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CANADIAN Journal of Fabrics

THE JOURNAL OF THE Textile Trades of Canada.

Vol. XII.

TORONTO, MAY, 1895


No. 5


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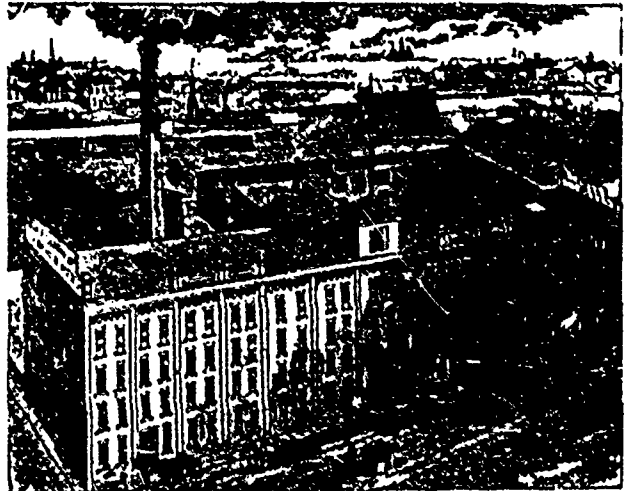
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DRYING WOOL BEFORE CARDING.

The wool worked in a spinning mill is not dried, but merely whizzed well before carding, and the question is asked whether it would not be of advantage in the spinning of the staple if the wool were dried previously? In answering this question, the experience of German manufacturers may be of interest. A writer in the *Monatschrift fur Textil Industrie*, after remarking that it is the aim of the spinner to produce an even yarn, says this can be obtained only when a certain quantity of water is added to the oil used for lubricating the wool in a dry state.

The adage that "experience is the best teacher" applies forcibly to the matter of oiling wool. Many a manufacturer has experimented according to his own

ideas, but has found himself forced to return to the old established method. It is best to adhere to the old and well-tried methods of lubricating wool, viz., to first dry it, and then while in a dry condition apply the required quantity of lubricant. No precise rules can be laid down, because the nature of the lubricant, as well as that of the wool, must be taken into consideration. For delicate colors and mixtures, olive oil is to be preferred, while for general purposes oleine is the lubricant most employed, principally because it readily saponifies with aqua ammonia, and does not then require any great amount of washing. If this lubricant is free from acid, the following directions should be observed. For a well-dried wool, capable of being spun into a thread of about 18,000 meters per kilogramme, 12 per cent. of oleine is generally used, and double that quantity of hot water, adding sufficient aqua ammonia to effect a complete mixture of the two substances. This is produced by continued stirring with a broom, and the mixture is to be used at once. By following this recipe it is not difficult for the expert to determine the necessary quantity of lubricant to be employed, taking a little less for inferior wool which requires less oil, and a little more for a better-grade staple. The color, the quantity of lubricant which much wool naturally contains, etc., must also be taken into consideration.

Carders generally agree on the correctness of the above rule, as long-continued experience has fully demonstrated the fact that wool in this condition works best upon the carding engine. It is also a well established fact that this manner of lubrication exerts the best influence upon the elasticity of the yarn in fine spinning, and, besides—and this is a very important point—the clothing of the carding engine is least injured. It would, therefore, appear inadvisable to treat the wool while in a wet state, even though it had been whizzed, because, no matter how well this operation might have been performed, the wool would still contain too much water. This excess of water causes great mischief, as it cannot enter into combination with the oil. The quality of the yarn depends principally upon the equal percentage of water throughout the entire lot of wool, as the weighings for the carding engine are always alike. Besides this, the method could be followed only in spinning mills, in which white or single-colored wool is worked exclusively.

Again, it is not difficult for a manufacturer to divide a lot of wet wool into two portions, then whizz one and let the other become dry before they are worked. Which of the two methods was really the more rational could then be readily decided. It may be asserted with perfect safety that there are few adherents to the method first suggested. The wool coming from the wash tub is softened by the water, and can offer no resistance to the force of the card teeth, and, in consequence, tears more readily and is reduced in length. Should the wool not have issued perfectly clean from the washing process, more injury is done, because the carder will find his card clothing gummed up, thereby necessitating more frequent cleaning and greater loss by increased waste. When a lot of dyed wool is in hand these evils are doubly aggravated. Many lots of dyed wool, in spite of the most careful rinsing, contain particles of color dust when delivered to the spinner, and when the wool is not dried it cannot be dusted. The adhering dyestuff combines with the lubricant and gums up the card clothing, while the wool being insufficiently oiled, passes through the card, turns out poor in yield, and makes a mediocre and often a weak yarn.

It might, perhaps, be asked, why should the wool be dried, since water is added to it as soon as it enters the spinning room, and, consequently, the heat used for drying is wasted to no purpose? At a superficial glance this consideration may appear important, but it really is without force. When closely studying the carding process, it will be seen at once what a great difference there is between wool softened by the liquor of the dye or wash bath, and that moistened superficially with water and oil, for the purpose of making it more pliable for spinning. While in the dye or wash bath the wool absorbs water to the limit of its capacity, while the percentage of oil and water used for lubricating is only sufficient to moisten the wool superficially, and make it more yielding.

UNEQUAL FULLING OF WOOLEN GOODS

How to reduce the felting capacity of woollen yarn spun from wool and noils, which fulls too much in proportion to other yarn with which it is woven, is discussed in a recent number of *Das Deutsche Wollen-Gewerbe*. The correctives applied in a case which served as an illustration were steaming and washing in warm water to which was added a little soda solution, but the result was not satisfactory. The writer says that perhaps another factor must also be considered which has not been stated in the case, namely, that the different yarns in the cloth are woven in different bindings, as is often the case in striped and checked goods. Although it is not to be understood that one binding increases the felting capacity of one kind of yarn and diminishes that of another, it is well established that the felting process with bindings containing few crossings takes place far quicker than with those in which there is an equal number of ends and picks in a certain measure, and the crossings are more frequent. If no

attention is paid to this circumstance when using various sorts of yarn, another error is likely to be committed at the same time by taking the yarn with greater felting capacity, in this case mixed with noils, for those parts of the weave in which the felting process naturally occurs quicker by reason of the more favorable binding proportions. Consequently the unequal felting of the cloth in the fulling will be much more perceptible.

Manipulations such as the steaming of the different yarns, even under strong pressure or a washing, or even a boiling, are of very little use in cases of the kind spoken of. They are rather calculated to render the process of felting more difficult, without taking into account the extra cost and trouble incurred. The noils, being the short and generally also the strongly curled staple separated in the combing, are the mischief makers, as in the present instance. They possess a great felting capacity, and if the supposition concerning the employment of various kinds of binding for the weave in question is correct, it would be advisable to always use the yarns with a smaller inclination to felting for those parts of the weave which, in consequence of their more favorable binding proportions, felt more readily in the fulling. This precaution would result in a better equalization of the felting.

Another remedy may be used in such cases. Those parts of the weave which felt with more difficulty than others may be drawn in not quite as heavy as other parts. For instance, they might be drawn in such a manner that in every alternate dent, or in every third dent of the reed, one end is drawn in less than in the other dents.

CAN WOOL DEVELOP COMBUSTION ?

"The question, can wool develop combustion? will strike practical men in this part of the world as rather amusing," remarks the *Bradford Observer*, England. "It is true that wool does not go off like a flash in a pan, as cotton does under such circumstances; but that it is capable of being fired, and even of firing itself, is an elementary fact which must be admitted by every one who has anything to do with it. So one would suppose. In Melbourne, however, where they certainly ought to know the behavior of wool, there appear to be some skeptics prepared to deny even that axiomatic proposition."

Several months ago the *Economist* discussed the question in reference to the dangers of vessels laden with damp-packed wool, and for this deliverance it was severely taken to task by the *Melbourne Argus*, which is reported as having roundly asserted that by universal experience wool is not inflammable, and that it is impossible to burn it. Evidently this self-imposed delusion does not prevail generally at the Antipodes, for the *Economist*, now returning to the charge, is able to quote a good deal of interesting Australian testimony concerning the danger to which it drew attention. Last September, as the *Otago Times* reports, the cargo of the "Gothic" had to be taken out in port, the wool being

too hot to hold, and scorched in several places. Several other instances of a like kind having occurred, the New Zealand Legislative Council appointed a committee of inquiry; but apparently the ways of circumlocution are not unknown under the Southern Cross, and the report of the committee is not yet forthcoming. In the meantime the Sydney underwriters' association employed an expert to examine consignments of wool delivered for shipment. He tested thirteen bales, and could only report that six of them were passable. Of the remainder one was suspiciously, and the other six dangerously, damp, besides being in several instances reprehensibly dirty. The *Economist* very rightly insists on the gravity of a piece of bad practice which may some day lead to an outbreak of fire in the hold of a mail steamer in mid-ocean. This is no fanciful alarm. In the early days of the Australian wool trade more than one of the old Black Ball line experienced the horrors of spontaneous combustion, and every reasonable precaution ought to be exercised by the shippers.

From the report of the Sydney expert this is evidently far from being the case. He states that the washing works are "all that can be desired," but that the processes are extremely hurried and careless. Of course, perfectly dry wool is about as attainable as the end of the rainbow. The very virtues of its qualities are due in large part to its extremely low hygrometrical point, and wool pronounced dry one day may be perceptibly damp the next, through nobody's fault, but that of the clerk of the weather. Still Australia is a rich land in sunshine, and with a little care there ought to be no difficulty about delivering wool at the ports in fit condition to be packed. According to the Sydney expert, "it simply wants more time in all the stages of handling, and then all the trouble will end."

FADING OF LOGWOOD BLACKS

It is a well-known fact that logwood blacks on wool, produced by different methods, vary greatly in fastness to light. Iron black is generally accepted as the most permanent color, and as it is incidentally, and as a rule, produced with the assistance of tartar, much credit is given to the latter substance. Equally good results, however, may be obtained with oxalic acid, bi-sulphate of soda, or even sulphuric acid. Hence tartar cannot have much to do with the result. Far more important is the presence of sulphate of copper, which is most generally employed with copperas, nor could it be omitted without lessening the fastness to light of the black in a most striking manner. In comparing the relative fastness to light of iron and chromium blacks, it must be borne in mind that iron yields a greyish black, and is, therefore, to begin with, never employed but for very deep shades, while, on the contrary, blue chromium blacks of less depths are in frequent demand. Hence exposure must apparently often show in favor of iron black, which, with its heavy deposit of lake, will offer a more prolonged resistance to light.

Chromium black may be modified to a jet black by fustic; but the presence of the latter, as it does not in any way add to the weight of the chrome-logwood lake, cannot, except unfavorably, influence the test of exposure. Moreover, chromium is frequently used without the aid of copper. A pure chromium black cannot bear comparison with either iron-copper or chromium-copper blacks. But if we dye equal quantities of logwood upon chromium bottom and iron bottom, both containing the same amount of copper, no difference in the rate of fading is perceptible.

In regard to the respective value of chips or rasped wood and dry or liquid extracts, the former yield the more permanent black, though some extracts come very close. The dry, friable product obtained by treating liquid extract with 5 per cent. of nitrite of soda and drying at low temperature, is very rich, and yields exceedingly bright shades; but they are so fugitive to light that they cannot compete with an ordinary black.

EGYPT AND ITS COTTON INDUSTRY.

A special correspondent of the *London Times* in Egypt has sent home some interesting and valuable papers on the situation in that country, and refers to the importance of the cotton crop as a factor in its prosperity. The annual income of the people, he points out, depends entirely upon the yield of their harvests and the marketable value of the surplus which remains available for exportation. The £12,789,687 at which the total value of the exports for 1893 is officially returned, represents, with comparatively small and unimportant exceptions, the produce of the Egyptian soil, and nearly five-sixths of that amount represents the yield of cotton and cotton seed. In the autumn of 1894, within the space of a few weeks—indeed almost of a few days—the price of cotton fell suddenly from £2 a cantar to £1.50, and even lower. Compared with the average price of the preceding year, this was a fall of 25 per cent. There was a simultaneous and equal fall in the price of cotton seed. Had not a considerable portion of the crop been sold before prices reached their lowest level, the gross national income from this its principal source would have been immediately reduced by one quarter; but though the results of this disastrous fall will not be felt to their full extent this season, they will have to be faced in 1895 unless prices recover, and unfortunately there is a general consensus of opinion among those most competent that, instead of looking for a recovery, one must be thankful if there is no further fall. The situation is peculiarly serious, occurring as it does, in a market which has already been steadily declining for some years past. If this season's prices show a fall of nearly 25 per cent as compared with those of last season, the fall amounts to fifty per cent if the comparison is carried back to 1889, before the present downward tendency set in. Until now, however, an equally steady increase of production formed an effective counterpoise in the shrinkage of values. The following table which the *Times* correspondent gives of

the yield and value of the Egyptian cotton crops during the last fifteen years, illustrates the inverse ratio of the concurrent fall of prices and increase of aggregate value, which has been so notable a feature in the recent economic history of Egypt:—

EGYPTIAN COTTON CROPS—1879-94.			
Years.	Quantity in Cantars of 30 kilos.	Average price per Cantar.	Total aggregate value.
1879-84 (annual average for the five years)	2,497,157	£3 184	£7,929,707
1884-89 (annual average for the five years)	2,735,087	2 769	7,565,230
1889-90	2,871,587	2 944	8,454,983
1890-91	3,638,455	2 549	9,281,209
1891-92	4,194,580	2 047	8,593,655
1892-93	4,610,369	2 043	9,510,292
1893-94	5,073,000	1 910	9,639,430
1894-95 (approximate estimate)	5,000,000	1 50	7,500,000

It will be seen that up to 1889, subject to slight fluctuations, both the prices and the yield remained on the whole nearly stationary, but from that date the situation undergoes a startling transformation. Whilst the prices steadily decline, the production until this year increases by leaps and bounds, so that last year, with the lowest prices until then on record, the highest aggregate value was reached.

THE FULLING OF STRIPED BLANKETS.

To a query as to whether it is better to full yellow, mixed or white blankets having colored stripes, with soap in the cylinder machine or in the crank machine with fuller's earth, the two following replies are given in *Das Deutsche Wollen-Gewerbe*:

The first advises the use of the crank fulling machine because, in order to prepare the blankets for the cylinder machine so as to have a sufficiently long rope, it would be necessary to sew a number of them together, and the seams would cause an unsteady motion of the machine. The use of soap would give a more compact felt than fuller's earth. On the other hand, the loss of fibres would be great with earth than with soap. If the loose feel produced by the earth is preferred, and if the somewhat lower price of the earth is to be considered, it would be advisable to use the crank machine. Another point to be considered is whether the colored stripes are entirely fast. The alkali of the soap might have an injurious effect upon the color, while the earth would not.

The question as to whether soap or fuller's earth, crank or cylinder fulling machine is best suited for fulling woollen blankets, according to the other reply, cannot be decided off-hand in favor of either method. It rather depends upon the quality of the cloth desired, whether loose or firm, and upon the quality of the wool material itself, as well as upon the fastness of the colors in which the stripes are dyed. Soap produces a firmer and more compact piece of goods than fuller's earth, which gives to the cloth a looser and more spongy appearance. As there is a greater loss of fibre by the use of the earth, it is not advisable to use it for blankets of inferior and short material. In such a case the use of

soap and the cylinder machine is to be recommended. An important factor to be considered is the fastness of the colors used in the blankets. If they are not fast against fulling, soap cannot be employed. Even the urine, generally used for dissolving the earth, must sometimes be dispensed with, as it influences some colors, especially red. A point in favor of earth is that the white of blankets fulled with it generally remains cleaner than when soap is used. The latter is apt to cause a yellow tinge, especially if a very alkaline soap is used. Nevertheless, if the colors resist soap at all, mixed and colored blankets can be fulled in the cylinder machine. In fact, its use is to be recommended, as it improves the quality of the goods.

AMERICAN INGRAINS IN ENGLAND.

Following the shipment of American moquettes to England, the firm of Boyd, Harley & Co., of New York and Philadelphia, have sent a quantity of American ingrain carpets to England and the continent. While this is flattering to American enterprise, Mr. Harley says, in an interview, that no special significance can be attached to the sales of American carpets in England. Apart from the sales which have been made in England by the Alexander Smith & Sons Co., of Yonkers, N.Y., the only American carpets sent there are the cheapest grades of ingrains, made almost entirely of cotton. Smith & Sons Co. are able to sell their goods in England because they manufacture a specialty which they control, and they have capacity for production which exceeds the demand for the home market, but for the goods they sell in England they get less than they receive at home. They have some little advantage over English manufacturers in the matter of machinery, but the trade is not important, for in England, as in this country, ingrain carpets are on the decline. As three quarter goods decline in price, people buy them in preference to ingrains. Country people now are the principal buyers of ingrain carpets, and even the well-to-do farmer wants a Brussels carpet for his parlor nowadays. In Brussels and higher grades of carpets the English manufacturers still have the advantage, and there is no chance for American goods of those grades in England.

COMMENTING on the remark of a correspondent who objected to the union of Newfoundland with Canada on the ground that the islanders would have to buy Canadian "shoddy," the *Textile Mercury*, of Manchester, remarks: "Federation with Canada would strengthen Newfoundland politically and financially, and for this advantage the islanders must give something in return. They need not buy Canadian 'shoddy' at all, even after union. Toronto, Montreal, and Quebec houses import very large quantities of textiles from Europe, and firms in St. John's could do the same, even after confederation. What the islanders seem to want—or some of them, at any rate—would appear to be financial assistance, without any conditions attached. They are not likely to get it."

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*Silicates, Ducks, Cambrics, Percaloes, Sateen
Jeans, Turkey Reins, Pocketings, Bearded Twills,
Lancettes, Shoe Goods, Window Hollands, Cor-
set Cloths, Satines, Marseilles Cloths, Suitings,
Shirting Satines.*

The Globe Woolen Mills Co., Ltd.
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*Tweeds, Cassimeres, Meltons; Box, Costume
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*All Kinds of Dry Goods in the Piece
Re-dyed, Finished & Put Up.*

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Ribbons, Silks, Velvets, Plushes,
Laces, Nets and Veiling technically
treated, Re-dyed, Finished and Put
up. Work guaranteed the best.

Ostrich Feathers Dyed, Cleaned and Curled,
English or Parisian Mode.

Superior Garment Dyeing & Cleaning
IN ALL ITS BRANCHES.

FRENCH CLEANING
(Nettoyage en Sec.)

A wonderful invention for Clean-
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and all other expensive articles. Guaranteed no Shrinkage
or color running.

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NEW WORKS, VERDUN.

