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# CANADIAN Journal of Fabrics

THE JOURNAL OF THE Textile Trades of Canada.

Vol. XII.

TORONTO, AUGUST, 1895

No. 8

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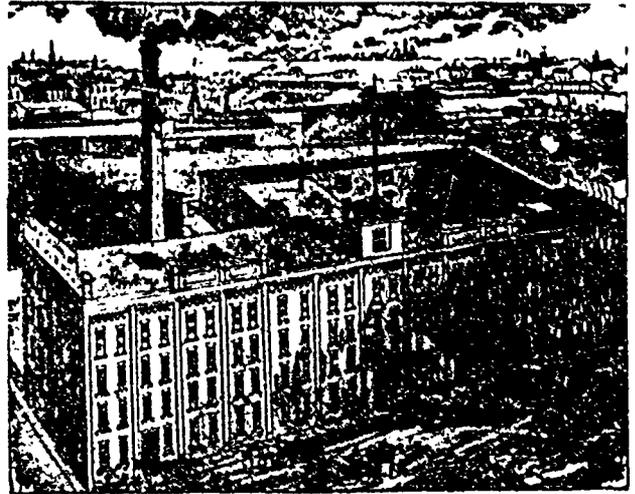
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# CANADIAN JOURNAL of Fabrics

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### PROGRESS OF THE DYEING INDUSTRY.

Artificial dyes appear to be gaining ground surely, if slowly. The first rank is still occupied by the alizarine colors, for in spite of paper controversies about the relative advantages of the coal tar colors and the natural dyes, the former come every day into greater and greater demand. The alizarines, and especially the blues, are also pushed forward by the prevalent fashion which prefers their dead green or reddish tones to the fiery copper-like hues of indigo. The alizarine cyanines, too, have the same advantage, especially with regard to the greenish shades they give with a mordant of fluoride of chromium.

Alizarine Black has improved its position, especially with loose wool. Naphthazarine, although not

strictly one of the alizarine group, is so much faster to light than logwood that its greater price has not prevented a great increase in its consumption. The single bath process, as recommended for cheapening the use of the Alizarine Black, the old sulphate of copper, as well as the later acetate of chromium process, seem quite abandoned. The best results are got by the usual mordanting with chromate and tartar, which also admits of the combination of Alizarine Black and logwood.

Among the great countries of Europe, Austria has made the use of alizarine dyes compulsory in dyeing military clothing. The German military authorities, who have the greatest possible interest in introducing alizarine colors, so as to support a rapidly growing home industry, allow Alizarine Black to be used, in combination with logwood, for grey mixture cloaks. Recognizing, too, that the rate of wear in a garment depends a great deal upon the wearer, they have had some portions of uniform made both of indigo and of alizarine-dyed stuffs.

Anthracene Blue, which is cheaper than Alizarine Blue, has crept in here and there, a proof that the objections of many dyers to the alizarine dyes is their high price. The default of Anthracene Blue is that the fabric will not take up more than 20 or 25 per cent. without smudging or running when washed. Hence it will not give deep colors alone. It wants also a stronger mordant bath, for while a bath of 3 per cent. chromate and 2½ per cent. tartar is strong enough for Alizarine Blue, Anthracene Blue requires 4 per cent. and 3 per cent. respectively. Mordant Yellow, which does not belong to the alizarine group, is very remarkable for its fastness to light and fulling, and is steadily making its way. It is, however, surpassed in covering power by Cassella's Anthracene Yellow.

In piece dyeing, too, the progress of alizarines as a class is slow, on account of the liability to want of uniformity if the least trace of oil has been left in the wool. Their strong affinity for metallic salts, especially those of chromium, and tendency to form lakes with them, is the reason of this want of power to give uniform results, for those properties prevent the dye from penetrating into the threads. A step in the direction of remedying this inconvenience has been made at the Höchst color-works, where they treat the material first with dye and Glauber's salt, secondly with sulphuric acid, and, lastly,

with a metallic salt (chrome, iron, or alumina), to develop the color-lake. But the process is too new for any fair estimate of the results of its use. So far it seems to have worked well.

All attempts to simplify wool mordanting are most welcome. The use of chromate and tartar has the disadvantages of requiring long boiling and of want of uniformity. Both these difficulties are lessened when fluoride of chromium is used, but it is a very unsuitable substance for use in copper vessels. Nevertheless, a single hour's mordanting with it gave a uniform green wool, while a two hour's treatment with chromate and tartar gave a somewhat inferior result.

Of substitutes for alizarine, we must specially name Diamine Fast Red, used as a substitute for Alizarine Red, and for toning indigo hues. Anthracite Black and Diamond Black have gained ground in the dyeing of carded yarn, for which Alizarine Black is unsuitable, but not so much for loose wool. With that material Anthracite Black is used principally for dark blue and blue-black. For lively navy blues, Gallocyanine has come much into use, and its newest competitors, Gallamine Blue and Celestine Blue, although much inferior to Alizarine Blue in fastness to light, have secured acceptance by the splendid fiery blue which they produce.

The dyeing industry has received an impetus by vat dyeing, especially with hyposulphite. The contrast between the latter vat and the woad-vat, with its capricious uncertainties, was too marked to leave the result long in doubt. The hyposulphite process is easy, rapid and certain, and economises indigo. It must, however, be remembered that the new vat has not yet given the fine copper hue or the deep tints obtained by the skilled use of woad. Hence, for the acquisition of these, it is at present necessary to give the goods a taste of the woad-vat after leaving the hyposulphite. Another drawback attending the hyposulphite is its reducing power, which renders the grounding with madder, orchil, or Alizarine Red, for dark indigo hues, less easy than is the case with woad, and their productions therefore dearer. With light colors, however, the case is very different, and for them the hyposulphite-vat bids fair to drive woad from the field. But the use of the vat cannot altogether be dispensed with yet. For example, to get mode and slate greys quite fast to light, a vat bottom is at present necessary, but it appears certain that the hyposulphite-vat will soon overcome this difficulty.

#### MANUFACTURERS AND THE WOOL MARKET.

As noted in our previous reviews of the wool market, there was a speculative spirit abroad in the eastern markets of the United States, affecting more particularly the lustrous wools such as Canada produces. By correspondence and by the visits of special agents, the Americans cleared out every available lot of native wool from the Canadian market, the consequence being an advance of 15 to 20 per cent. in prices. Tub

washed of grades such as Southdown, Shropshire, etc., were neglected, and now are in the market unsold, the speculative feeling that pervaded other classes not being warranted in these by the prices ruling for foreign wools. Speaking generally, there is a better feeling among the woolen manufacturers, who find they cannot get supplies unless at an advance in price, and who see that the foreign manufacturer is able to get an increased price for his products. It can safely be said that the advance in wools, taking all classes together, amounts to at least 15 per cent. The Canadian blanket manufacturers have found out that they have made a mistake in making contracts on the basis of last year's prices, since they have to come into the market and pay 15 per cent. more for their wool. This observation also applies to manufacturers of domestic tweeds and all woolen goods, except those made from Cape or Australian wools, which have not risen to the same extent. The wholesale clothing manufacturers recognize this, but are keeping out of the market as long as possible, and only buying for present requirements; but a number of wholesale houses and clothing houses see that nothing is to be gained by waiting further, and have already given extensive orders in some cases at prices which are considered mutually satisfactory to them and to the mills. The market is now very bare of Canadian tweeds of desirable patterns.

*In the Toronto market wool is quoted as follows:* Fleece combing, 24 to 25c.; clothing wool, 23 to 24c.; super, 21 to 22c.; extra super, 22 to 23c., and rejections, 19 to 22c. Manitoba and Northwest medium, 13 to 13½c.; fine medium, 13 to 14c.; select staple, 15 to 16c. All British Columbia wool has been cleared from that province, and most of it shipped direct to Boston.

Business in the Montreal wool markets is going along quietly. Prices are being closely guided by the New York and Boston markets. An advance of 10 per cent. has been made on fine wools. Three-quarters of the Canadian fleece wool yield this year has been bought in the States.

B. A. scoured is now bringing from 26 to 34c. Prospects indicate that prices will go at least 5 per cent. higher in a few days. A new cargo of wool is on the way, and already two-thirds of it have been sold.

As indicated in last report, the July series of the London wool sales closed with pronounced advances and was very successful, the principal competitors being Americans. In all some 390,000 bales were offered, and all were sold except 39,000 bales, which were withdrawn. The next series of auctions will open September 24th.

The beautiful muslins of Dacca, which were famous when Babylonian and Assyrian kings ruled Western Asia, were among the wares first brought to England by the old East India Company. In 1787, according to Sir George Birdwood, the value of the imports of these muslins into England was estimated at 30 lakhs of rupees, say, £300,000.

THE CANADIAN JOURNAL OF FABRICS

## HOW TO WORK UPWARDS IN A COTTON MILL.

BY GEO. DAMON RICE.

(Concluded.)

Next, the narrator secured work in the weave room as bobbin boy. Carrying bobbins does not require much skill. It is a cheap job and fit only for beginners and old men who are not capable of doing anything else. But the position offers many opportunities to the ambitious. Customarily the bobbin boy, when off duty which means the time when there are no bobbins to carry, devotes his time to fooling about the elevator shafts or the sink room. In fact he loafs. Now this is his opportunity. If the bobbin boy uses this hour or two a day to his own advantage, instead of loafing, he will be getting more out of the cheap job than he would be able to get out of one of some other character. For instance, bobbin boys have the run of the weave and spinning rooms and other departments. There are many good positions in these rooms, and the bobbin boy has an opportunity to work into one of them if he works right. Some months passed before this entered my mind, but when it did I immediately set to work to make the best of it. I began to talk with the section hands. They would tell me something about fixing mules, while the section hands in the weave rooms would tell me about the best modes of fixing difficult parts of looms. I would talk with the second hand of the spinning and he would give me a point regarding weighing yarn. Then the spinners and weavers would now and then explain something about the reeds, the harnesses, the spindles, etc., in answer to my requests. After a few months of this, I began to think that I knew too much to work at bobbin carrying, and I aspired higher. I became discontented with my cheap job. I watched my chance. A helper in the weave room quit, and I was the first to apply for his place, and I got it at wages of 65 cents a day. But a year had gone. The point I wish to make here is that the bobbin boy who may read this, or any young fellow who is working at the smallest job in a cotton mill, should begin as soon as he takes his job to look about for knowledge of the work above him. Had I started in at once to seek knowledge pertaining to things beyond the duties of carrying bobbins, I might have received my first promotion at the end of six months, instead at the end of nearly a year.

If the bobbin boy is given a chance to look about him during off hours, thereby giving him a chance to learn something about the cotton business, the helper is given more. In the capacity of helper to the fixers I found that a great field was open for me to work in. Of course I had certain duties to perform, such as cleaning harnesses and reeds, but I usually got done with the work about two o'clock each day, and the rest of the time was practically my own. As helper, I was expected to assist the fixers in putting in warps, also to carry water, attend to the oil cans, sweep up messes of waste, and rubbish and the like, but these things did

not take up much time. I had three solid hours of my own each day. I noticed that the other helpers had about the same, but they seemed to like sitting on the bench, or, as one was in the habit of doing, going to sleep behind a row of looms next the wall out of sight, when not working at his regular work. I did the same to some extent. Had some one told me that I might enrich myself with knowledge, which would give me higher wages and a better place by devoting the spare hours to investigation, I might have done otherwise. But no one did, and I let considerable time slip away before I began to wonder if I was not capable of rising higher in my profession than simply cleaning harnesses. When the thought did come I took advantage of it, and began by devoting my spare hours to aiding the fixers in fixing looms.

But one must clean harnesses and reeds well before he can hope to rise to the position of fixer or section hand, and this cannot be done if he neglects his work. So it must be borne in mind by those who would rise, that good work must be done in their present occupation before promotion to a higher one will come. But I did not neglect my reeds and harnesses for the sake of acquiring knowledge of looms. I cleaned them well and replaced all broken needles in the harnesses, oiled the rods well where wire needles were used, and saw to it that the eyes were straight, the rods fixed tight and square, the frames true, sufficient heddle work on each, and in fact kept the harnesses in such order that the drawing-in girls had less chance to complain of my sets than of some others in the same room. The reeds I kept even, the splits uniform, the spaces between free from dirt and waste, the rods right, and always had them ready for the girl. The latter point is a good one, for the drawing-in girls are paid by the piece, and if they have to wait ten minutes for a reed or a set of harnesses, they are that much out, and if the affair occurs often they are liable to complain to the overseer. Two things, therefore, for the harness cleaner to hold in view if he aspires to rise: First, to keep his work up, his harnesses and reeds in good shape, and, secondly, to give his loafing time to investigation into the work of the next man above him.

As the man who wishes to rise upwards in his business must be pretty well posted on about everything relating to mills, the following information on sprinkler systems may be useful:

### AUTOMATIC SPRINKLERS.

Automatic sprinklers have become almost a necessity in factories. In cases where a system of sprinklers has been introduced with successful results, the failure may, as a rule, be traced to improper arrangement of the sprinkler heads and piping. Before considering the placing of the system, however, it is necessary to be familiar with the principal points of importance in the automatic sprinklers.

First comes the cost. Although the first cost of an automatic sprinkler system will amount to something of a figure for a large mill, it is not excessive, and when

the reduced rates of insurance, etc., are taken into account, there can be no reasonable objection to the expense of the apparatus.

#### THE TWO SYSTEMS.

There are two systems of sprinklers in use, the wet and the dry. The dry pipe is planned for buildings or positions which cannot be heated or kept sufficiently warm to prevent water from freezing in the pipes; but it is more difficult to construct and secure reliable and effective working, although the advantage of having the pipes free from water when not in use is of importance in cold or exposed positions.

The wet system is most commonly used, as there is an objection to the dry system in large mills, where the lines of piping are long, as it may take the water longer to flow from the tanks or other supply to the point of the fire, if the latter happens to be at the end of the system away from the tanks.

The objection has been overcome greatly of late by larger piping and a greater number of feed pipes from the water supply to the various parts of the system.

Some points besides the cost and the kind of system to adopt need consideration. The principal of these are:

1. The sprinkler heads must be reliable as to opening under heat, and in the proper distribution of the water.
2. A sufficient head or pressure of water must be secured in order to give a proper amount at the highest line of sprinklers.
3. Enough heads must be used so as to effectively cover the whole area.
4. Ample water storage or supply must be had.
5. A sufficient size of main lines and of supply pipes must be secured; and, lastly, the location of the sprinkler heads must extend to every part of the building, every floor and every room or closet.

#### THE SPRINKLER HEADS.

Corrosion is an enemy to metals. Hence a chief point is to obviate any chance for corrosion between the valve and its seat. Corrosion is apt to occur in many kinds of metal, especially when the valves are not opened for a long time. A very slight amount of corrosion may be enough to prevent a valve from opening even under heavy pressure. Furthermore, the device may fail to work when the solder melts, and the releasing device may fail to open on account of poor form; or the heads may open accidentally without the application of heat, which may cause almost as much loss as a slight fire, where stock will be damaged by water. Thus the matter of selecting proper sprinklers is hard. About the only way to come to any conclusion is by subjecting the heads to actual tests.

#### NUMBER OF HEADS TO USE.

The number of heads to be used in a system must be controlled by the capacity of each in cubic feet per minute, by the way in which the water is distributed, and by the height of the heads above the floor.

The aim, of course, is to have the water reach all parts of the area. A liberal number of heads should be used, and the piping must be of such size that with the given head or pressure, it will easily supply all of the water that the sprinkler heads can distribute. The ample sprinkler protection, and the right sort of piping, do no good without ample water storage or supply. Where tanks are depended upon, they should not be of less than 10,000 gallons capacity for ordinary situations.

It is good practice to have a duplex pump of such size as to supply the maximum quantity of water, and so connected that it can pump to the tank, or directly into the pipe system. The pump should be piped to the tank by an independent feed pipe. Gate valves should be so placed in the system that they can be readily got at and operated. When there is a secondary supply, there should be a check valve in the pipe from the tank to the system. All of the piping of a sprinkler system should be put up with long fittings and easy turns, thereby to reduce the friction of the water to the least amount, and also to prevent clogging. A mill thus protected is comparatively safe from fires.

#### GERMAN LINEN.

The first trace of flax cultivation and manufacture in Germany dates back to the Middle Ages. The linen spinning and weaving trade found all conditions necessary for an existence. The dampness of the climate, the purity of the water, the richness of the atmosphere in ozone, all these conditions helped the growth of the linen industry. In different parts of the country the cultivation of flax was carried on with great success. The spinning of the flax and the weaving of the linen went on well. The flax itself grew to a plant of perfection, being favored by the soil and the climate. More southern countries which tried the same system failed to achieve a success. As the spinning and weaving soon became popular, they were kept up in nearly every household and carried to much perfection.

As early as the eleventh century the manufacture of linens developed into an independent business, and art linens were exported for the first time. At the end of the fifteenth century the manufacture of linens was carried on very extensively. The city of Augsburg alone employed, for instance, more than four thousand looms. The linen industry of Silesia, to-day one of the largest German linen centres, rose to a flourishing position. It kept this position pretty well until the Thirty Years' War broke out, when the linen industry was ruined; and, although recovering somewhat, had to struggle hard to gain the lost ground.

At the end of the last century, the cultivation of flax and the linen trade had reached their highest point. The town of Hirshberg, for instance, exported at the latter part of the last century more than 350,000 pieces of linen, and more than 2,500 bales of yarn. During the first part of this century the value of linens exported from the province of Silesia alone amounted to about 13,000,000 dols. The great wars

during the first fifteen years of this century, the invention of machinery, which was employed first in England and Ireland, considerably checked the German industry. Nevertheless, to-day Silesia, Westphalia, Saxony and Hanover are great centres of the linen trade, and their fabrics compare favorably with those of other nations. The amount of flax grown in those districts has rather diminished, notwithstanding which Germany ranks second only to Russia in the amount of flax under cultivation, and with the large demand for hem-stitched and embroidered linens, in which Germany so greatly excels, and in which she has obtained such a great start in the world's trade, vast enlargements of her linen industries may be confidently looked for in the future.

