.....	£ 1,529	£ 3,235	£ 5,128	£ 21,223
Cotton piece-goods	29,951	40,756	214,469	275,362
Jute piece goods.....	9,089	15,036	32,875	50,339
Linen piece goods	9,492	13,559	65,543	78,856
Silk lace	2,221	1,254	6,470	7,731
" articles partly of ..	1,850	2,067	10,695	19,654
Woolen fabrics	13,269	22,031	97,914	156,482
Worsted fabrics.....	20,589	28,522	204,091	231,117
Carpets	14,246	25,725	88,630	129,764
Apparel and slops	13,734	19,293	77,654	107,794
Haberdashery	8,710	8,136	65,390	64,886
Writing-paper, &c	2,376	3,514	7,421	9,280
Other paper	447	1,053	2,411	3,399

—Kenny & Co. will erect a new dry goods warehouse on the site of the sailors' home, Halifax.

—It is reported from Washington that the total area in cotton planted, is estimated at 25,559,000, an increase of 2,036,000, or 8.7 per cent. over last year.

A. C. Petersen, W. H. Sumbling, C. E. Jarmain, Toronto; J. Smale, North Toronto; H. E. Bydwell, Montreal, have been incorporated as the York Laundry Machinery and Supply Co.; head office, Toronto; capital, \$40,000.

The Schofield Woolen Co., which recently lost a large portion of its premises in Oshawa, Ont., by fire, is said to be open to offers to locate in some other town if sufficient inducements are secured. St. Thomas, Ont., is making an effort to secure the industry.

—The T. Eaton Co., Toronto, is making extensive changes in its electric plant, and has ordered two 350 h.p. tandem compound engines for direct connection to dynamos from the Robb Engineering Co. The two dynamos will be 225-k.w. machines from the Canadian Electric Co. In the extensions to the Eaton Company's premises there will be five new Fensom elevators of an improved type.

—Attention is called to Prof. Koechlin's method for the bleaching of cotton and other vegetable fibres by passing them through a bath of 100 litres (26.4 gallons) of water, 10 kilograms (22 pounds) of lime, and 50 kilograms (110 pounds) of bisulphite of soda. They are then steamed for an hour or two under a pressure of from 1 to 2 atmospheres, rinsed again, and dried. The bisulphite can be replaced by hydrosulphite of lime. The cotton or other fibre may be boiled in the bath for a few hours, instead of being steamed. Another process is to subject the goods for six hours under a pressure of two-thirds of an atmosphere to a liquid composed of 1000 litres (264 gals.) of water, 10 kilograms of dry caustic soda, 10 kilograms of soap, 1 kilogram (2.2 pounds) of calcined magnesia, and 30 litres (7.9 gallons) of peroxide of hydrogen; then rinse, souse, rinse again, and dry. The white obtained is said to be much better than can be had with hypochlorite, and, best of all, does no damage to the fibres or fabric.

—Silk-Spinning Spiders in Venezuela.—The United States Consul at Maracaibo, under date of December 26, 1899, reports

that large silk-spinning spiders are found in the palm trees of Venezuela. Some produce white, some yellow, silk. The consul understands that the silk has been made into handkerchiefs. A copy of the report, together with a specimen of silk, which accompanied it, was referred to the Department of Agriculture. Under date of January 27, 1900, the entomologist says that silk produced in this way cannot be made valuable commercially, because of the troublesome necessity of keeping the spiders separated to prevent their devouring each other. Their food being insects, this also involves considerable labor in supplying them. Attempts to utilize the silk of a Madagascar spider of the same species some years ago resulted in the discovery that the product was more expensive than ordinary silk.

—The following is a method of waterproofing woolen goods. No machinery is needed, and it is said to give very satisfactory results: Ten kilos. of sugar of lead and the same weight of alum are separately dissolved in boiling water, then 12 kilos. of acetate of alumina. The latter is, however, better ordered from the druggist in the liquid state. The three solutions are poured into the cask and allowed to stand over night. Meanwhile, 200 grms. of gelatine and the same weight of isinglass are stirred with cold water. Next morning the mineral solution is drawn off into a separate vessel, care being taken not to disturb the sediment, which would spot the cloth. To the clear solution is added 200 litres of hot water, and the gelatinous preparations which have been previously boiled and strained. This is the waterproofing liquid. It may be applied through the nose of a watering can, but an impregnating machine will, of course, be more satisfactory. In any case, the cloth must be well soaked before it comes in contact with the mixture.