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Buffalo Robes**

Buffalo Fur Cloth Coats
Black Dogskin Cloth Coats
Astrachans, Lambskins
Stripe Jerseys, Elder Downs
Glove and Shoe Linings



Factories at GALT, Ont., and BUFFALO, N.Y.

HAWTHORNE WOOLEN CO., Ltd.
CARLETON PLACE, Ont.

MANUFACTURERS OF

FINE TWEEDS, CASSIMERES, Etc.

SELLING AGENTS:

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ESTABLISHED 1859

THE C. TURNBULL CO.,
OF GALT, Limited.

MANUFACTURERS OF

Full Fashioned Lamb's Wool Underclothing, Hosiery and
Knitting Yarns. Perfect Fitting Ladies' Ribbed Vests,
Sweaters, Jerseys, Knickers.

THE

Dominion Cotton Mills Co., Ltd.

MAGOG PRINTS



A FULL RANGE OF

Pure Indigo Prints

is now being shown to the Trade.

Ask Wholesale Houses for Samples.

All Goods GUARANTEED and stamped "WAR-
RANTED INDIGO BLUE."

D. MORRICE, SONS & CO.
MONTREAL and TORONTO

SELLING AGENTS

McKELVIE & DUNWOODIE, Brandon, are moving to Winnipeg to open in dry goods.

The warehouse of S. F. McKinnon & Co., wholesale millinery, Toronto, will cost \$45,000.

Work will shortly be commenced on the new clothing factory of Walter Blue, Sherbrooke.

PAINE & BUCKE, retail dry goods, Hamilton, have dissolved and the business will be continued by N. A. Bucke

R. C. WILKINS, clothing manufacturer, has moved from the Fraser Building, Montreal, to 193 McGill street.

R. N. SMYTH, of H. L. Smyth & Co., Montreal, who is now in England, expects to return towards the end of May.

GRAFTON & Co., retail dry goods dealers and clothiers of Dundas, Peterboro and Owen Sound, are opening a branch in Hamilton.

J. W. CANNIFF, manager of the Canada Corset Company's business, Montreal, died last month, and was buried in Belleville, his old home.

H. SHOREY & Co., wholesale clothiers, Montreal, have sent to their customers photographs of Sir Mackenzie Bowell and Hon. Wilfrid Laurier.

CONTRACTS have been awarded for firemen's suits for the Winnipeg fire department, as follows: Thirty-six suits, to Wm. Scott, at \$17.65, and an additional \$1.25 each for seven officers' suits. For thirty-six pairs rubber boots, the tender of the Hudson's Bay Company at \$2.17 per pair was accepted.

REMARKABLY LIKE WOOL!

Send for Samples, and examine the appearance and texture of

PERUVIAN COTTON

A very grand Mixing Cotton

SMALL HANDY BALES.

ALFRED BOYD, 1 WELLINGTON STREET EAST, Toronto

—Dealer in—

FULLER'S EARTH, BORAX, CHEMICALS, etc.

DICK, RIDOUT & CO.

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REPRESENTING

GEORGE HOWE & BROS., Manchester, England
Grass Cloths, Flannelettes, Cotton Dress Fabrics, etc.

GEORGE HOWE & BRO., Dundee, Scotland
Hessians, Hop Sackings, Webblings, etc.

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CORRESPONDENCE SOLICITED

J. Ironside Thomson

COMMISSION MERCHANT and MANUFACTURERS' AGENT

European Manufactures:

GEBRUDER BOCHMAN, Meerane and Mulsen, Saxony—
Plain and Fancy Dress Goods and Overcoat Linings

FRANS MUTSAERTS & ZONEN, Tilburg, Holland—
Serges, Vicunas, Beavers, Naps, Ulster Cloths, etc.

Canadian Manufactures:

GILLIES, SON & CO., Carleton Place—Fine Tweeds
HARRIS & CO., Rockwood—Friezes, etc.

Correspondence Solicited. **TORONTO and MONTREAL**

JOSEPH BLONLEY, card room overseer in the Milltown, N.H., cotton mill for the past five years, has resigned his position

A FEW days ago Henry Cohen, a leading Hebrew clothier of Toronto, was arrested and remanded on a charge of fraudulently secreting his property and assigning. The Furniture Association of Ontario is prosecuting the case.

HARRIS & STUART, dry goods dealers, Charlottetown, P. E. I., are closed out under bill of sale held by Gault Bros. & Co., of Montreal. The business will be continued by T. J. Harris in his own name

CLAYTON & SONS, clothing manufacturers, Halifax, N. S. have moved into their new factory and warehouse on Jacob street. The new building is 100 feet square, four stories high, and 300 hands are now employed by the firm

JAS. A. GANTLIE & CO.

GENERAL MERCHANTS AND MANUFACTURERS' AGENTS

Established 22 Years

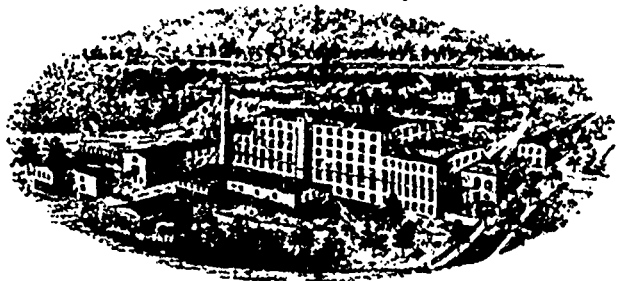
Cottons—Grey Sheetings, Checked Shirtings, Denims, Cottonades, Tickings, Bags, Yarn, Twine, etc.
Tweeds—Fine, Medium and Low-Priced Tweeds, Serges, Cassimeres, Doonings, Etoffes, Kerseys, etc.
Flannels—Plain and Fancy Flannels, Overcoat Linings, Plain and Fancy Dress Goods, etc.
Knitted Goods—Shirts, Drawers, Hosiery, etc.
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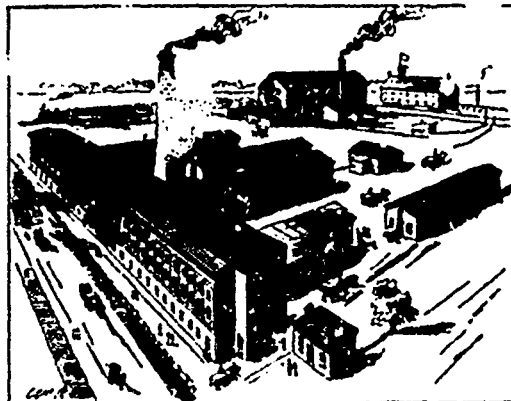
ROSAMOND WOOLEN CO., ALMONTE, Ont.



Fine TWEEDS, CASSIMERES, and Fancy WORSTED SUITINGS AND TROUSERINGS

Colors warranted as fast as the best British or Foreign goods.

Hamilton Cotton Co., Hamilton



Manufacturers of

Cottonades, Denims, Hosiery Yarns, Beam Warps, Carpet Warps, White and Colored Yarns,

Lampwick (standard and special sizes), Webblings, Bindings, etc. Best in the market.

SELLING AGENTS:

D. MORRICE, SONS & CO., MONTREAL and TORONTO
Agents for Beam Warps: PAUL FRIND & CO., TORONTO
Agents for Webbing: A. McT. WATT, MONTREAL

CANADIAN COTTONS.

There has been a good deal of talk during the last two weeks of a general rise in the price of Canadian cottons, in consequence of the rise in raw cotton in the States and England. Egyptian cotton has gone up 1½d. per pound, but this affects the finer grades of cotton, of which the amount made in Canada is limited. The rise in American raw cotton has proved to be of that fluctuating kind which leaves a good deal of uncertainty about it. There was a general rise in American goods quite recently, but the rise has not been maintained except in a few special lines. In England, Horrocks, Crewdson & Co. have advanced their prices 2½ to 5 per cent., and other makes have obtained slight advantages. Cotton and worsted yarns have risen, and both floor cloths and table oil cloths have gone up. For some lines of sheeting made by the Dominion Cotton Mills Company an advance of 5 per cent. has been asked, and the Merchants' Manufacturing Company have withdrawn the discount on one special line of goods, but as a matter of fact there has so far been no general advance made, and the prospective advance depends a good deal upon the tendency of the raw cotton market in the near future.

EXPORTS OF TEXTILES—GREAT BRITAIN TO CANADA.

The following shows the value in sterling money of the shipments of wool and textile fabrics from Great Britain to Canada for March and for the first quarter of this and last year:

	March.		Three months ended March.	
	1894.	1895.	1894.	1895.
Raw wool	£ 206	£ 436	£ 2,090	£ 929
Cotton piece-goods	30,090	46,196	164,534	182,632
Jute piece-goods	5,833	7,668	27,737	25,572
Linen piece-goods	7,774	14,501	40,639	49,313
Silk, lace	3,424	2,600	15,481	14,760
" articles partly of	2,788	2,658	9,661	7,850
Woolen fabrics.....	15,258	20,662	70,778	65,320
Worsted fabrics	36,416	47,392	163,598	161,947
Carpets	27,333	28,526	89,358	83,740
Apparel and slops	24,736	38,934	66,672	100,241
Haberdashery	19,938	19,703	66,029	51,579

BELDING, PAUL & Co., silk manufacturers, Montreal, have introduced machinery for the manufacture of double satin ribbons. Samples of these new goods, the first of their kind produced in Canada, are being shown to the wholesale trade, and are pronounced quite a success.

THERE appears to be a very general feeling among the mills that an improvement in business will soon set in. Prices are, however, still rather unsatisfactory, but with a tendency to an advance, as evidenced by the decided advance in prices of wool, yarns and all other raw material.

SPEAKING of the prospects of the Manchester ship canal, a correspondent of the *Warehouseman and Drafter* says. Consignments by the India and China boats sailing from Manchester continue to be very sat-

isfactory. The "Hispania" on her second trip for Bombay took 2,000 tons of local piece goods. On her first voyage she only conveyed 700 tons. The "China Mutual" liner "Keemun" has sailed with 6,000 packages of piece goods, etc., and 500 tons of machinery. A service has been commenced between Manchester and Waterford, arrangements having been made by a committee of local provision traders with the Waterford Steamship Company. The line is likely to prove useful to some of the wholesale drapery houses. A service from Montreal is to be commenced this month. A Canadian line is likely to prove useful to the many buyers from the Dominion who visit the Manchester and West Riding markets regularly. As to the canal itself, it is a matter for regret that after spending some £15,000,000 on the construction of the waterway the company should be left with so little working capital.

THE *Dry Goods Economist*, of New York, recently published a letter from Shepard, Norwell & Co., of Boston, giving an account of a very successful special sale which lasted a week and was devoted exclusively to American goods. The sale occasioned a good deal of talk, and was financially quite a hit. Here is a hint for some enterprising Canadian retailer. It might surprise the majority of Canadians to find what a variety of goods of native manufacture could be gathered together if one had the Canadian manufacturers well represented. If the best, as well as the cheapest, of Canadian goods were displayed in one store, the consumer would find that many lines which were supposed to be made in England, France, Germany or some other foreign country, were the products of our own factories; and such a display would greatly impress the average purchaser. Such a show, if made at all, should be thoroughly representative, as to variety of home manufactures. With decorations of maple leaves, Canadian flags, etc., a great deal of interest could be centered in such a sale.

REVIEWING the condition of the Irish woollen trade, the *Irish Textile Journal* says: "That medium to high-priced Irish cheviots have been taken up freely almost goes without saying; in every respect, whether of texture, finish or design, and, as a matter of course, as regards durability, they are now generally acknowledged to be easily first; even the best Scotch makes, so long considered the foremost in all these respects, have been ousted from their place, and now occupy only a secondary position. With the exercise of the same care and attention that have distinguished the efforts of the Irish manufacturers for some seasons past in the improvement of make and finish, and the production of designs possessing novelty and freshness of effect, there can be little doubt but that Irish cheviots may continue for long enough to hold the lead in public favor that they at present possess. A notable and satisfactory feature of the trade is the increasing demand for Irish saxonies, both in the narrow and six-quarter widths. The narrow widths are chiefly taken in the local trade, but a fair proportion of the wide goods are included in the orders

from the English trade centres, where they are steadily making headway and gaining a sure place in the market. Saxonomies range up to higher prices than do chevies, and present a better field for the production of variety of qualities, besides affording more scope for a remunerative rate of profit. The selections here, too, are considerably in excess of those of last year at this season."

THE following facts concerning the textile application of the aloe fibre are taken from a report forwarded from the Austrian Consulate at Bombay to the Austrian Ministry of Commerce. Although, no doubt, many of our readers are familiar with them already, this re-statement by an Austrian observer will not be without interest. It seems that Austria-Hungary as yet is almost unacquainted with this textile fibre, which has now for some years been exported from India in considerable quantities to England and Belgium. It is the fibre of the aloe (*Agave Americana*), originally an American plant, but now naturalized almost throughout India. It is used there for hedges, and since it can bear either a hot or a cold climate, it is diffused over almost the whole country. The roots, and especially the leaves, of this aloe furnish a capital vegetable fibre, which is known under the name of *Pita Feasul*, or vegetable silk, and is employed in England and Belgium for the manufacture of ropes, cables and carpets. Europe's rapidly-increasing demand for cheap and good textile materials may open up in course of time a not unimportant place for this aloe fibre, which might compete with the dearer jute, and also with hemp. The aloe fibre is strong, white, and glossy, can be easily dyed, weighs relatively little, and possesses remarkable power of resisting the influences of the weather, especially damp. The carpets made of it are characterized by their strength.

Wool sliver must be bleached quickly and in the cheapest way, usually (according to the old process) with sulphur. Before sulphuring, the wool is blued in a soap bath, for which purpose a machine is used similar to the washing machine employed for washing printed fabrics, with this difference—in place of having seven or eight bowls, it has only three. The first of these always contains boiling water; the other two the soap bath, tinted with methyl blue. The machine itself consists of four parts for the drawing through of the wool. Six slivers pass in each part; in all 24 slivers, which run off from the bobbins placed behind the machine. After passing through, the sliver is squeezed out well upon the machine and then run into yarn nets. It is then whizzed out in a suitable manner to completely remove the excess of fluid. The bleaching is performed in the following manner: For 100 lbs. of sliver, take 5 lbs. potash soap and from 1 to 2 drachms of methyl violet 6 B, according to the extent of the yellow shade in the wool. After running through this bath as described above, the sliver is hung in the stove and exposed for 12 to 16 hours to the fumes from 3 lbs. of sulphur. The sliver is then taken out of the chamber and hung in the open air for three or four days, to free it from any sulphurous odor, and then, if necessary, is dried.

POTASH AND SODA FOR WASHING WOOLEN YARN AND CLOTH.

It has been repeatedly pointed out, says a writer in the *Deutsche Wollen-Gewerbe*, that for washing wool and piece goods the potash treatment, in many respects, is better for the wool fibre than soda, and that it is advisable to use potash either alone or in the form of soft soap for this purpose. Although the correctness of this assertion is still doubted by many, it is a fact, established by numerous experiments, that the effect of potash upon wool fibre differs in several important particulars from that of soda. This is easily explained, for although the two materials have one point in common, being both alkaline, and in their combination with carbonic acid serve as detergents, they are, in other respects, agents of different natures, and in their chemical reactions vary entirely from each other. In England and the United States, where the use of potash is far more general than in Germany, it is said that wool washed with potash is much finer and silkier in touch than that washed with soda, and is not so liable to become yellow. The experiments referred to confirmed the truth of these assertions. It was ascertained that samples of precisely the same grade of wool, treated with these two agents, showed that the one washed with soda was much harsher in "feel" than the one washed with potash, and, after drying, it assumed a yellowish tinge not visible in the sample treated with potash. The chemical process which produces the yellow tinge upon the wool with soda is still not sufficiently well explained. It is possible, however, that the influence of the soda upon the covering of the wool fibre, which contains fairly large quantities of sulphur, produces the yellow tinge by liberating the latter. Potash has no such reaction. On the contrary, it has a bleaching effect. The harsher feel produced by the soda shows that it attacks the surface of this fibre more strongly than potash. Even the fact that the wool yoke impregnated only with potash salts, but never with soda or its salts, is sufficient to show that potash is more appropriate than soda, and this is generally accepted where potash and the soft soap prepared therefrom have been employed. Complaints that wool became harsh and yellow were far less frequent formerly when wool was washed with urine, or the goods washed and fulled with earth and potash soap. This injury to the fabric is partly due to misuse of soda or unduly strong lyes. The use of these agents, however, is required to day by many of the grades of wool used in the textile industry, especially foreign wools. The necessity of employing larger quantities of lye is the reason why soda is used as a detergent, for potash would be too costly. But whether it is wise to chiefly regard the cost is doubtful, to say the least. The consideration of price should be left entirely out of view when it is desired to obtain a white and soft wool. The manufacturer who produces white goods, cloths, flannels, etc., should never use any other detergent than either potash or potash soap. Experience shows that soda, even under entirely normal conditions, exerts an injurious influence on the wool fibre, and this fact is now becoming well understood. As a proof of this, experiments to obtain a milder detergent have been made for a long time, and carbonate of ammonia, a milder form of soda, has been employed for wool washing for a number of years, this agent being preferred to the ordinary soda, at least, where the preservation of the good qualities of the wool fibre is desired. From a financial point of view, however the situation is less favorable, because greater quantities of ammonia soda, as well as stronger lyes, are necessary. Besides this, cases occur when filthy and dirty wool is to be washed, where ammonia soda, even if used in larger quantities, is not as effective as it should be, and the bath must be strengthened with calcined soda. Notwithstanding this, however, the use of ammonia soda is advisable for fairly clean wool, as this will give it a soft feel and clean appearance, similar to that washed with potash. Potash lye and soft soap are very excellent agents for the scouring of yarn, and should be preferred to soda lye and hard soap, especially when finer qualities of white yarn are to be treated, and it is necessary to have them soft and supple. A recipe for a washing process, which was formerly used very successfully in England, consisted in treating the yarn coming from the spinning frame with potash lye (2½ ozs potash to

10 lbs of water) at a temperature of 48° R. [148° F.]. The yarn was then to be rinsed with warm water, and afterwards passed through a slightly acid bath, of sulphuric acid (2 ozs. to 10 lbs. of water), in order to neutralize the excess of potash. It is worthy of mention that in this process (Harris) a vacuum apparatus was used. The yarn was placed in a cylinder, which was closed hermetically, a vacuum being generated by means of an air pump. The scouring liquor was then introduced. Air was again admitted in order to increase the action of the lye upon the yarn. The yarn was squeezed out after twenty minutes, and the liquor decanted. The excess of lye was, in the same manner, neutralized by a treatment with sulphuric acid. Soft soap and a little ammonia liquor are the best detergents for fine yarn. Soft soap of medium strength is also excellent for scouring the cloth before fulling. By a little attention, it will become just as clean as when treated with soda, but remains softer in feel. There is far less danger that the colors will be attacked, or that the pieces will become hard and board-like, as is the case with the least inattention where soda is used. Soft soap and fuller's earth were formerly the only agents used for scouring before fulling. They have been compelled, however, in nearly all mills, to give way before soda, the use of which has become more extensive since red oil was first employed as a lubricant in the spinning mill. The oils used before that time were nearly all of vegetable origin, such as rape oil, olive oil, etc., and could not be expelled as easily by soda as they could be by potash soap and fuller's earth. On the other hand, red oil is easily saponified with soda, and the use of this powerful, and at the same time cheap, alkali readily suggested itself for scouring purposes. Of course, the operator who uses it must exercise great care. If soda is used judiciously it is not so dangerous, the action of this alkali being counteracted by the oil contained in the wool. But the difficulty is to calculate the quantity of soda and the strength of the lye to be employed in neutralizing the oil and greasy substances contained in the cloth. Even if the intelligent workman were to succeed in this undertaking, has not the manufacturer to deal with the ignorant and thoughtless help? If the lye is too weak, the cloth is not cleansed, if too strong, the excess of alkali injures the wool fibre and makes it harsh and dry. Many fullers adhere to the rule that it is better to take too much soda than too little, and do not take into consideration how much they injure both the appearance and the quality of the cloth. The finisher knows too well how often he is called upon to expend his art on hard, board-like pieces of goods, which, even though he may exert his best efforts, will never become soft and pliable, while yellow and dirty looking goods can never be bleached, no matter how much they may be sulphured. All these disagreeable occurrences are avoided by using only soft soap for the washing of woolen cloths prior to fulling, that is, a soap containing the correct proportion of alkali. The increased cost of this detergent is more than compensated by the improved quality of the cloth. It is, of course, a primary condition that the soap be free from adulterations, such as starch, water glass, etc. The manufacturer is sorely tempted to use adulterants, and the fact that the soap is often marketed in this condition has contributed not a little to the general introduction of soda. The ammonia soda has recently been employed for stuff washing, but for this purpose soft soap is preferable.