#### THE BRITISH THREAD WAR.

The war which has again broken out among the British thread manufacturers, seems to be a war to the knife. The fight has become the subject of correspondence in the English trade papers. Arbitration of the dispute has been suggested and accepted in principle by the disputants, but they are not agreed as to what shall be the subject of arbitration. In one of their letters, the Coats say that they are willing for the arbitrators "to give their decision as to whether we are correct in asserting that Messrs. Chadwicks have for a long number of years undersold us for the evident purpose of taking our trade, as distinguished from selling at a lower price to protect theirs, and that the retaliatory measures of which they now complain are the outcome of their aggressive policy." The Chadwicks, in reply, accuse the Coats of publishing correspondence of a private and confidential nature, and proceed to say:

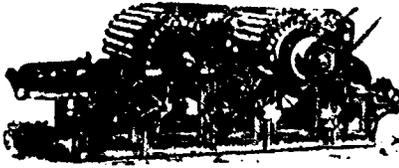
"We further wish to state that we have never said we considered legitimate competition coercive. We believe every firm in trade has a perfect right to take whatever price they choose, openly, for their standard brands, without being accused of unfair trading, but we do not think it fair to endeavor to injure a competitor by: 1. Publishing correspondence without the writer's consent. 2. Buying up, reticketing, and then reselling opponent's goods. 3. Selling under another name at prices below cost of production, specially to customers of competitors. These, and such as these, are the methods we understand your anonymous correspondents to refer to as 'coercive,' and we again repeat that they are amply justified in their opinions. We are glad to see that Messrs. Coats accept the principle of arbitration, but when they say 'the arbitrators to give their decision as to whether we are correct in asserting that Messrs. Chadwicks have for a long number of years undersold us for the evident purpose of taking our trade, as distinguished from selling at a lower price to protect theirs, and that the retaliatory measures of which they now complain are the outcome of their aggressive policy,' we maintain that this is not the question that needs solution. We shall not admit

that Messrs. Coats nor the Central Agency are entitled to the world's trade, as their proposition, quoted above, appears to indicate, but we will submit with pleasure to arbitration upon the actual points at issue. These in our opinion are: How the difficulties between ourselves and the Central Agency so far as regards cutting prices can be overcome, and prices fixed for, say, the next twelve months. Will Messrs. Coats say definitely whether the Central Agency will submit to arbitration or not upon the above named points? Messrs. Coats say our statement that we have offered to sell at level prices with them provided all the members of the Central Agency will do the same, is incorrect. We are compelled to repeat our statement that this offer was made and declined, and we can produce the evidence at the proper time should it become necessary. We have every desire to work harmoniously with our competitors, and as Messrs. Coats did not appear to appreciate our proposition of level prices, we now make a further suggestion, that pending any possible settlement by arbitration the Central Agency and ourselves should agree that no mark, whether a standard or fighting brand, shall be sold at a price more than 10 per cent. below the highest standard brand in the same market."

#### CARDINAL WOLSEY'S TAPESTRIES.

Cardinal Wolsey's fondness for tapestry amounted to a passion. Trusty agents ransacked the Continent to procure choice sets of arras, new and old, for the rising palace. The owner generally preferred scriptural subjects, as became a prince of the Church, but he also collected many hangings wrought with scenes from classic or mediæval story. Thus, while the walls of one chamber set forth the history of Samuel, or David or Esther, those of another glowed with the labors of Hercules, the woes of Priam, or the Romanite of the Rose. In the rooms where he received visitors the tapestries were changed once a week. No less than 280 beds were provided for strangers, with superb canopies and curtains of silk or velvet. There were bedsteads of alabaster, quilts of down and pillow cases embroidered with silk and gold. The chairs of state were covered with cloth of gold; the tables and cabinets were of the most costly woods. Much of the splendid furniture was emblazoned with his arms; everywhere was impressed the cardinal's hat, and the same magnificence appeared in the decorations and ornaments of the chapel.

ALEX. MILLVEIGH, of Dromore, Ireland, has invented a process for imparting a silky finish to fabrics of vegetable origin, such as cotton, linen, etc. It is a composition prepared by boiling flax seed and Iceland moss, and mixing same together in the proportion of one quart of the boiled preparation of flax seed to one pint of the boiled preparation of Iceland moss, to which, when mixed as above, is added one ounce of white vegetable wax, and half an ounce of spermaceti dissolved in boiling water.

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Lincettes, Shoe Goods, Window Hollands, Cor-  
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Knitting Yarns. Perfect Fitting Ladies' Ribbed Vests,  
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Canadian Colored Cotton Mills Co.**

SPRING, 1895

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CHEVIOT SUITINGS

FLANNELETTES

DRESS GOODS SKIRTINGS

OXFORDS SHIRTINGS COTTONADES

AWNINGS, TICKINGS, etc., etc.

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**MONTREAL and TORONTO**

GREAT BRITAIN exported to foreign countries in 1893 textile machinery to the value of about £5,248,000, the amount last year being £5,469,000. The United States took less in 1894 than in 1893, as also did South America, the East Indies, and Australia, but in the case of European countries there was a large increase, the figures in 1893 being £2,994,539, and in 1894, £3,642,486. The development of East India in textile manufactures is still going on upon a vast scale, however, as Great Britain shipped textile machinery there to the value of £767,608 in 1894.

JAPANESE industrial progress forms the subject of a report by the French Minister to Japan, published in the *Moniteur Officiel du Commerce*. For twenty-five years, he says, the Government of the Mikado has spared no efforts in developing national industry and in rendering Japan in every respect free from its present tributary relations with foreign countries. It may be said that there is no branch of industry which the Japanese have not tried to establish for themselves. Without doubt industry has made very remarkable progress during the last twenty years. Silk and cotton

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goods, made up clothing, hosiery, hats, umbrellas, shoes, leather goods, glassware, soap of all kinds, perfumery, drugs, cotton carpets, matches, papers called "European," porcelain and fine earthenware, preserved foods, horological articles and scientific instruments, electrical and steam machinery, carriages, furniture, cigarettes—in fact all articles usually consumed in Europe are to-day made in Japan. Each year witnesses the birth of a new industry, the aptitude of the workers and their low wages contributing to the prosperity of these enterprises.

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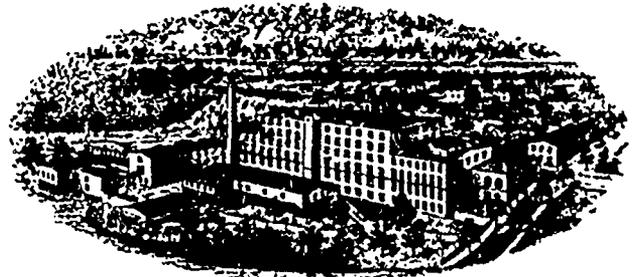
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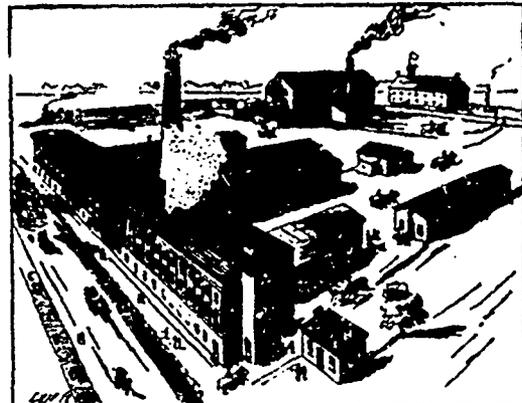
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**EXPORTS OF TEXTILES, GREAT BRITAIN TO CANADA.**

The following are the values in sterling money of the exports of wool and textile fabrics from Great Britain to Canada for July and the seven months ending July of this year and last:—

	Month of July.		Seven months ended July.	
	1894.	1895.	1894.	1895.
Raw Wool .....	311	1,216	4,439	4,783
Cotton Piece Goods ....	30,961	30,556	277,774	289,478
Jute Piece Goods .....	8,921	10,383	58,463	58,556
Linen Piece Goods ....	10,771	13,632	72,058	89,999
Silk Lace.....	2,599	184	24,449	17,866
" articles partly of ..	5,465	4,956	22,763	21,251
Woolen Fabrics.....	45,715	31,280	157,461	126,048
Worsted Fabrics .....	56,491	66,270	304,040	323,887
Carpets.....	6,211	4,931	119,477	114,363
Apparel and Slops.....	28,528	29,320	152,598	182,016
Haberdashery.....	7,036	11,543	100,338	81,803

THE Toronto wholesale millinery houses have fixed the Fall millinery openings for the 2nd September, the same date as those of Montreal. The wholesalers in both cities anticipate a good trade. Cheap excursions will be run to Montreal on August 30th and 31st, and September 2nd, good to return till September 17th.

THE strike in the Philadelphia carpet trade, by which 37 ingrain carpet factories, employing 3,000 hands, were closed, and that in the Dundee jute trade affecting 20,000 operatives, have been features of the foreign textile trades this month. In the former case the strike was for an advance, in the latter case against a reduction.

REPORTS of the enormous yield of grain in Manitoba and the North-West form pleasant reading, and the crop returns from the Dominion as a whole are such as to make the business outlook for Autumn more hopeful than anyone could have foreseen two months ago. The people of Canada have very much reason to thank the Giver of all Good for the blessings showered upon our country.

THERE is a good deal of imitation silk at present being offered in the trade. The best test of the genuineness of silk is by combustion. Artificial silk burns up quickly, almost like paper, and gives off a smell similar to burnt cotton, while the genuine article burns slowly and curls up while burning, giving an odour that is quite peculiar to it. Materials are now made in which a mixture is made of real and artificial silk so delicately woven that the most expert eye fails to detect the sham.

THE last annual report of the Flax Supply Association of Ireland has been issued, and shows that in the exports of yarn there is a small decrease of 5.9 per cent. on the previous year. The leading places are as follows: Spain, 29.2 per cent. decrease; Germany, 12.4 per cent. increase; Holland, 6.2 per cent. decrease; Belgium, 6.3 per cent. increase; and France, 4.2 per cent. decrease. The total exports of linen piece goods show an increase amounting to 24.5 per cent. In this arrangement the United States of America show an

increase of three-quarters of a million sterling, or 54.8 per cent. A contrast is also shown in the primary articles exported from the United Kingdom for the past six months with the same period in last year, during which period woolen yarn, woollens, silk and jute all show increases. Linen yarns decreased, but linen manufactures increased, while both cotton yarns and manufactures fell off. The acreage devoted to flax in Ireland increased last year 50 per cent. over 1893.

MOHAIR and other lustrous fabrics continue to be in urgent request in the dry goods market, and the demand has been so great that many English houses have announced that they cannot supply more of these goods, at any price, at present. Prices, consequently, have gone up still higher since last month. Whoever has a large stock of these goods in Canada can safely mark them up to twice or three times the former selling price. This sudden change in fashion will bring in an era of prosperity for the silk trade, which has for several years suffered a great deal, notwithstanding the hopes so often expressed of a revival.

A NEW tariff has been promulgated in Newfoundland. The only changes affecting the textile trades are that the duty on ready-made clothing has been raised from 30 per cent. to 35 per cent.; while unenumerated articles and articles not otherwise provided for will hereafter pay 30 per cent. instead of 25 per cent. as heretofore. This change, however, applied to general dry goods, for there were few items in the old tariff that were specifically enumerated. The chief of these enumerated articles, which remain as before, were: Ship's canvas, 10 per cent.; cordage, rope, and fishing tackle, 10 per cent.; sail cloth and tarpaulin, 10 per cent.; hosiery, shirts, and drawers, 30 per cent.; worsted and woolen yarns, 10 per cent.

AN English paper states that J. and P. Coats, Ltd., have purchased the extensive thread work of Kerr & Co., at Paisley. Kerr & Co.'s business was established some twenty years ago, and they have always done a good trade. For many years their N.M.T. (new machine thread) 6-cord was held in as much esteem as Coats' 6-cord. Kerr & Co. pushed their threads with great energy, and they were fortunate in having two or three most genial and persuasive travellers. This is a significant departure on the part of Coats, and it may be the beginning of a vast monopoly. At any rate, whether such a policy be good or bad, want of cash will not be a hindrance. Coats' reserve fund amounts to £650,000, and it is steadily being increased. Kerr & Co. have also a large factory in the States, and one for reeling thread in Canada, and they have decided to retain it in the meantime. It is reported that the price paid by the Coats is £150,000.

A CABLE despatch from Switzerland last month to the New York *World*, which announced that a company with a capital of \$1,500,000 was about to be formed in Montreal for the manufacture of dress fabrics from wood pulp, excited some interest in the trade. Enquiries made by this journal failed to discover the

patentists, and the report evidently refers to the artificial silk process invented by Dr. Lehner and described in recent numbers of the JOURNAL OF FABRICS. A company was formed in Bradford to manufacture the Lehner silk for Great Britain, and patents have been taken out in Canada and the United States with the intention of operating also in America. The Lehner artificial silk, made in Bradford, can be produced from vegetable fibres, such as cotton, etc., but is, we understand, best made from spruce pulp, in which case, if the factory were extensive, the Province of Quebec would be just the place for this industry in America, as raw material to clothe the world for generations can be had cheaply there. As described in the reports we have published, the Lehner silk is so like the genuine article that the difference cannot be told except by tests. It has been experimentally made in Bradford, and worked up into a large variety of fabrics. In the dyeing, weaving, and finishing of these no special treatment has been found necessary. It has been dyed in all imaginable shades and colors, and owing to the peculiar qualities of the material, it takes a dye more readily and gives a more brilliant effect than the natural article. In texture it is the equal of the best of Chinese and Italian silks, being soft and silken to the touch. It is expected that it will be used largely in combination with natural silk and cotton for producing brocaded effects. The promoters of the English company say it can be produced very cheaply, and it may therefore come into extensive use.

REFERENCE is made elsewhere to the enormous crop of flax seed in Manitoba this year. John Lowe, Deputy Minister of Agriculture at Ottawa, has paid a visit to the prairie province, and speaks as follows of this crop: "I was astounded at possibilities of the flax crop. Flax has been grown for seed by the Mennonites ever since they first settled in Manitoba in 1879, but it has not been largely grown by any other settlers, and in the case of the majority not at all. This year the official statement of the Manitoba Government is that there will be a yield of flax seed of over one and a quarter million bushels. Last year the Pembina Mennonites sold to the Raden mills, in Ontario, 100,000 bushels at \$1 per bushel. The price, however, went up higher during the summer, and many farmers in vain tried to get flax seed for sowing last spring. I think this crop has importance which is yet hardly fully realized. The fact is that it can be grown with success on the first breaking, and sown after all other grains are put in, without the same liability to damage from frost at harvest time, as wheat. I may mention as an object lesson that I saw one piece in the county of Morris of 160 acres, the whole of which last fall was unturned prairie soil. The seed was put in on the breaking with a disc shoe drill seeder, and the yield is variously estimated at 20 to 22 bushels per acre. The crop certainly looks very fine and even. It is well grown and well bolted out. I have it on the authority of a Mennonite accustomed to looking at flax fields, that this yield will be 22 bushels per acre. There is a flax mill in Winnipeg, another is being established in British Columbia,

and the demand from Ontario is at present much greater than the supply. With the present price of flax seed over \$1 a bushel—it was at times quoted during the present year as high as \$1.50—and with the capability of growing so large a crop on the first breaking, the land thereby being made ready for wheat the next year, instead of the old expensive process of breaking and backsetting, that is practically two operations of ploughing for the purpose of getting the land ready for a wheat crop, the importance of this intermediary crop of flax of the value I have above stated is something which cannot be very easily over-estimated as an alternative."

## Textile Design

### WOOLEN SUITING.



DESIGN.

Warp:—  
 2 ends Mid Grey (Black and White Mixture, spotted with White), 2/14's woolen.  
 1 end Pea Green 1/14, twisted to Green Olive 1/14.  
 2 ends Olive and White Mixture, spotted with White, 2/14's woolen.  
 1 end 2 threads coarse White worsted 2/36's, twisted to single 12's Crimson worsted, and looped with Crimson in twisting.  
 2 ends Mid Grey (as above), 2/14's woolen.  
 1 end Pea Green " "  
 2 ends Olive Mixture " "  
 1 end 2 threads coarse White worsted 2/26's, twisted to single 12's Blue, and looped with Blue in twisting.  
 1,240 ends.  
 20 " per inch.  
 20 picks " 3 picks Black 2/14's woolen.  
 10's slay. 1 pick Black twisted to 1/14's Brown and Green Mixture.  
 2 ends in a reed.  
 62 inches wide in the loom. Twist 5 runs per inch.  
 56 " when finished.

### WOOLEN TROUSERING.



DESIGN.

2,048 ends.  
 32 " per inch. Straight Draft.  
 30 picks " "  
 4 ends in a reed.  
 8's slay. Weight 24 ozs.  
 64 inches wide in the loom.  
 56 " when finished.  
 Warp :  
 12 ends Black, 2/24 skeins woolen Cheviot.  
 1 end Black, 24 skeins twisted to Orange, 24 skeins }  
 1 " White, 24 " " Green, 24 " }  
 1 " Black, 24 " " Orange, 24 " }  
 1 " White, 24 " " Crimson, 24 " }  
 1 " Black, 24 " " Orange.  
 1 " White, 24 " " Green.  
 1 " Black, 24 " " Orange.  
 1 " Black, 24 " " Crimson.  
 Woven all Light Grey Cheviot wett, 2/24 skeins woolen  
 Fancy yarns all 8 runs per inch.

### YARN DYEING AND BLEACHING.

Spun wool is divided into two great classes—worsted and woolen yarns. The wool from which the former is made is generally dyed in the slubbing or sliver condition, while in the latter case the loose wool is often dyed. At times, however, it is much more convenient to dye the yarns, and at the present day yarn dyeing is a pretty extensive trade. The difference between worsted and woolen yarns is due essentially to the arrangement of the fibres, those in worsteds being straightened out and laid parallel to each other, as it were, while in woolens they are arranged any way. One point of interest to dyers, says a writer in the *Dyer and Calico Printer*, is that woolen yarns contain more grease and oil than worsted yarns, for during the manufacture of the former oil is freely used, and if this is not removed from the fibre, then one cannot expect to dye the yarn evenly, hence the removal of this is the first work of the dyer.

Scouring.—Worsted yarns are generally scoured in a bath containing a good soluble soap, at a temperature of 100–120°F but

in scouring woolen yarns it is advisable to add a little soap ash and ammonia to this soap bath. There are various ways of performing the scouring operation, some scourers take two or three hanks and work them by hand in the soap lather, and then pass through a pair of squeezing rollers, others prefer to put the yarn on in sticks, and work in the same manner as if they were dyeing it, others, again, put the yarn on to one of the various types of yarn-dyeing machines and work in a soap bath for about fifteen minutes. Yarn-scouring machines especially made are now in use at some dye-houses. If the yarn is not sufficiently clean after being worked in the first bath, then it must be worked in another liquor until it is fit for the dyeing operation. After scouring, all the soap should be removed either by washing in tepid water or by putting it into a hydro-extractor and treating it with a jet of water.