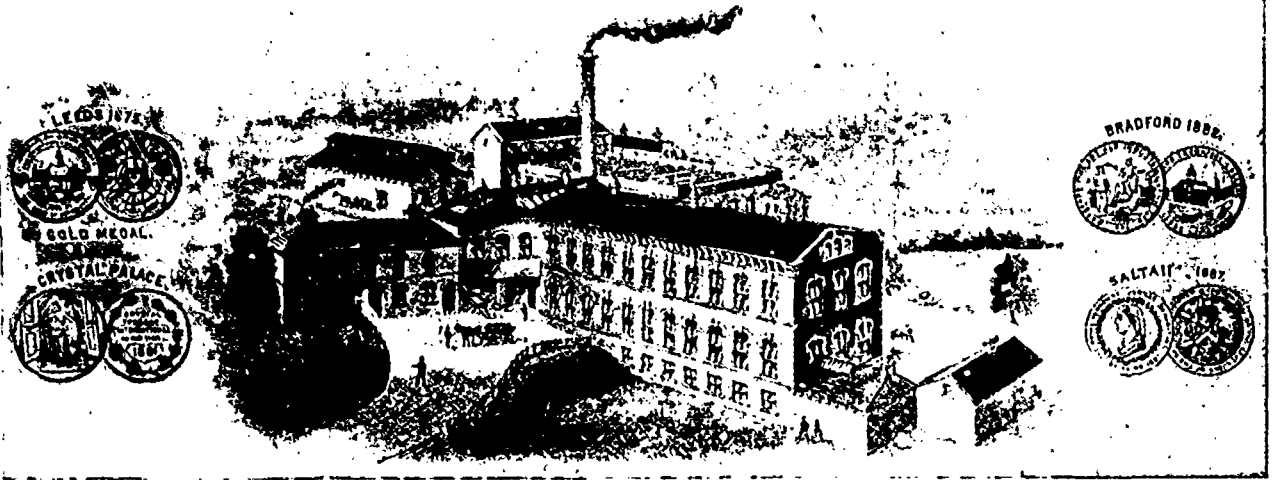
The Educational Review is now publishing a valuable series of leaflets dealing with special features and epochs of Canadian history. Such writers as Sir John Bourinot, Prof. W. F. Ganong and Col. Cruickshank are contributors, and these leaflets will be a most useful means of educating people on many more or less obscure points of Canadian history. The price is very low, being 10 cents per copy, or \$1 for the series of 12 leaflets. Address Geo. M. Hay, Educational Review, St. John, N.B.

—It is estimated that the year's cotton crop in Egypt will be equivalent to 1,000,000 American bales. The cutting of the "sudd" in the Nile promises to inaugurate a new era in Egyptian agriculture, as the water will hereafter be richer in fertilizing material.

—A combination entitled the United Bleachers' Association, Ltd., has been registered in England with a capital of \$45,000,000. The most important bleaching firms in the country have joined the new organization.

—The Manchester ship canal is certainly a success as seen by the statement in the Textile Mercury, that in the week ending March 31st seven steamers arrived in Manchester from America with 39,398 bales of cotton—a "best on record;" while in the following week eight steamers arrived from America with 40,974 bales, a better record still.

POSITION WANTED—As superintendent, designer or boss weaver. Thirty years' experience in some of the best mills in Canada and the States. Of good habits. Temperate and industrious. Address "D. W.," Montreal Office Canadian Journal of Fabrics.



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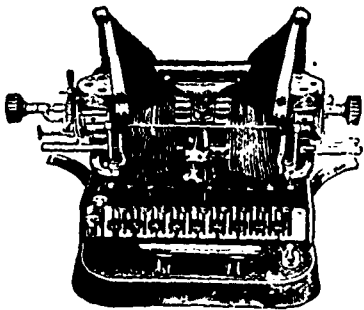
arranged channels for rapidly taking off water to the sewers, so that the work-people may never have to carry on their occupation with wet feet.