INSOLVENCY LEGISLATION.

Editor CANADIAN JOURNAL OF FABRICS:

DEAR SIR,—Now that the Premier, Sir Mackenzie Bowell, has introduced his last year's measure of insolvency legislation into the Senate for reconsideration, and I hope for matured results, one may be pardoned for offering a few suggestions thereon. In my last communication in your March number, I especially directed the attention of your readers to the iniquitous clause promoted by the banking interest, and accepted by Sir Mackenzie Bowell, in the bill named, and now before the Senate.

I give as my reason for referring you to this particular iniquitous clause the glaring injustice it will further be against the interests of all traders. The banking interest have already an Act (the Bank Act),

which protects their dealings with clients, and enables them by means of continuous liens to cover fluctuating advances and discounts, these liens often covering assumed values of stock, machinery and real estate, far above the actual advances made by the bank to the client. Thus, when the financial stress comes upon the trader, the banks are enabled by this power given to them to close down and swipe away all available realizable assets, and leave the general trader and creditor unable to realize a single cent, all having been covered by the banker's running lien. What will be the further result to the banking interest if the clause in the bill now before the Senate becomes law?

The banks now can only claim the deficiency that may be left of bills under discount, on the said bills not being paid at maturity, and considered unrealizable—and under the Bankers' Act claimable under the terms of the running lien executed by the debtor before his failure. If the clause in the new bill becomes law, they will be creditors for the full amount of bills under discount and unmatured at the time of failure of the debtor.

So with the bankers' lien and claiming to rank as creditors for all bills under discount, as just noticed, the rich banking interests will carry off all available assets in every insolvent estate. This is class legislation with a vengeance. It is worse than the beer interest in England, when they, by a combination of the English Church clergy, brewers and stock exchange speculators, defeated a Liberal ministry who proposed a 25 cent duty upon every barrel of beer brewed by the rich syndicates who controlled the vast brewing establishments in England.

We have a law against combination of syndicates, championed by Comptroller Wallace. I wonder if it will apply to the banking interest when they get this new clause into operation.

Within the last month there has been a case in point, which illustrates the baneful effect of the Bank Act and its lien provision.

The Weston Woolen Manufacturing Co., Western Ontario have had to assign for the benefit of the creditors. Ah! this is veritable sarcasm, since the Canada Permanent Investment Company and the Union Bank will clear the whole of the available assets in this insolvent company. The statement read at the creditors' meeting was partly as here stated:—

Canada Permanent Loan and Savings Co., 1st mortgage	\$ 47,613 29
Union Bank, as 2nd mortgage.....	54,792 14
	<hr/>
	\$102,405 43
Real estate, mills and equipment..... \$219,607 21	
(Not likely to be realized.)	
Leaving balance of.....	117,201 78
	<hr/>
	\$219,607 21
2nd Item—	
Union Bank, goods hypothecated	\$15,612 07
(Covered by advance)	<hr/>
3rd Item—	
Manufactured goods in process	\$11,790 51
Rugs, wool and materials	9,050 43
Mill supplies	13,417 34
	<hr/>
	\$34,258 28
This is under the continuous lien of the Bank Act for uncovered advances	16,000 00
	<hr/>
Balance.....	\$18,258 28
	<hr/>
There are trade creditors	\$28,657 58
Ditto by Mr and Mrs. Wilby.....	16,709 71
	<hr/>
	\$45,367 29

The only available asset to enable the trade creditors to get anything out of this estate would be the \$18,258, but this is covered by the running lien held and I suppose regularly renewed by the Union Bank. This particular lien was the cause of the disruption of the company. The directors called upon the managing director to send in his resignation, which the Union Bank resisted, so hastened the collapse.

Who has any pity for the poor trade creditors who will be left

without any asset to help to repay them a part of their claims? In view of this, nobody, I guess, not even the effeminate Senate, will consent to give another strong power to the banking interest, which will still further enable them to grab all of the realizable assets of every insolvent estate, and ultimately be able at all times to dictate any terms to the whole commercial interest of the Dominion. Are our Boards of Trade under the ægis of the growing power of the banking interest? Let them speak and act, and stop this further attempt of the rich millionaire banking institutions to thrive upon the misfortunes of the rest of the commercial interest within the Dominion.

I would recommend our legislators to study the Bankruptcy Act now in existence in England; then they will see how, by that Act, the poor unfortunate trader is protected and dishonest ones punished, and no undue preferential Act such as our Bankers' Act, and the clause part of the proposed insolvency law now before the Dominion Parliament I am, respectfully,

WOOLLEN MANUFACTURER.

Montreal, May 9th, 1895.

WORTH'S CAREER.



de la Paix, where he began by employing fifty hands, but ultimately employed 1,200.

Princess Matternich, the Austrian ambassador's wife, was one of Worth's earliest customers, and recommended him to the Empress Eugenie, after which all fashionable Paris thronged to him. During the siege of Paris he turned his premises into a military hospital. The supremacy of the French capital as the seat of fashion seemed for a time imperilled; but though France had no longer a Court, Mr. Worth continued to cater to royal families abroad, as well as for the rich American and other visitors. Though he had some years ago turned over the business to his two sons, MM. John and Gaston Worth, naturalized Frenchmen, he was to the last a constant frequenter of the establishment. He did not mix much with the English colony, but was a liberal contributor to French charities. In his Champs Elysées house and his villa at Suresnes, just beyond the Bois de Boulogne, he had collected many artistic treasures and curiosities.

We talk in these days of environment. Mr. Worth was the creature of his environment as much as he was its master. Without the Third Empire there would have been no Worth, as we have learned to know him. Circumstances gave him opportunity, and he seized it; and having seized it, he held it with the tenacity of his race. He was at once an artist and a business man. The combination is rare. And he came upon the scene at the moment that such a man was wanted. The third and last Napoleon aimed to make the Court of France the most brilliant in the world. His Empress found in Mr. Worth the brains and experience necessary to the success of the general scheme. Mr. Worth dressed the Empress, and the others copied. It happened, of course, that those who would follow the Court fashions went to the originator thereof for their costumes, and he graciously supplied them—at a price which was satisfactory to himself. That Mr. Worth was a business man is shown by the fact that he registered his designs, and made such arrangements with the manufacturers of the materials he used as enabled him to secure a clear season's start ahead of any possible competitor. To dress like the Empress and her Court was

the ambition of all rich Frenchwomen, and to do so quickly was impossible without the assistance of Mr. Worth. Is it wonderful that he became rich and famous?

The above very brief outline of Mr. Worth's business career is sufficient to show that the conditions which enabled him to achieve the position he eventually occupied do not exist in this country, and it is improbable that they will ever recur even in France. It is impossible to conceive the idea of fashions being set by the wife of a Republican President, who is elected but for a few short years. There is something incongruous in the notion. Mr. Worth created his reputation when circumstances were vastly different to those which now exist. He retained it because it is in the manner of reputations to live long after the chances which produced them have passed into the region of things forgotten. The business in the Rue de la Paix will probably continue to thrive until the days come when the name of Mr. Worth will be but a memory, when men will even speculate as to whether or not such a person ever lived in the flesh, or whether he was a mere name—a mere abstraction, a sort of solar myth.

Fashions nowadays come not as they did. How do they come? Really we ought to know, but we don't. That is to say, we can offer no explanation which would satisfy a theorist in search of abstract truth. In the days of the Empire one could follow the rise of a fashion. First it was created in the fertile brain of the Lincolnshire man who had the entrée to the boudoir of the Empress Eugenie. Then it was adopted by the inner circle of the French Court, and shortly afterwards imitated by the mob. The idea of the great Worth was as a pebble thrown into a pond. It fell, and then by ever-widening circles it influenced in a series of ripples the whole adjoining surface. The pebble has fallen for the last time. Other men may arise, as great in artistic and commercial genius as was Charles Worth, but their influence can never be so great. Fashions nowadays seem to be born more of a desire for change than of a desire to imitate. People are no longer satisfied to follow the lead of an Empress. Each season something new must be produced, and thousands of designers rack their brains to find out what will suit the fickle public.—*Crerand's Cloak Journal*

NOTES ON LOOMS AND WEAVING.

The reed must strike the cloth at right angles, if at a more obtuse or acute angle the tendency of the stroke would be to depress or raise the cloth, thus losing part of the effective force of the blow.

In the case of the fast reed loom, the instantaneous stopping of the parts when the shuttle is trapped (by the protector striking against the frog) causes great wear and tear. It also for this reason entails a slower speed than that of the loose reed loom by about 30 revolutions per minute.

The shot or pick of weft put through shed is at a distance of about $\frac{1}{2}$ inches from the fell of the cloth at the side on which the shuttle is.

The picking tappet ends in a point called a neb, the neb is removable when necessary, through wear or any other cause.

The distance from the centre of the shaft to the apex of the neb in a 40 in. or 42 in. reed space loom is about 6 in.

The stroke of the picking tappet causes the picking bowl to move through an arc equal to about $\frac{1}{4}$ of a circle.

A longer neb is used for wider looms—say about $\frac{1}{2}$ inch for every 10 inches wider reed space, as a stronger blow is required.

The overpick is sometimes called the Blackburn pick.

At the bottom of the shuttle box is the "fly plate"; the back of the box is inclined at an angle of about 80° , thus practically making the box a dovetailed recess for the steadier retention of the shuttle, the shuttle is bevelled to correspond.

The shuttle race is not perfectly level, but slopes downwards towards the centre. This point is about $\frac{1}{8}$ inch lower than at the shuttle boxes in looms of medium width, and $\frac{1}{4}$ inch in the wider looms.

The shuttle is made of box, cornel or persimmon wood, with pointed iron tips. The length is about 13 inches and depth about

1¼ inch. It should be perfectly smooth and true, otherwise it will frequently fly out of or be trapped in the shed.

The shuttle race is made of hard wood laid on a beam, and, in some looms, is also rather wider at the middle than at the ends.

The picking bowl should always be in contact with the tap-pets, a spiral spring is employed for the purpose. If this were not the case the pick would be jerky.

The pick should be smooth and not jerky, otherwise the shuttle will fly out of or be trapped in the shed.

In drawing the ends through the healds, the one through the more forward heald is generally to the left of the one through the more backward heald—that is, the first thread through the front and second healds are to the left of the first threads through the third and fourth healds respectively.

With the beam in position and the loom in order, the movements of the different parts in weaving are—(1) the separation of the warp into two halves—one up and the other down. (2) the passing of the shuttle from one side of the loom to the other and leaving a weft thread over the bottom and under the top halves of the warp. (3) the beating up of the weft thread (so put in) to the cloth, and (4) the drawing forward of the cloth by the taking-up roller.

The healds should only rise sufficiently to leave a space between the two halves of the threads where the shuttle passes through, just barely as large as the depth of the shuttle.

The lower half of the threads should not be too low or they get rubbed and frayed by the to and fro motion of the slay. This is called "bottoming."

Nor should the threads be too high, or the shuttle, while passing from one box to another, will either stick in the shed or fly out of the loom. The line formed by the warp when the healds are level is called "the line of warp." It should be below a straight line drawn from the back rest to the temples. It should be as low as possible without causing bottoming.—*Indian Textile Journal*.

THE ORIGIN OF HANDKERCHIEFS

We are told that "an interesting historical study on the pocket-handkerchief has just appeared in a German magazine. It appears that mankind is indebted to Italy for the introduction of that modest but indispensable accessory to civilization. According to the writer, the use of the pocket-handkerchief was unknown to society until the first half of the sixteenth century. About the year 1540, an unknown Venetian lady first conceived the happy idea of carrying a 'fazzoletto,' and it was not long before her example was widely followed throughout Italy. The handkerchief then crossed the Alps into France, where its use was immediately adopted by the lords and ladies of Henry II's Court." We are not prepared to say how early the pocket-handkerchief was known and used in Europe, and should consider it something like a fruitless task to enquire, seeing that it would resolve itself into an enquiry when the name by which we now know it was given to an article which must have been more or less in use from time immemorial, that is, if Dr Johnson's definition of this article as "a piece of silk or linen used to wipe the face or cover the neck" is to be accepted. As for the name, we find in the wardrobe accounts of King Edward IV, two entries, one of payment "To Alice Shapster for making and washing of xxiiij shertes and xliij stomachers, v dosen handcovercheffes and xij combe covercheffes," &c, and another relating to "alviij handcoverchieffes of Holland." This was in 1450, sixty years before the unknown Venetian lady's time. It may also be remarked that "combe coverchiefs" for wearing on the head, and "breast coverchiefs" for wearing over the shirt are discriminated in these accounts from the hand "handcoverchief." And if it be said that the handcoverchief could not be a handkerchief because the "handkerchief" is not a "coverchief" at all, we can only refer back again to Dr Johnson's definition and to the common colloquialism of "neckhandkerchief," which shows that such phrases must not be interpreted too literally. We may add as an item of some interest that Mrs Shapster was paid lijd. each for making the coverchiefs, and xijd. each for making

and washing the shirts, which does not seem over-payment; but as workmen were paid at from 4d. to 6l. per day, and the clerk of the wardrobe only got one shilling, some very considerable difference in the value of money must be allowed for.—*Warehouseman and Drafer*.

REMINISCENCES OF JACQUARD.

The following extracts are taken from the "Life of Jacquard," by Sarah K. Bolton:

After seven years—a long time to patiently develop an idea—Jacquard had produced a loom which would decrease the number of workmen at each machine by one person. In gratitude for this discovery he went to the image of the Virgin, which stood on a high hill, and for nine days ascended daily the steps of the sacred place. Then he returned to his work, and seating himself before a Vaucanson loom, which contained the germ of his own, he consecrated himself anew to the perfecting of his invention. It remained for Jacquard to make the Vaucanson loom of the utmost practical use to Lyons and to the world. After a time he was not only able to dispense with one workman at each loom, but he made machinery do the work of three men and two women at each frame. When brought before Bonaparte and Carnot, the Minister of the Interior, the latter asked: "Is it you, then, who pretend to do a thing which is impossible for man—to make a knot upon a tight thread?" Jacquard answered the brusque inquiry by setting up a machine and letting the incredulous minister see for himself. The emperor made Jacquard welcome to the Conservatoire des Arts et Metiers, where he could study books and machines to his heart's content, and gave him a pension. Soon, however, the tide of praise turned. Whole families found themselves forced into the street, for lack of work, as the looms were doing what their hands had done. Bands of unemployed men were shouting, "Behold the traitor!" The authorities seemed unable to quell the storm, and by their orders the new loom was broken to pieces on the public square. "The iron," says Jacquard, "was sold as old iron; the wood, for fuel." Soon Switzerland, Germany, Italy and America were using the Jacquard looms, largely increasing the manufacture and sale of silk, and therefore the number of laborers. The poor men of Lyons awoke to the sad fact that by breaking up Jacquard's machines they had put the work of silk weaving into other hands all over the world, and idleness was proving their ruin. The inventor refused to take out a patent for himself, nor would he accept any offers made him by foreigners, because he thought all his services belonged to France. The struggling, self-sacrificing man, who might have been immensely rich as well as famous, was an untold blessing to labor and to the world.

WORKERS AND STRIPPERS IN WOOL CARDING.

Does it ever occur to those who are engaged in the business of wool carding how expressive and appropriate are the names by which the carding engine and its various parts are known? The name of each is practically a brief description of the work which it is required to perform in preparing the stock for the subsequent processes of manufacture.

Thus, the office of the card itself is to card, or comb, the stock in preparing it for the spinner's hands. The raw material is weighed in the scale, thus giving evenness to the feed, and the broad apron carries it along to the feed roll, which supplies the stock to the lick-in, whence it is conveyed to the tumbler, which practically tumbles it upon the quickly revolving main cylinder.

The latter is appropriately known in the older manufacturing countries as the swift, a name which describes both its comparative speed and the character of the work which it performs. The cylinder carries the stock rapidly forward to the successive workers, returning such of it as is insufficiently worked again and again, until it is brought to as fine a state of smoothness and uniformity as the condition of the card and the time allotted to the operation permits.

Then with the aid of the fancy, the stock is delivered to the doffer, which strips the carded material from the fancy. The comb then removes it from the doffer, where the drawing rolls advance it

still further, and it is carried perhaps on a double set of carriers to the feed of the next card, where the same processes are repeated until the finisher card is reached, where the rings come into play and divide the web into strands, which are literally wiped from the rings by the wipe rolls, to be condensed into round roving as they pass through the rolls of the condenser.

