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CANADIAN Journal of Fabrics

THE JOURNAL OF THE Textile Trades of Canada.

Vol. XIII.

TORONTO, FEBRUARY, 1896

No. 2

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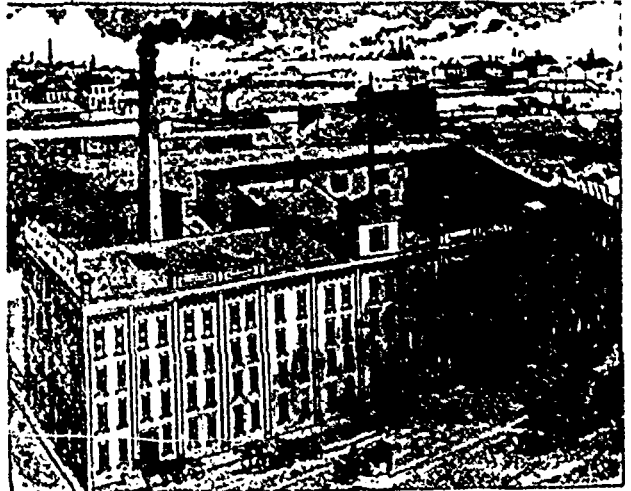
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Editorial.

Knit Goods.

There may be some danger of the production of knit goods in Canada proving in the immediate future somewhat in excess of what the market conditions would justify, but still in the long run the future of the trade will be undoubtedly bright. There is a tendency at present to invest new capital in the business, and more profitable investments might perhaps be found, but there must always be a large demand for this class of goods in this country, owing to the rigor

of our winter season. It is not a matter of luxury in Canada, as in many countries, to have underclothing, but an absolute necessity, and the knit goods have become so cheap that the old-time home-made garments have almost entirely fallen into disuse, and the manufactured goods are now freely purchased by all but the very poorest. This alone insures a constantly increasing market, aside from the fact that the natural development of knitting processes will bring new fabrics before the public which will find a place for themselves, and help to swell the manufacturers' business. The knitting machine is fast becoming a thing of importance, and is made to perform almost faultless designs. One great advantage of the knitter is that it almost completes a garment; it not only binds a fabric together, but it also forms the garment at the same time. To connect the knitting with the felting of woolen materials into a knitted web, or, as it would appear, forming a frame-work for felting woolen fibres in one compact mass, forming a strong and durable piece of cloth, is a departure in knit goods which is probably destined to play an important part in the trade at no distant date.

Made in Germany.

The sun never sets on the British Empire, we all know, but we all perhaps do not recognize the equally indisputable fact that its rays are never withdrawn from articles labelled "Made in Germany." Whether it is the cheap but comfortable cloak that protects the shoulders of the English or American factory girl on her way to work, or the snicker-snee with which the cannibal carves the missionary, all bear this imprint. The recent unpleasantness, however, between Great Britain and Germany about the Transvaal, is having a marked effect, and "already the strained relations between the two countries have worked serious damage to trade," says the *Drapers' Record*, London. "Patriotism is a curious thing, and occasionally manifests itself in curious ways. There cannot be the slightest doubt that it has lately exerted a very considerable influence in the direction of causing a marked falling off in the demand for German goods in this country. 'Made in Germany' has never been a popular trade-mark. It has been tolerated, because such toleration is one of our national institutions, and because, despite our trade rivalry, we have always looked upon Germany as a friend. Reverse the conditions, and cause the people of