**Stretching.**—On entering certain classes of worsted yarns into hot water, e.g., single yarns, and those made from the coarser wools and tightly twisted, it is found that they curl. Now, it has been noticed that if a dry wool fibre be stretched to any point not beyond its elastic limit, it will, on the pressure being released, immediately curl. It has also been noticed that if the fibre is wetted in hot water and dried while in a state of tension, it will have lost this curling property, which would be a great nuisance in the dyeing operation, for the chances are that it would be impossible to dye it anything like evenly. The last observation at once shows us a way in which to overcome the difficulty, and the machine used for this purpose is termed the stretching machine. It consists of two vertical screws connecting two horizontal bars, one above the other, the lower one being fixed, while the upper one moves upward or downward according to the direction in which the screws are turned. On each side of these horizontal bars is fixed a series of arms covered with zinc, on to which the yarn is placed, the hank, of course, being in contact with the corresponding arms of the two bars. When the machine has been filled—and it will hold about 50 pounds yarn—the upper bar is screwed up until the yarn is sufficiently tight, when the machine is immersed in boiling water and allowed to stay there for about a quarter of an hour. It is then taken out, and when it has cooled the pressure is released and the relative position of the hanks and arms changed, the yarn is again made tight, and the machine put back in the boiling water. If this were not done, it would be found that the portions of the hanks which had been in contact with the metallic arms, would still retain their curling property. The pressure of the yarn must not be released until the temperature has decreased very considerably, or else the yarn will curl again on being placed in hot water. Care must also be taken that too much pressure is not put on to the yarn, for if this is done the yarn will either be strained or broken. It is also necessary that the arms on which the hanks are placed should be covered with zinc, for if the yarn be placed in direct contact with iron, iron mould would be very frequent. Some yarn-stretchers add a little soap to their boiling water; this, however, has both its good and bad effects, for while it may help to cleanse the yarn, it may also slightly tender it. Yarns are sometimes stretched by putting into boiling water immediately after reeling, while still on the reel.

If soap has been used in the stretching operation, then the yarn will be quite clean enough for dyeing logwood black immediately it comes off the stretching machine, but if it is intended for colors, then it must be well scoured in a clean soap bath. In any case the excess of soap should be removed from the yarn; more particularly should this be done if it is to be dyed in a sour bath.

Yarn is generally dyed in rectangular pans, and is worked in a similar manner to slubbing except that the operations are carried out more quickly, and that the end sticks are after each turn placed in the middle, for if this was not done they would be dyed a much darker shade than those in the middle. In some dye-houses the yarn is turned by hand, but the quicker method is to turn by means of a breaching stick.

**Mordanting.**—In chroming yarn for colors it is very advisable to enter at a low temperature and to raise gradually to the boil. A very good mordant to use is 3 per cent. bichromate of potash and

2 per cent. tartar. The pan should be run about a foot up with water, which is then boiled, first the tartar is put in, and when that is dissolved the chrome is thrown in, the pan finally filled with cold water. The yarn is thus entered and turned six to eight times, during which period the temperature of the bath is being gently raised; it is then lifted and the bath raised to the boil, when the yarn is again entered and turned eight to twelve times. The yarn is again lifted, well washed in cold water, and is then ready for entering into the dye-bath. For dyeing logwood blacks 4 per cent. of bichromate of potash or soda are often used; some dyers prefer to use less chrome, and add a little vitriol (0.5 per cent to 1 per cent. sulphuric acid at 168° Tw.). In this case the yarn is entered at the boil, and hence it is not necessary to run off the pan as is the case in mordanting yarn in the manner first described.

Within the last few years sodium bichromate has been gradually replacing the corresponding potash salt, and, as it is considerably cheaper than the latter, it is desirable to use it when convenient. Some dyers use it alone, others mix the two together, while others again will use only the potash salt; in chroming yarn it is desirable to use the potash salt.

The yarn must be kept in motion from beginning to end of the dyeing and mordanting operations, and must not be allowed to stand, otherwise it is possible that one end of the hank may be dyed a darker shade than the other end, and if this should happen the yarn is practically spoiled for that shade. I believe, however, that in some parts of Yorkshire the yarns which are to be dyed black are "stood" in the chrome bath, turning, say, four to six times straight forward, then standing ten minutes and turning again, and so on, standing four periods of ten minutes each. The periods of time during which the yarn is at rest must be of equal duration, or the yarn will probably be "ended." Some of the looser makes of yarn, and single yarns especially, must be worked very carefully, for they are liable to become felted if worked roughly.

If the chromed yarns are not to be dyed immediately after mordanting, then they should be kept as much as possible out of the light, as the mordanted fibre is sensitive to the action of light, for whereas the unexposed fibre mordanted with chrome is of a yellowish character, exposed fibre would assume a greenish tone, and as these do not behave alike in the dye bath, this is often a cause of uneven dyeing. Great care should also be taken to wash all the superfluous chrome liquor out of the yarn after chroming, for if this is not done, and the yarn is allowed to dry, it will be found that these parts assume a very deep-yellow color, which appear to take up the color from the dye bath extremely slowly.

**Dyeing.**—When dyeing yarn with the alizarine coloring matters, the temperature of the dye bath to commence with should not exceed 100° F. To insure level colors, the yarn should be turned about six times at this temperature; lift and raise the temperature to 150° F., and turn other six times, when the yarn is again lifted and the dye bath raised to the boil, after which the yarn is entered and turned until the color seems to be absorbed from the dye bath. When making additions of coloring matter, it is best to cool down the bath slightly before entering the yarn, although this precaution is very often neglected. Some dyers will only enter once before raising to the boil. In yarn dyeing it is advisable to make a preliminary dyeing trial to ascertain, as near as possible, the exact amount of coloring matter required to give the shade. The use of alizarine coloring matters in wool dyeing is greatly facilitated by the addition of a little acetic acid to the dye bath, and if the water used is at all calcareous, an addition of acetic acid must be made. The presence of a little acetic acid, even when dyeing with distilled water, seems to have a beneficial effect.

When using the members of the rosaniline, nitro and amido-azo groups of dyestuffs, e.g., acid magenta, Victoria blue, fast blue, picric acid, acid yellow, acid orange etc., and also with indigo extract, and archil, and most other coloring matters which are used in dyeing fingering yarns, the yarn is often entered at the boil, it is wise to enter cool. By careful observation and experiment the dyer will soon ascertain what liberties he can take with each individual dyestuff that he uses.

**SIZING COTTONS**

The chief systems of sizing in England are slashing, dressing, oil-sizing, and hank-sizing.

The object of sizing is to strengthen the warp yarn by saturating it with a starchy substance, which strengthens the yarn and binds the fibres thus making it weave with less breakages. Other objects are to alter the feel of the cloth, and to add weight to it. For light sizing, in which the object is simply to strengthen the yarn, and not to increase its weight, only 10 to 15 per cent. is added to the weight. When 30 or 40 per cent. is added it is termed medium sizing, and for heavy sizing often 100 per cent. or more is added to the weight. The materials used for light sizing are: wheat flour, sago, farina or potato starch, rice flour or starch, maize. This is according to English practice.

Potato starch, or farina, is obtained from the tubers by reducing them to a pulp and mixing well with water. The water carries away the starch, and when allowed to stand the starch falls to the bottom of the vessel and the water can be drawn away. Farina is much used in all kinds of sizing, on account of its cheapness and the thickness of the paste it produces when boiled with water.

Sago is much used in light sizing, for which it is specially adapted. It is obtained from the pith of the sago palm, and made into flour by treating with water and drying on hot plates.

Maize is a starch obtained from the Indian corn, and is sometimes used for lightly sizing the finer counts of cotton yarns.

For light sizing it is not necessary to use anything but wheat flour, farina, or sago, and a small quantity of softening material, usually tallow or wax. Wheat flour is fermented before using by mixing it well with water (about equal weights of each) and leaving it for several weeks, occasionally stirring to keep the particles in suspension. When flour is fermented new bodies are formed which have a powerful influence in preventing mildew. The fermenting cistern is usually a large vessel 8 feet by 4 feet, in which are two revolving "dashers" to stir the flour and water when fermenting. Another similar cistern is used for scoring, called a "storage and diluting" cistern, into which the mixture is pumped after a few days, and left to further ferment. A force-pump is used for pumping from this to the mixing cistern, when the softening and weighting materials are added.

Softening materials are used to render the yarn more pliable. The articles mostly used for this purpose are tallow, wax, and soap, cocconut and palm oil.

The following mixtures are suitable for light sizing. They can be made to give a greater or less percentage according to the specific gravity of the mixture. For testing the specific gravity or density of the liquid, Twaddell's hydrometer is used. This instrument registers in degrees the density of the mixture, or the amount of matter in solution.

For light sizing:

Wheat flour .....	280 lbs.
Tallow .....	16 lbs.

Another mixture is:

Sago .....	100 lbs.
Farina .....	100 lbs.
Tallow .....	10 lbs.
Soap .....	4 lbs.

For sizing with sago, cocconut oil is often used as a softening material. A mixture of these two gives as good a size as anything for pure sizing.

Another mixture used for fine counts is:

Farina .....	100 lbs.
Wax .....	5 lbs.
Tallow .....	5 lbs.
1 gal. water to 1 lb. farina.	

Almost every manufacturer uses different proportions of ingredients. Many use wheat flour, farina, and sago mixed in various proportions, whilst a flour and farina mixture in the proportions of 2:1 is considered by some to give the best results. Farina and sago are also often mixed for light sizing in the proportion of two parts farina to one part sago. Wheat flour carries

through better than farina or sago, and is therefore more generally used for the heavier kinds of sizing.

Any of these mixtures may be altered as regards strength, etc., by increasing or diminishing their density. If a mixture twaddles 10 degrees at a given temperature, it may be strengthened for heavier cloths or higher picks by increasing the proportion of solid matter in the mixture until it twaddles 15 degrees at the same temperature.

For adding weight to the cloth china clay is the chief ingredient used. The material is found in deposits in Devonshire and Cornwall, and is used in large quantities for the purpose of weighting and filling cloth, more especially those manufactured for export to the Eastern markets.

For what is termed "medium" sizing, viz., adding about 30 to 50 per cent. to the weight of the cloth, the following materials are used in various proportions, the proportion given being an example

Flour ..	100 lbs.
Clay .....	30 to 40 lbs.
Tallow.....	15 lbs.
Chloride of magnesium.....	1 gal.
Chloride of zinc .....	½ gal

It will be noticed here that chloride of magnesium and chloride of zinc are introduced along with the china clay. Chloride of magnesium is a very powerful softener as well as a weighting material, and one of its uses is to prevent the gritty feel which the addition of clay alone would give to the cloth. It has a great affinity for water, and has thus the power of attracting moisture to the cloth in which it is used. It is this which really constitutes its softening effect.

Chloride of zinc is used to prevent mildew, which is a species of vegetable growth which often occurs in sized cloth which has been left damp, or which attracts moisture.

As chloride of magnesium attracts moisture, it is necessary to use an antiseptic which will counteract the tendency of the cloth to mildew. Chloride of zinc possesses valuable properties as an antiseptic, and therefore it is often used where chloride of magnesium is used in the size as a softening and weighting material.

If china clay is used for medium sizing without using chloride of magnesium, it is necessary to greatly increase the proportion of tallow or other softeners in the mixture. Thus for every 100 lbs of flour, 40 lbs. clay and perhaps 25 lbs. tallow would be used.

Chloride of calcium has a similar effect to chloride of magnesium, but is scarcely as powerful. It is used by many in light sizing mixtures to prevent the yarn becoming too brittle.

For heavy sizing the proportions of clay and mineral ingredients are increased. In some classes of low shirtings, etc., over 100 per cent. is added to the weight of the yarn. The adhesive material mostly used is wheat flour, as it carries the added materials better than farina or sago, but farina is sometimes used for sizing up to 100 per cent. Sometimes two parts clay to one of flour is used for very heavy sizing. For 100 per cent. sizing about the following proportions may be used—

Flour.....	100 lbs.
Clay.....	130 lbs.
Tallow.....	14 lbs.
Chloride of magnesium .....	5 gals
Chloride of zinc.....	2 gals

Coloring matters are used in size to give the yarn any desired tinge. Blue is the most common, as it neutralizes the yellowness of the cloth given in heavy sizing. Only a very small quantity is required. Sometimes yellow is used to give a brownish appearance to American yarn, making it appear more like the Egyptian. Numerous other materials are used for various other purposes in sizing. "Gloy" has been found useful for strengthening warps for very heavily picked cloths.—*From an English authority*

Cut this out and paste it in your hat until you have committed every word to memory, then give it to a friend: There's only one right way to advertise, and that is to hammer your name, your location, and your business so constantly, so insistently, and so thoroughly into the people's heads, that if they walk in their sleep they will instinctively turn their steps towards your store — *Brains*

### DIAGONAL MOHAIR CREPE.

AN INGENIOUS WEAVE WHICH PRODUCES A MOHAIR CREPE EFFECT—  
A BAYADERE TWILL WITH FANCY DESIGNS.

Diagonal mohair crepe is a weave of great ingenuity, which results in the production of a novelty combining the use of mohair with the crepe weave. It is a black piece dye, and apart from the material used the feature is a diagonal in two effects. One of these diagonals is a flat stripe running, as all diagonals do, at an angle across the piece, and situated between the crepe effects which also run in the same direction. The flat diagonal is used as a binder, and is a necessary structural feature of the fabric rather than an ornamental one. It shows in two narrow-floated lines running in the filling threads from end to end of the fabric. The crepe diagonal is of a totally different character, and represents a drawn surface showing an irregular tufted crepe effect.

These two effects are produced, says the *Dry Goods Economist*, by the way the materials composing the fabric are used. The warp threads are all a medium-sized worsted yarn spun from a good quality of merino wool. The filling threads are made up of the same quality and sized worsted yarns as the warps, and an equal number of threads of mohair yarn spun to a similar size as the worsted. The effects are produced entirely by the way the filling threads are manipulated, and to the difference in the twist and the mohair filling and worsted filling.

The worsted filling is twisted much more than is the mohair, so that these different twists give different tensions on the warp threads to draw them together and reduce the breadth of the fabric in a different way. If there was no guidance to these different tensions the effect would be a regular crepe, and no diagonal crepe effect would be produced. The flat diagonal acts to relieve the tightness of the worsted filling by being floated in two narrow picks at this place, while the less tightly twisted mohair is run in a regular weave among the warp threads, and thus use up more of their length, while the length of the worsted is relieved by the float.

From this point to where the crepe effect appears both worsted and mohair filling are knit into the warp threads in a regular weave, and produce a diagonal band of plain weave and fasten each firmly into the fabric, thus affording a solid place on which the tight worsted can get hold to drag. Two threads of mohair are thrown in and then two threads of the tight worsted. Where the crepe effect is desired the two threads of tight worsted are bound into the warp threads and the two threads of mohair are floated on the surface. In this way the weave proceeds from end to end of the fabric, and the dyeing and finishing complete the effects of the cloth.

When the undyed piece leaves the looms there is little of the crepon, and it is only when it touches the dye water or water of any description that the crepe effect really shows on the fabric. Everybody knows what boiling a wool shirt does to it, and this is precisely what happens to the worsted filling threads as soon as they touch water. Their greater twist shows at once in a greater tension on them, and they draw the fabric closer together at the places it was designed they should do. This is at the place where they were woven into the warp threads and the mohair was floated on the surface. The space between these warp threads is constructed so that the floated mohair shows in crimps on the surface and produces the crepe effect, and as the operation of the warp threads move in a progressive or diagonal order at the floats, this crepe effect partakes of the direction of an irregular diagonal.

The dyeing and finishing of the fabric are as simple as can be given to any fabric. There is no other effect to be produced, and practically all that is done to it is to dye it. When it leaves the loom it is first scoured to remove all grease and other impurities, and then it is taken to the dye vat and dyed black. All that remains is to set the color and prevent it from crocking, and this is accomplished by a liberal use of boiling water. After being placed on the tentering machine to give it uniform width and at the same time dried, it is rolled on boards and is ready for market.

The fabric is well made and will not slip, for the flat diagonal which acts as a binder prevents any irregularities of this kind. It

will wear as well as any crepe, and as it is a novelty of its kind caters to the popular mohair craze.

Among the large number of fancy weaves of solid-dyed dress-goods on the market for fall trade, selling under the name of mohair-jacquard, is one of such beautiful effect that its construction represents the best illustration of the manufacturer's art. It is of foreign production and may be distinguished from its fine bayadere twill being broken by fancy designs running through a large collection of patterns. More than two-thirds of the weight of the fabric is found in the warp threads, for these are all two-fold threads of medium size, spun from a fine quality of wool, except those introduced at the places where the bright lustre effect is necessary, and these are of the same size but spun from mohair. The filling threads are of a much smaller size, and are all single yarns spun from the same quality of wool as the warp threads. The bayadere rib is produced by throwing in this filling twice into the same shed of the warps, or throwing in the filling twice before the warps change their position, except such as have moved to form the figured design, and the selvaige warp to hold the pick of filling in its position.

The figure is produced by floating the warp and filling according to the design, as it is done in all other jacquard weaves. The mohair warp threads are introduced in bunches of five threads about every inch across the piece, and their purpose is to produce a sort of decorative effect on the surface. This decorative effect varies in the different designs, but in all the mohair threads are floated at the back of the piece and are not used as fabric builders when they are not required on the surface to decorate the design. In some patterns they are brought to the surface very little and their introduction into the fabric almost seems a waste of material, yet without them the specks of bright lustre would be absent and one of the beauties of the fabric would be lacking. The use of mohair varies considerably in the different patterns, for in some it is introduced on the surface more freely in figures, and in others the deviation from the regular weave in the floating of the warp threads in the figures allows for its less liberal use by producing a contrast which takes the place of the mohair's lustre.

### PARIS FASHIONS.

Nice attractive shows of silks likely to tempt visitors into laying out money in this way are made at most of the big shops, and they have taken the place of their summer fabrics, the time for selling which has passed. Among these silks plaids stand pre-eminent—plaids of a very fanciful description and often very gay in coloring. They are generally reproductions, in a lighter style of fabric, of the plaids worn by some of the most fashionable people at the beginning of the summer; there were costly kinds with satin stripes figuring also among them. The vogue for plaids during the autumn months promises to be almost as great as that of the blue tulle a short time back, and in all probability it will be as fleeting, although it may revive again in early spring to an extent. Besides plaid silks, the marchands de nouveautés are showing plaid woolen twills and poplins, for the most part in darker combinations than the silks, and either regular clear tartan or something closely allied to them. Plaid ribbons, that had been set aside somewhat for the summer, will be much used for trimming autumn hats with the addition of quill feathers and wings. In the gentlemen's hosiery shops plaid cravats, ties, handkerchiefs, and socks are very conspicuous, while the British emporiums are selling Highland capes like wildfire. These, with a certain amount of plain color mixed with the plaid, in the shape of lining or facings, seem to please the French customers best. The newest models I have seen have plain gilt instead of bone buttons. Plaid silk chemisettes sell well, and dressy blouses composed of plaid and plain silk or gauze chosen to match the principal color in the plaid. There is likely to be steady demand for this kind of bodice for sometime to come, although several of the couturiers have given out that they are going to set their face against parti-colored toilettes, or, at least, an absolute division of color at the waist. But the fads of the couturiers are frequently a good while before they influence the general public, while sometimes it happens that the general public chooses to think

fact for itself. I recall many occasions on which decisions in the highest quarters have been set at naught. Anyhow chemisettes will be needed, as most of the autumn jackets are intended to be worn open in front.