In this practical and descriptive nomenclature of the wool card, it will be noticed that there is only one exception to the general rule, and that is the case of the fancy. Tradition explains this term as having originated in the very earliest days of wool carding machinery. The story is, that one of the first experimenters in this field met with difficulty in stripping the stock from the cylinder. Some one suggested that he "fancied" that if the wool was brushed upon the swift it would be more readily delivered to the doffer. A successful result following the adoption of this suggestion so gratified the inventor that he declared his assistant's fancy had made the machine perfect, and hence it came about that the revolving brush which embodies this original idea has been known as the fancy. Although this interesting narrative is not positively authenticated, it may be accepted without doing violence to the imagination, as a possible if not probable explanation of this glaring exception to the general rule governing the terminology of the science of wool carding. The simple term "brush" would certainly have been more appropriate.

There is, in fact, a decided advantage to the learner and those incidentally interested in this or any other mechanical subject to find the terms suggestive of the purpose for which the parts are employed. In this simple matter of the fancy the writer is fully convinced that had it been called just what it is, a trush, many a plodding carder who in years past has been obliged to work out his knowledge of the business bit by bit, would have much sooner realized its true nature and function, and as a result he would not have fallen into what has been a very common error of treating it as if it were meant to card the same as the other clothed surfaces of the machine.

The workers and strippers, to which attention is specially called at present, could not be more simply or aptly named. The workers are intended to work the fibres free from bunches, knots and snarls, to secure evenness, straightness, and a parallel position of the individual fibres. In order to accomplish this result, there are a number of them, five, six, or even more on each card, or from seventeen to twenty to the set. Corresponding to each of these is a stripper, which returns the stock to the swift, which will return it to the same or some other worker to be further worked, or to the doffer to be released from further carding as far as that one machine is concerned. The point at which it is caught up from the swift depends largely upon the condition to which the fibres have been reduced by the previous working.

For one who is really interested in carding, this process of working down the stock by the action of the workers and strippers is an object lesson well worth studying, as it will emphasize the necessity not only of having these important adjuncts of the card in as nearly perfect condition as possible, but of rendering their work easier and more efficient, by a careful preparation of the stock before it comes to the card room.

The best stock with which to show the action of the workers is some colored mixture, which contains a small percentage of wool of a pronounced difference in color from the bulk of the batch, and the more difficult this smaller portion is to card, the more valuable will be the lesson taught, though it will prove trying both to the card and the carder. Looking on the first worker of a first breaker, carding such stock as described above, the distinct color of the smaller percentage will be observed in bunches. By watching any one of these it will be seen that it is caught up several times in succession, growing smaller each time, until it disappears entirely.

To the trained eye the first appearance of one of the bunches on this first worker will indicate whether it will card out easily or not. If it is in condition to do so, it will not only be well opened up by this first contact, but if the eye will at the same time take in the next two or three workers, it will be seen that the bunch is not only opened out, but that a portion of it has already passed on to

the other workers, and could we take in the whole machine it would be seen on all parts of the card some having even already been incorporated in the web on the doffer, although before reaching that point it is a bunch no longer and has nearly lost its identity in the mass of the mixture.

Very different is the appearance of stock that from inherent causes in the wool itself, or from previous careless handling, is in such a condition as to resist the efforts of the card to card and mix it till it reaches the required evenness for the spinning and weaving of fine goods. Then the bunches delivered to the swift by the tumbler are liable to come up in any of the workers. Some are released by the swift at the doffer, after having been brushed up by the fancy, and thus they are carried on to the next card unworked and uncarded. It is only the largest of these bunches, or more properly speaking, knots, that are caught up by the first worker; yet not all of these are so disposed of, for, as in a wrestling match, it all depends upon which part has the best hold whether it is the swift, or this or that worker, or the doffer, which retains what it has caught. But if such a bunch or knot is once held by a worker, it will be seen going round and round many times more than those which are more easily separated, and though its reduction in size is very slow and never complete, it is gradually, by the tearing out of some fibres and the wearing away of others, brought into such a condition as to slip with the other stock through all the cards and show in every subsequent process and even in the finished goods themselves. It is not at all unlikely that this defect will be everywhere attributed to the inefficiency of the carder. Whenever such results ensue, or when there is a doubt or dispute as to the condition of the stock, there is no better point at which to take observations than at the first breaker workers, and our advice to both carder and manager is to keep a sharp look out for the defects in the work at this stage of the carding operation.

THE DYEING OF CARPET YARNS.

Carpets differ from other textile fabrics in one particular, and that is, they are never dyed in the finished or woven condition, but the threads of which they are made are always dyed in the condition of yarn. It is in this form that we shall treat of them.

Carpet yarns may be dyed either in simple tubs or vats, the hanks of yarn being hung over wooden sticks resting on the sides of the tub or vat, and turned over by hand. It is best, however, to dye them in suitable machines, of which there are many good ones in the market, and which it is not necessary to particularize in detail. These machines save a good deal of labor, and are more convenient to the men.

The colors or shades which are dyed on carpets should be such as to resist a considerable amount of wear and tear. It is not absolutely essential that they should be perfectly fast to light (although if they are, so much the better), because they are never exposed to any strong light. They need not be fast to acids, because they seldom or never come in contact with them. The one feature they ought to possess in a marked degree is that of fastness to alkalis, because they invariably come into contact with much road dirt, taken in on the shoes of persons walking over the carpets, and road dirt invariably possesses alkaline properties, although its degree of alkalinity may vary much in different localities, according to the material employed in the formation of the roads. In the recipes which are given below this feature will be borne in mind.

At present woolen carpet yarns only will be dealt with. Carpet yarns made from jute and other fibres will be treated of at some future time. The recipes are calculated for 100 lbs of material.

1. *Pale Yellow*.—Prepare a dye-bath with $\frac{1}{2}$ lb. milling yellow O and 10 lbs. bisulphate of soda, working at the boil to shade. By employing anthracene yellow C a similar shade is obtained. In either case the yellow is fairly fast, and possesses satisfactory properties.

2. *Bright Yellow*.—Use 2 lbs. fast yellow N, 10 lbs. Glauber's salt, and 2 lbs. sulphuric acid, working at the boil.

3. *Deep Yellow*.—Use 3 lbs. anthracene yellow BN and 10 lbs. bisulphate of soda. After dyeing for $\frac{1}{2}$ hour, the fastness of the

color is increased by adding 3 lbs fluoride of chrome and treating $\frac{1}{2}$ hour longer

4. *Deep Yellow*—A fine shade of yellow which is fairly fast is dyed with $\frac{1}{2}$ lb. diamine gold and 5 lbs. acetic acid.

5. *Golden Yellow*.—A very fine fast shade of old gold is obtained by dyeing for 1 hour at the boil in a bath containing 2 lbs. Titan yellow Y, 10 lbs common salt, and 1 lb. acetic acid, then lifting, adding to the bath 2 lbs. fluoride of chrome, re-entering the yarns, and working $\frac{1}{2}$ hour longer. This shade is quite fast to light, alkalis and acids, while it is easy to dye.

6. *Orange*.—A bright shade is dyed with 1 lb orange GG, 10 lbs Glauber's salt and 2 lbs sulphuric acid.

7. *Reddish Orange*.—Use 3 lbs orange ENZ, 10 lbs. Glauber's salt, and 2 lbs. sulphuric acid.

8. *Olive Yellow*—A fine and bright yellow, of a slightly olive shade, is obtained from $\frac{1}{4}$ lb anthracene yellow C, $\frac{1}{4}$ lb. naphthol green B, $1\frac{1}{2}$ ozs acid brown R, 1 lb. copperas, and 5 lbs. acetic acid

9. *Straw Yellow*—Use $\frac{1}{4}$ oz. diamime fast red F, 3 ozs. anthracene yellow C, $1\frac{1}{2}$ ozs naphthol green B, and 5 lbs acetic acid.

10. *Dark Straw*—Mordant with $1\frac{1}{2}$ lbs. bichromate of potash and $\frac{1}{2}$ lb sulphuric acid, working at the boil for $1\frac{1}{2}$ hours. Then, after rinsing, dye in a bath of 1 lb gambine Y

11. *Dark Olive Yellow*—Use $1\frac{1}{2}$ lbs. anthracene yellow C, $4\frac{1}{2}$ ozs naphthol green B, 3 ozs. acid brown R, 1 lb copperas, and 5 lbs acetic acid, working at the boil for 1 hour.

12. *Dark Orange*—Dye with 6 ozs. tropeoline OO, 3 ozs. azo rubine A, 1 oz. sterosine grey, and 10 lbs bisulphate of soda.

13. *Terra-Cotta Orange*—A good shade is dyed with 1 lb. acid brown R, 3 ozs. Titan red D, 5 ozs. naphthol green B, 1 lb. sulphate of iron, and 5 lbs acetic acid, working at the boil for 1 hour.

14. *Bordeaux Red*.—Make a dyebath with 2 lbs. claret red B, 10 lbs Glauber's salt, and 2 lbs. sulphuric acid.

15. *Deep Bordeaux Red*.—Mordant by boiling for $1\frac{1}{2}$ hours with 3 lbs bichromate of potash and 2 lbs. tartar. Then dye in a bath with 10 lbs gambine R and 2 lbs. claret red B.

16. *Bright Bordeaux Red*—A fine shade can be dyed from a bath containing 3 lbs. azo rubine A and 10 lbs. bisulphate of soda, or 3 lbs. diamine fast red F and 5 lbs acetic acid.

17. *Bright Bordeaux Red*—Make the dyebath with 3 lbs. Titan red OB, 10 lbs. salt, and 1 lb. acetic acid, working at the boil to shade

18. *Bordeaux Red*—Dye in a bath containing 2 lbs. Titan red 6 B, 10 oz anthracene yellow C, 1 lb. naphthol green B, 1 lb. sulphate of iron, and 5 lbs acetate of ammonia.

19. *Dark Maroon*.—Make the dyebath with 2 lbs. Titan red 6B, 6 ozs Titan yellow R, 7 ozs. acid blue 4S, and 5 lbs. acetate of ammonia.

20. *Maroon*—Use 2 lbs diamine fast red F, 6 ozs. anthracene yellow C, 5 ozs acid blue 4S, and 5 lbs acetic acid.

21. *Crimson*.—13 ozs diamine violet N, $1\frac{1}{2}$ lbs. wool scarlet OOOO, and 5 lbs. acetic acid.

22. *Crimson*.—Make a dyebath with $1\frac{1}{2}$ lbs. diamine fast red F, $\frac{1}{2}$ lb anthracene yellow C, 2 ozs solid blue R, and 5 lbs. acetic acid, working at the boil to shade.—*Textile Mercury*.

MILLING FAST RED ON WOOL

The production on wool of a fast red that will stand a strong milling is a very important matter to the wool dyer. There are several ways in which this may be done, and these will be indicated below. The first place must be given to an alizarine red. This may be produced by first mordanting the wool with 10 per cent. alum, 4 per cent tartar, and 2 per cent oxalic acid, by boiling for two hours. The dyeing is conducted in a fresh bath, which contains 15 to 20 per cent of alizarine paste (the shade of the red will depend upon whether a blue shade, giving a crimson, or a yellow shade, giving a scarlet alizarine, be used), 3 per cent of acetate of lime, $1\frac{1}{2}$ per cent. soap, and $\frac{1}{2}$ per cent. tannic acid. The dyeing is conducted in the now well-known manner. Should a darker red

be required, then, after the dyeing there may be added to the dyebath: $\frac{1}{4}$ to $1\frac{1}{2}$ per cent. of bichromate of potash to sadden the color.

Turning to the azo colors, cloth red, scarlet and benzopurpurine may be used. The first-named gives the best results; the different brands give—with either bichromate of potash or chrome fluoride mordant—fine, fiery and fast reds. The mode of application may be varied. The wool may be first mordanted, which is most applicable when bichrome is used as the mordant; the addition of a little acetic acid to the dye bath is desirable. A good plan is to first dye in the usual way, then to add 2 to 3 per cent. of fluoride of chrome to the bath, and continue the dyeing for one hour longer; this causes the formation of a chrome color lake, and so fixes the dyestuff on the fibre. In this way may be used cloth red, G, B and 3B, the latter giving a very blue-toned red cloth scarlet—Kmin red. Diamine fast red F dyed on wool in this way also gives very fine reds, which, besides being fast to milling, are fairly fast to light. For the purpose of modifying the tone of the red so obtained, it may be mentioned that anthracene yellow C, diamond yellow and diamond flavin can also be dyed on wool in this way, giving very fast colors. Some of the azo scarlets, wool scarlet O, OO, patent acid and milling scarlet, and Atlas scarlet, give very fast reds on wool, which are but slightly less resistant to milling than the mordant dyes named above. Benzopurpurine and some other of this class of dyes also gives milling fast reds on wool, but have the disadvantage of being loose to acids.

A BURLY BEATER.

Alas! it had of course to be!

For weeks I had not left my room,
When one fell day there came on me
An awful doom.

A burly rough, who drank and swore,
Without a word—I could not shout—
Attacked me brutally, and tore
My nails right out.

Then, dragging me out to the air,—
No well conducted conscience pricked him—
He mercilessly beat me there,
His helpless victim.

With cruel zest he beat me well,
He beat me till in parts I grew—
I shudder as the tale I tell—
All black and blue.

But what on earth was he about,
I could not guess, do what I would;
But when at length he cleaned me out
I understood.

Yet do not shed a tear, because
You've heard my story told in metre,
For I'm a carpet, and he was
A carpet beater.

—London Punch.

PROMPT PEOPLE.

Don't live a single hour of your life without doing exactly what is to be done in it, and going straight through it from beginning to end. Work, play, study—whatever it is, take hold at once, and finish it up squarely; then to the next thing, without letting any moments drop between. It is wonderful to see how many hours these prompt people contrive to make of a day; it is as if they picked up the moments which the dawdlers lost. And if ever you find yourself where you have so many things pressing upon you that you hardly know where to begin, let me tell you a secret: Take hold of the very first one that comes to hand, and you will find the rest all fall into file, and follow after.

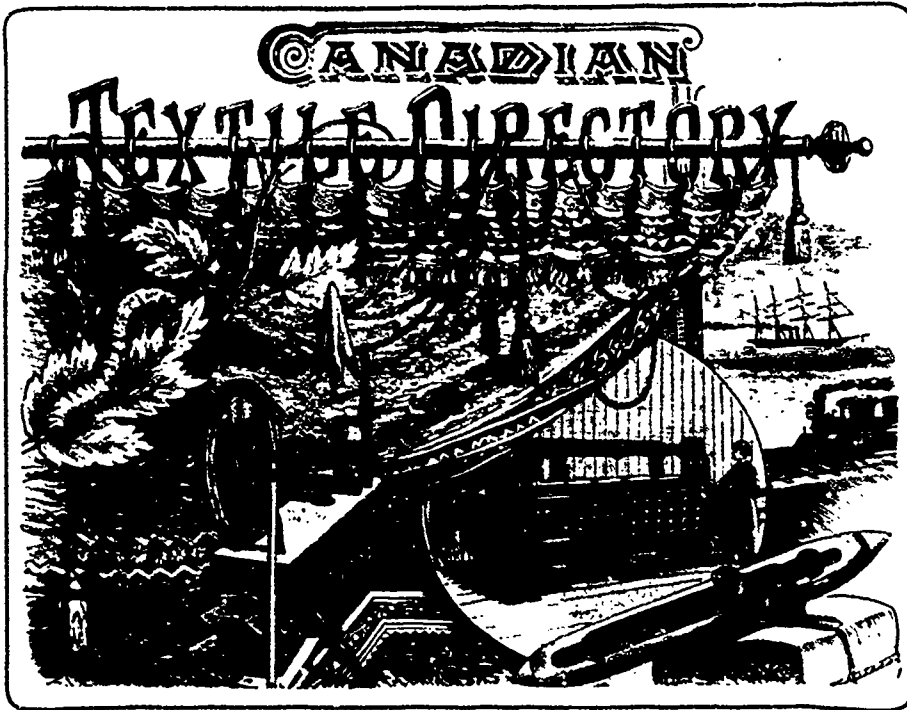
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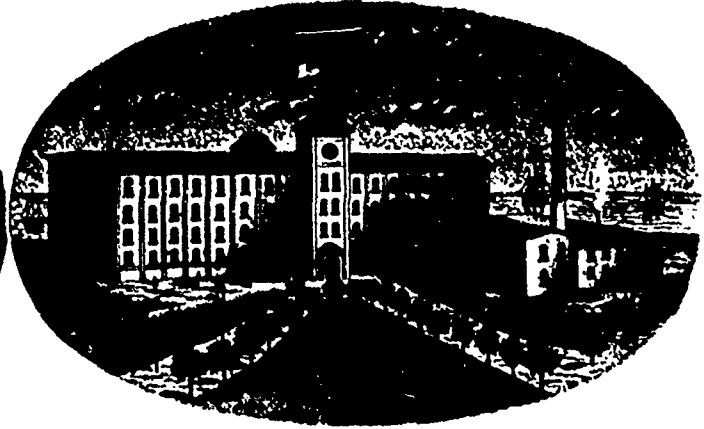
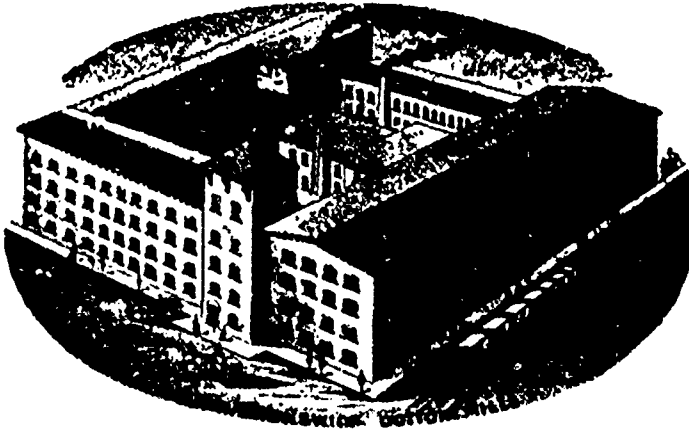
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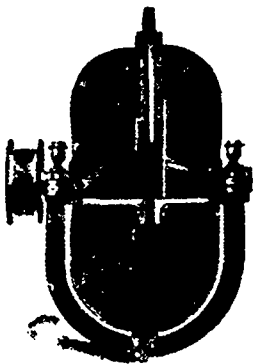
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BARNEY VENTILATING FAN CO.

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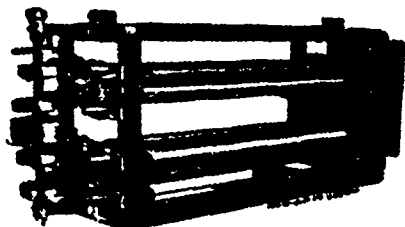
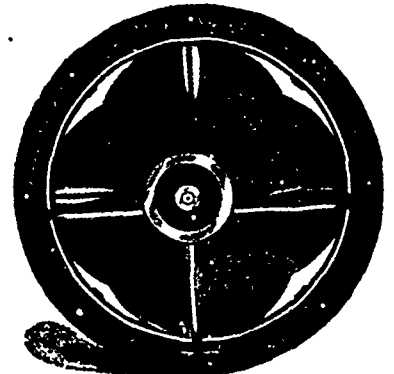
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Prompt Delivery, and no Customs Duties.