this country to look upon Germany not only as an enemy, but as a false friend, and things 'Made in Germany' may go very much out of fashion. And the result will be nothing less than ruin to thousands of German manufacturers and merchants. They have found a splendid market in England. Their exports hitherto have increased enormously of late years, to the great hurt of many British manufacturers and merchants, and not particularly to the advantage of the British public. Think of the amount of cheap woolen goods (to mention no other commodity) of German manufacture which are annually sold in the thickly-populated towns in England, if this market be closed, where is another to be found to replace it? Austria is far too busy trying to foster her young manufacturing industries to think for a moment of giving a commercially helping hand to its political ally, France would never dream of relaxing its import duties in favor of a national enemy. In fact, a stoppage or serious diminution of Germany's export trade with this country would mean dead loss. Nor would it stop there. The British colonies have to be reckoned with, and though we do not suppose that sentimental considerations would be all-powerful there, or even here, still a general dislike and distrust of Germany would inevitably tend to diminish the demand for her goods." War, or even the prospect of war, is not to be lightly spoken of, but if we are to be gainers to such an extent by merely a little war talk, we will all be tempted to turn jingo for a while.

Australian Trade.

The Canadian commissioner for the promotion of trade with Australia is the concrete expression of our desire for closer trade relations with our sister colony. The Germans are of opinion that they too would be the better of an extension in the same direction, and the *Berliner Berichte* recently calls the attention of German exporters to the possibilities of the Kangaroo continent's markets. The opening for glove makers is chiefly dwelt upon, and among the points brought out are the general tendency to do a cash business, the desire for a superior article and the objection to cheap goods of any quality, and the fact that as the seasons there are the opposite of those in the northern hemisphere, the fall styles come in for the corresponding season early the following year in the Antipodes, thus giving the manufacturer an opportunity to dispose of his left over stock. Is there nothing in this for us?

Peat Fibre.

In another column will be found a short article on this subject from the *Textile World*, which should be of great interest to Canadians, as there are extensive peat beds in various parts of this country. There is no lack of natural resources in Canada, and we are not yet cramped for investment room, but every new industry is an additional faggot and makes the bundle harder to break.

Not So Fast.

There is, at present, a not unnatural tendency apparent in the trade towards conservatism. The Old Coun-

try manufacturers are not so anxious for large Canadian accounts as formerly, and recent events have demonstrated the wisdom of such a course. It would be well if our own manufacturers would scan their credits carefully for some time to come; because, though many are walking carefully, and recognizing the fact that there is trouble in store for the unwary, there are some firms, both retail and wholesale, that are still adhering to the old policy of extension at any price, which ruined Samson, Kennedy & Co. We do not need "credit men" in Canada as they do in the United States, to devote their whole attention to the watching of the credits which their employers are giving. For the time being, however, everyone in the trade had better do a little work as an amateur "credit man," at least.

Textile Tendencies.

Though business is dull, some people, but not many, say very dull, at present it is not the dullness which comes over the market when people feel that trade is on the verge of some great depression, and prices contract and properties disappear without any real apparent reason. The present lack of spirit in the market is entirely due to the weather, and the good time for which business men in Canada were looking this season has been postponed on that account. It may be expected, however, that the volume of business will greatly increase during the next two months, should the weather be at all favorable. The early part of the present winter was characterized by most unusual mildness, and the lack of snow brought lumbering operations to a complete standstill in many parts of the country and seriously handicapped them in others. The country roads being bare, prevented the farmers getting their grain and wood out, and so the retail trade of the whole country was paralyzed. When snow came in the end of January it came a little too freely and blocked the roads in all directions, the result being that where before wholesale houses had found that their travelers were compelled to stick to the railways, owing to the lack of snow, they now were similarly restrained by a superfluity. A glance shows that these conditions are only temporary, and though there is not a great deal of the winter left, we may expect trade to be very brisk during that time, and that the activity will be carried well into the spring season. Wholesale merchants in Toronto report that the large bankrupt stock recently placed on that market has not interfered at all with them. In many instances considerable orders have been placed with them by retailers who had been attracted to town by the expected advantages of purchasing from the S., K. & Co.'s stock. At the meeting of the wholesale dry goods section of the Toronto Board of Trade, the president of the section, J. D. Ivey, took a not uncheerful view of affairs. He said the past year had shown an improvement over 1894. The chief feature of the year was a general advance in prices of almost all classes of fabrics, which ranged from five to

thirty-five per cent., stocks on hand therefore becoming more valuable instead of depreciating, as had been the case for some years past.