Every shop of importance has its alpaca window, this material being in immense request, and the specimens of ready-made toilettes invariably include a few composed either of grey, navy blue, white, or black alpaca, these being the colors in which it is specially favored. There will probably be quite a rage for black alpaca costumes, especially as soon as the autumn has fairly commenced, though, of course, it cannot be of very long duration, since it is not so well fitted for wear in cold weather.

Some new makes in buttons have been introduced, while all these very handsome inlaid ivory and mother-of-pearl, cut steel, waste gold, and bejewelled buttons will be maintained. Silk buttons covered with passementerie are among the novelties; for trimming braided and pink ornamented garments they are particularly applicable, but they do not wear nearly so well as those in a hard substance. Great demands for braid of all sorts are expected, as braiding promises to be a most favorite method of decoration next season. Many of the new braids are decidedly fanciful, and will lend themselves to the composition of ornate designs worked out with embroidery. Much of the passementerie is woven in lace-like patterns, crochet and tatting being reproduced in black and colored silks, and also guipure designs. Frequently the ruches of appliqué passementerie are composed of lace arabesques, sometimes beaded with a jet. The collars and other ornaments in écaru guipure still find a ready sale, but they are gradually being set aside for more dainty arrangements of embroidered muslins and narrow lace which will be worn all through the winter, collars turned down over the round collar of the dress or fastened on to it, and finished with a little frilling at the top, cuffs to correspond being made in the same way, which are worn turned back or encircling the wrist of the sleeve, which will be cut very long.

There is little doubt but what we are on the eve of a revolution in sleeves, or at least, having reached the culminating point of extravagance, that we shall retrograde even faster than we advanced. Sleeves stiffened out with crinoline already begin to look quite old-fashioned, and we wonder how we could have stood such monstrosities. Almost the same amount of material, however, is required to make the new sleeves, as they are still very full, only the fullness is not supported from beneath, and is arranged in close gathers set into a smaller armhole. Much the same process is being carried out in the skirts, which are not stiffened out so much, but fall in natural folds, the narrow band of crinoline introduced into the hem being just enough to prevent it from impeding the movements of the wearer. So far as we can see at present, crinoline and buckram will be used next season with much greater moderation than last. As for aluminum and steel springs, they have been tried and found wanting, therefore it is not likely that the favor which I am told is shown to them in London will be lasting enough to have any important effect on the sale.—*Warehouseman and Draper.*

### THE IRISH WOOLEN TRADE.

Not for a long period have the woolen mills of Ireland been so generally busy as they have been for some time past in preparation and execution of orders for the coming season's trade; and not only are there no symptoms of the pressure of business being relaxed, but, as a rule, the factories have sufficient work before them to keep them fully engaged for some months to come. That this satisfactory condition of things is general there is every reason to believe; indeed, some of the leading manufacturers have been obliged to decline offered business outside of the leading lines of tweeds and friezes. During the present month the first deliveries of winter woolens will have been made to the wholesale warehousemen, who, it is said, are in a condition of marked readiness to receive them, the unusually prolonged summer demand having caused a healthy reduction of existing stocks. Of the spring purchases, and subsequent repeats, a very small proportion, comparatively speaking, remains to be carried over into the coming half-year, and in the hands of wholesale and retail alike satisfactory clearances have been made.

For the coming winter, as has been foreshadowed in previous issues, there has been more of a run upon the better qualities of cheviot tweeds than has been the case for some seasons past, and there is also a gratifying demand for the medium and better qualities of saxonomies. With this desirable tendency of demand, and the low rates ruling in the wool market, it would naturally be supposed that the trade was much more profitable than when wool was dearer and low-priced goods more sought after; notwithstanding which, the usual complaints as to insufficient profits and cutting of prices are heard on every hand.

For overcoatings, six-quarter chevots are in strong demand, and smooth-faced, soft finished friezes are selling freely. These latter have been much in vogue for several seasons back, and seem to have taken a permanently high place in public estimation. They richly merit the favor bestowed upon them, each successive season witnessing a marked improvement in the texture and finish of the goods. Nap friezes are in renewed request, and are likely to meet with an extensive sale during the season. For driving overcoats, and many descriptions of outdoor wraps, it would be difficult to find more suitable material, whether as regards comfort, durability, or imperviousness to weather. Napped frieze overcoats are, however, far from handsome; encased in them, peers and peasants are not easily distinguishable. The manufacturer who can produce a fabric with the good qualities of napped frieze, and some measure of sight-lines, at the same time, will be a public benefactor. In the North of Ireland the woolen trade is extending gradually, though slowly. At Ballymena additional looms have been erected, and at the Lough Neagh mills, where some handsome houses for the employes have been recently built, a considerable extension is being entered upon in order to permit of additional machinery being set up. The project referred to in a previous issue, entertained by an English syndicate, of building a woolen mill in Belfast, is now said to be abandoned. Which abandonment—if it be true that the idea was to make shoddy goods for the sloppers—is less a cause of regret than of congratulation. The scheme could only have ended in disaster to its promoters and injury to the Irish trade, which, up to the present, has been free of all taint of shoddy.—*Irish Textile Journal.*

### THE FUTURE OF THE CHINA TRADE.

Under the terms of the treaty concluded between China and Japan, the importation into the Chinese Empire of machinery by foreigners is authorized, and it is expected that the concession will be followed by a very important mill-building movement. The whole plant for a cotton mill was some time lying at Shanghai waiting for the permit referred to. Under these circumstances, says an English report, it becomes important to examine into the possibilities opened out by the new enterprises spoken of as likely to be undertaken in the most thickly-populated nation in the world. An examination of the returns of the Chinese Imperial Maritime Customs fails to reveal anything to relieve the anxiety which manufacturers in Lancashire may have felt as to the future of their trade with the Far East. From the introductory "Report on the Foreign Trade of China for the year 1894," it appears the fiscal results, in spite of numerous adverse influences under which commerce labored, compared very favorably with former years. As regards piece goods and yarn the value was seven million taels more than the previous year. The total quantity, however, advanced insignificantly, "although shirtings and American drills and sheetings exhibit a considerable increase, but it would be delusive to infer from these improved returns of certain classes of goods that the falling-off caused by the appreciation of gold, which characterized the trade in cottons of the previous twelve months, had been arrested." There is small doubt that, through the higher cost, the consumption of Manchester goods is becoming more and more restricted, and this will be more clearly seen in future when there is an absence of a demand for special requirements, such as army supplies, which "may have created a temporary abnormal stimulus and induced larger orders." According to nearly all the reports the effects of the war appear to have been generally felt, although many of the stations are far removed from the actual scene of hostilities. As a matter of fact, only the one port, Newchwang, has been what may be called actually in, and

then only at the end of the year under review, when trade had to be suspended anyhow by the natural closing of its approaches with ice, but Japan, one of the best and most promising markets for its produce, was cut off early in August. This report opens in such glowing terms that one cannot help contemplating what a sad contrast the next will present. "The year 1894 opened with bright prospects for the trade of Shanghai. During the previous year mercantile success had been general, and traders of all kinds were stimulated in consequence to fresh efforts for a further share of prosperity. The materials requisite for attaining their desired end were also well at hand. A bountiful harvest and a favorable season had brought to the port, and the depôts from which the port's supplies were drawn, a plentiful accumulation of the produce on which the prosperity of this place mainly depends, and from all quarters news came pouring in of an ample demand." The ultimate result, as regards the importation of cotton piece-goods, was a falling off in every important item, excepting shirtings, "which find a ready sale, owing to their cheapness and their capability of being dyed in colors that please the native eye." Both American drills and sheetings show an increase on the previous year, but taking these makes together with English and Dutch, the total certainly exhibits a decline, and contrasts very unfavorably with the trade of three or four years before. War checked what promised to be a strong opposition to English and American manufactures—namely, the importation of Japanese cotton crapes, T cloths, drills, and yarn, but, as the report says, "the fact of their being manufactured and sent to this country must be taken as another proof that the inevitable competition on Eastern soil for the practically unlimited piece goods markets of the East has already made some progress, and, if present conditions continue, must prove disastrous to the textile industries of the gold-producing countries of the West."

#### DYESTUFF NOTES.

The *Farbenfabriken* have just issued a new shade card, showing 63 shades of their substantive or direct cotton colors, which can be had on application to the agents for Canada, the Dominion Dyewood and Chemical Co., Toronto.

The Dominion Dyewood and Chemical Co. report doing good business in their new grade of Logwood Extract, Mucklow's S C brand, which is specially useful for wool dyeing, taking the place of logwood chips.

The quality of Mucklow's Extracts and Dyewoods is already well known in Canada. The Dominion Dyewood and Chemical Co., Toronto, are the sole agents for Canada.

*New Alizarine Dyestuffs*—The *Farbenfabriken*, vormals Friedr. Bayer & Co., Liberfeld, have just placed on the market a new alizarine product specially suited for printing, etc.

*Brilliant Alizarine Blue S P.*—This color is faster to light than indigo, and produces a brighter shade than the ordinary alizarine blues.

*Alizarine Blue Black B (Patented)*—This new product is exceedingly fast to light, and the best color for obtaining light fashion shades. Can also be dyed in copper vessels without injurious results. For further particulars, address the Dominion Dyewood and Chemical Co., Toronto.

*New Aniline Dyestuffs*—The *Farbenfabriken*, vorm. Friedr. Bayer & Co., of Elberfeld, have lately brought out some new dyestuffs of some interest. The direct violets for cotton which have hitherto been brought out have not been notable for brilliance of color and could not by any means compare with the Methyl Violets in beauty of tone, but

*Benzo-Violet R* goes a long way in this direction, and by its means some fine violet shades can be dyed, ranging from a pure lavender shade to a deep violet. It is dyed like all the benzo colors from a bath of soap and soda, or Glauber's salt and soap, the shades obtained being level and of a good tone. They are fast to dilute acids, strong acids turn them a little bluer, alkalis turn

them pink, while they are quite fast to soaping. In these respects Benzo-Violet R will compare well with most other coloring matters, and will no doubt be found extremely useful in dyeing. We must now notice the new basic coloring matters which have been placed on the market by the same firm, these are, Rhoduline Red G, and B, and Violet. They are particularly adapted for cotton dyeing, but are also applicable to jute. For calico printing they will also be found useful.

*Rhoduline Red B.*—Dyes from pale pink to deep crimson shades of considerable intensity and brightness on cotton which has been mordanted with tannin and tartar emetic, 2 to 2½ per cent. of dyestuff being sufficient for the deepest shades, while even as little as 1 oz. will give a good shade of pink. The shades so obtained are quite fast to soaping, are turned violet by dilute acids, blue by strong acids, and browns by alkalis.

*Rhoduline Red G.*—Dyes from bright rose pink to deep scarlet red shades, which have the merit of being very bright, comparable with the Rhodamines in that respect. Using 2 to 2½ per cent. of dyestuff, the full shades are readily obtainable, while ¾ to 1 oz. is sufficient to give good pink. The shades so dyed are fast to strong soaping; they are turned violet by dilute acids, blue by strong acids, brown by alkalis.

*Rhoduline Violet.*—This produces lavender to reddish violet shades on cotton, the shades being comparable with those obtained from the red shades of Methyl Violet. The shades dyed with Rhoduline Violet are quite fast to soaping; dilute acids turn them violet; strong acids turn them blue, while alkalis turn them brown. While the best process of dyeing cotton is that of mordanting, yet some fairly good shades can be obtained on unmordanted cotton. These, however, are not quite so fast as those on mordanted cotton. The Rhodulines may also be dyed on wool and silk from neutral baths, when some fine bright shades are obtained; thus the new products will be found useful by the wool or silk dyer.

*Sulfon-Black G and R (Patented).*—These new Blacks are specially adapted for combinations for Sulfon-Cyanines, well known fast navy blues. Sulfon-Blacks G and R are similar in their properties to Sulfon-Cyanines, they resist equally well, alkalis, perspiration, acids and carbonization, and are faster to light than a Logwood Black.

*Diazo-Red Blue 3 R (Patented).*—Next to Black, the most important color, and the one most in use, is Blue.

The *Farbenfabriken* have just invented a new Blue known as *Diazo-Red Blue 3 R*, which, when developed with beta-naphthol, gives a full reddish blue. After diazotising and developing with the well-known developer, beta-naphthol, which is very much in favor with dyers, especially on account of its low price, a full red navy blue is obtained. This will be found very fast to alkali and acid, whilst it has great fastness to light and washing. On account of its fastness to acid, cotton dyed with this blue may be woven with wool and the wool afterwards dyed in an acid bath. Such yarns may be used for different purposes of warp, and possess the advantage over indigo that after remaining for a long time in an acid bath, they do not become lighter and grey like indigo. *Diazo-Red Blue 3 R* is only suitable for cotton or mixed goods. For samples and further particulars, address the Dominion Dyewood and Chemical Co., Toronto, sole agents for Canada.

THE ribbon departments have been very active in London, Eng. The advance in prices, so long looming in the distance, appears to be approaching, and it is in view of this that so many orders have been given for immediate and future delivery. The run has been chiefly upon black satin and failles, great quantities of which have changed hands.

WM. COYNE, an old dry goods merchant of St. Thomas, Ont., dropped dead at the G.T.R. station at Ingersoll on the 2nd inst. He had just alighted from the car on a visit to his son, Isaac Coyne, merchant in Ingersoll, and was walking along the platform with his wife when he fell and expired without a word. Deceased, who was 50 years old, had been subject to fainting spells. Mr. Coyne was much respected and widely known in the trade.

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It gives lists of all Manufacturers' Agents, Commission Merchants and Wholesale and Retail Dealers in the Dry Goods and kindred trades of Canada. Also, Statistics, Tables of Imports and Exports, Customs Tariffs of Canada, Newfoundland and the United States, the Canadian Boards of Trade and Textile Associations, and other information. The Fourth Edition will also include the Trade of Newfoundland.

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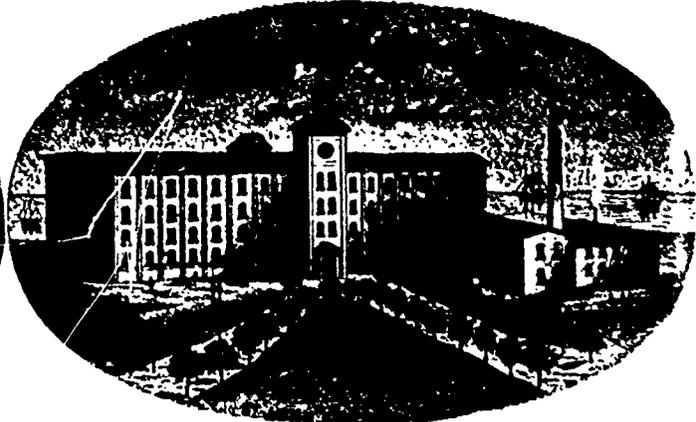
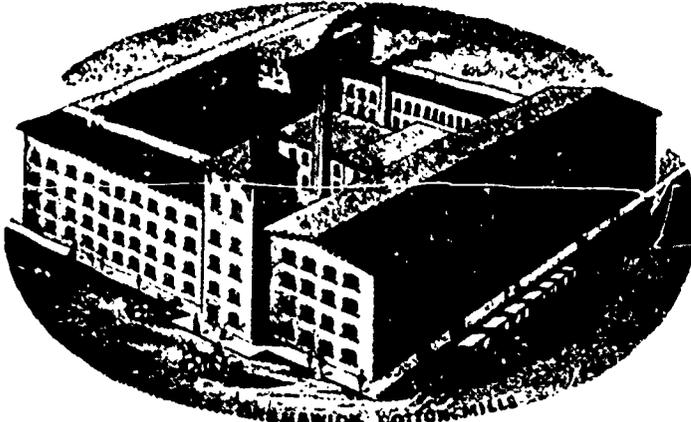
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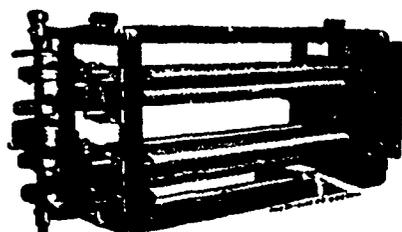
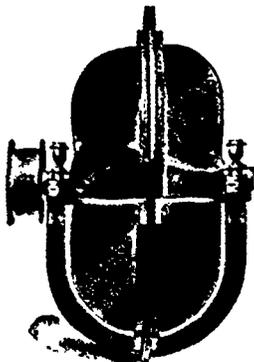
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## Foreign Textile Centres

**MANCHESTER**—The last week of July opened with increased steadiness in the raw cotton market, which subsequently developed into an upward movement. This was partly attributed to a dual reading of Neill's circular. In yarns the week was a very unsatisfactory one for spinners. The demand continued slow in all departments, and prices the most unsatisfactory. The margin has been so reduced that it can go down no further without producers in preference stopping machinery. Both for home and export the demand was of the smallest. There is no improvement in the cloth market. There was a fair volume of inquiry from India, but the prices permitted only the slightest amount to be brought to book.

**BRADFORD**.—The concluding days of the London wool sales have disclosed not only that the tone continued firm to the end, but also that foreign buyers both from France and Germany have recently shown an increasing desire to obtain their full share of the wool offered, and in consequence have competed keenly, especially for medium scoured greasy kinds. The Americans have remained as a rule to the end of the sales, and have always been buyers of high-class wools, lustrous crossbreds, and the better classes of Cape wools. The representatives of the West Riding of Yorkshire have, however, secured quite as much wool as usual. This is distinctly evidenced by the fact that the railways doing the principal part of the carrying trade from London have been quite unable to deal with the huge influx of wool without working during the Sunday, and all the railway wool storage warehouses are crammed. Although holders of merino wools are very firm, prices here have as yet hardly reached the level shown in London, and the trade in cross-bred wools is perhaps a little quieter. There is little pure lustre wool offering here, but for very nice lots a still further advance could now be obtained, and even demi-lustre wools show signs of hardening prices. In mohair, as arrangements have now been largely completed in every department of the trade for so far ahead, there is little actual business doing at the present time, but inquiries both here and abroad have recently been made, which are thought may portend another advance in prices. In the yarn trade, although merchants are receiving a fair number of miscellaneous orders from abroad, they find the placing of orders for early delivery a very difficult matter, and spinners just now are not very easy to deal with. The rush on mohair and other bright yarns has tempted some outsiders into the trade, who are placing yarns of so imperfect a description upon the market that permanent injury to the bright trade may result. In bright dress goods, says a London paper's correspondent here, it is most encouraging to find that the highest class goods are still most in demand, and at the present time the supply of very good plain blacks and silver grey plain mohairs is altogether unequal to the demand. In Sicilians also there have been numerous inquiries for pure whites, pinks, and Nile blues in heavy makes for coat and robe costumes, but now Goodwood is over matters in this direction may be quieter. Both for the United States, Paris, and London, the large retail establishments are already making their preparations for a supply of bright dress material for 1896, and this fact probably indicates that stiff fabrics of the moreen character will also be required for underskirts. Crépons of a bright character are still selling well, and are being made very largely for the coming winter wear, but I think that Amazons and clothly materials have been in rather less demand, and are being replaced to some extent by neat worsted coating styles in dress weights.