MANUFACTURER'S AGENTS FOR THE

Manville Wool-Felt Sectional Steam-Pipe Covering

54 Oliver St., BOSTON, Mass., U.S.A.



We manufacture Barker's Patent Noiseless Fast-running Doffing Comb


Barker's Patent Double Apron Rubbing Motions for Condenser Cards

Are in successful operation on all grades of stock, being generally adopted because they change carding and spinning rooms for the better.

James Barker, Cotton and Woolen Machinery
Second and Somerset Streets, PHILADELPHIA, Pa.

Textile Design


SAXONY SUITING.

No. 326.  Design. 112 ends.

Warp:	West:
46 Black.	30 Black.
4 Bottle Green.	2 Bottle Green.
8 Black.	6 Black.
4 Bottle Green.	2 Bottle Green.
46 Black.	30 Black.
4 Dark Brick Red.	2 Dark Brick Red

4600 ends.
42 picks per inch.
6 ends in a reed
72 inches wide in the loom.
56 inches wide when finished.
Melton finish.


WOOLEN SUITING.

No. 649.  Design.

Warp:—	West.
5 ends Black, 20 skeins.	2 picks Twist, 12 skeins.
1 end Slate, "	4 " Black, 18 skeins.
1 " Black, "	4 " Slate, "
1 " Slate, "	2 " Black, "
5 ends Black, "	2 " Slate, "
1 end Twist, 12 skeins.	2 " Black, "
3 ends Black, 20 skeins.	
1 end Slate, " } 7	48 picks per inch.
3 ends Black, " } times.	
1 end Slate, " }	
1 " Black, " }	
1 " Slate, " }	

4,032 ends in warp; 64 ends per inch; 8's reed, 8 ends in a reed; 60 picks per inch; 63 inches wide in loom; 56 inches wide when finished. Weight, 25 ozs.

MANTLE CLOTH.

No. 650.  Design.

1,340 ends in warp; 21 ends per inch; 7's reed, 3 ends in a reed; 22 picks per inch; 64 inches wide in loom; 56 inches wide when finished. Weight, 11 1/2 ozs.

Warp and west 14 skeins.

HISTORY OF THE TABLE-CLOTH.

The table-cloth seems to be no exception to the truth of the old saying, that "there is nothing new under the sun," for a correspondent of a contemporary states that at a very early period it was customary to spread a cloth upon tables set aside for refreshments, a practice now prevalent in all nations where civilization has polished the manners of the people. According to Monfaucon, the use of the table-cloth by the Romans began in the time of the early emperors. They were made of fine linen, generally richly ornamented with stripes of gold and purple, and frequently painted or worked with gold. D'Arny tells us that the use of table linen was very rare in England about the 13th century, but another authority informs us that the Anglo-Saxons dined with a clean cloth which they called *rodsceat*. A cloth was laid even for a poor man. Du Cange relates a singular feudal privilege, that of the lord being entitled to the table-cloth towel, etc., of the house where he dined. From the same source we learn that a father, giving advice to his son, particularly recommends him, as one means of success in life, to have his table covered with a clean cloth, and there is a complaint made against the monks for putting a dirty cloth before their visitors. The table-cloths made for the use of the nobility and gentry were of great value. One would cost as much as £18, a considerable sum of money in those days. The origin of damask table-cloths is also very ancient. La Broquiere thus described some used abroad: "They are," he says, "four feet in diameter, and round, having strings attached to them, so that they may be drawn up like a purse. When they are used they are spread out, and when the meal is over they are drawn up, so that all which remains, even to a crumb, is preserved."

TO DETERMINE THE WEIGHTS OF COTTON AND WOOL IN TISSUES.

The scientific department in the French custom house adopts the following method for determining the respective weights of cotton and wool tissues: Three pieces of the material to be analyzed are cut, and the weight of each, say 2 grams, is made to correspond. These pieces are marked respectively A, B and C. The first is set aside, and B and C are submitted for fifteen minutes to a boiling solution of hydrochloric acid, 3 per cent., so as to remove the dye and dressing; they are then repeatedly washed, and are marked B' and C'. The piece, B', is then set apart, and the sample, C', is submerged for 15 minutes in a boiling solution of caustic soda (density 1020). The wool dissolves, leaving the cotton threads, which are then denominated C". The fragments, A, B and C, are placed in a heated pan, 100°, and left there for two hours. They are then taken out, and are left for 24 hours in the open air; the pan selected must be a dry one. At the end of this time, A, B, C" are respectively weighed. A - B represents the weight of the dressing and of the dye. C" represents the weight of the cotton, but the cotton being slightly attached by the solution of soda, experience has found that it is desirable to add 5 per cent. to the weight found. A similar method is applied to mixtures of wool and cotton, but in this case, as the dressing generally consists of fatty matter, the threads are first of all boiled for 10 or 15 minutes in a hot solution of carbonate of soda to 2° B. They are then placed for a quarter of an hour in an acid bath at 3°, and boiled. Finally, by way of precaution, and in order to take away the traces of greasy acids that might result from the decomposition by hydrochloric acid of a small quantity of soap formed during the first operation, it is well to put the threads for 15 minutes into the warm solution of carbonate chalk to 2° B.

NOTES.

A correspondent who desires to know how to get rid of moths in carpets, and how to stay rid of them, brings up a puzzling question. Light is really the best preventive. A room well lighted and carefully swept once in two or three weeks will seldom be infested with moths. They are creatures of darkness, and lay their eggs in dark corners and around the edges of carpets or upholstered furniture. One way to get rid of them when once established is to lay a well-damped cloth on the carpet, and then run a hot flat-iron over it. The hot steam destroys the moths. Run the iron slowly and lightly over, so as not to press down the pile of the carpet. The eggs are killed by heat, and it is said that liquid ammonia, which does not injure the fabrics, will also kill the eggs. The eggs are hatched in Canada in April or May, and the damage is done by the grub before it develops into a moth. To keep the moths away and thus prevent them laying eggs for next year, tar paper or tar balls, camphor or cedar, can be recommended, as the moth does not like the smell of any of these substances. Prevention is better than cure, and it is easier to keep the moths out by the use of the above preventives than to destroy the eggs after they are once laid. Keep your houses light and clean, for a moth loves dust as well as darkness.

DON'T BE SPITEFUL.

A business man has no right to go around with war-paint on his face, belligerency in his manner, ill-feeling in his heart and threats on his tongue. It is a mean sort of man, anyhow, who can spend the greater part of his time concocting schemes to "get square" with somebody or anybody, and a foolish sort of man who selects the commercial arena as the scene of his spiteful operations. And so we say to certain over-wrought, hot-headed, short-sighted buyers who are or have been in our midst recently, Don't be spiteful!

The wholesale dry goods business, of which S. Carsley, Montreal, is the head, will henceforth be known as Carsley, Sons & Co., the partners being Samuel Carsley, Wm. F. Carsley, A. Porter, and Samuel Carsley, jr.

Foreign Textile Centres

MANCHESTER—Cotton again is the one item of absorbing interest in this market. The war between "bulls" and "bears" rages with unabated fury. So far the "bulls" are victorious. They have received considerable assistance within the last few days from the circular of Nellis Bros. and from other American sources, and, as a consequence, cotton is firm, and a distinct advance towards the expected 4d per lb has to be chronicled. Egyptian cotton continues to advance by leaps and bounds. This is by no means an unqualified benefit. American spinners were becoming considerable users of this cotton, but the rapid rise, it is feared, will curtail the demand and cripple this new development. The cloth market has not up to date participated to any great extent in the rise, in fact, the demand is quite even, at low quotations. There has not been any response from the Eastern markets yet, and until that comes manufacturers find themselves in a very unfortunate position. Egyptian cotton has again behaved strangely, and on Tuesday prices stood at a level which indicated an advance of 1/4d. since Friday. Prices of yarns and cloth made from Egyptian growth have been correspondingly affected, and if the advance continues certain classes of fine goods may go up considerably. The velvet and cord cutting machinery brought forward during the past few days appears at length to be performing its work satisfactorily. The general adoption of the machine would mean the displacement of the hand labor now engaged in velvet and fustian cutting in Congleton, Macclesfield, Lymm, and other points nearer Manchester. The machines made by one firm now cut over three million yards of cloth annually. As the secretary of the Spinners' Federation said in a communication forwarded to London the other day, employers in the Lancashire cotton trade are not investing any additional capital in the business, and many of them would gladly realize if they could; the return on money invested in English cotton mills is very small. In the Oldham district, where the machinery is the newest and the best in the world, while the management is in the hands of men born to the trade, the average earnings are less than two per cent. on a paid-up capital of several millions sterling. The Eastern markets are in a very unsatisfactory condition, and have for some time past been very poor. We appear to be approaching the period when the formation of a "Lancashire" party in the House of Commons will come within the range of early political probabilities. The feeling against the Indian duties grows in intensity, and as business becomes more difficult, both employers and operatives feel increasingly incensed at the poor show made by the sixty or more M.P.'s who represent the cotton manufacturing constituencies of Lancashire and the towns just without its borders.

LEEDS—In Leeds the clothing houses have had no reason for complaint since the holidays, as a greater amount of business has been forthcoming than was expected. There is every reason to expect this to last until after the Whitsuntide holidays. Several of the large factories are working overtime, and some classes of hands are quite scarce. In the heavy woolen districts a few of the largest firms are busy, and have received some encouraging orders from the United States and other shipping markets, principally in serges and reversibles. Both in medium and lower qualities of serges a good business continues. Blanket makers have received quite an average of season's orders for the home trade, and there are several large army contracts in course of fulfilment. The orders for fancy rugs for the South African market have been unusually plentiful.

Huddersfield—Trade still improves all round. Further business in coatings continues to arrive from the United States, in which market the domestic makers are finding the competition from this side specially irritating. Already they are taking steps to render the entry of British goods into their country as difficult as possible. An association of American manufacturers has been formed to take steps to prevent the undervaluing of foreign goods by fraudulent invoices, which is stated to be of such common occur-

rence as to distinctly injure American makers. This action does not seem to harmonize with the great blowing of trumpets recently made about the importation of American wools into England. Quite an expansion has taken place in the exportation of proofed costume and mantle cloths to America, and the leading proofers here have recently been very busy for this market. The principal advantage of proofed materials in the comparatively dry climate of America is the immunity thus given from showing the marks of rain drops or any other moisture. In the Yorkshire flannel trade most of the arrangements for the coming season are now made, and manufacturers are busy preparing the samples for travellers. There is every appearance of a fairly good season.

BRADFORD—The opening of the London wool sales was awaited with unusual interest, not that the tone of the first few days' sales could be safely relied on to indicate the general tendency of the sales, but because there has lately been a growing under-current of opinion that no further advance in the price of raw material would at present take place. In the meantime holders of wool are firm in their quotations, but do not appear to be anxious sellers. Users do not seem inclined to in any way force the market. English wools, both lustre and crossbred descriptions, are quieter, but there is no difference in price. Considerable excitement in the raw mohair market has been experienced since last week, and prices at the source of supply have been rapidly pushed up. This tendency has been followed to a less extent here, and prices may now be estimated at fully 20 per cent. from the bottom. In yarns also mohairs have recently attracted the most attention, and some spinners have sold so largely that they will only accept business at prices quite beyond current rates. Although the great business in mohairs has been in folded yarns, trade in single weft yarns for dress goods and lining purposes is steadily increasing, and fancy mohair yarns, such as curls and loops, are much more wanted. Merino yarn spinners, both for coatings and dress goods, are still well under contract for some time to come. "I am told," says the *Draper's Record* correspondent, "that the large spinning mills in Barkerend-road, Bradford, which have been worked for many years by Messrs. Garnett & Co., have been purchased by Mr. Isaac Smith, and will shortly be fully working under his direction. Mr. Smith, in addition to being the head of the immense mill in Bradford and Allerton, is also the chairman of the Saltaire Mills Syndicate, and is therefore interested in the production of a larger quantity of yarns and pieces than any other gentleman has been in the previous history of Bradford." Manufacturers are as a rule busy, and looms are well employed. To meet the demand for weavers, girls are being imported from the country districts to learn the art. It is, nevertheless, most noticeable that it is only in rare instances that these girls attain the proficiency of the natives of the manufacturing districts, where an aptitude for textile manipulation seems to be distinctly hereditary. Crépons are still the most attractive class of dress goods, and are being produced here more largely than ever. I am told that one firm are dyeing nearly 3,000 pieces per week, some being very expensive goods. The only other classes of black goods much inquired for are mohair jacquards, in minute effects, almost of the "pin-head" character, and a few very good plain black alpacas. For the autumn season some buyers have sufficient faith in crépons to take up any new effects, but at present face cloths and curled effects are most in favor. Canadians buying recently in this market have many of them left without fulfilling the sanguine hopes as to the magnitude of their orders. Representatives of the United States houses are, however, taking more interest in Bradford dress goods than they have done for years, and would have even increased their orders if sellers could have kept prices down and deliveries up to time.

NOTTINGHAM—The Valenciennes style is still popular. Cotton millinery lace departments are suffering much from the competition of Plauen, which can undersell them, and it may as well be added have produced some very creditable lines of goods in regard both to quality and price. Oriental laces and embroideries are much in favor, and increasing quantities are being produced in this market. It is well known, however, that immense quantities are produced abroad, and that they are taking possession of markets

hitherto supplied by Nottingham goods. The fancy silk lace departments have been slack for the past month or so. A few silk Bourdon guipure and fine Chantilly laces and nets are selling; but the demand does not keep up, and there are no indications to encourage manufacturers to increase present limited production. The Irish crochet everlasting trimming and Swiss embroidery departments are languid, save that a few novelties in the latter style have met with considerable success. Special lines of Honiton braids, beading and pearls have been bought in fairly large quantities for export to the United States and other regular markets. Silk falls and veilings are selling in black and colors. The varieties are extensive, but foreign competition is increasingly felt here as in other departments. The bobbin net trade is in a flourishing condition, and much difficulty is experienced in finding sufficient trustworthy hands for mending the brown nets. Prices are steady and firm. Silk Chantilly nets and light tulles are moving in moderate quantities, and the demand for Paisley and other stiff foundation nets has improved. The lace curtain, window blind and toilet branches are doing a steady business. The output of goods is large, but the production is so rapid that with the present number of orders it is impossible for manufacturers to keep their machinery fully employed. Lacemakers will benefit by the new fashions. For instance, one of the favorite spring hats is that which has the brim slit up the front and turned back in what may be called lapels. The lapels are generally lined with lace of a more or less creamy or biscuit color, sometimes deepening into a butter tint. The cleft is sometimes filled in with a large bow of lace, held in the centre with a buckle of Rhinestones or cut steel. Wings of lace, or jet or steel are very much used, some of the toques having as many as three pairs of these, rising from a bed of flowers. Some of the new capes, again, have pointed pieces of guipure laid on from the collar downwards, with black satin bows added here and there. Fine embroideries are also utilized in the trimmings, the favorite colors being what some one has called "breakfast tints"—cream, chocolate, toast and butter.

SOUTH OF SCOTLAND.—The ready-made clothing trade is slowly improving. Some retailers give their opinion that the demand for ready-mades is markedly decreasing. They attribute this to two reasons, the principal one being the "club" drapers, or credit drapers, as they are styled in England, and the second being the natural preference of cash buyers to have suits made to order. Indeed, from the general opinion gathered, it seems surprising that so many ready-made goods are shown, as in one house in the retail trade with a reputation for ready-mades principally, more than two-thirds of the trade is stated to be "to order" or measure. The Fifehire linen trade is maintaining and increasing even in the demand for all classes of goods. Prices of raw materials have been advanced further in the transactions of the past week, and makers have been holding back in purchases as much as possible. The market, however, is certain to continue firm, as the orders for makers from all markets, and particularly from the States and from home centres, are maintaining a steady tone. The Kirkcaldy floor-cloth trade has been disappointing to some extent up to the present, although no firm complains of actual diminution of amounts. The increase hoped for has not, however, been realized. The competition of English firms in the cheaper class of goods is felt by most makers, and it might be a good policy on the part of the firms in the district to arrange a low watermark in goods below which none would compete. This idea is hinted very pointedly in an announcement in a Dundee house furnisher's advertisement, viz: "Only reliable Kirkcaldy floorcloths; we do not keep the cheaper English makes." The Glasgow cotton yarn market is in a steady position, with a satisfactory amount of business doing, and sellers are in the position, after a long reversal of the position, of having the upper hand in sales. Ayrshire curtain manufacturers report only a moderate trade all round. The home demand has not realized expectations, and the American trade has not "come away," as the saying is, but, on the contrary, very hard pushing is necessary on the part of travelers and agents on the spot to secure orders, which are generally below the average usually reached for spring season. In designs, the preference, in the home market specially, is for

double border curtains, and the top pattern designs are also having a favorable run. Glasgow wool market has been quiet since the last public sales, but prices have been well sustained. What orders have been received have been principally from English and American buyers, the trade from Scotch makers having been unusually small for April. Tweed manufacturers in the Hawick district are disappointed with the season's trade in gents' tweeds, and makers who have anticipated a delayed demand for summer goods are anxious regarding their stocks. A few days may bring about a change, but, at the present, the scarcity of repeats for the end of April is almost unprecedented. In ladies' tweeds a more satisfactory trade has been done for the spring, and for next season some makers are very well filled with orders.

DUNDEE.—The market remains inactive. Jute is a shade easier to buy, sellers being anxious not to warehouse parcels on the quay. The news from Calcutta is favorable. The sowings are said to be large, and the rains have come, if a little late, still in time. The prospects of a large and good crop are therefore favorable. One hears of sales of new jute by speculators at £12 10s., but the business is not large. Flax is again less firm, and to effect sales holders incline, on white flax, to accept the recent rise, but refuse lower offers. Good brown flax is scarce, and relatively dear. The unexpected and inexplicable feature of the market is the sharp rise in tows. No 1 Archangel on the spot has been sold at £26—a rise of quite 30s. on the month. France has been buying tows largely at prices Scotland cannot look at. Jute yarns are again done at 1s. 1½d. for common 8 lb. cop. It is not possible to buy good common at less. For warps, 1s. 3½d. is the current price. Heavies of superior qualities are firm at 1½d. for one-lea. Common qualities in heavier sizes are difficult to sell at 1½d. Hessians are quiet, with little doing. For fine wide goods the demand is excellent, but only for the very best goods can this be truly stated. Linen yarn is firm at the recent advance. For 3 lb. flax done at 1s. 4½d. the price is 1s. 6d., and for tow 3 lb. wet done at 1s. 0½d. the price paid is 1s. 2d., while 1s. 2½d. is asked. Linens are in fair request, all the looms being now employed. The American demand is excellent, and some large orders have been placed. Arbroath is quiet, but for sailcloth there is now a fair demand, although not enough to warrant full time. Fifehire is in much better heart, a fair business being done from day to day. The fancy jute trade is better. The demand for all kinds of carpets and rugs increases. These beautiful, cheap, and useful goods are being now largely used. The trade in cords, twines, and ropes steadily grows.