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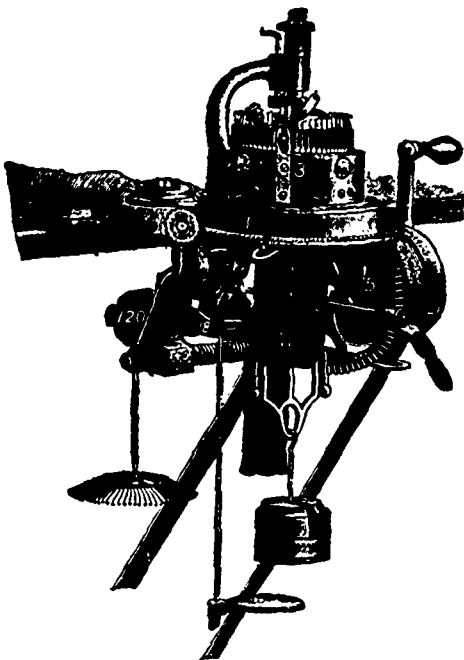
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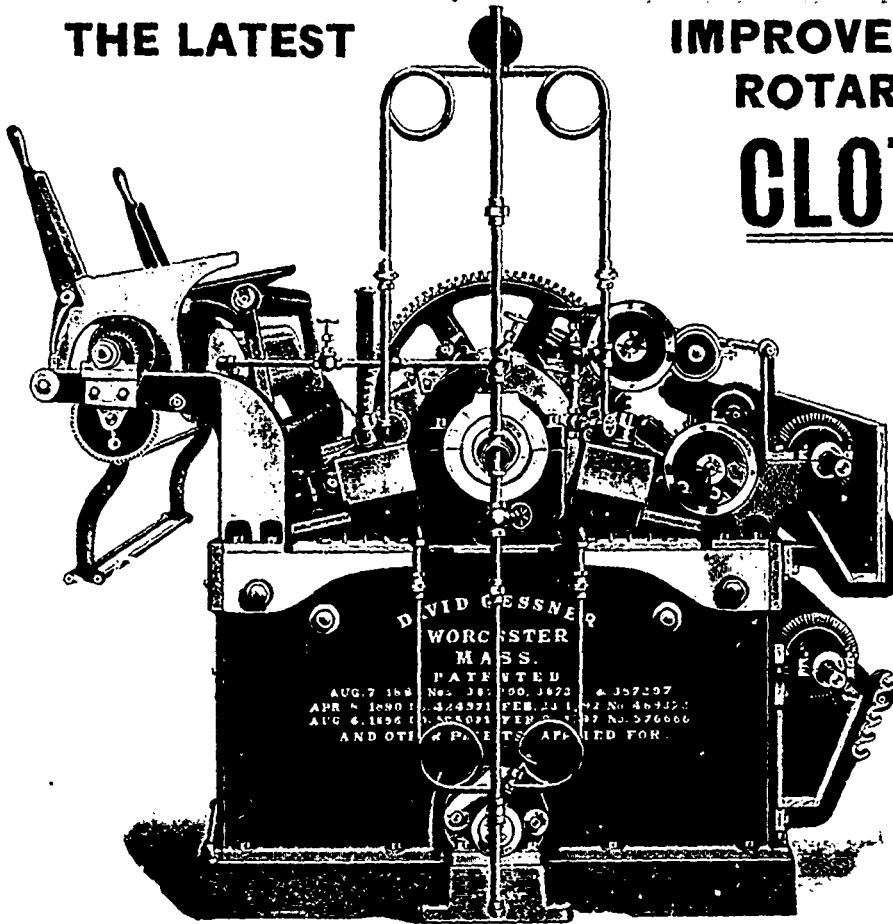
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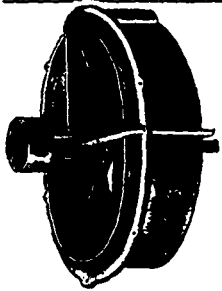
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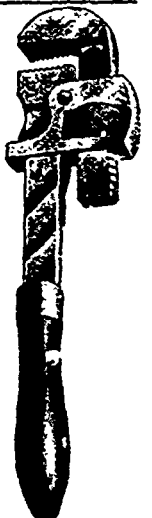