**LEEDS**.—In Leeds, the past spring season has been a very good one for the clothing trade, and travelers, who are now busy showing next season's goods, report that notwithstanding the interference of the elections, the prospects for the winter trade are excellent. There is less demand for the rougher serges, but smoother, closer makes are selling well, and dark tweeds are in good demand. Both for the home markets and America the demand keeps up well for worsted coatings, and all makers of these goods are well employed. The weavers strike in Guiseley is still

unsettled, and should a settlement not be speedily arrived at, it is feared the trade of this district may be permanently injured. In Dewsbury and Batley the heavy woollen trade remains brisk, and seems likely to do so up to the close of the year, as orders for the spring are coming in freely. Makers of serges, presidents, and some classes of fancy goods are generally well under order, both for the home and shipping markets. Blanket makers report that although the home trade is rather quieter, there is a better shipping demand for medium sorts. In flannels, now the effects of the elections are passing away, drapers are devoting their attention to making arrangements, and fearing that dearer wool may mean an advance, are operating with considerable freedom. Manufacturers will deliver largely in August and September, and report merchants more willing than usual to take in their goods.

**KIDDERMINSTER**.—This is a quite featureless market. The outcome of last half year's carpet trade shows some increase in yardage, but prices have remained at a profitless point. The advance in yarns, which may be quoted as from 4 to 10. per lb., has almost stopped sales for the present. Manufacturers are fairly well covered, and are chary of paying more for any of their materials. On the other hand spinners are full of business, and quite indifferent to offers below their full quotations.

**NOTTINGHAM**—The lace trade is still very unsatisfactory, and a good deal of machinery is idle. A few novelties have been brought out, but conditions are not such as to encourage manufacturers to undergo the risk of producing new goods. Notwithstanding diminished production, stocks are, in some instances, becoming larger. Valenciennes, Irish guipure, point de Paris, and a few other varieties of cotton millinery laces sell moderately well. Very little is being done in silk guipure, Spanish, or blonde laces. There is no improvement in the embroidery edging trade. Manufacturers of made-up goods are steadily engaged. The demand for curtains, window-blinds, antimacassars, vitrage nets, etc., is inactive, and there is a plentiful supply of the goods. The plain net department is quiet and unchanged. A steady business is being done in some classes of hosiery.

**ROCHDALE**.—There is an improvement in the flannel trade here. Manufacturers are pressing for the advance in the price of flannel in consequence of the increased rates ruling for wool. They are confident that a fair volume of trade will be transacted in flannel before the year closes, and their further reduced profits by the increased value of wool compel them to be increasingly firm in their quotations.

**LEICESTER**—Work in the hose branch of the Leicester hosiery trade has been very generally resumed, after a stoppage of three weeks, affecting about three thousand operatives. The hands in the other departments will be again employed as soon as the requisite price lists can be prepared and sanctioned. It is, however, expected that a week or two must elapse before the whole of the factories are again in full activity.

**DUNDEE**.—Jute is easier for forward sailing, but with a large crop in sight there is little disposition yet on the part of the large buyers to operate. For October firsts £10 15s is named. Yarns are steady at 1s. 2½d., say for 8 lb. common cops, 1s 3½d. for warps, and 1s. 6d. for 8 lb. good yarn. In hessians a large trade has been again done for South America in fine goods, and the price is steady. Flax is quiet, and tows are offering a shade easier, but still pounds out of proportion to flax prices. There is nothing of consequence doing. Flax yarns are quiet, but not lower, and there is again inquiry for tow welfts, but at prices spinners refuse to entertain. Tows, it would seem, must give way a little more before business is possible. Linens are in fair request. Fife, long so busy, is less active than Forfarshire. Belfast, with extraordinary push with new designs and fine finish, is running Fifeshire hard in the race for supremacy in fine linens. There is more doing in canvas. Arbroath starts after the holidays on full time. The fancy jute trade is brisk. The new designs again lead, and the best makers are well engaged. There is a good deal doing in twines, ropes and cords. This branch of the trade continues to extend.

**GLASGOW**.—The excitement caused by the general election has died down in the South of Scotland, as elsewhere, and manufac-

urers are once more applying themselves to their onerous duties. A good many confirmations of spring orders have been booked, and these are taken to indicate a revival of trade. Generally speaking, the tweed manufacturers could produce more stuff, but the great majority of the factories are paving their way. It is anticipated that the advance in the price of wool will improve matters, more especially as it is expected that wool will touch a higher figure. Spinners are grumbling at the price of yarn, but they have a fair number of orders on hand. Some of the linen factories at Kirkcaldy are reported to be fairly well employed, while others can do little more than keep their machinery going. In one or two cases many looms are idle. Considerable activity prevails, however, at the floorcloth and linoleum factories, there being a number of good orders on hand. A quiet tone prevails in the Glasgow cotton yarn market, and inquiries are not numerous. The South of Scotland tweed manufacturers are now finding orders coming to hand more freely for autumn and winter goods. The advance in the price of wools has led to more looms being put in motion in some mills, as yarns have not been advanced to the same extent as the raw material. Cheviot makes are not so much asked for by wholesale or retail buyers, but this falling off is thought likely to be merely temporary. Various district or "fair" wool sales have taken place during the week in the southern counties of Scotland, and have been productive of a good demand for all classes of wools. In some cases substantial advances have been paid, varying from 1d. to 1½d. per lb.

**BELFAST.**—In manufacturing quarters the trade for July has not been marked by any special features. Demand for all classes of linens has been quietly steady and progressive. A rough-and-ready method of estimating the condition of the export trade is furnished by the quarterly report of the harbor commissioners, which shows that the tonnage of linen goods sent out amounts to an increase of fully thirty per cent. above the amount for the corresponding months in 1894. The value of this excess is quite another matter. To ascertain this one must await the compilation of further statistics, and in the matter of profit it is to be feared that results will not be in proportion to the volume of business done. Flax spinners of the regular run of counts are not finding ready disposal, and are heard to complain of the still deferred improvement for which they have long waited. It has been difficult to restrain production within the limits of present requirements, and the abnormally low rates have not made the task any easier, nor have they apparently assisted materially in reducing stocks.

**CREVELD.**—The demand for light silk fabrics for ready consumption has been gradually lessening, and the dead season has been nearly reached. Wholesale houses are now engaged in deliveries and preparing for autumn business. The activity that results from this compensates for the decrease in the demand for summer fabrics. The situation in the silk industry is satisfactory, and the first half of the year has closed well. Prospects for the second half of 1895 are very encouraging. Compared with the situation as it was at the corresponding time of 1894, the silk industry and trade of this district are in a much more prosperous condition. The greater activity in the production has caused a gradual advance in weaving rates, which have risen naturally and seemingly without effort on the part of the weavers. Manufacturers themselves are obtaining better results. Whether it is due to the better demand for goods or to the higher raw material, they can now secure better prices for their goods. It is no longer a question of obtaining work at any price, but of obtaining a right price for the goods. While there is no branch of the industry in which results may be said to be actually brilliant, the whole situation has improved. All silk fabrics for dress and trimming purposes are still in the lead. Wholesale buyers have made extensive preparations for autumn in these, expecting that the demand will be large. Silks for evening wear are being ordered, and manufacturers have already done a good business in them for future delivery. The improvement that has occurred this year in the consumption of dress and trimming silks has caused a sort of evolution as far as wholesale distributors are concerned. As these distributors have devoted more attention to this branch of the business, and with satisfactory results to

themselves, they have been less anxious to retain their hold on the trade in cloaking supplies. The greater importance acquired by the Berlin market as a consumer of cloaking silks has also facilitated this evolution, and more business is now done direct with the Berlin houses. Berlin is now buying rather freely, but only in cheaper goods. Half-silk satin de chine for linings, and serges and cheap plaids is selling. In velvet and plushes a good demand is reported for home consumption, especially in mantle plushes. The demand for export is improving. Changeable velvets are good.

**ZURICH.**—The silk goods market is nearly in the dead season, but buyers have been operating on a rather satisfactory scale for this time of the year. This is due to the advance occurring in the raw material, and which has induced buyers to secure parcels of goods for ready delivery, and to place orders for late autumn and spring before prices of the manufactured article are raised. Taffetas continue in the lead. Damassés remain in favor. Black silks are selling, and black duchesse, rhadimir, and merveilleux have found buyers. Taffeta in cheap qualities has found a good market in black. Striped taffetas with white ground have sold well.

### LITERARY NOTES.

The August, or mid-summer number, of *The Canadian Magazine* is well illustrated, and contains an excellent variety of reading matter. Two of the stories awarded prizes in the recent prize competition are included in the excellent fiction in which the number abounds. Among other contributions are "A Pioneer Marriage in Alabama," by Francis E. Herring; "A Potlach Dance" (illustrated), by David Owen Lewis; "School in an Air Castle"—a novel view of the school question of the day—by Watson Griffin; "Bigamy under the Canadian Code," by R. J. Wicksteed, LL.D.; "Experiences in the North-West," by G. M. Standing; "Reminiscences of Bench and Bar," by C. A. Darand; "Scipio's Dream," translated by Arthur Harvey, F.R.S.C.; "Woman Suffrage in Canada" (illustrated), by Edith M. Luke; "Ontario Petroleum and its Products," by L. Clayton Campbell; "The New English Ministry" (illustrated), by Thos. E. Champion; "Through Okanagan and Kootenay" (illustrated), by Constance Lindsay; "Idle Days, the Lake, and a Little Music" (illustrated), by Bernard McEvoy; "The Abandoned Firm," and several other poems are of merit. The prize stories by Stuart Livingston and Clifford Smith, as well as the illustrated story by R. F. Dixon, are striking in plot and treatment.

*The Canadian Oddfellow*, the official organ of the Canadian Order of Oddfellows, begins this month its second year, and has made an excellent record under the able management of Horace Davis, P.G. Mr. Davis is another example of the success of young men in journalism, and the present prospects of this interesting class paper are due to his energy and ability. It is published monthly at Montreal, the subscription being only 50 cents a year.

The high-lights of the *Midsummer Holiday Century* are three beautiful wood-engravings by Cole, after celebrated pictures by Rubens, a fully illustrated description, by Philo N. McGiffin, of the battle of the Yula River between the Japanese and Chinese fleets, in which the writer commanded the Chinese ironclad "Chen Yuen;" a comment on this memorable engagement by the distinguished naval critic, Capt. A. T. Mahan, entitled "Lessons from the Yula Fight," a paper by Nordau, author of "Degeneration," on the criticism of that book, a biographical sketch in the Notable Women series of Sonya Kovalevsky, the Russian mathematician, whose recollections and biography have just been published, an engaging illustrated instalment of Sloane's *Life of Napoleon*, including the second campaign in Italy and the battle of Marengo, with maps, battle scenes, and portraits made especially for this work, a continuation of "Casa Braccio," Marion Crawford's tragic novel, with an illustration by Castaigne, "The Princess Sonia" by Julia Magruder, with an illustration by Gibson, a charming story of a little Chinese boy entitled "The Cat and the Cherub," by Chester Bailey Fernald, author of "The Gentleman in the Barrel," also, four very short stories by George Wharton Edwards entitled "The Rivalries of

Long and Short Codiac." In addition to these unique features there are several articles relating more or less intimately to the holiday season.

A very clever satire is that just issued by the Arena Publishing Company of Boston, under the title of "The Reign of Lust," by the Duke of Oatmeal, who dates his book from Itchyvory Castle. The real "Duke of Oatmeal" is, we believe, a Canadian, and his sharp satire is meant for the Duke of Argyle. He shows that by following the Duke's line of argument, lust or greed can be proved to be the ruling force of the universe, animating all things from the "primordial globule" up to man himself. The writer, in the course of his argument, has more than one clever thrust at the philosophical fads and fallacies of the day, and shows a fine vein of wit in several of the chapters. In the chapter on the "Products of Lust," there occurs the following clever sally on the social reformers of the day. "Were it not for the absurdly false notions that uneducated people have about humanity and Christianity, and the other nauties, the removal of those waste products—paupers and criminals—would be comparatively easy. Inside of a generation the State would have to deal with the disposal of the natural product only, and the removal of it need be in no way offensive to ordinary sensibilities. Even now, the world's heavy load of criminals and paupers might be removed with little or no expense to the various municipalities interested. Most of the poor-houses in the United States, I am told, are constructed of wood or other inflammable material, and are lighted with gas. At a pre-arranged hour during the night, while the paupers are asleep, the attendants could be instructed to let the gas escape from the brackets and pendants in the various wards. The attendant could then noiselessly, while the gas was escaping, lock the doors of the various wards and retire from the building. A match could then be applied from the outside, and the firemen and police instructed not to make any frantic efforts to reach the scene of the conflagration. Each community could thus be relieved of its poor and its poor-houses at the same time. It would be like smoking out a hive of bees and disposing of the hive as well, when it was found the business was no longer profitable." The man who could write the "Reign of Lust," has intellectual endowments of no ordinary character, and the literary world will wish to know more of him.

"The Blue Book" for 1895-6 has made its appearance. This convenient pocket reference book of the American textile interests is published by the Davison Pub. Co., 176 Broadway, New York, at \$2.50 per copy, there being also an office edition at \$3. It gives the cotton, woolen, silk, and all other textile mills, with the commission merchants in dry goods, and all the information is in a compact and accessible form. For convenience and completeness it is quite equal to previous editions, which is saying a good deal. It must be appreciated in the United States, otherwise the publishers would not be able to obtain an increased price for it.

The *Monetary Times* of 23rd inst. appears as a special number, with a very striking cover. This issue contains 54 pages, and is an admirable specimen of the journalist's and typographer's art. We do not believe much in special numbers, but we cannot withhold a tribute of admiration for the handsome number turned out by our valued contemporary, whose reputation as a reliable exponent of trade and financial questions seems to grow with its years.

The Whittenton Manufacturing Co., of Taunton, Mass., have issued an advertisement of their flannelette fabrics, the story of Cinderella or the Glass Slipper. The hardships and ultimate good fortune of this little dame have been told in every language; and although the tale is nearly two hundred years old, it continues to be one of the most popular among the child lore of the day. Cinderella is the name given the fabrics manufactured by the above firm, and judging from the sample card, these goods would do credit to the wardrobe of the little heroine after whom they are named.

DULUDE & LOURDON, merchants, have assigned. Liabilities between \$15,000 and \$20,000. The principal creditors are: Thibaudau & Co., \$10,930; Gault Bros & Co., \$925; Lonsdale, Reid & Co., \$359; J. Grenier & Co., \$826; Liddell, Léspirance & Co., \$627; J. Fisher & Co., \$854; Glover & Brais, \$500.

CANADIAN MILITIA CLOTHING.

In the last annual report of the department of Militia, the following account is given of the military clothing and outfittings, the contracts for all of which are now given out to Canadian manufacturers and dealers:—

Canadian manufacturers supplied under contract all the clothing and necessaries received for the year. These supplies were carefully inspected by the departmental inspectors and reported to be fully up to the standard fixed by the department. The issues of clothing for the year were as follows:—Cloth, serge and tweed tunics, 9,602, cloth, serge and tweed trousers, 8,051 pairs, cloth riding breeches, 735 pairs; forage caps, 5,686, great coats, 3,906, as shown by the following detailed return.

Tunics, Cloth					Tunics, Serge				Trousers, Cloth, Pairs			Trousers, Serge, Pairs.		
Cavalry.	Artillery.	Engineers.	Infantry.	Rifles.	Cavalry.	Artillery.	Infantry.	Rifles.	Cavalry.	Artillery.	Infantry.	Artillery.	Infantry.	Rifles.
379	1,511	4,325	1,096	333	837	1,030	64	171	351	492	1,669	4,733	968	

Forage Caps.				Great Coats.			Riding Breeches.			Halifax Tweed Clothing.	
Cavalry.	Artillery.	Infantry.	Rifles.	Cavalry.	Artillery.	Infantry and Rifles.	Cavalry.	Artillery.	Infantry.	Tunics.	Trousers.
315	1,875	3,469	27	337	703	2,867	539	196	227	247	

NEW FIRM.

The *Canadian Engineer* says. "W. Jack and A. G. Robertson, of Montreal, have recently returned from the Continent, having been there on a business trip for some three months. Owing to the death of W. H. Meredith, the firm of Middleton & Meredith is now in liquidation, and the firm of Jack & Robertson have been appointed by the principals, who were recently represented by the late firm of Middleton & Meredith, as sole agents in Canada. They represent some of the leading manufacturers in England and the Continent, for railway supplies of all descriptions, telephone and telegraph supplies, and also for all classes of heavy hardware, such as copper sheets, tin plates, Canada plates, anvils and vises, galvanized iron, wire, lead, etc., etc. That Messrs Jack & Robertson have been accredited with all the agencies carried on by a firm so well known and highly esteemed as Middleton & Meredith, speaks well for the enterprise and business capacity of the new firm, to whom we extend our congratulations." To the foregoing we may add that Messrs Jack & Robertson have also succeeded to the dyestuff business of the firm of Middleton & Meredith, and represent in Canada the celebrated Swiss firm of A. Gerber & Co., of Basle, manufacturers of anilines, and the firm of Carl Neuhaus, of Elberfeld, Germany, manufacturers of acetates, etc.

CANADIAN COTTONS.

The cotton manufacturers think that in view of the continued rise in raw cotton and the low prices that have ruled in Canada even at the former price of raw material it is time that a rise took place. Cotton goods have gone up both in the States and in England, and, as mentioned elsewhere, D. Morrice, Sons & Co. cotton manufacturers' agents, last month made an announcement regarding an advance in Canadian prints. On the 1st instant the Canadian Colored Cotton Mills Co. announced an advance equal to 5 per cent. on sheetings, tickings and cottonades, and later on it was announced that there would be a rise of 5 per cent. on denims.

**MAGOG PRINTS**

The following circular was issued to the wholesale trade last month by D. Morrice, Sons & Co.:

We beg to advise you that on and after the 15th of September next, Mago prints will be sold by the Dominion Cotton Mills Co. under protection and restriction

The continuous and unnecessary cutting of prices on these goods during the past has caused serious dissatisfaction, and in some cases positive loss, to all the parties concerned, a condition of things quite uncalled for, as the quality and value of the goods are much superior and lower than any others in the market. On this account, and in consideration of the decided opinion expressed last season for the change by the trade, we deem it advisable to make the following the terms and mode of handling the same. We therefore ask your kind co-operation with us in correcting this evil, which we believe will prove highly beneficial to all. To this end we have to announce:

**FIRST**—That we will hereafter sell these goods only after having received satisfactory assurance that the purchasers of the same will not sell, nor offer such for sale, either directly or indirectly, at less than the regular prices and terms we may from time to time indicate

**SECOND**. We shall sell these goods at the stated prices as given, and at the expiration of each six months, viz., on the first day of December and June of each year, we will allow a rebate on the different lines, as per list below, to each and every purchaser, who has in good faith and to our satisfaction complied with the stipulated prices and terms, but the violation of the above conditions will justify the withholding of said rebate

**THIRD**.—The prices are hereby fixed as follows, to take effect as above indicated on the 15th of September next, until further advised.