BELFAST.—With a steady consumptive demand the course of prices in the linen trade exhibits marked and continued firmness. The local yarn market has been considerably strengthened by the action of Continental spinners, who are quoting advanced rates for almost all classes. The demand is characterized by an almost complete absence of speculation, and is about sufficient to take off the weekly production. In flax the only change worthy of note is the advance asked by holders of Russian flaxes. Spinners so far have not paid the advance, and are working up the stocks they already hold, but holders of flax are firm in their adherence to the advanced quotations demanded. In linen piece goods the trade is well sustained, and is marked by a gradually increasing demand for finer qualities than have been sought after of late. The home trade buyers have been operating on a fairly liberal scale, and exports continue to be satisfactory in quantity, especially to the United States of America. From a return issued by the United States Consul, at Belfast, the shipments of Irish linens for the past quarter are shown to be in excess of those for the corresponding period in any of the past three years. As compared with the corresponding quarter of 1894, the shipments of linen goods for the past quarter to the United States show the very substantial increase of 76 per cent. in value. Shipments of cotton handkerchiefs and cotton and union goods generally show also very considerable increase, comparing the same periods. In cottons alone the amount of shipments from Belfast for the past quarter are more than double those of the corresponding period of last year. In white linens a satisfactory demand has sprung up for the fine sets, which had been comparatively neglected for some time past. Fine

setts of Ballymenas, which were almost unsaleable some time ago, have been freely purchased within the last week or two, and the market is now almost cleared of them. The same setts, if to be made to-day at present cost of production, would cost considerably more than the prices that have been lately ruling for them. Great activity still prevails in the making up trades. The Belfast holland apron factories have not been so busy for many years past, their only difficulty being to turn out the orders they are receiving and have already booked, in anything like reasonable time. In this respect, however, they are all on an equal footing, every factory working up to the full extent of its productive power. Power-loom linsens for bleaching purposes continue to move off in fair quantities, and bleached cloth for home consumption has been receiving greater attention. Union goods throughout the various makes still command a preference.

LURGAN.—The linen cambric trade here still keeps good, but orders are not coming so quickly as a couple of months ago; no doubt the cold weather remaining so long has had a bad effect, but altogether business is fairly good. The demand for hand-loom plain linen cambric for hemstitched goods continues, and in fine numbers, at hardening prices. Woven bordered handkerchiefs, hand-loom makes, are perhaps slightly duller than last month, while the demand for coarse and medium setts in linen handkerchiefs from boiled yarns continues. The turnout from hand-loom has been pretty good, but is now dropping off. Power-loom manufacturers keep fully employed, and the push to get hemstitching done still continues, machine hemstitchers having to work overtime to keep pace with the orders. There is some dullness amongst makers of fine hand-loom damasks, but diapers and coarse makes are wanted, as are linen embroideries in shams, sheets, etc. Apron and blouse makers are very busy.—*Irish Textile Journal.*

LYONS.—The market for silk yarns continues fairly active, and prices are fully maintained. Japan and Canton silks are the object of an especially active demand. Cotton yarns have an average market, and the demand for wool yarns has somewhat increased at stationary rates. The demand for plain silks continues unabated, and is principally for all-silk woven textures. The business in winter articles has now fairly developed, and orders for cotton-mixed and woolen-mixed fabrics are coming in freely, in consequence of which all power-loom weaving sateens and broad ribbed black goods will be fully occupied for the next few months. Broché silks are ordered out for the next season, in all-silk textures. The demand for ready goods runs on silk makes, whilst the cotton-mixed articles have less attention. The muffler and handkerchief trade is of little importance. Ribbons meet with a good sale, particularly for checks, stripes, and printed corded styles. A very good demand has again sprung up for silk-embroidered tissues and embroidered tulles for the winter season. There are a good many buyers on the market.

PLAUVEN.—Guipure lace has been in slightly brisker demand in 3, 4, and 5 centimetre widths. The lengths ordered, however, have been small. Paris has not sent forward many orders. The articles inquired for include lace embroidery on net, entredeux on net in 40-centimetre widths, and guipure collars. London and Berlin have also been rather quiet, but should be sending forward more business to Plauen by the time these lines are in print. Further orders are awaited from America. At the beginning of April most of the contracts on hand had been executed, and only a few repeat orders had come to hand. The arrival of buyers for the "fall" was, therefore, eagerly awaited. Many are now over. There are very few novelties to report. Amongst those worth mentioning are embroidery in white cotton on unbleached linen, of which the effect is rather original; a few muslin embroideries which seem to be sold fairly well, and a series of styles in tulle, entredeux, and guipures.

CHERNITZ.—A report on the Chemoitz trade speaks of the market as firm in coarse-gauge goods. This advance is partly due to the high price of yarns, partly to the advance in wages. Good orders have been placed in these lines, and especially in fleeced lines. Manufacturers are well sold up in cheap goods, as well as in better grades, and before the middle of June it will be almost

impossible to get any more goods delivered for the autumn trade. In fleeced hose also unbleached qualities have been asked for more than in previous seasons, but black is still leading, and outside of that only tans and a few slates and modes are bought. In fine gauges trade is slow, and as work is getting scarce on these goods prices are not steady. They are still a trifle higher than last spring season, but if orders do not come in soon they will reach that level again. Lisles are selling slowly, and prices in the better grades are not firm. Silk-plaited hosiery is used very little, and one may say that it is not bought at all now by European buyers. Cashmere hose have advanced in price from M.20 to M.40 per dozen, according to weight. These higher prices are due to the advance in the price of the raw material, which has gone up considerably during the last few weeks. Orders for cashmere gloves are coming in quite freely, and makers will soon have their books filled. There are some gloves sold in New York at so low a price that they cannot be made here and landed there at a profit. Looked at from this point, it is difficult to see how the thing is done. Later on the higher yarn prices may also have an effect upon gloves, but now manufacturers have still contracts for yarns at old prices. Knit gloves seem to be selling fairly well. Mufflers made in the neighboring town of Frankenberg are this season in good demand. All-silk goods are slow, but cashmere, half-wool, and half-silk qualities are selling in good quantities.

THE PIECE DYEING OF CLOTHS.

The great thing in piece-dyed goods is to avoid the appearance of blotches, unevenness, and dullness in colors or finish. And to avoid these defects it is quite as needful to have the right kind of work done before coloring takes place, as during the dyeing and in subsequent treatment. But now our attention must be directed to the coloring.

In dyeing a piece of cloth it is often found well to keep the selvages tacked together, just as they are for the fulling and scouring. This is true where the stock is of such a kind as is apt to full up under heat or friction. The whole tendency of the coloring is to act on the nature of the fibre in the way of shrinking it up more than the amount of shrinkage which it has already received. But this is not the only reason why coloring has better effects where selvages are tacked. The amount of handling which a piece receives in dyeing is always a matter of considerable importance. Well, if the gigging has been done previously to the dyeing, and if the steaming has also preceded the coloring process, it is a fact which must be evident to all, that every bit of handling is going to be in danger of roughing up the face fibres and so leading to a possibility of imperfections in the finished cloth. Of course, this is not necessarily the result of the process, but all we say is that the tendency is that way, and if the finishing processes have been well undergone before the coloring takes place, it certainly tends to preserve the good condition of this work if the face is kept as much as possible out of the way of bad handling in vats.

The ordinary precautions as to the need for uniform treatment, and as to the necessity for avoiding everything which will be likely to lead to lack of uniformity in dyed results, are hardly necessary here, as our intention is to deal with the finisher's part particularly in this matter, and not with the dyer's. If the finisher sees that his goods are well cleansed and well prepared for the dyeing, and then, if the stock and finish demand it, sees, too, that the selvages are tacked together, then we can safely leave the dyer to look after his own part of the work and see that it is well and properly done. So far as preparation for dyeing is concerned, there is little more that can be said.

Now the third stage arrives, and this has more direct bearing on the finisher, for he is particularly interested in this part of the work. We will suppose that the cloth has been dyed and is ready to return to the finisher's hands. The first thing to do is to wash them. Just as well by the way, of course, to extract them, if it has not been done already, and then the washing may be proceeded with. Now, after the coloring has been done, there must be no time lost in getting the goods into the washer. And on some goods and with some colors it is a question whether even the intervening

extracting is allowable, but under ordinary circumstances it will be all right. If the goods are from stock or colors particularly susceptible to being affected by lying in the wet, and if shading is easily brought about, it would be well to push them right on at once to the washers. In doing this the effects of lying in the coloring matter and in the wet are not so likely to occur as where this risk is run in giving them an intervening extracting. In the washer take such steps as will at once begin the process and lead to the removal of all traces of coloring matter. Put on warm water, allow to drain, then apply the soap in very weak solution and run long enough to loosen up all the foreign matter. After this rinse thoroughly and remove the goods. The extracting now follows, and after that the drying and final processes of finishing. It ought not to be necessary to resort to gigning at this stage if it has been done before the dyeing. But if a few runs will add to the condition of the nap it will not be out of place. The only thing is, that it will not do for the gigning to work down into the body of the cloth and so raise up new nap. This is the kind of treatment that is apt to dull the brilliancy of the color, and should be avoided, but a slight run to smooth out the face and straighten the nap will do no harm, and may even add to the finished appearance. The remainder of the finishing processes are undergone in the usual way.—*Randolph, in Boston Journal of Commerce.*

THE WOOL MARKETS.

The Montreal wool market is quiet, with fair sales, considering the time of year. Cape greasies are quoted at 13 to 16c; B.A. scoured, 25 to 32c; North-West, 11 to 12c; B.C., 9 to 11c. Americans are buying largely in London, on account of the 10 per cent. duty being taken off. Prices for American wool are still keeping up nevertheless.

Stocks in Montreal are very light. A cargo was discharged ten or eleven days ago, and another is on the way. No Canadian wool of the new clip is in this market yet and spring samples will not be shown for a few days.

The April-May series of colonial wool sales opened in London on the 30th April. The attendance was good, but the demand was slack and prices at first ruled 5 per cent. lower than at the previous series. As the sales progressed, however, the demand became brisker and prices are firm.

The following are prices of new clip wool quoted at various local markets during May:

Hamilton.....	18 to 19c.
Fergus	18 " 20c
Mt. Forest	16 " 18c.
Clifford.....	17 " 19c.
Guelph (unwashed)	9 " 13c.
Ditto (coarse fleece)	17 " 20c.
Ditto (fine)	18 " 23c.
Belleville	— " 17c.
Drayton	16 " —
Renfrew	17 " 20c.
Fenelon Falls	17 " 18c.
St. Catharines, Ont.	16 " 20c.
Peterborough	16 " 17c.
Ditto (Southdown).....	— 20c.

TORONTO WOOL MARKET.

New wool from the farmers is coming in, and the condition is about the average, but there appears a doubt as to what wool should really be bought at this season. A number of country dealers think that Canadian wools should bring a higher price than last year. We are not of that opinion, and think that 17 to 18c. a pound for a good selection of Canadian combing is a very high price, compared with the price of English and Irish wools of the same quality, and there is a danger that there will be too much paid for the Canadian clip.

Coarse Wools—For the first time in a great many years the entire clip of 1894 has been cleared out.

Fine Wools from the Territories.—These wools have been less encouraging, and there are several hundred thousand pounds being

carried over from last year, especially the fine, and wools of the Montana merino type have not realized the prices anticipated when bought, owing to the fact that Western dealers having large quantities of Montana, Idaho and Oregon wools for sale, freely offered them in this market at from 7 to 8c. a pound, delivered at the mills. This had a very depressing effect upon the wools grown in Manitoba and the North-West. There was one large sale of North-West wool made, about 40,000 pounds, at less than 9c. This is very discouraging, but wools are being put up in bad condition, and have proven very tender in staple. The ranchmen will have to improve and grow stronger wools and of sounder staple. The present prices of wool in this market are:—

Combing	18 to 19c.
Clothing	18 to 19c.
Pure Southdown	20 to 21c.
Unwashed	11 to 12c.
Combing, clothing and fine.....	11 to 13c.
Peru cotton.....	12½ to 13c.
Good stapled American cotton	8c

LINEN THREAD.

This is a thread that is used by so many manufacturers of different kinds, that it may be interesting to know to what extent the flax plant is used. The celebrated firm of Wm. Barbour & Sons, Limited, of Lisburn, Ireland, who have branch mills in the United States and Germany, and stores and agencies in all parts of the world, are the largest firm in existence, making linen threads for every branch of trade where thread is required.

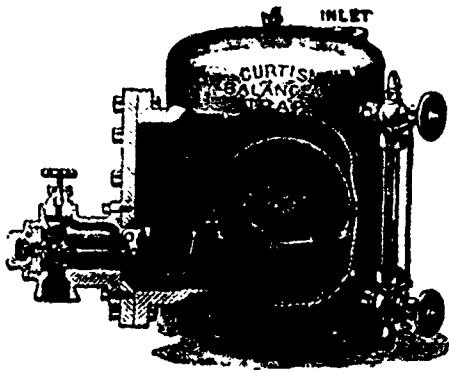
The founder of the firm might well be termed the pioneer of the flax thread industry, having gone to Lisburn from Paisley, Scotland, in 1784, and with the enterprise of the Barbour family, in each generation, past and present (and we hope the future), they are certainly the leading linen thread firm in the world to-day, having over 5,000 employees.

Flax is a most beautiful plant, and those who have had the good fortune of visiting Ireland when it is in bloom, will always remember the treat they enjoyed and still wonder what strength this plant must have to give the results it does, after the process it goes through, in cleaning, twisting, spinning, etc., etc. No other plant yet utilized in commerce is made into such a variety of threads. The following are some of the purposes to which it is put: the making of boots and shoes, for hand and every kind of machine work, harness, trunks, clothing, book-binding, sail-making and fish nets, upholstering, gloves and mits, carpets, embroidery work in every color, looking equal to silk and wearing better, and costing very much less; lace making, from the coarsest to the finest work so well known to the ladies. Wm. Barbour & Sons also make threads for many other special purposes. They have been awarded gold medals at all the principal exhibitions throughout the world, and received six highest awards at World's Fair, Chicago, being the only linen thread firm awarded this number.

Thomas Sacuel & Son, Montreal, Toronto and Quebec, are the sole agents for Canada, carrying general stocks at these places for the convenience of their many customers. We would refer to their advertisement on another page of this journal, and also recommend Barbour's thread as being always reliable, a fact unnecessary to emphasize to those who have used it, the experience of past years has shown the users of Barbour's thread that the best thread is always the cheapest in the end, and they will continue to use Barbour's only.

MULLERSON'S preparation for cleaning clothing is a mixture of turpentine, 26½ parts, ammonia solution, 19 parts, methylated spirit, 25 parts, ether, 2¼ parts, acetic ether, 2¼ parts, and water, 25 parts; all by weight.

D. S. LEWIS, an old dry goods merchant of Montreal, but for several years past a resident of Toronto, died a few days ago, aged 73. He was a member of the firm of Ogilvy, Lewis & Co. in existence about forty years ago, and afterwards head of the firm of Lewis, Kay & Co.



**THE CURTIS
Balanced Steam Trap**

*Combines More Superior Features
than any other Trap in the market.*

ONE of them is that the electrically deposited copper float is large, perfectly round, very thick and hard, as hermetically sealed as a glass globe of uniform thickness, and warranted against 200 lbs. pressure.

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Manufacturers of all kinds of

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Hackles, Gills and Wool Combs made and repaired; also Rope Makers' Pins, Picker Pins, Special Springs, Loom and Shuttle Springs, English Cast-Steel Wire, Cotton Banding and General Mill Furnishings
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LOOMS FOR EVERY GRADE OF WEAVING
PERFECTION IN WEAVING
OF WOOLENS OBTAINED BY THE GROMPTON
CLOSE SHED LOOMS
"1893" HIGH SPEED WOOLEN & WORSTED LOOM.. WORLD'S FAIR MEDALS.

WANTED

The names and addresses of all aspiring mill-men engaged in the woolen industry—especially designers, weavers and loom fixers—Send postal card to

A. A. BALDWIN,
Brasher Falls, N. Y.

THE estate of Walter V. H. Stanford, dry goods merchant, of Arnprior, has paid a dividend of 29 cents on the dollar. The liabilities were \$33,004.

EVERY well regulated factory should have a graveyard of its own to bury its living dead men in, free of expense to the town. And if those human yeast cakes who are continually starting laborers to fermenting were put under ground, "they never would be missed," for it is time that the honest, reasoning operatives started counter organizations and drove the disturbers out of the mill. Superintendents had better let the machinery stand forever than employ one of them, and the only safe way is to weed them out in times of peace, for they are sowers of discord—*Wadi's Fibre and Fabric*

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Sterling Advance Tables.
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KNIVES AND SCISSORS.

Knives for all kinds of business always on hand and warranted. All kinds of Cutlery ground and repaired.

No. 381 BROOME STREET,

Between Broadway and Bowery.

NEW YORK CITY

Among the Mills

J. T. Burns intends erecting a woolen mill at Manitowaning, Ont., this summer.

The Waterloo, Ont., Knitting Co. are putting an ell to their factory for the manufacture of blankets.

The Richelieu woolen mills at Chambly, Que., report orders on hand sufficient to last till November.

A carpet factory may be established at Strathroy. The town council is asked to grant the company a bonus of \$3 000.

James Lochrie, cordage manufacturer, Bloor Street West, Toronto, has added bicycle manufacturing to his business.

John Hewton, general manager of the Kingston Hosiery Co., has been elected president of the Kingston Board of Trade.

A glove factory was proposed for the village of Elmira by A. E. McKlin, of Acton, but the project has now been abandoned.

The Canada Garnett Co., Montreal, is running at full capacity, with several orders in hand for from now to September delivery.

John Stingsby and E. Waltho, who operate the woolen mill at Dunnville, Ont., are getting in some new looms from the States.

Joseph Blomley, who has been overseer of the card room in the Milltown, N. B., cotton mill for nearly five years, has left for Fall River.

Louis Simpson, manager of the Montreal Cotton Company's mill, Valleyfield, has been on a brief holiday in the Southern States this month.