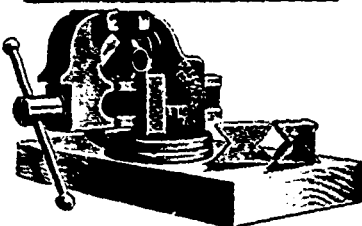
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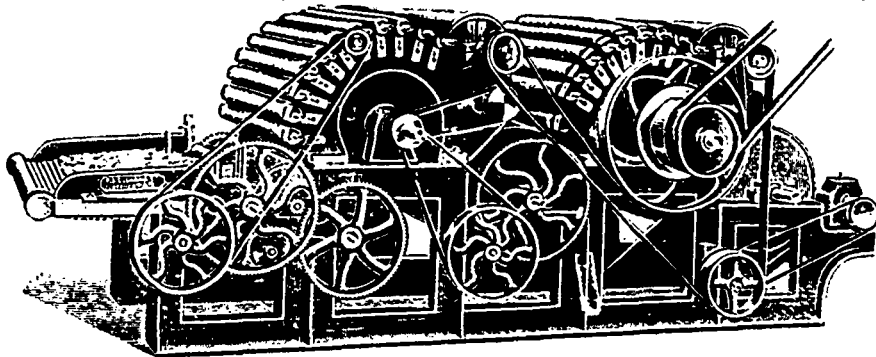
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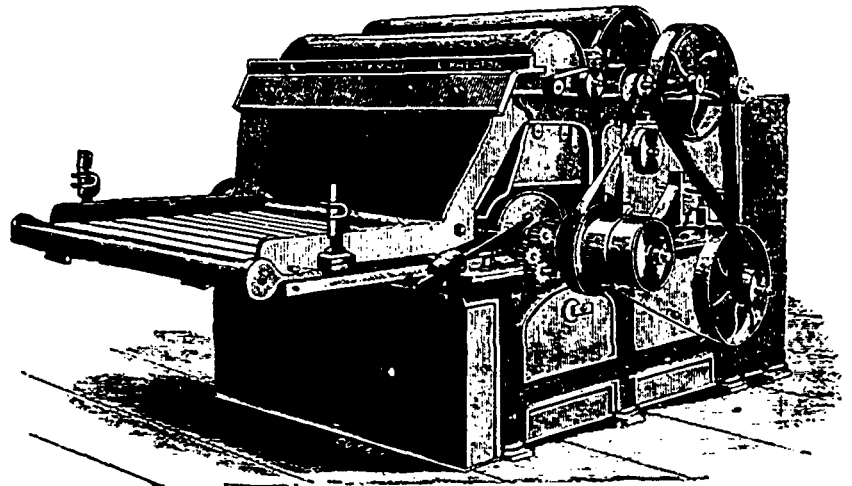
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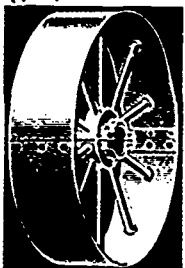