	Selling Price.	Rebate to be allowed by Mill.
H Cloth.....	4 3/4 cts.	Less 10 per cent
1 " .....	6 "	" "
2 " .....	7 1/4 "	Less 12 1/2 "
3 " .. ..	8 1/2 "	" "
C " .....	9 1/4 "	" "
D " .....	8 "	" "
Solid Blacks 1 Cloth..	5 "	Less 10 "
2 " ..	6 "	Less 12 1/2 "
3 " ..	8 "	" "
C " ..	8 1/2 "	" "
Indigoes P C ....	6 "	Less 10 "
S C ....	7 1/2 "	Less 12 1/2 "
D C ....	9 1/4 "	" "
G C ....	11 1/4 "	" "

**SPECIALS**

Challies .....	4 1/2 cts.	Less 10 per cent.
Delainettes .....	6 "	" "
Cretonnes .....	7 "	Less 12 1/2 "
Summer suitings .....	7 1/2 "	" "
Fancy piques.. ..	8 "	" "
Crinkles .....	10 "	" "
Skirtings (38 in) .....	10 "	" "
Lada tweeds.....	10 "	" "
Printed moleskins .....	12 "	" "

Sleeve linings..... No restrictions

Terms—Credit on which the goods are to be sold not to exceed 4 months 1st April on all goods delivered prior to that date, and 4 months 1st of the following on delivery after 1st of April and up to the 1st of June, or 4 per cent. cash discount 30 days, or prepayment at the rate of 9 per cent. per annum. The "Mill" terms will be continued as formerly.

The above prices and terms to be maintained from the 15th September, 1895, to the 1st of June, 1896, unless advised to the contrary.

We will not offer any seconds or jobs to the trade before the 1st of June, 1896, nor after the 15th September, 1896, when the new prices for the following season will be given.

When new samples of special lines for the fall season are shown, you will be advised by circular as usual of the prices at which they are to be sold; these will also be subject to the protection and restriction as above.

All wholesale houses handling the goods to have the privilege of disposing of their stock on hand between the dates above named, i.e., the 1st of June and 15th September, at such prices and terms as they may deem necessary. After the 15th September the aforesaid protection and restriction will be resumed, and the open and close season as herein advised will be again continued each year.

Yours truly,

D. MORRICE, SONS & CO.

**HOSIERY NOVELTIES IN PARIS.**

Amongst hosiery novelties shown in Paris of late are included a number of articles which rank as models of really surprising fineness and delicacy—among others, a black silk hosiery with baguettes formed of small stars and large à-jour cornucopias upon the foot top. The device is edged in by paillettes and fine beads. Another model was simply striped throughout and ornamented with beads. Among the hosiery of two and more colors beautiful models are to be seen, in which the handsomest designs are produced by the alternating effects of perforated and firm knitting. Very tasteful is a model in black and lavender blue, in which the upper part of the leg is simply plain blue, ornamented with a few fine black stripes on the edge of the broad seam. The entire lower part, however, from the ankle down almost to the toes, is à-jour, in blue and black stripes, ending above with an inch-broad ring of blue stripes of raised embroidery. These several models are nouveautés, of which firms selling them have the exclusive right, bought from the manufacturer; and, in truth, they charge high prices for the monopoly—prices that would fairly shock the woman of any other country. This naturally makes the models for a time exclusive—to be had only at a few shops—but when the time arrives that they become public property they are thrown on the market by the hundreds of dozens.

The side ornamentation of the hosiery for summer wear is woven in, in place of being embroidered, but of course only the costlier kinds are embellished in this way, even the very dark to black. The better qualities of the fil d'écosse are so thin that the foot shines through, and the Parisienne considers them as indispensable for a coquette morning toilet. Upon the foot top some models have large holes which are filled in with silk spiders. It is self-evident that all these things must necessarily be quite costly, and the more so when labor by hand is required to enhance that of the factory. These hosiery are not got up in the cheaper qualities at all, for only the costliest material and the most lavish kind of embellishment are employed—in fact, they are intended simply for the Parisian "four hundred."

Coming down to the cheaper hosiery, however, there are also those with small bouquets knit in, and some of them have even small side ornamentations—still, the patterns are not so handsome, and, before all, not so new. As regards the better grade of cotton hosiery, there is a large choice of colored varieties intended for summer wear, the colors being generally full and handsome—deep dark shades of red, blue and brown. A very excellent finely-meshed hosiery of a silky gloss can be had at a relatively low price. Light colored, especially white, toes and heels, are very popular. Striped hosiery sell best, and less so those with chequers.

Several nouveautés in men's half-hose were seen—for instance, models of fil d'écosse with vari-colored silk cross stripes. The different shades of blue and brown colors, and those with light-colored stars upon the foot top, were the neatest. The upper part of the short leg, according to the *Industrial Record*, is alternately worked right and left, so that it will fit more tightly. Side ornamentations are the "dernier cri" also for men's half-hose, while baguettes are worked in with pale silk upon a light ground, or dark silk upon a pale ground, and above they end in a star and divide near the ankle. Nearly all the models seen have plain toes and heels, and some have a white sole. Half-silk, as well as all-silk,

sell well, but for summer the fil d'écosse and cotton half-hose are the best sellers. There are special kinds of hosiery which reach above the knees, for sporting men. They are got up in glaring colors, and are known in commerce as *genre anglais*.

### ANGORA CARPETS.

An English report gives the following account of the carpet industry of Angora:—

Carpets of this region can be divided into four classes (1) Those of Kir-Shéhîr and Mandjour, (2) those made by the Kurds; (3) "Killims," and (4) "Djidjims."

(1) The Kir-Shéhîr carpets are made at the town of that name and a neighboring village called Mandjour. In both places their manufacture forms the chief occupation of the inhabitants. The introduction of the carpet industry to these places, and to Anatolia in general, is attributed to Persian prisoners of war, but neither the excellence of their work nor the beauty of their designs have been kept up, except, perhaps, at Sivas.

In 1892 the municipal authorities of Kir-Shéhîr, seeing the depreciated value of their carpets, principally owing to the mistaken adoption of European patterns badly imitated, introduced a regulation requiring the municipality seal to be fixed on to the carpets before they left the town, and they reserved the right to refuse to attach the seal to any carpet defective in pattern or in colors. These carpets as now produced are thicker than the Persian article, and the patterns mostly represent geometrical figures and forms taken from still life. They are made of sheep's wool, sometimes intermingled with cotton or with Angora goats' hair, in which case the price is doubled. As the work is carried on in private dwellings, there is no general plan of execution adopted, and, consequently, the carpets differ in size and in pattern, as well as in make. Only the carpet merchants, who provide the wool and dyes, are able to exercise a certain control over the work and to explain the paper designs, which the weavers are not intelligent enough to copy, as they have been accustomed to execute no preconceived plan, which accounts for an unvarying irregularity, and a repetition of figures of comparatively limited sizes, only differing in color.

The Kir-Shéhîr carpets can be divided into four classes, according to their sizes, viz.: (a) "Namazlik" or "Sodjadé;" (b) "Yanhali;" (c) "Yastik;" and (d) "Heybé."

(a) The "namazlik" (prayer carpet) or "sejadé" is the chief carpet made at Kir-Shéhîr, it is usually 6 feet by 3 feet, and sells, at Angora, for about 18s. per piece, but the price varies according to the color and work, and sometimes reaches £1 4s. It is made and sold in pairs.

(b) and (c) The "yan-hali" (side carpet) and the "yastik" (cushion) owe their origin to the system of house furnishing in Anatolia, which consists of having a long sort of sofa erected round two or three sides of the room, thus obviating the necessity of chairs. The mattresses of these sofas are covered with "yan-halis," and the cushions with "yastiks." The former can be made to order of any dimensions required, but the usual length is 5 yards and the width 4 feet. The latter is about 1 yard long and 18 inches wide. The demand for this last article has increased of late owing to the fashion of decorating walls and covering footstools with these stuffs.

The price of the "yan-hali" is the same, proportionately, as that of the "namazlik," viz., about 3s. per foot, perhaps a little more, but the price of the "yastik" is somewhat higher still.

(d) The "heybé" is the Turkish word for the native saddle-bags, which consist of two bags, almost square, joined together by some stout material in such a manner that when thrown over the back of a horse or a donkey they hang on each side in an almost vertical position. The dimensions of each bag are 18 by 20 inches, and the price of the complete article is about 13s.

(2) There is no special centre for the manufacture of Kurdish carpets, as the Kurds, whose wives and daughters make them, do not concentrate themselves in towns, but are dispersed in the less populated localities.

Within the limits of the province of Angora they are to be found in the Haymana and Cesarea districts.

The work is of a coarser and more durable kind than that of the Kir-Shéhîr carpet, whilst the dimensions are about the same. Their distinguishing characteristic is the unusual length of the pile, which is three times that of the Persian carpet. The surface is not even or regular, vegetable dyes are employed, and the surface has a sheen which gets brighter by usage. The same pattern is seldom reproduced more than three or four times, except in the border, which is much wider than that of the "Kir-Shéhîr" carpet, and has a more imposing effect. The price varies from 13s. to 15s. 6d. per square yard, and is generally regulated by an inspection of the reverse side, which is strikingly pretty on account of the delicacy of the weaving and the regularity of the spinning displayed.

(3) The "Killim" is a plain carpet without pile, made by Kurds. The design is evolved as the work of weaving proceeds, a slit being left where the color changes. The mode of weaving causes the pattern of these carpets to be composed of straight lines frequently broken up into angles of 90 degrees. The design, however, remains symmetrical in relation to the central longitudinal line.

"Killims" are made of wool, with rarely any mixture of cotton, and they are locally used for covering the floors, in which case they are called "orta-hali" (centre carpet).

The price is 3s. to 3s. 6d. per square yard, but varies according to quality and make. The dimensions are 4 to 5 yards long by 1 yard wide.

(4) The "Djidjim" differs from the preceding carpet in the fact that its designs are embroidered on the plain woolen or woolen and cotton texture. These designs take various forms. In some the same pattern is repeated in one line in different colors, in others a zig-zag stripe is worked all the way down, and the sides filled up with varied patterns.

The length is about 3 to 4 yards, and the breadth about 12 inches. Three strips sewn together are generally sold at a time, and are used as hangings, especially those that are delicately woven in regular designs.

The price is about 2s. per strip. They are made at Kir-Shéhîr, and by the Kurdish women of Cesarea, for home use, but owing to the carelessness of this work they are sold for the low price above quoted.

### THE AMERICAN CARPETS IN ENGLAND.

It scarcely needs the assistance of statistics to prove that, for a time at any rate, the American carpet has ceased to occupy an important position in connection with the English home trade. But for the benefit of those not connected with the trade, or unfamiliar with its movements, we may mention that during the second half of June the exports of American carpets from New York amounted in value to less than £200. Readers of this journal will remember that a few years ago, when the trade first commenced, the shipments frequently amounted to several thousands of pounds a month. The shrinkage in the trade is no doubt largely due to the improved character of the American home demand, which suffices for the needs of domestic manufacturers without it being necessary to cultivate a foreign trade, which is subject to greater initial expenses, and to much more severe competition. It is possible also that the poor wearing qualities of many of the American goods forwarded to this country account in part—we should not care to say entirely—for the decline in business. We were shown the other day one of the rugs woven on an American loom. The design was extremely attractive, although perhaps a shade too light and continental in style for our soberer English taste. But as to its attractiveness there can be but little doubt. There, however, our praise of this particular fabric must cease. On rubbing the rug with the fingers a ridge of wool was quickly collected, proof enough that the article would not stand much wear. We believe that these fabrics are considered low in price for that class of carpet or rug; but the question of durability is a more important one in this country than in the United States, and while satisfaction is not given on that score the products of the Alexander Smith Company are not likely to trouble English manufacturers for any length of time in the home market—*Textile Mercury*.

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## Among the Mills

A new carding mill has been established at Cheney, Ont. O'Hare & Sons, of Creemore, have leased the woolen mills at Midland.

Leary & McGrew, suspender manufacturers, have commenced business at Vancouver, B.C.

Bennett Rosamond, M.P., of the Rosamond Woolen Co., is sojourning in the Adirondack mountains.

The Wallaceburg Flax Mill, at Wallaceburg, Ont., was opened up on August 19th, and is now in full working order.

The Eagle Knitting Company, Hamilton, has taken out a permit for a brick addition to its factory, to cost \$2,000.

An Ontario carpet factory has made two shipments of carpets to Amsterdam, Holland, the last consignment being 25,000 yards.

J. Devitt, a respected resident of Almonte and for 16 years an employe of the Rosamond Woolen Mill Co., is dead. Deceased leaves a wife and seven children.

The cotton and woolen mills of Cornwall were partly or wholly disabled for several days last month by the collisions which broke the locks of the Cornwall canal.

The Ontario Government has decided to cease the manufacture of binder twine, and have advertised for tenders from those willing to lease the Central Prison plant and labor to make the twine.

The fire at the Smith Wool Stock Co.'s premises, Toronto, last month, did not prove to be so serious as at first supposed. The works were only closed about a week, and are now running full time.

The Continental Twine and Cordage Co., of Brantford, who have been talking of having a second factory at Hamilton, would make it a mill of 250 spindles, and would manufacture cordage and binder twine.

The estimated yield of flaxseed in Manitoba this year, according to the bulletin issued this month by the Provincial Department of Agriculture, is 1,240,020 bushels, which is by far the largest yield on record.

The Gillies Manufacturing Co., Carleton Place, Ont., are applying for incorporation, with a capital stock of \$120,000, to acquire the foundry business, etc., and the woolen factory of Gillies & Co., of that place, to manufacture woolen goods, machinery, etc.

Wm. Holt is now reorganizing the Paris Carpet Co., whose factory at Paris, Ont., was destroyed by fire. Some of the looms, and the engine-house and dye-house were saved, and it is the intention of Mr. Holt to get in enough machinery to start the works again.

On August 1st an advance of  $\frac{1}{2}$ c. was established by the Consumers' Cordage Company on all manilla rope and cordage. The new management of the company appears to have taken the reins at an auspicious time. The heavy grain crop of Manitoba and the North-West has caused a famine in binder twine.

Officer Sarvis, of Sarnia, found the other day a quantity of the goods stolen from the woolen mill there on the steamer "J. C. Clark." He watched on board the boat for a couple of nights, in the hope of capturing the thief on his return for the plunder, but without success.

The C. A. C. Company's shearing crew at Swift Current has just completed shearing 24,000 sheep, which has given the finest clip ever made. The conveniences for shearing at Swift Current are most complete, being arranged on the Australian system, which ensures every facility for the handling of the clip in a clean and expeditious manner. John Hallam, the Toronto wool buyer, who spent a few days at Swift Current, has purchased the season's clip. — *Winnipeg Commercial*

Reports from the flax-growing counties of Ontario agree that the crop is a good one.

H. Bornstein, of Victoria, B.C., has purchased the wool clip in the vicinity of Ashcroft—about twelve tons. The price paid was about 12 cents. It will be shipped to Boston.

W. H. Storey & Son, glove manufacturers of Acton, Ont., are preparing to enlarge their factory and will also build a two storey brick building to be used as a packing house and engine room.

R. O. Gardner has re-opened the Empire Dye Works, at 2 $\frac{1}{2}$  Phillips' Square, Montreal, formerly operated by Delontenay & Co. Mr. Gardner will do all kinds of job dyeing, including French and dry cleaning.

The Clarksburg *Reflector* says: "We are told that the Telfer Bros. purpose putting four more looms into their woolen factory here. They will then be able to turn out from seventy to eighty pairs of blankets daily."

Mrs. Robideau, 44 Bourget street, St. Henry, Montreal, is advertising for information of Samuel Robideau, who hails from Hampshire, Mass. When last heard of, Robideau was working in a Canadian woolen mill.

The Consumers' Cordage Co., Montreal, is suing the Brantford cordage concern for \$20,000 for breach of contract in selling binder twine in Canada, instead of exporting it. The defendants leased the factory at Brantford, Ont., from plaintiffs.

G. M. Collins, Goderich, announces that he has bought the McCann woolen mill—lately operated by John Dickson—and is refitting and improving it. He will do custom work in carding and spinning, and will also make blankets, flannels, sheetings and tweeds.

B. A. Booth, woolen manufacturer of Odessa, Ont., whose assignment was reported last month, attributes his final troubles to the fire which destroyed his mill about three months ago. Since his compromise in 1892 Mr. Booth made no progress, and it is understood that when the mill was burnt the creditors took over the insurance money.

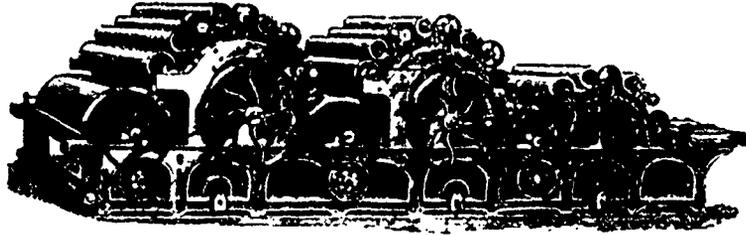
It has been decided by the committee of the Colonial Wool Merchants' Association of London, Eng., that the remaining series of sales for this year shall commence on the 24th September and on the 26th November, the lists of wools available for the latter series being closed on the 22nd November. The first two series of sales for 1897 have been fixed for the 14th of January and the 3rd of March.

About 5 p.m. on Aug. 2nd, fire broke out in Wm. Zinger's woolen mill, at Teeswater, Ont. The building, which is a large frame one, was all on fire inside when the alarm was given, but the prompt action of the firemen saved it and the machinery from being completely ruined. The mill was closed for the season, at noon, and the origin of the fire is supposed to be spontaneous combustion. Loss fully covered by insurance in the Western and in the Waterloo Mutual for \$2,200.

A serious accident occurred to Robert Gofton, while at work in the Brodie Woolen Mills, Hespeler, last month. Mr. Gofton is employed in the dyehouse and was attending a tub of boiling water. This was fast filling, and in attempting to draw a little of the water he removed the plug in the bottom of the tub. He pulled the plug before he had shut off the steam, and the cold air in the bottom of the vessel in some way forced the boiling water into the air and on to Mr. Gofton, badly scalding his body from the waist up to his face and arms.

In view of reports of damage to the Southern cotton crop, raw cotton has again stiffened in price, and is now 2 cents on the average above the prices of March last. The estimates of the new crop vary from 7,000,000 to 8,300,000 bales. The latest report on the cotton crop of Peru states: "For the moment there is no stock to be had. The crop will be very small, it commences now, and it seems to us that you could not count on considerable quantities during some time, perhaps not over 200 to 300 bales monthly, until we have a rainy year."