The woolen mill of Hamelin & Ayers, Lachute, had to close down last month for a time owing to the flame being carried away by the freshet.

The weavers of the Courtenay Bay cotton mill, owned by Wm Parks & Son, Ltd., St. John, struck a few days ago, and the mill has been closed down.

The carding mill on the St. Lawrence near Caughnawaga, and that near Iberville, Que., are being advertised for sale by R. C. Montgomerie St. John's, Que.

The Baird woolen mill at Almonte, which has been closed for some time, is likely soon to be sold by judicial sale in order to obtain a settlement of disputed rights.

J. M. Bright, of Listowel, Ont., has been given the management of the new flax mill at Wallaceburg, which will be incorporated as a limited company, with \$10,000 capital.

The first of this season's wool was sold at Hamilton on the 2nd May to Long & Bisby by Mr. Cox, of Glanford, who has been the first in the market for several years. The price paid was 18 cents—2 cents higher than was paid for the first crop last year.—*Hamilton Times*.

The report circulated last month that there was to be a carpet factory at Glencoe turns out to be unfounded. J. A. Leitch, the reeve of Glencoe, informs the JOURNAL OF FABRICS that a party from St. Catharines was there recently looking for a site and a loan, but the negotiations came to nothing.

Robert S. Fraser, Montreal, has bought out the stock of James Leslie & Co.—who are moving to Charlotte, N. C.—and intends carrying a fuller and better assorted stock than ever. Mr. Fraser has now probably the largest stock of card clothing and general woolen mill furnishing in Canada. Mr. Leslie is moving his machinery this month.

On the 18th ult. the weavers and warpers at the Cornwall Manufacturing Co.'s mill struck for a restoration of the pay received last year, when a reduction of ten per cent. was made. The management did not see their way to restoring wages to their former level, owing to the condition of trade, especially when a higher rate was now paid than in Montreal. After being out a short time the strikers returned to work unconditionally, and were all taken back except four of the ringleaders of the strike.

The Globe Woolen Mills Co., of Montreal, have lately put in a 250 horse-power engine.

J. & J. Livingston's flax mill at Palmerston, Ont., was burnt last month with 60 tons of tow.

Fisher & Co., woolen manufacturers at Alliston, have been succeeded in business by Rogers & Co.

The Tryon, P.E.I., woolen mills, which have been closed down all winter, are now running again with a full complement of operatives.

Wm. Irving who formerly had a woolen mill at Wyoming, and now of Merrickville, Ont., contemplates starting a woolen mill at Sundridge, Ont.

Dufton & Sons are putting up a three-storey brick addition to their woolen mill at Stratford. The addition will be used as a store room and office.

James Randle, proprietor of the woolen mill at Meaford, Ont., has recently gone into the manufacture of carpets. He has added a boiler to the dyehouse.

A young man named David Nicholl recently had his hand and arm badly lacerated by a carding machine in D. M. Fraser's knitting mill, at Almonte, Ont.

The Empire Carpet Factory, at St. Catharines, Ont., was recently offered for sale by auction, but was withdrawn after the bidding had reached \$1,200.

Thomas Chadwick, of the firm of Thomas Chadwick & Sons, East India-wool and hair dealers of Dawsbury, Eng., is in Montreal this month, on his annual visit to Canada and the United States. The business of this firm continues to extend throughout the continent.

Long & Bisby, commission wool merchants, Hamilton, Ont., have brought suit against the Smith estate to settle the ownership of \$5,000 worth of wool alleged to have been purchased by the Smith Bros., woolen manufacturers, Sarnia, on their account, but which the creditors lay claim to as part of the assets of the estate.

Mark Warburton, the genial representative of Mucklow & Company, Bury, England, is paying his annual visit to the principal mills of Canada. From the way he is received it is quite evident that Mucklow's extracts and dyewoods are giving satisfaction. The Dominion Dyewood and Chemical Co., Toronto, are the agents for Canada.

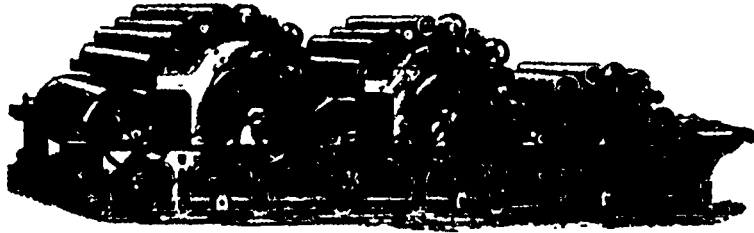
The Garden City Carpet Mfg. Co., who succeeded Stephen Syer in St. Catharines, with a capital stock of \$10,000, has made an assignment to John Harvey. The liabilities are nearly \$4,000, and the assets about \$400. The company has only been incorporated for six months. The capital sunk in the concern was insufficient to extricate it from the difficulties of the previous firm.

The Court of Review, Montreal, has maintained Mr Justice Lynch's decision in the case of the Pike River Mills versus W. H. Priest, and rejected Mr. Priest's petition to quash the capias under which he remains arrested, failing settlement of the company's judgment against him for \$5,665, to avoid payment of which he is charged with having fraudulently dispossessed himself of his property.

The Paton Mfg. Co. have a cricket club called the Paton Mills Cricket Club of Sherbrooke. The following are the officers this year: President, W. E. Paton; vice-president, Mr Meiklejohn, and vice-president, T. Bland; captain, M. Smith; treasurer, I. Hudson; secretary, A. Morecroft; committee, T. Bland, A. Morecroft, I. Hudson, M. Smith, who will be pleased to arrange for matches.

The annual meeting of the Globe Woolen Mills Company, Montreal, was held a few days ago. The year, on the whole, has not been a good one for woolen mills, and the company has suffered more or less from keen competition. The old board were re-elected as follows: Sir Donald A. Smith, A. F. Gault, Andrew Allan, Hugh McLennan, and R. R. Stevenson. At a subsequent meeting of the directors A. F. Gault was elected president, and Hugh McLennan, vice-president.

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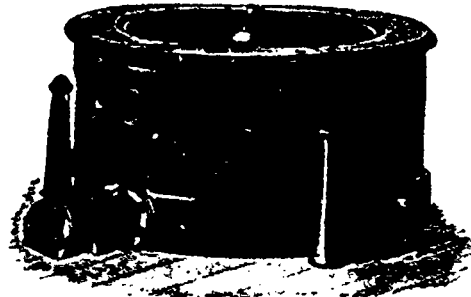
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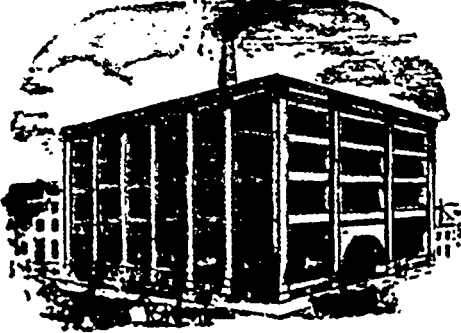
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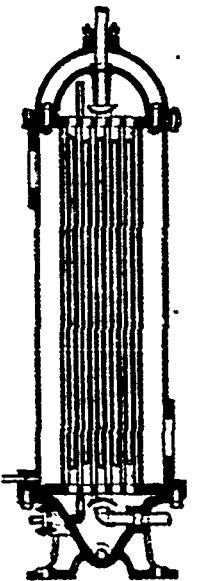
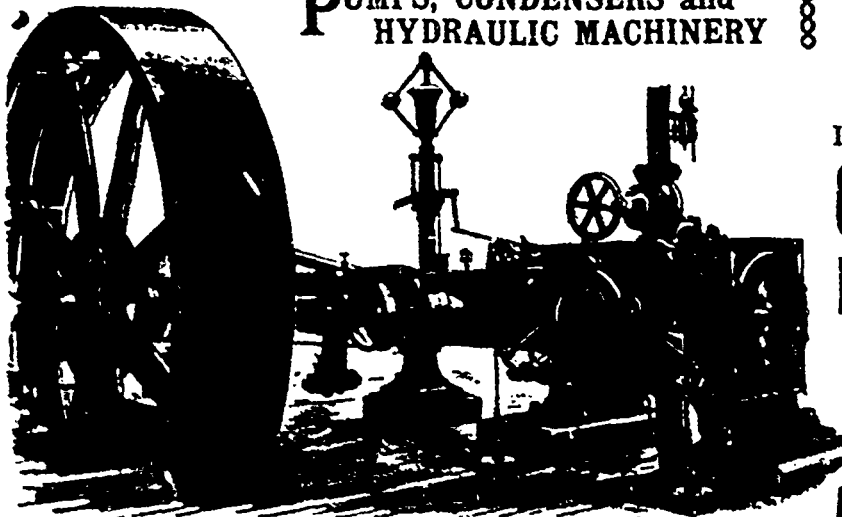
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CORLISS ENGINES

High-Pressure, Condensing and Compound

Feed-Water Heaters and Purifiers

HEAVY FLY-WHEELS a Specialty



Wallaceburg, Ont., capitalists will seek incorporation as a limited company with \$10,000 capital to run a flax industry. The following directors were appointed: P. Forhan, M. J. Hurley, J. M. Bright, T. Gillhuly, John Skinner, J. W. Steinhoff and W. J. Murphy. The flax seed will be distributed among the farmers as desired.

W. J. Matheson & Co., dyestuff manufacturers and dealers, New York and Montreal, have sent us some very handsome samples of the diamine dyes produced by Leopold, Cassels & Co., of Germany, for whom they are the American agents. These are various shades of orange and brown, there being 22 shades in all, and some are very beautiful.

Reference has been made in this journal to a new Brussels carpet factory which it was proposed to start in Canada. St. Catharines was spoken of as the site of the factory; but Mr. Talbot, the projector, has decided to locate in Elora, Ont., where he has been joined by Mr. Cockroft. They will start to work with 13 looms, which are now being got into shape, and some of them are to be put into operation this month.

Speaking of the advantages of washing wool on the sheep's back, an Ontario farmer assured the *Uxbridge Journal* that wool washed on the sheep was stronger and better than wool washed after being clipped, and his reason for this belief is that during the few days allowed for drying after the sheep have been washed, a certain amount of strength and life goes back into the wool that is entirely lost by the other method.

It is announced that the Brantford branch of the Consumers' Cordage Company has changed hands. The factory, which was established ten years ago by a local syndicate, was bought by the Consumers' Cordage Co., four or five years ago, at a good figure. It has now been acquired from them by a company consisting of the present local manager, P. L. Connor, with N. K. Connolly, of Quebec; M. Connolly, of Montreal; and John Connor, of St. John, N.B. It will hereafter be known as the Brantford Binder Twine Company.

ALEX. MILLER, senior partner in the wholesale dry goods house of A. Miller & Co, successors to Daniel & Boyd, St. John, died recently at the age of 51, leaving a wife and two daughters behind him.

The death is reported from Glasgow, Scotland, of J. D. Bryce, who will be remembered by old dry goods men as a former partner in the extinct wholesale firm of Bryce, McMurrich & Co., Toronto. He had retired from business over 20 years, and devoted the declining years of his life to philanthropic work.

WANTED—Situation as Finisher. Tweeds, cassimeres, woads, 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-sett 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

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ACTIEN-GESELLSCHAFT FUR ANILIN-FABRIKATION
 Manufacturers of ANILINE COLORS, Berlin, Germany

NEW YORK: 55 Beekman St.
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A. W. LEITCH, 16 Hughson St South, **HAMILTON, ONT**

SILK is so cheap in Madagascar that the poorest people wear clothing made of it.

THE new dry goods establishment of S. Carsley, to be built opposite the new Canada Life building, Montreal, is to be nine stories high.

T. R. FLINT, who has been for the last three years with R. Henderson & Co., dry goods manufacturers' agents, Montreal, is now engaged as traveller for Skelton Bros. & Co., shirt manufacturers, Montreal.

A DISSOLUTION has taken place in the firm of McDougall, Barrett & Co., wholesale woolens, Montreal, John F. Reddy retiring owing to ill-health, and the business will be continued by Alex. McDougall and John Barrett under the old style.

HENRY DUVERGER, the Montreal wholesale dry goods dealer, whose failure has already been recorded, has made a cash offer of 35 cents on the \$1. The creditors are chiefly in the Old Country. The latest statement shows liabilities of \$34,472 direct and \$25,042 indirect.

AMONG the cases before the Supreme Court at Ottawa, this month, was that of Liggett vs. Hamilton. The parties (who formed the old firm of Liggett & Hamilton, carpet dealers, Montreal) had dissolved partnership and appellant sought to be allowed remuneration for services in winding up the partnership. Respondent claims that the law of partnership does not allow such payment without an express agreement. Judgment was reserved.

CHEMICALS AND DYESTUFFS.

The demand for chemicals and dyestuffs has improved much. Some articles are firmer, Gambier having advanced fully 1d per lb. during the last five weeks. Sulphate of copper is firmer in sympathy with copper. The following are current quotations in Montreal:

Bleaching powder.....	\$ 2 15	to \$ 2 30
Bicarb soda.....	2 25	" 2 35
Sal 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 53°.....	1 25	" 1 50
Chip logwood.....	2 00	" 2 10
Castor oil.....	0 06½	" 0 07
Cocconut oil.....	0 06½	" 0 07

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 122 PEARL STREET, NEW YORK
Chemicals and Dyestuffs
 ANILINE COLORS OF EVERY KIND
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Fast Colors for Wool Such as DRY ALIZARINE, ALIZARINE BLUE, GREEN, YELLOW, etc.

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Insurance against burglary and housebreaking. Policies clear and free from vexatious or restrictive clauses.

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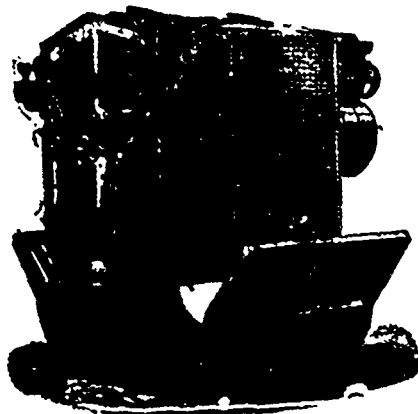
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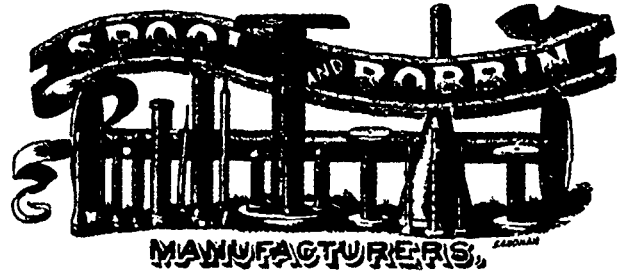


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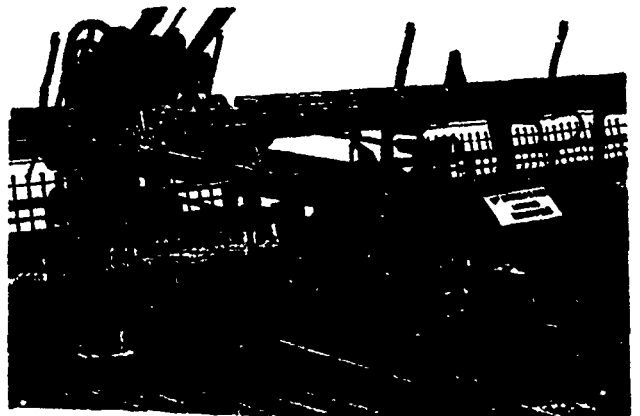
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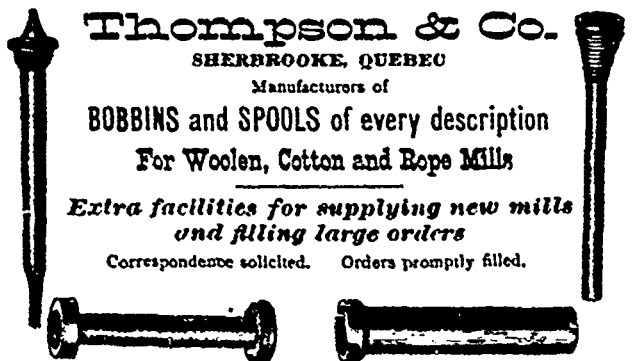
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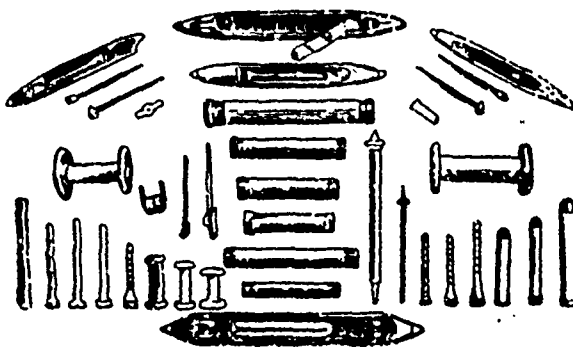
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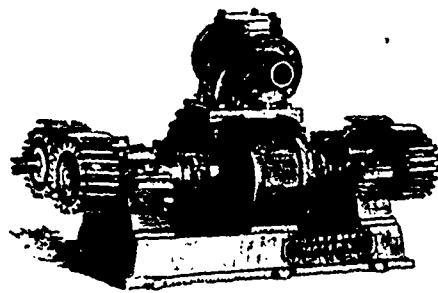
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DEATH OF ROBERT FORBES.

Manufacturers and dry goods merchants throughout the Dominion will have learned with regret of the death, at the age of 81, of Robert Forbes, senior member of the R Forbes Co., Ltd., the well-known worsted manufacturers of Hespeler, Ont. For the past two or three years Mr. Forbes had been able to pay comparatively little attention to business, owing to failing health, and for about three months previous to his death, which took place at Guelph on the 6th May, he had been largely confined to the house. In the forties Mr. Forbes, with his brothers David and James, carried on a general store in Galt, and he and David afterwards started a paper mill. The Barber Bros., afterwards large woolen mill owners themselves in Georgetown, were once in their employ. The Guelph *Mercury* gives an extended sketch of Mr. Forbes' career, from which the following is taken:

"A native of Berwick, Scotland, he learned the business of a draper in Paisley, and came out to Hamilton in 1839-40, where he was employed in the wholesale establishment of the late Hon. Isaac Buchanan, Harris & Co. Two years later he went to Galt, and started a general store, conducting it with success for eight years or so, when, owing to ill-health, he turned it over to his brother David. After two years he took possession again, but subsequently sold the business to Gavin Hume, and went into a tannery at Hespeler for five years. He then bought four hundred acres, the Linderman farm, in Puslinch, and there carried on a lumber business, making headings and shingles, until some eighteen years ago, when he and Mr. Schofield purchased the Randall-Farr mills in Hespeler and continued the woolen business. He had previously moved his family to Guelph. Mr. Schofield retired after five years, when Mr. Forbes took the management, assisted by his sons, the late James H. and George D., the firm becoming afterwards merged in a joint stock company, in which Mr. Forbes held the chief interest. The business at Hespeler is a very extensive one, employing over 300 hands, and perhaps no concern in the Dominion has a higher record for giving steady employment to its operatives.