Cotton Market.

Cotton is dearer now than at the corresponding dates in the past two years, but the conditions of the market are most unsatisfactory, from the seller's point of view. Trade conditions in the United States are in a chaotic state, and Congress only restrained from tariff tinkering and the silver insanity by the cumbersome nature of the Government, which renders it almost impossible for it to advance in a straight line; the President pulling one way, the Senate another, and the House of Representatives a third. The result is that cotton is not doing well, and almost the sole hope of better things for the planter next year lies in the fact that the present depression may lower the 1896 acreage. The outlook in Canada is not so bright as some time ago it was expected to be at this season, but there is no reason to conclude that we are in for a serious depression; it is only a matter of holding on as we are for a short time.

Woolen Market.

The improved tone of the London wool market at the recent sales will not be without its effect on our market, but that effect will not be great nor immediate. At present the market seems well supplied, and the mills do not find orders coming in very freely, though, of course, the season is not yet fully on. Worsteds are in good demand, and are likely to remain well to the front for some time. While this is the case there is no reason for discouragement on the part of mill-owners who turn out woollens exclusively, because there is a steady demand for rough finished woollen goods. There seems to be a falling off in the demand for smooth finished woollens, however. In the former class checks are prominent among the designs that are selling, and they are either pin or large all-over checks. Six-quarter goods are being turned out by a larger number of mills than formerly, and they are meeting with good treatment. While the course of tariff legislation in the United States is not yet an absorbing topic among Canadian manufacturers, it is reassuring to notice that there seems no possibility of the present Congress being able to disturb existing conditions.

WORSTED, FROM THE FLEECE TO THE CLOTH.

BY B. F. FELLIS.

The processes of manufacturing cotton, woolen and silk fibres into cloth, are each pretty generally understood by those engaged in the others, but worsted manufacture, owing to the many operations special to it, is not quite so much so. The worsted industry is distinct from the woolen, although the two are often confused, for the reason that similar processes and machinery are employed in each.

Worsted is the best part of a sheep fleece, and in order that the fine, smooth, lustrous and long fibres which are needed to make worsted cloth may be separ-

ated from the shorter, coarser and less brilliant kinds that will do for ordinary woolen goods, machinery is required that cannot be found in a woolen mill. The first operation in worsted manufacture consists in washing the wool, cleansing it from all grease, sand and foreign matters, after which it is dried.

The latest and most improved method of drying wool is by the automatic continuous machine. This dryer consists of a series of chambers, each being about five feet wide, six feet high, and fifteen feet in length. An endless apron is made to travel through these chambers from the feed to the delivery end. The wool is carried along on this apron, and at the same time subjected to an intense heat. In this way, it is possible for one man to dry 3,000 pounds of wool per day.

The next process is picking. The object of this operation is to break open the tufts of wool and prepare the fibres for the subsequent processes. Machines fitted with large steel-toothed cylinders are used for this purpose. The cylinders revolve with great rapidity, and the point of the steel teeth come in contact with the wool just as the latter protrudes from between a pair of feed-rolls. The action of the teeth on the wool is such that all the hard and felted bunches of wool are well opened. The wool is fed into the machine on the moving apron.

The wool is next prepared. By preparing is meant (1) carding, (2) back washing, (3) gilling. The method of carding wool for use in the manufacture of worsted goods is different from that used in carding wool for woolen goods. When carding for woolen goods the material is taken direct from the card to the spinning mule, where it is spun into yarn. When carding for worsted goods the material is put through several processes before it is in readiness to be spun into yarn. The carding operation consists in opening and disentangling the matted locks of wool and then arranging them in a common line. The law of uniformity is maintained so far as a common level is concerned, but as to procuring perfect parallelism of every fibre, that is beyond the end sought in the carding of either woolen or worsted fibres, because such a degree of perfection is uncalled for. Woolen yarns do not require a parallel arrangement of the fibres at any time, while the fibres intended for use in worsted yarns are straightened during the later operations of gilling, combing, etc. Hence the object of carding is to arrange the fibres in a common line, but not parallel with each other. Other cylinders and rolls are, of course, necessary in order to complete the operation, but the real work of carding begins and ends with the main cylinder, which is about 4½ feet in diameter and revolves on a strong shaft extending through its centre, and resting on stationary bearings attached to a solid framework. This frame also supports the other rollers, of which there are several distributed at uniform intervals over the surface of the main cylinder. All these rolls and cylinders are covered with a clothing of fine wire teeth, the points of which are reduced to the required degree of sharpness. These teeth or card wires are securely