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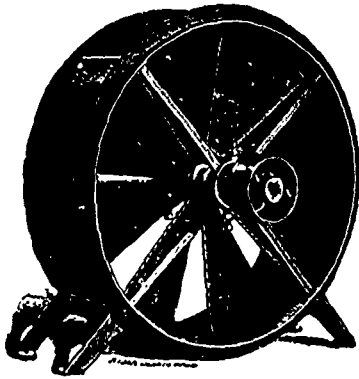
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given concerning the other mills, of which the following is a list: Asbestos miners and manufacturers, manufacturers of awnings, batting (wool and cotton), bedding, binder twine, braids, buttons, caps, carpets (including hand loom weavers), children's wear, cloaks, clothing, collars, cuffs, cordage, corsets, cottons, embroidery, feathers, felts, flags, flax, fringes, furniture, gloves, hair cloth, hats (straw, felt and cloth), haberdashery, horse covers, hosiery, jute goods, lace, ladies' wear, mantles, mats, mattresses, men's furnishings, millinery, mitts, neckwear, oil cloth, oiled clothing, overalls, paper, pulp, pins, print goods, regalia, rope, rubber goods, sails, tents, shirts, shoddy, felt, straw goods, suspenders, tarpaulins, tassels, thread, tow, trusses, linens, umbrellas, upholstery, wadding, water-proof garments, webbings, window shades, worsteds, etc. The woolen mills include the carding mills, manufacturers of tweeds, blankets, flannels, yarns, homespuns, and all other piece goods, carpets, felts, and all kinds of knitted fabrics. The cotton mills include all classes of cotton piece goods, yarns, wadding, batting, etc. There is also a complete list of the tanners and curriers, laundries, dyers, dealers in raw wool, furs, etc. Under each heading the whole of Canada and Newfoundland is included.