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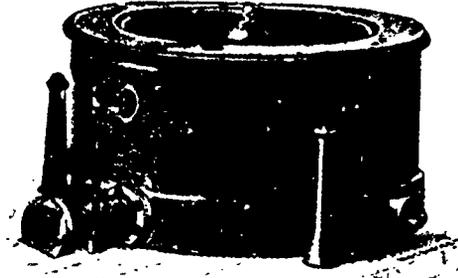
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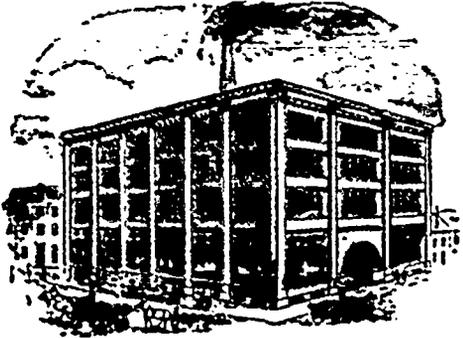
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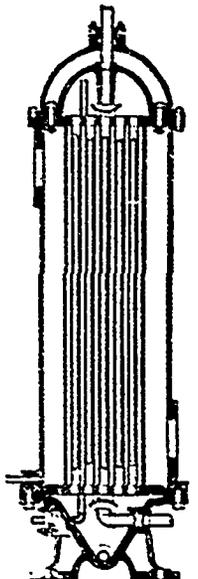
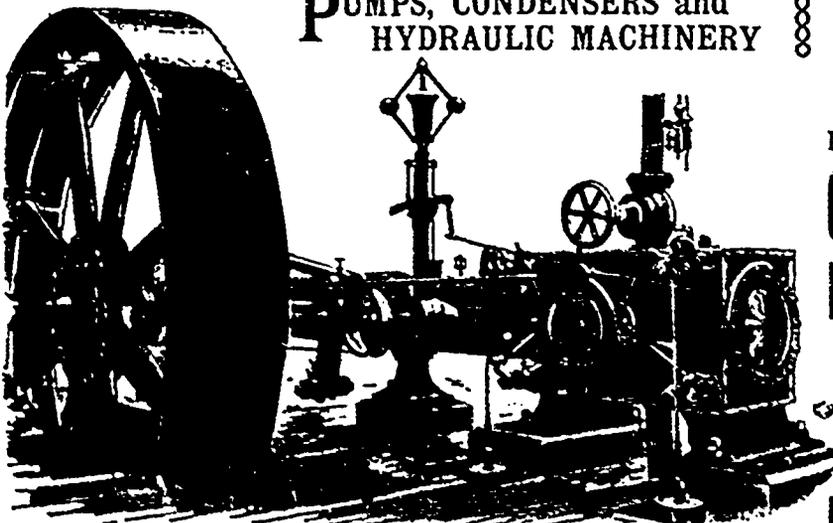
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Two trains of 26 cars each of Australian wool for the Canadian factories passed east on the C.P.R. a few days ago.

John Mills left Lonsdale, R.I., on the 20th inst., for Coaticook Que., Canada, where he will locate permanently, having obtained a position with his uncle, who is superintendent of a cotton mill there — *Boston Journal of Commerce*.

Geo. Irving, formerly with Caldecott, Burton & Spence, Toronto, is endeavoring to form a company, with a capital stock of \$25,000, to acquire the umbrella business of Irving & Co., and to manufacture parasols, umbrellas, etc., in Toronto.

Flax pulling is in progress, and the crop is turning out much better than was expected, says the Listowel Standard. At one time it was thought that the heavy May frosts had ruined it, but it subsequently picked up, and is almost an average crop.

Under complaint of W. T. Whitehead, manager of the Dominion Cotton Mills Co.'s works, at Magog, five "hard cases" were before Judge Hall, charged with damaging property of the company. Two of the culprits were found guilty and fined \$10 and 30 days jail.

The friends of David Cram, mayor of Carleton Place and cashier of the Gillies woolen mill in that town, will regret very much to hear of the death of his daughter Bessie, who was taken suddenly a few days ago and died while camping at Lake Park. She was only 16 years old.

The statement of the dividends paid by the cotton mills of Fall River for the last quarter shows that 36 corporations representing 64 mills, with a capital of \$21,008,000, paid out \$532,875 in dividends, which would be at the rate of 10.16 per cent. A number of new mills are going up, one of them having 50,000 spindles.

Wm. Parks, of Wm. Parks & Son, Ltd., cotton manufacturers, St. John, has been paying a visit to the wholesale trade of Quebec and Ontario. This energetic company are now preparing to manufacture a new line of goods, namely, flannelettes, some very handsome samples of which have been prepared.

The Woodstock, N.B., woolen mills are placing more new machinery. They are putting in a Galashiels fulling machine, the weight of which is 2,800 lbs., and which will full cloth something over 80 inches in width. The machine is an excellent one and is made by H. W. Karch, of Hespeler, Ont. They are also placing a number of machines for knitting stockinette and hosiery.

Readers of the JOURNAL OF FABRICS will remember that James Leslie, of Montreal, recently removed his card clothing factory to Charlotte, North Carolina, where the town had given him encouragement to start business, and where he began under the most happy auspices. A cloud soon settled on Mr. Leslie's new home,

**WANTED**—Situation as Finisher. Tweeds, cassimeres, worsteds, dress goods and flannels. Temperate and industrious. Practical experience from loom to case. Address "Finisher," THE CANADIAN JOURNAL OF FABRICS, Montreal, Que.

**WANTED**—To rent, or a partnership in, a one-seat Woolen Mill. Must have good custom trade. Address "Woolen Mill," THE CANADIAN JOURNAL OF FABRICS, Montreal, Que.

**New York and Boston  
Dyewood Co.**

Manufacturers of

**DYEWOOD  
EXTRACTS**

Sole Agents for the  
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Manufacturers of ANILINE COLORS, Berlin, Germany

NEW YORK: 55 Beckman St.  
BOSTON: 115 and 117 High St.  
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**A. W. LEITCH, 16 Hughson St. South, HAMILTON, ONT**

however, for on the 16th inst. his only daughter Marion, a bright young lady of 27, died of typhoid fever, and was brought back to Montreal for burial. Mr. Leslie will have the general sympathy of the textile mill owners in his affliction.

The erection of a mill was proposed seven months ago by Wallaceburg business men and farmers. The result was that a company was formed, and Mr. Bright, of Listowel, was secured as manager. The building of the new mill is 70 x 45 feet, a frame structure covered with galvanized iron. The engine room is 26 x 24 feet, built of brick. A 40 horse-power engine and a 70 horse-power boiler run the machinery, which consists of two thrashers which are on the top floor, and also a scutcher. On the ground floor are two large fanning mills, where the seed is cleaned and prepared for shipment. After going through the thrashers, the stalk of the flax is spread out in the field, where it remains till it rots, after which it is taken in and made into the raw material ready for the mills. In the rear of the mills is a large barn 75 x 45 used for storing the flax. Twenty-five persons are employed. Thirty tons of flax were thrashed the first day.

THOMAS DOLAN, one of the leading retail dry goods merchants of Peterborough, Ont., died last month in that town. Mr. Dolan was 43 years of age. The cause of death was heart failure.

**CHEMICALS AND DYESTUFFS.**

A quiet feeling prevails. Manufacturers are ordering just sufficient for current requirements; this is usual at this season of the year; next month they will begin to lay in their winter supplies. Very few changes to note. Gambier—the advance has been checked by heavy arrivals. Sulphate of copper is again higher. Sumac is improving. The following are current quotations in Montreal

Bleaching powder.....	\$ 2 15	to \$ 2 30
Bicarb soda.....	2 25	" 2 35
Sil soda .....	0 65	" 0 70
Carbolic acid, 1 lb. bottles .....	0 25	" 0 30
Caustic soda, 60° .....	1 90	" 2 00
Caustic soda, 70° .....	2 25	" 2 35
Chlorate of potash.....	0 15	" 0 20
Alum.....	1 40	" 1 50
Copperas .....	0 70	" 0 75
Sulphur flour .....	1 50	" 1 75
Sulphur roll .....	1 50	" 1 75
Sulphate of copper.....	4 00	" 5 00
White sugar of lead .....	0 07½	" 0 08½
Bich. potash .....	0 10	" 0 12
Sumac, Sicily, per ton .....	65 00	" 70 00
Soda ash, 48° to 58° .....	1 25	" 1 50
Chip logwood .....	2 00	" 2 10
Castor oil.....	0 06½	" 0 07
Cocoon oil .....	0 06½	" 0 07

**A. KLIPSTEIN & COMP'Y**

122 PEARL STREET, NEW YORK

**Chemicals and Dyestuffs**

ANILINE COLORS OF EVERY KIND

SPECIALTIES

**Fast Colors for Wool** Such as DRY ALIZARINE, ALIZARINE BLUE, GREEN, YELLOW, etc.

Also GAUSTIC POTASH FOR WOOL SCOURING

WRIGHT & DALLYN, Agents - - HAMILTON, Ont.

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BIDDEFORD, ME.



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... OF ...



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Established 1842

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Flannels, Dress Goods and Tweeds

Selling Agents, JAS. A. CANTLIE & CO.  
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"We hold thee safe."

## The Dominion Burglary Guarantee Co.

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Head Office, Montreal, Can.

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Insurance against burglary and house-breaking. Policies clear and free from vexatious or restrictive clauses.

JOHN A. GROSE, GENERAL MANAGER.

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Manufacturers of

Wadded Carpet  
Lining  
and STAIR PADS  
Hamilton, Ont.



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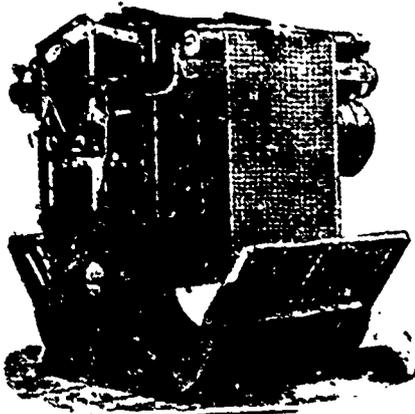
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## H. W. KARCH,

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MANUFACTURER  
OF

Woolen  
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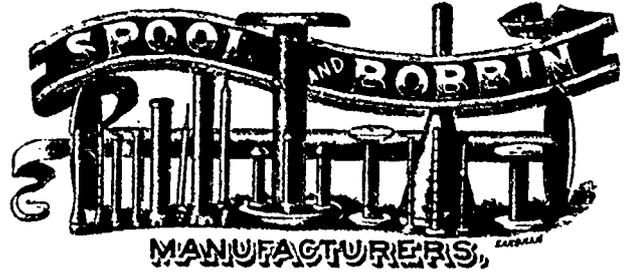
Fulling Mills,  
Cloth Washers, Wool  
and Waste Dusters,  
Drum Spool Winders,  
Reels, Spooling and  
Doubling Machines,  
Ring Twisters, Card  
Creels, Rag Dusters,  
Head Spindle Spooler  
(For Warp or Dresser  
Spools), Pat. Double,  
Acting Gigs, etc., etc.

THOMAS KER

J. HARCOURT

## KER & HARCOURT,

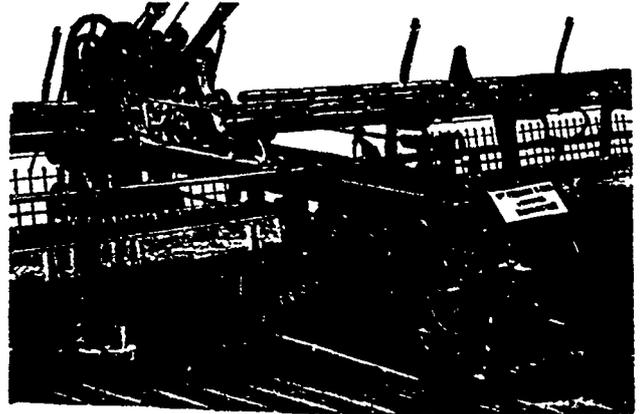
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Winding Machinery, Improved Self-Acting Mule, Suspended  
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Drying Machines, Patent Wool and Cotton Dryer, Patent Wool  
Scouring Machine, Cross Raising Machine, Patent Crabbling and  
Winding-on Machine, Warp Sizing, Cool Air Drying and Beam-  
ing Machine, and other Woolen Machinery.

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184 McGill Street, - Montreal.

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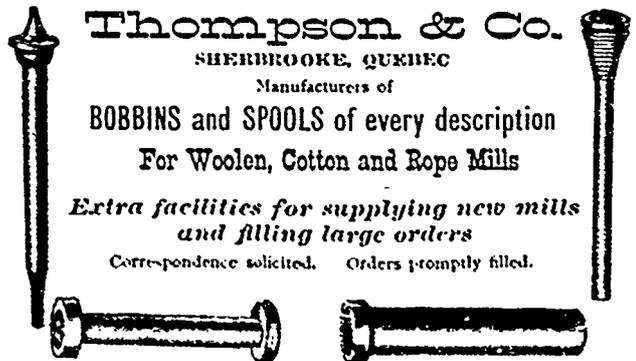
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For Woolen, Cotton and Rope Mills

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**DOMESTIC AND FOREIGN WOOLS,**  
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DEALERS IN  
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**MONTREAL, Canada**

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Manufacturers and Dealers in all Lines of  
Wool Stock, Shoddies, &c., Graded Woolen  
Bags, Carbonizing and Neutralizing.  
Best prices paid for Wool Pickings, Woolen  
and Cotton Rags, Metals, &c. Hard Waste, &c.,  
purchased or worked up and returned  
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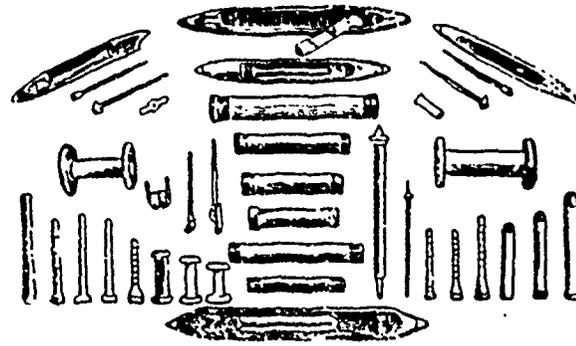
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**Wools, Cottons, Nolls, Yarns**  
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*Woolen & Cotton Manufacturers'  
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We are the largest Shuttle  
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a large stock of  
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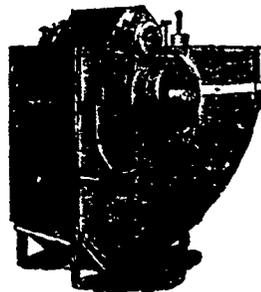
Graniteville, Mass., U.S.A.



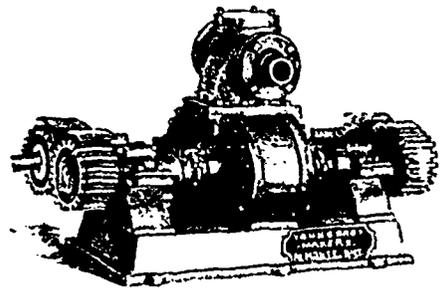
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Shafting, Hangers, Castings, Pulleys, Gearing, Forgings.  
Full equipment of mills of every kind. **YOUNG BROS., Almonte, Ont.**

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MANUFACTURERS OF  
**COP TUBES**  
PAPER COP TUBES FOR MULE SPINNING.  
LARGE PAPER TUBES FOR USE ON BOBBINS.  
FULL LENGTH TAPERED TUBES.  
PAPER TUBES SILK MANUFACTURERS.  
PAPER CONES & TUBES FOR CONE WINDERS.  
**LOWELL... MASS.**

### THE WORSTED AND BRAID CO.

The Worsted and Braid Co., Ltd., of Toronto Junction, have made an assignment this month to E R C Clarkson. This company was organized in 1892, with a capital of \$100,000, of which, however, only \$21,750 has been paid up. The liabilities, including open accounts, mortgage, etc., are \$31,849; and the assets, including stock on hand, open accounts, plant and machinery, are \$48,856. This statement shows a very good surplus, and there is no reason why the company should not be re-organized with excellent prospects of business. When the company started business, it was their intention to manufacture worsted yarns for the carpet trade, and for hosiery manufacturers, and a part of the factory was set apart for that purpose and an engine of 85 horse-power purchased. The factory thus had room and power for twice its present output; but owing to their inability to get sufficient stock subscribed at the time, the yarn department was never started, and what with the cost of running a large power and the heavy interest on mortgage, the company found themselves handicapped. Matters were brought to a climax when the president, J. P. Murray, became involved through outside real estate ventures and through kind-hearted but unwise advances of money to institutions which left him without available cash. His liabilities are \$14,000 direct and \$38,000 indirect, with assets of \$28,000. It may be here observed that the Toronto Carpet Mfg. Co., with which Mr. Murray is connected, will be unaffected by these complications. There is a good field in Canada for the braid and yarn business contemplated by the company, and under a new organization it will undoubtedly pay well. No doubt such a reorganization will take place as soon as Mr. Clarkson gets the accounts in shape. Meantime the works are closed. T. D. Wardlaw, formerly secretary and manager of the company, is now in business in Toronto as a manufacturer's agent.

### ALIZARINE BLACK FOR LOOSE WOOL DYEING.

NEW ONE DIP PROCESS.

Alizarine Black W B, for blue shade.

" " W D, for jet shade.

The points of advantage of Alizarine Black over logwood are as follows:

*Simpler Working.*—The Alizarine is dyed in one bath, against two for logwood, which means that two lots of Alizarine Black can be dyed in the same time required for one batch of logwood. The advantage of minimum duration of dyeing process will be recognized by every dyer.

*Saving in Labor and Steam.*—The Alizarine Black shows some saving in labor, and considerable saving in steam, as it requires only one heating from cold water.

*Condition of Stock.*—Unlike any Logwood Black (either chips or extract), the Alizarine Black dyed wool is almost equal to white.

*In Carding.*—The dyed wool works practically the same as white, a point which will be greatly appreciated by all carders.

*In Spinning.*—The superior working qualities of Alizarine Black are especially noticeable. The fact that Alizarine Black can be worked on same frame with white tells the story. The gain in number pounds yarn obtained from any quantity Alizarine Black dyed wool as compared with Logwood Extract Blacks is referred to later.

*In Weaving.*—Attention is called to the elasticity of Alizarine Black yarn as being practically the same as white, a point greatly appreciated by weavers, especially on heavy goods (putting in a large number of picks).

*In Finishing.*—Logwood blacks lose much of their brilliancy in finishing up. On the other hand Alizarine Blacks finish up practically same shade as when stock leaves the dye kettle, brightening up somewhat in tone, and have a look of freshness and newness which never characterize Logwood Blacks. The Alizarine Blacks are also much softer feeling, so much so that the cloth feels to be made of a finer and better grade of wool than it really is.