"Mr. Forbes was a large stockholder and for many years a director of the Guelph and Ontario Investment and Savings Society, and had large interests in the Guelph Light and Power Company. He also owned the old Allan mill property at the bridge. He was very successful in his business transactions, his well-known probity, foresight, industry and generous dealings having gained for him a well won competence.

"Very few knew the extent of his benefactions. He was naturally retiring, and his wide range of charity was generally hidden from the public. Towards the procuring of an ambulance for the city he was a main contributor; the General Hospital owed not a little to his gifts, and many in private life have reason to be grateful for timely assistance. In the work of the Presbyterian Church and of Chalmers Church, which he attended, he was very liberal. The best of good feeling was always maintained between him and his employes, and their annual excursion at the firm's expense was one mark of their mutual esteem and interest.

"He leaves behind him his wife, formerly Miss Duthie, whom he married in Galt, a sister, Miss Forbes, in Galt; his son, George D., Hespeler, his daughters, Mrs. Chas. Auld, Guelph; Mrs. Wm. Nicol, Kingston. Misses Maggie and Carrie at home, and it is safe to say that in the intimacy and ever present kindness of the home circle his loss will be most deeply felt."

The *Waterloo Advertiser* cavils at the generosity of A. F. Gault in presenting \$100,000 to the diocesan Theological College. While others applaud, the *Advertiser* sneers. It concedes that worse use might be made of the money, but then it complains that the money was made by extortionate profits exacted from consumers. There is no deed so noble and magnanimous, no act so praiseworthy and unselfish, that there will not be found some cynic to question its motive. Mr. Gault has not only proved the value of his citizenship by his unostentatious liberality, but by his enterprise and public spirit he has made for himself a name that is honored in every part of this Dominion.—*St. John's News.*

JOHN MULDREW and his nephew, W. H. Muldrew, have formed a partnership, and will open out next month as wholesale dry goods dealers at 24 Front street west, Toronto. Mr. Muldrew was for several years with H. W. Darling & Co., and afterwards with McMaster & Co.

THE CANADIAN JOURNAL OF FABRICS is issued monthly in Montreal and Toronto by Messrs. Biggar, Samuel & Co., and is one of the most useful and compact periodicals of the kind published in America. It is only \$1 per annum. It is almost invaluable to those interested in woolen, cotton, linen or silk fabrics.—*St. John's Que., News.*

MANY readers of this journal who know John C. Watson, the Montreal wall paper manufacturer, will regret to hear of his somewhat sudden death on the 2nd ult. while on a visit to Bermuda, in company with his niece. Deceased was born in Glasgow in 1816, and was a man of kind heart yet sterling character. He started his wall paper factory in 1880 as J. C. Watson & Co., but in April last the style was changed to Watson, Foster & Co., on which occasion a handsome presentation was made to Mr. Watson by the employees of the company.

THE annual meeting of the Canadian Colored Cotton Mills Co. was held in Montreal on 16th inst. The annual report showed that the past year had been one of depressed trade. American manufacturers had been keenly competing with the company in this market. The total sales were below the previous year, but now that prices had risen in the States it was expected that American mills would leave this market to the home manufacturers. No dividend was declared. A considerable amount of money had been spent during the year in improved machinery, and this, with the fact that the mills had now raw cotton enough on hand to last till November, gave a better outlook for the coming year. The directors elected were as follows: A. F. Gault, president; C. D. Owen, vice-president; T. King, D. Morrice and R. L. Gault.

THERE were three tenderers for summer clothing for the Montreal police force, as follows: Kelly Bros., officers' blouses, all-wool, indigo blue, \$10.50; men's blouses, do., \$7. Arcand Freres, officers' blouses, do., \$11.75, men's do., \$7.50. R. Charlebois, officers' blouses, \$15, men's do., \$9. The last named got the contract. The following contracts were awarded for the fire brigade: Arthur L. Brault, contract for the officers' tunics at \$23.45 each, and officers' blouses at \$21.75 each. Boisseau Freres, contract for men's tunics at \$17.70 each, and men's blouses at \$9.15 each. O. J. Monday, contract for men's pants at \$5 a pair. The contract for officers' caps, for gold letters, and for waterproof covers, was awarded to J. Martin, Sons & Co., and for men's to Dupuis, Lanoix & Company.

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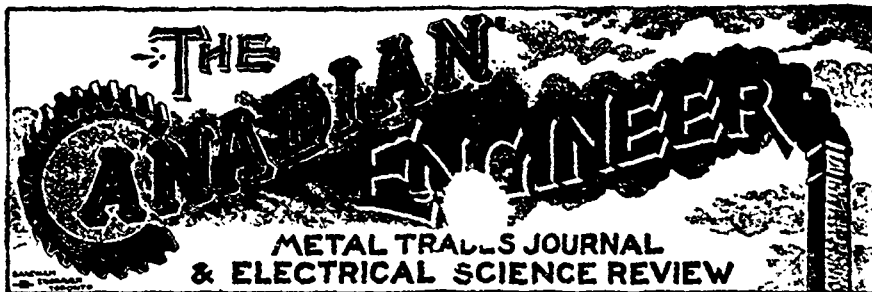
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The success of the *Canadian Engineer* has been unprecedented in the history of trade journalism in Canada, for not only was it encouraged and assisted from the start by able Canadian writers in the various branches of engineering, but it achieved 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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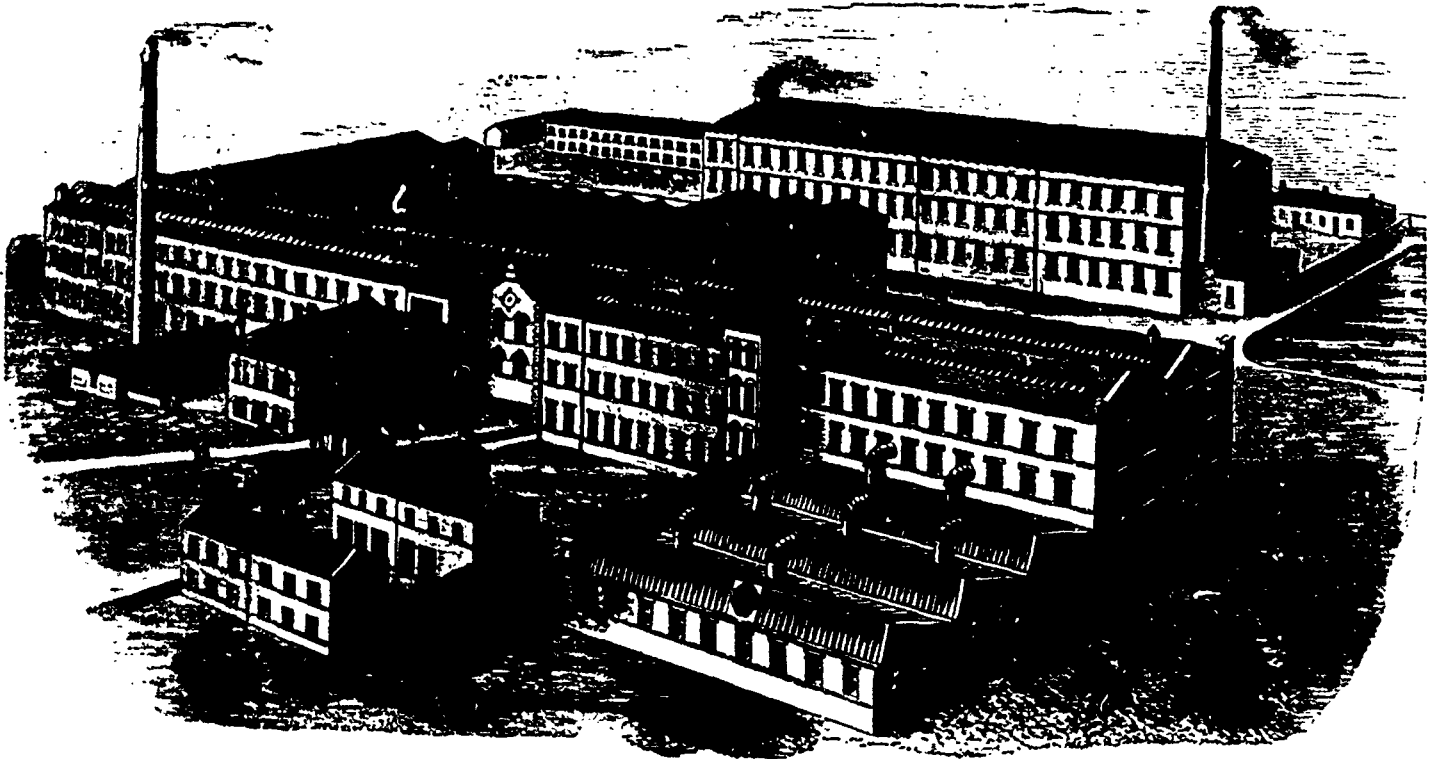
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Human ingenuity has often copied nature with almost exact fidelity. Probably chemistry abounds in more triumphs of the sort than any other science. It is to chemistry that we owe that most beautiful, yet deceptive composition, the well-known substance—*celluloid*.

Made from such unpromising materials as paper and camphor, it is magically transformed into the beautiful composition by simple processes, easily described.

It may be said to represent tortoise shell, ivory, silk or glass; clear, brilliant, of all the colors, yet flexible as rubber. How this is done is a question that has, no doubt, occurred many times to the reader.

The first operation in the manufacture of celluloid is the preparation of the unsized paper, this is pulped or shredded into strips about one quarter of an inch in width and then submitted to an acid treatment, which transforms it into cellulose. The operation is performed in a low building, the workmen of which are clothed in rubber, and who bear traces of the strong action of the chemicals used, their faces appearing ghost-like and ghastly. The paper is submitted to the acid bath in stoneware vessels of large size for the requisite length of time, and is then removed and after repeated washings, dried by means of centrifugal machines; this removes the excess of water, but not the moisture, consequently the cellulose is spread out on drying tables, where it remains for a considerable period. After thorough drying it is taken to the dehydrating building, where the process of composition may be said to start, as here is added the due proportion of camphor. This is done by careful weighing, mixing the two ingredients thoroughly, pressing in canvas jackets between plates and then crumbling.

It is now a rough-looking mass of what appears to be paper ribbons and soft white sugar, but the characteristic odor of camphor advises one of its presence.

The next operation takes place in the roller or calender room, where the mixture is subjected to the grinding and pressure of masticators. These machines are simply heavy iron rollers about four feet long, set in a frame in a horizontal position, geared together to turn inward. About a bushel of the mixture is operated on at one time, and is technically known as a "batch." On watching the operation, one is surprised at the readiness of the mixture to form itself into a sheet, which, if left undisturbed, soon covers the roller. The operator, however, cuts the sheet continually from the roller, turning it back into the insatiable jaws of the machine. As the grinding continues the mass becomes more and more homogeneous and near to the finished appearance of celluloid.

In about fifteen minutes the batch is finished and cut entirely from the rollers: it makes a sheet one inch thick, 90 x 45 inches in size. These sheets are piled one on top of the other until sufficient of the particular composition is made to fill a heavy iron hydraulic form, into which it is placed after having been cut to fit. The form is then run under a steam heated hydraulic press, where it remains under heat and pressure for about two hours.

On removal the form is unbolted, and the "cake" is placed aside for a few days to season, before being cut into sheets of the desired thickness. These may vary from one thousandth of an inch to an inch or more, and are cut from the cake by means of a fixed blade or "doctor," which is fastened to a heavy metal reciprocating table, on which the cake is placed, the blade cutting the sheets from the cake during the forward motion. After cutting, the sheets are hung up in drying rooms for six months to season, celluloid having the peculiar warping qualities of wood if worked up without due regard to this fact.

From the seasoning room the sheets go to the various departments of the factory. Those taken to the novelty department are cut, turned and pressed into any number of articles, cane and umbrella handles, brush backs, cuff and collar boxes, pencil cases, calendars, and a thousand and one things not usually suspected.

Other sheets go to the comb department, the collar and cuff building, the stock room, and the printers. The comb department

usually requires sheets of considerable thickness, cut from cakes of amber, tortoise shell and ivory composition. All three of these compositions are carefully made, and the imitations of the natural products are so faithfully copied as to frequently pass through the hands of experts undetected. It will be interesting to watch the methods by which tortoise-shell is made, and we will return to the roller room for that purpose.

The production of tortoise-shell, amber, ivory or translucent celluloid is always under the direct supervision of the foreman of the roller room. To make the first named of these compositions selected pieces of amber and black celluloid, that have previously been well seasoned, are cut into cubes of about one inch in size, these are well mixed and then wet down with alcohol in an air-tight box lined with metal, and kept therein until they become soft and plastic. The operator then takes the mass, and by a few turns of the roller converts the parti-colored cubes into a sheet, in which, as the operation continues, the two colors blend softly toward each other in the characteristic manner of tortoise-shell. The success of the imitation is entirely a matter of experience and dexterity. To this sheet is added others, until a form is filled. Subsequently the process is the same as with the other composition: In making ivory the characteristic grain of that substance is produced by cutting thin sheets in strips one inch wide and setting them up on edge, laterally, in the before mentioned form, which, on being filled, goes through the same process as the ordinary composition.

A word as to collars and cuffs. Contrary to the usual belief, the celluloid collars and cuffs have no linen surface. That appearance is copied with such marvellous precision as to deceive even the dealers who have sold and handled the goods for years.

The texture effect is produced while the celluloid is still in sheet form. A square of linen is laid on a smooth metal sheet and on that is placed a sheet of the celluloid, on this another sheet of linen, and on that a metal sheet. This operation is duplicated until a pile six inches high is made, when the whole is slipped between the plates of a heated hydraulic press, where it remains from five to eight minutes.

On being removed, the linen is stripped uninjured from the celluloid, leaving thereon the exact impression of its woof and web.

The collars and cuffs are cut from the sheets with steel knives made for the purpose: one man cutting as many as 1,000 dozen per day. The forming, printing and curling processes required to turn the finished collar and cuff are simple and expeditious.—*Fabrics and Notions*.

THE correspondent of an English trade paper writes: "With reference to recent failures in St. John's, Newfoundland, we understand that Shirran, Pippy & Co and John Steer have made arrangements with their creditors. The details which have reached Manchester regarding the condition of affairs in the colony reveal the existence of a state of things probably unparalleled in the commercial history of North America. I am assured that had thirty or forty thousand dollars in specie been available at the critical moment, the present troubles would not have arisen. As it happens, money is so scarce in the island that employees at some of the large warehouses have been paid in kind."

A DISSOLUTION has been registered by Emil Thouret, Michael Fitzgibbon and F. Schafheitlin as Thouret, Fitzgibbon & Co., and the two last named partners will carry on a wholesale fancy dry goods business in Montreal, under the style of Fitzgibbon, Schafheitlin & Co.

JOSEPH MCCREADY, whose name was mentioned in our March issue as leaving the wholesale clothing house of W. R. Johnston & Co, Toronto, to start business for himself in Bracebridge, died last month, leaving a wife and four children to lament his loss. He was well known in Hamilton, as well as Toronto, having formerly been in the employ of Sanford, Vail & Bickley, and previously with Service & Wylie, wholesale woolens. He came to Canada with the Rifle Brigade in 1861, and after leaving military service and settling in Hamilton, joined the 13th Battalion, in which he became a captain.

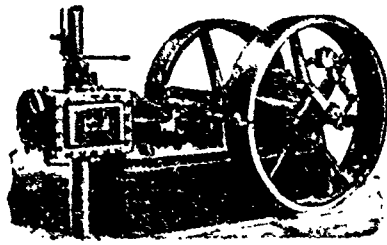
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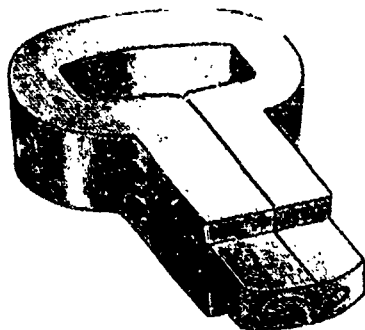
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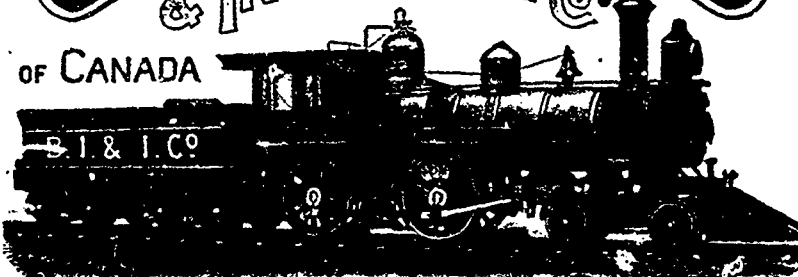
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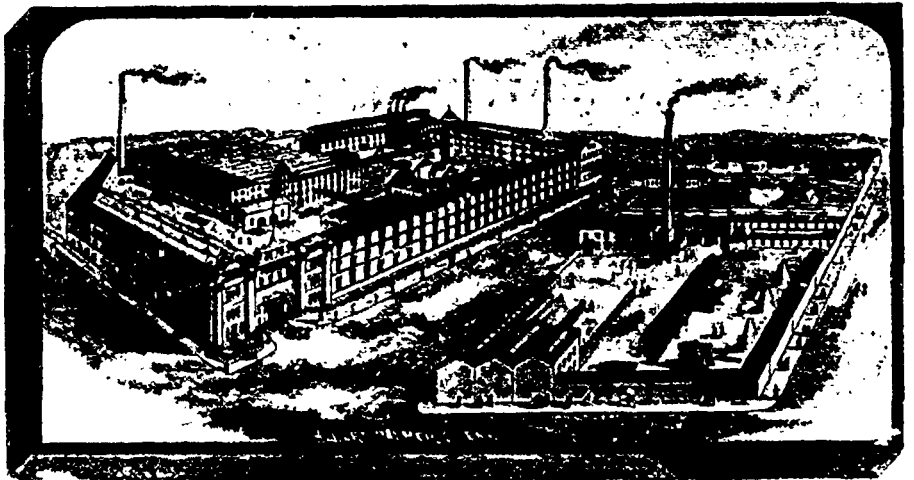
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