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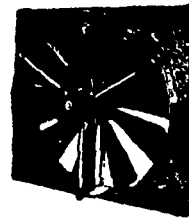
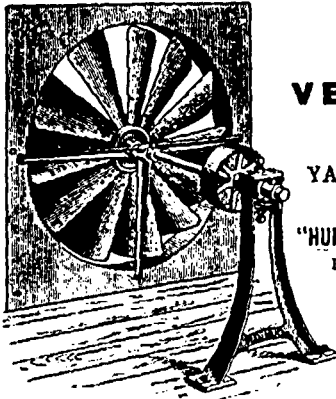
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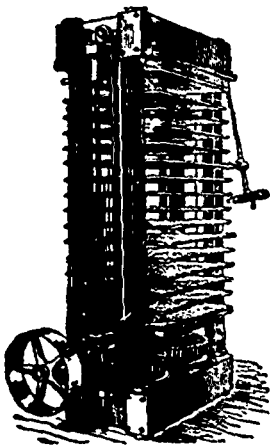
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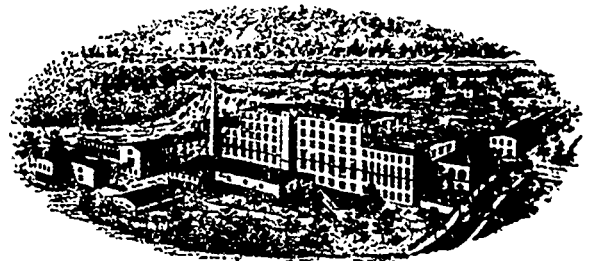
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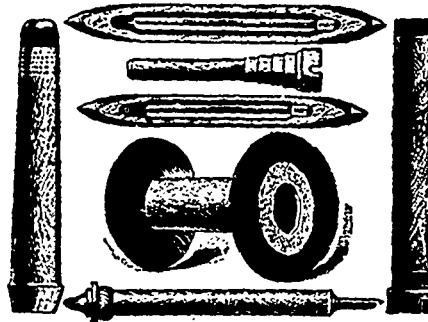
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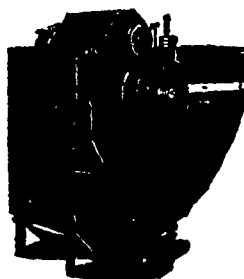
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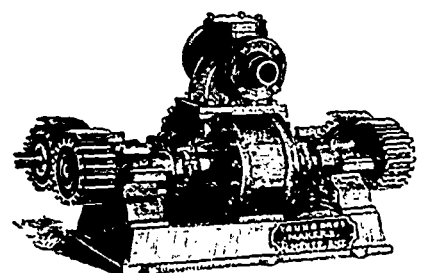
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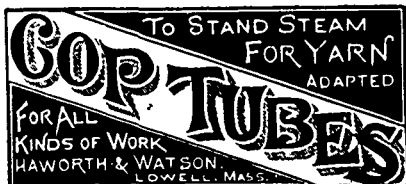
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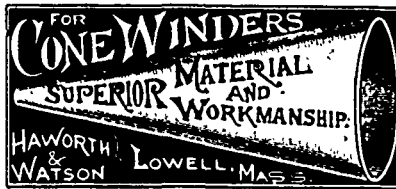
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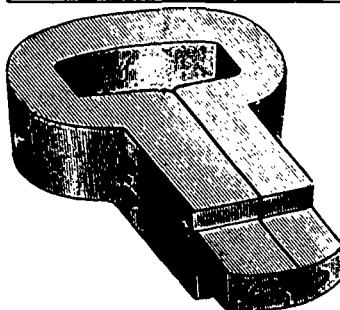
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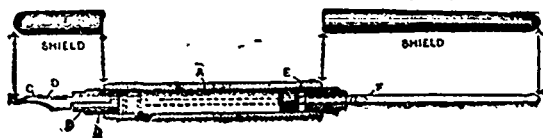
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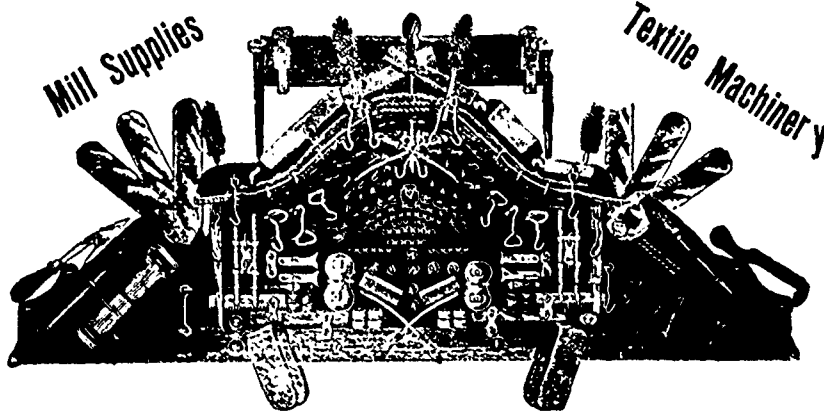
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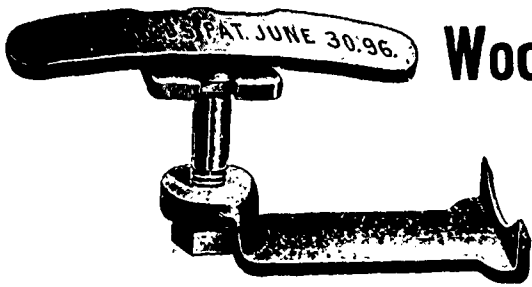
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Recently a pleasant event took place in the Mississippi Woolen Mills, Appleton, Ont. The employees having learned that their fellow workman, W. J. Montgomery, was about to leave them to take a position as boss finisher in the woolen mills at Eganville, Ont., could not let the occasion pass without showing in some manner their respect and esteem. The following address was read, and a very handsome easy chair presented: "We, your fellow employees in the Mississippi woolen mills, learn with deep regret of your intended separation from us. During your sojourn in our midst we have learned to honor and respect, and will cherish many little fond remembrances regarding times and episodes in which you are connected. In our every-day life we have found you ever ready and willing to assist a fellow workman, while, in the social functions we have only to remember you as a friend. True, at times our natures rebelled against you, towards whom do they not? Our ideas have differed, our actions and sometimes our tongues have been anything but proper. We trust you will forgive and forget these dark spots in our acquaintanceship and bear in mind, as we shall, only the brighter moments. We are now separating, we hope, to meet again, if not in this phase of life, in a brighter, happier one where there will be no cares, no sorrows, no separations. Please accept this small