*Increased Quantity of Yarn.*—There is an increase in the quantity of yarn obtained from Alizarine Black dyed wool, as compared with any Logwood Black, either chips or extract. The amount of

this increase depends on the stock, and the character of Logwood Black. Taking the maximum results from the best logwood extract, the minimum gain has been found to be 4 to 6 lbs. yarn on 100 lbs. loose wool. On low class stock, where shoddy and wool are used together, the gain is larger and the strength of the yarn considerably greater. In making the claims we do, on comparative cost in finished goods, we allow for this increase in yarn obtainable. Figuring the yarn say at 40 cents per lb., you can easily determine net cost.

*Fastness.*—Alizarine Black is fully equal in fastness to the blacks formerly dyed on the top of a deep indigo bottom. (Blacks which cost from 14 to 17 cents per lb. to dye.) It has been demonstrated by exposure tests that the black will stand the most severe exposure in any part of the United States (Florida, Louisiana, Mississippi, Southern California not excepted). Any manufacturer can readily determine the difference in fastness on a 30 to 40-day exposure test on the outside of a building. This is a matter which is becoming to be regarded as one of considerable importance. With high grade goods, which sell at \$5 per yard and upward, in suit selling at \$50 to \$75, it is presumed that the colors are fast. At any rate, it is more a question of style in the cut of the garment. Those who can afford to pay \$50 to \$75 for a suit can afford to change with the style. On the other hand, it is generally conceded that cloths which enter into suits selling at \$10 to \$25 receive at least three times as much wear and exposure as the high grade goods. Fast colors are therefore more necessary in low and medium class goods than in higher grades. If the attention of your trade was called to a 30-day exposure test, it wouldn't take the buyer long to determine which black he would be safest in recommending.

*Acid Test.*—To distinguish Alizarine Blacks from either Aniline Blacks or Logwood, apply on the cloth a few drops of a solution of equal parts muriatic acid and tin crystals; after half an hour wash goods in water. Alizarine Black dyed goods show no change; all others are degraded.

*Cross Dyeing.*—This process is best known for cross dyeing purposes. Alizarine Black wool, woven into checks, can be redyed in the piece, even with acid colors, without causing the black to run, an important point to any who are interested in this line of work.

*Cost.*—The manufacturers show a saving of \$2 on a sample lot of 100 lbs. of wool treated with this dye.

This Alizarine Black is manufactured by Wm. Pickhardt & Kutroff, New York, for whom the sole Canadian agents are Bellhouse, Dillon & Co., Montreal.

### NEW DIRECT DYES.

A. Gerber & Co. are now introducing some very fine new colors, the principal ones being Opaline 2G, 5G, and R. These colors dye direct with Glauber Salts or Common Salts only, and are purer and livelier than the Benzoazurines, the Opaline R being a particularly concentrated color. The best results are obtained in soap bath with common salt. They have also got out a new Direct Cotton Blue 3B a and BX, which they claim are stronger than what they have been producing before. These are worked in the same manner and give the same results as their other direct blues. Rose d'Alger 6G is also one of their new colors, which is a very fine dyestuff. It is worked in the same way, and gives the same results as Rhodamine 6G. Samples and prices can be had on application to the Canadian agents, Jack & Robertson, Montreal.

The Dominion Trouser Co., Toronto, of which Jas. A. Grant is proprietor, assigned last month.

It is stated that a leading silk house of Chicago is sending machinery of the latest American pattern to Tokio, Japan, where it will finish its own silk products.

DAVID WHITE & Co., dry goods, Ingersoll, have assigned to John Ferguson, Toronto. D. White, who conducted this business alone, started up in 1860. He suffered loss by fire twice, and since 1872 has failed twice.

# Ostrich Feathers at Home

—that is, on the ostrich—are curled by nature. We have taken nature as a guide in the artistic work of feather curling. As to colors and dyeing, we think we can improve even on her work.

An ostrich with a set of our feathers would be a much prettier bird than one decked with nature's plumes. The Cleaning and Dyeing of Plumes, Tips, Fans and Boas is artistic work—our workmen are artists—the result is beautiful. If you have any stock of Tips, Flats or Aigrettes that are useless as they are, send them to us. We'll get the color right—color is a hobby with us—then we curl them and ship them back good as new. Prices are right—very low for large quantities.

## R. PARKER & CO.

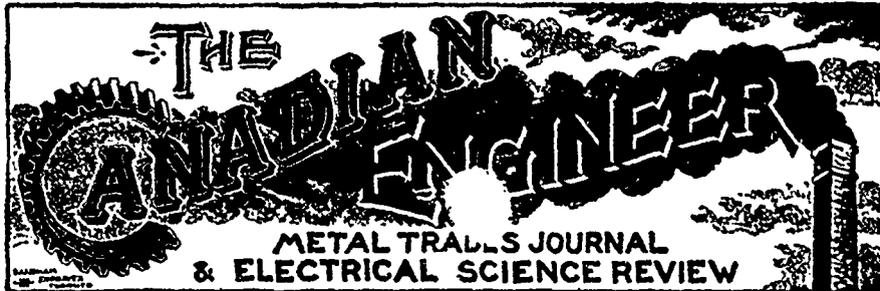
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MEDIUM  
IN  
CANADA



REACHING  
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BRANCHES OF  
PROFESSIONS  
AND TRADES  
INTERESTED

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**T**HIS Journal is devoted to the interests of Civil, Mechanical, Electrical and Mining Engineers; Stationary, Marine and Locomotive Engineers, Sanitary Engineers and workers in the metal trades, Machinists and Iron and Brass Founders, and generally to Mill-owners, Manufacturers, Contractors and the Hardware trade.

The success of the *Canadian Engineer* has been unprecedented in the history of trade journalism in Canada, for not only was it encouraged and assisted from the start by able Canadian writers in the various branches of engineering, but it achieved what was still harder to accomplish—a sound financial position within the first year of its existence. The number of subscriptions received, and the number of firms who have sought the use of its advertising pages, have justified the publishers in twice enlarging the paper in its first year, and preparations are now being made for a further enlargement. It is hoped, by this increase, to make it twice its original size. While this will mean a large growth in advertising patronage, it will also mean a greater variety of reading matter and illustrations for our subscribers.

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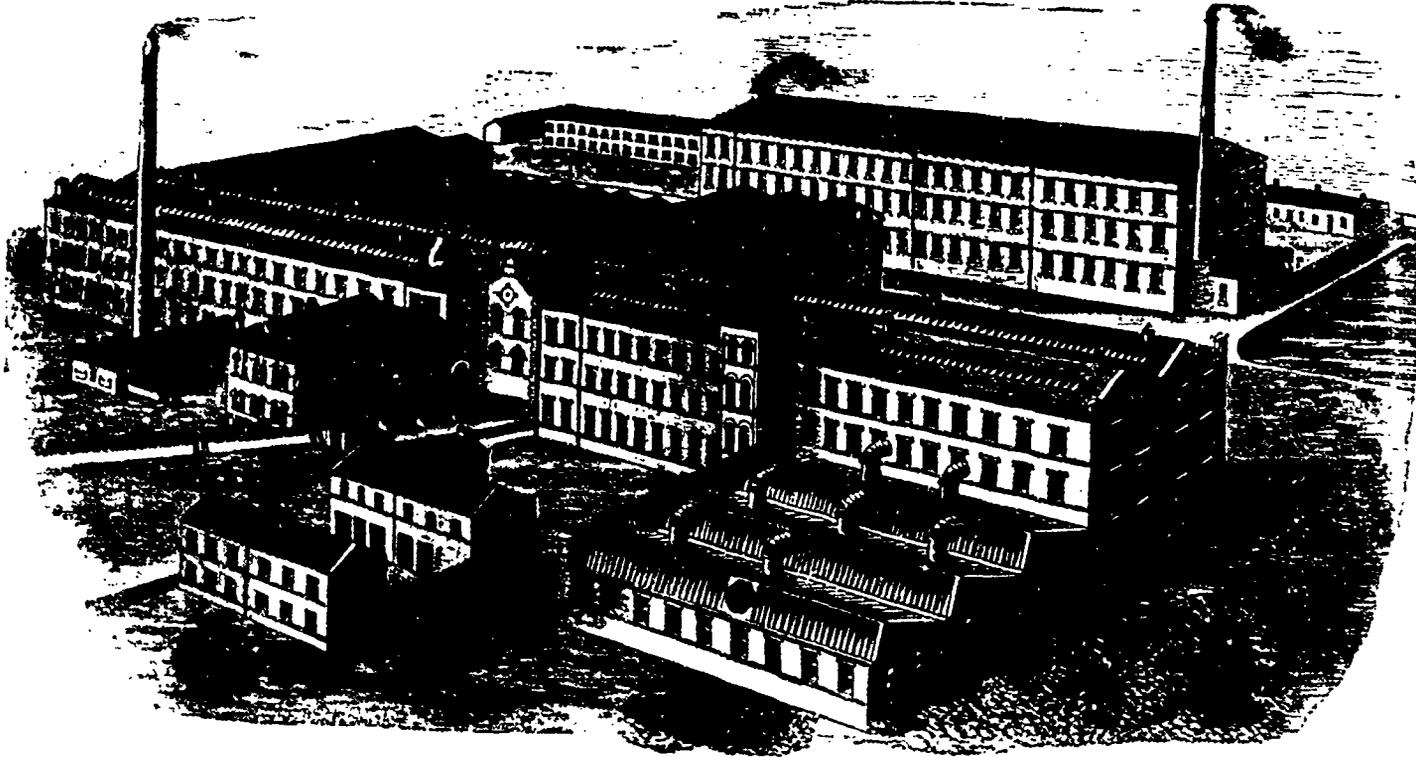
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Incorporated 1888

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— FOR CARDING —

Cotton, Wool, Worsted, Silk  
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With HARDENED and TEMPERED Cast Steel Wire

PATENTEES AND MANUFACTURERS OF

Patent Rolled and Compressed Double Convex Wire, Angular, Flat,  
Round and Flat, and Ordinary Round Wire Cards.

Samples, Prices and Testimonials on application

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**MONTREAL PROVINCIAL EXHIBITION.**

The fourth Quebec Provincial Exhibition will be held this year in Montreal from the 12th to 21st September. If favored by good weather this exhibition will be more successful than any of its predecessors. Many prominent firms are exhibiting this year, and an encouraging feature is the fact that a number of gentlemen have voluntarily offered gold medals and money prizes to induce competition.

Extra premiums are offered to the syndicates and inspectors of butter and cheese factories. The machinery and industrial departments have been carefully re-organized. There is no charge for entry, space or power in the machinery departments, and the exhibitors of agricultural implements will be permitted to provide power to suit their own requirements, as at the Toronto and other exhibitions. The management are assured that manufacturers in the province will determine to assist their own exhibition, and show to the farmers and people generally the value and character of their respective products.

A pleasing feature in connection with the Horticultural Department will be the competition by the pupils of the various city schools. Mr. Roy, the superintendent of the Mount Royal Cemetery, has supplied a special bulb to each pupil desiring to compete, and the best specimens shown will be awarded prizes. About 1,200 bulbs were given away this spring. R. Beullac, the well-known decorator, is arranging to have a grand historical museum, and from his thorough knowledge of artistic details and elaborate designs the public may anticipate a thorough treat. There will be an excellent programme of music and attractions provided, and the citizens and public generally may evidently look forward to a very superior exhibition. This year, for the first time in the history of Montreal exhibitions, there will be an excellent street car service direct to the grounds.

**TANNIN HELIOTROPE.**

W. J. Matheson & Co., Ltd. of New York and Montreal, have introduced a novelty called tannin heliotrope. The samples sent out are mordanted with tannin and tartaric acid, in the same way as any basic dyes. On cotton, mordanted with tannin and tartaric acid, tannin heliotrope gives a bright reddish violet, especially suited for the production of garments, as well as any reddish violet tints. In fastness to washing and light, it is equal on cotton to safranine, and far superior to methyl violet. Tannin heliotrope is not only well adapted for calico dyeing and printing, but also for silk dyeing, owing to its bright shade and the fact of its being much faster than methyl violet. The following recipe has been found to give good results in calico printing:—

30	grams.	tannin heliotrope,	} boil; when cold, add
240	"	hot water,	
50	"	acetic acid, 9 deg. Tw.,	
1200	"	thickening,	
60	ccm.	tannin, dissolved in }	
60	"	acetic acid.	

After printing steam, as usual, and pass through a tartar emetic bath.

**RECENT CANADIAN PATENTS OF INTEREST TO THE TEXTILE TRADES.**

C. C. Stewart, Philadelphia, Penn., has patented a carpet lining formed of a layer of paper, a ply of felt, and an intermediate filling of batting or wadding, and provided with an infold side. This lining will not only be valuable for the wear and laying down of the carpets; but will give to comparatively cheap fabrics that yielding characteristic which was formerly only obtainable in expensive carpets.

R. King, Mansfield, Louisiana, has patented a cotton gin, in which the lint cotton on the gin saws is removed by a draught of air and independently of brushes.

A. G. Ingalls and C. L. Higgins, both of Montreal, have patented a door mat formed of wooden sticks woven together with wire.

E. Johnson, Montreal, has patented a spring clamp for securing the ends of boot laces. The clamp is a small metal loop affixed to the boot, and the lace is twisted upon it.

J. A. Kramer, Brooklyn, New York, has invented a new fabric lining for dresses. The lining is woven in conical form to suit the shape of the skirts.

J. McIvor, Toronto, Ont., has patented a machine for painting fabrics. The materials to be colored are guided by rollers through a color tank and afterwards automatically scraped and dried.

F. W. Richardson and W. H. Gomersall, Brooklyn, N. Y., have patented a trousers protector, consisting of a flexible metal strip hooked to the back of the boot.

H. & N. E. HAMILTON, retail dry goods dealers, St. James street, Montreal, have bought the old Erskine Church property on St. Catherine street, and will build a large dry goods store upon it. It will have a frontage of 75 feet and a depth of 175 feet. One by one the retailers of Montreal have been getting out of St. James street and moving to St. Catherine street, which will soon be the greatest retail thoroughfare in the city. St. James street, which was once the fashionable retail street, is now given up to insurance and financial offices.

A CIRCULAR has been issued to collectors of customs warning them to be on the lookout for packages of clothing sent by parcel post through the Canadian post-office by a firm of clothiers in Glasgow, Scotland, named J. Thompson & Son. It appears that the firm has been sending drummers through Canada taking orders, which are delivered through parcel post. An invoice accompanies the goods, but the customs department warns collectors that this is a false invoice, which does not represent half the value of the goods, and that all packages shipped by J. Thompson & Son are to be stopped and the importer made to produce the true invoice, which is sent him under another cover and pay duty on that, or the goods will be confiscated.

At the recent annual meeting of the Hudson Bay Co. in London, it was reported that the quantity of furs sold by the company in January and March last was about the same as that sold in 1894. The improvement in prices, indicated in the last report as probable, was realized, and although the value of some furs declined, the majority of the changes show an improvement upon the low prices of last year, the principal advances being in marten, mink, lynx, and white fox. The information so far recorded from the company's trading posts encourages the hope that the quantity of fur to be imported before next year's sales may not fall short of the average. It is satisfactory to know that most of the furs traded by the company continue in fair demand, and should the general improvement in business continue and extend, satisfactory prices may be looked for at the next sales. The profits of the year were £60,778, and a dividend of 12 shillings per share was declared.

The following buyers for Canadian dry goods houses are reported in England: H. F. Gault (Gault Bros. & Co., Montreal), Arthur Gilmour (Montreal), A. Kirkpatrick (Vassie & Co., St. John), J. W. O'Hara Gordon (Gordon, Mackay & Co., Toronto), R. S. Waldron (Kingston, Ont.), J. B. Hayes (the T. Eaton Co., Toronto), Wm. Dewar (John Macdonald & Co., Toronto), Charles Cockshutt (Toronto), John Murphy, W. J. Sackling, J. Wener (Montreal), J. F. Robertson (Manchester, Robertson & Alison, St. John), Sam Munro (John Marshall, London, Ont.), W. H. Finch (Hamilton, Ont.), Geo. B. Fraser (S. Greenshields, Son & Co., Montreal), John Wilson (Montreal), R. C. Scott (Alexander & Anderson, Toronto), E. A. Reid (Ottawa), Fred. Walker (R. Walker & Sons, Toronto), John Jackson (St. Johns, Nfld.), David Morrice (D. Morrice, Sons & Co., Montreal and Toronto), J. P. Ross (Toronto), Frank Walker (Montreal), Hugh Baird, Jas. Baird (St. Johns, Nfld.), H. Robertson (Moses Monroe, St. Johns, Nfld.), G. H. Marshall (Marshall & Roger, St. Johns, Nfld.), J. Sanderson (John Macdonald & Co., Toronto), J. Robertson (Munro & Robertson, Hamilton), and W. H. Muldrew (Toronto).

McLEAN & Co, dry goods, Windsor, Ont, have assigned in trust to McDonald & Co, Toronto. The liabilities are about \$19,000, and assets nominally \$14,000. The latter are made up of stocks, \$12,500, and book debts, \$150. Martha Zoe McLean is the proprietress Her husband was formerly in the employ of

Wylde & Co., Toronto. He assigned in January, 1893, with about the same liabilities as at present.

BRETHOUR & Co. (Mrs. E. J. Brethour), who succeeded the insolvent firm of Brethour & Howden, as dry goods dealers, Hamilton, in 1879, seek a compromise with their creditors.

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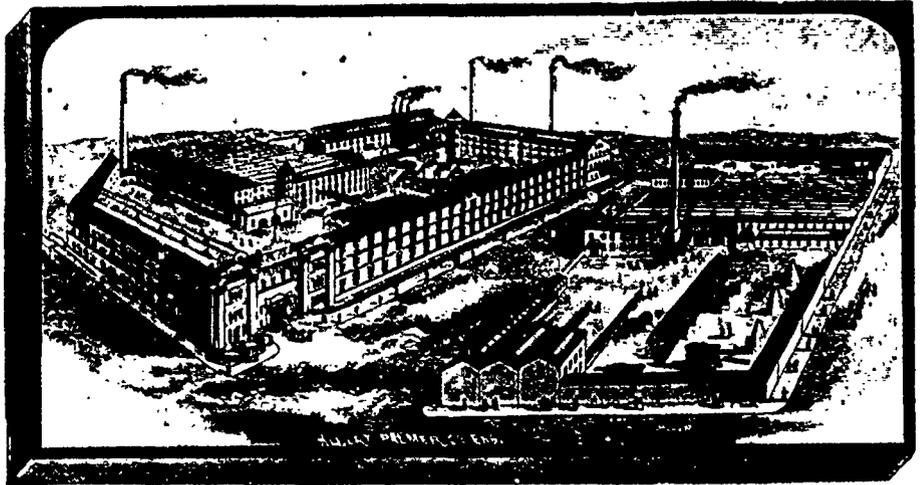
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