token of remembrance and with it our earnest wishes for the well being and prosperity of yourself and family." Mr. Montgomery was taken by surprise, but thanked them in a few well chosen words, and hoped, although separated, the fond memories of the past would still remain fresh and green.

—In recording the death of Francis Hall, of Toronto, which took place on May 23, The Globe says: "Toronto has lost a good citizen in the passing away of Francis Hall, the well-known glove-maker, who was buried on Saturday last. For upwards of a quarter of a century Toronto was his home. An honest man, a faithful friend, a consistent church member, his life of over 82 years was well worth living. The last public service he attended was the farewell service to Morgan Wood in Bond street Congregational church, where he was a member during all his residence in Toronto. His wife and four of a family survive him."

—D. Shepherd, who has severed his connection with the woolen mill in Mechanicsville, Conn., with which he has been connected for some time, returned to his home in Almonte, Ont., before accepting another situation as head dyer in a large woolen mill in Bennington, Vt.

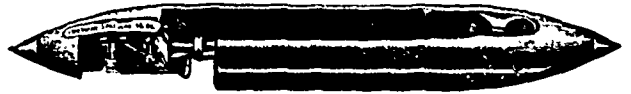


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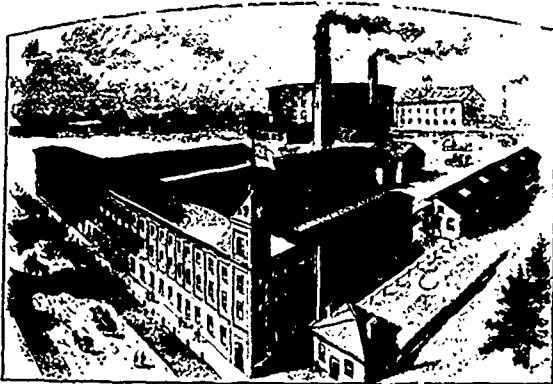
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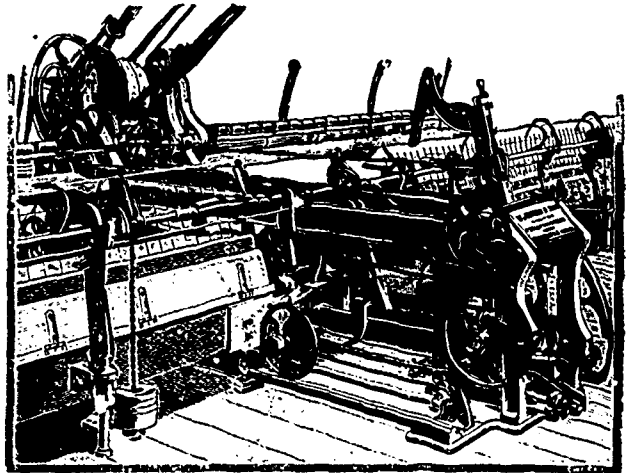
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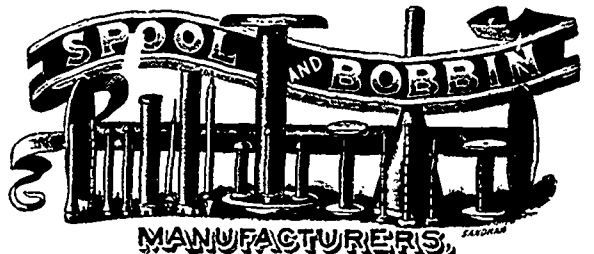
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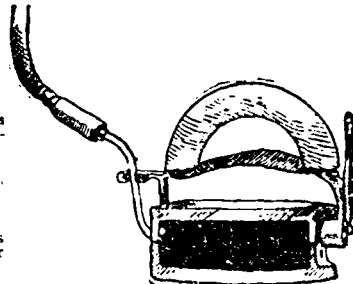
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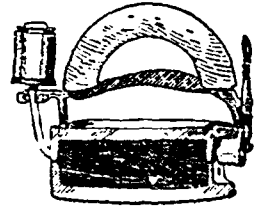
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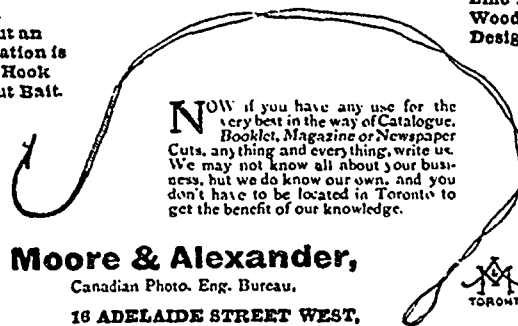
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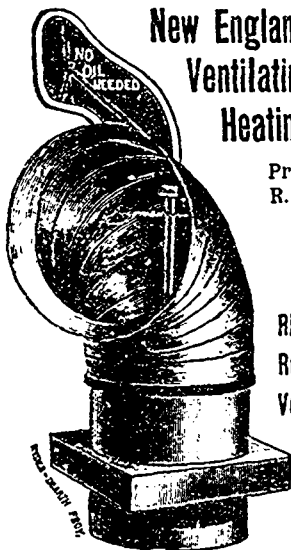
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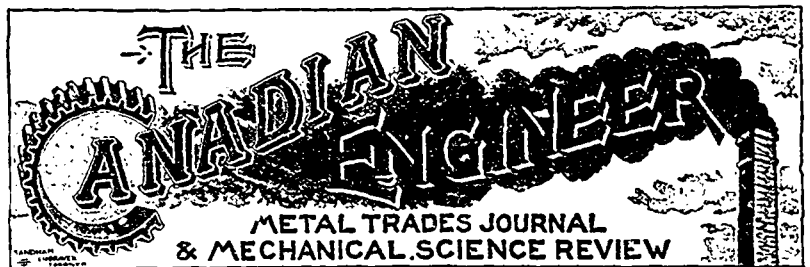


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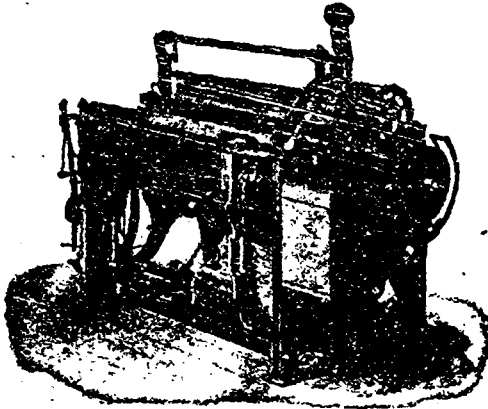
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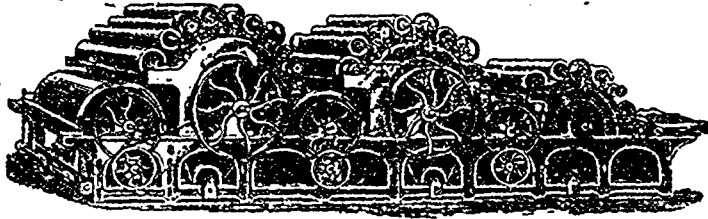
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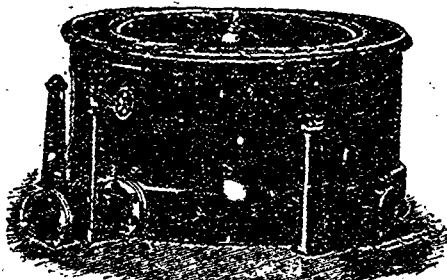
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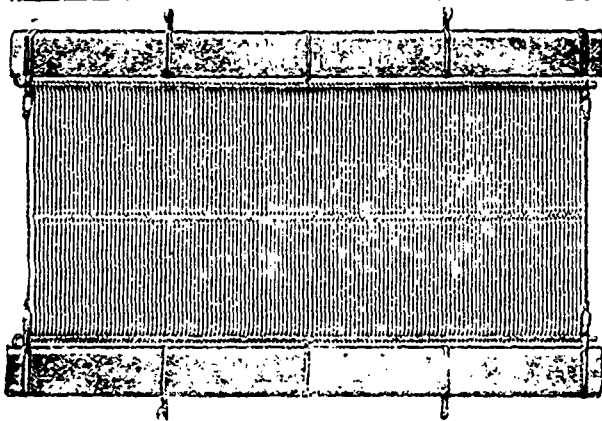
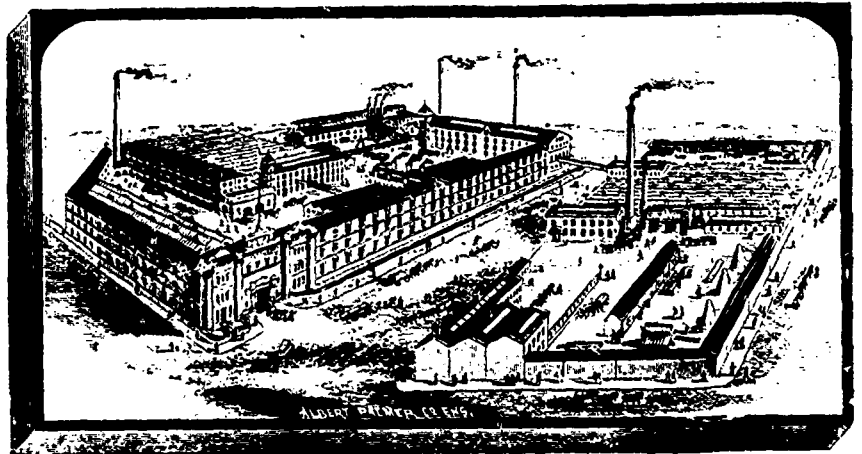
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