imbedded in leather or strong canvas, and the latter is firmly tacked to the surfaces of all the cylinders and rolls. The multiplicity of these points and the result of their working together is what cards the wool. There are about 30,000,000 of these points on the cylinder surface of the ordinary worsted card. Probably 25,000,000 of these points carry the wool forward, while the remainder act as extractors and draw the filaments of wool from the teeth of the opposing surface. The main cylinder of the card receives the wool from the feed-rolls and carries it forward to the doffer, where the fibres are removed.

Back-washing is the next operation, and is for the purpose of removing whatever foreign substances are in the wool. More or less quantities of oil, grease and other matter necessarily accumulate during the first processes, all of which must be entirely removed before the wool can be gilled. Defective scouring must also be remedied during the back-washing process. The back-washing machine, standing alone, will occupy about 12 x 21 floor space. It consists of a tub, a number of metal rollers, and a series of large, hollow, copper cylinders. The wool is fed into this machine by arranging the balls, taken from the card, in racks, and allowing the loose ends to run into the rear of the back-washing machine tub.

The "gilling" process is for the purpose of drawing out and straightening the fibres. The gilling machine is sometimes connected with the back-washing machine. Certain classes of wools are subjected to the gilling process immediately after they are scoured and dried, thus omitting the carding operation. These wools, however, are different in length from those of the first kind; they are longer, and if put on the card would be destroyed. The extreme length of these fibres would cause them to lap around the rolls and cylinders of the card, and result in much breakage to the wool fibres. Long wools, therefore, are not carded, but are simply passed through the gilling machines and then combed. Manufacturers frequently make the mistake of attempting to card wools, which in reality ought to be combed. The process is a little cheaper, which is probably the reason for it. The gilling operations are conducted as follows: (1) The material is passed through what is termed the can gill-box; (2) then the spindle gill-box; (3) the four-spindle drawing-box; (4) the six-spindle weigh-box, (5) the three-spindle finishing-box, and (6) the "dandy" roving-box. The object of all the processes is to smooth and arrange the fibres in ribbons and ready for combing.

The circular comb is largely employed in the manufacture of medium stapled wools. It derives its name from its circular construction. In America it is commonly termed the Noble comb, having been invented by a man of that name. The machine consists of the large circle, which is about 60 inches in diameter, inside of which is a series of perpendicular pins. This is where the wool enters the comb. The upright pins are very sharp, and the large circle in which they are set revolves. The

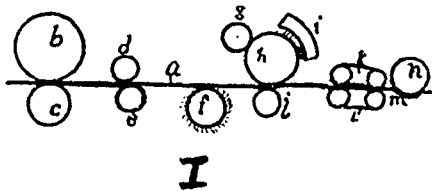
creel and feed boxes containing the slivers of wool go around with the cylinder, and deliver the material at the same time. Inside of the large circle are two smaller ones, which turn in the same direction. These small circles also contain rows of pins, which are regulated in density according to the character of the wool. These two circles effect the combing operation by working in unison with the large one. What is termed a "dabbing brush" falls upon the fibres, just as they are entering into the pins of the circles, at the rate of 1,000 strokes per minute. This motion forces the fibres into the points of both cylinders. Thus the fibres are forced into the pins by the dabbing brush, and are straightened and combed out by circles as they revolve. The smaller circles extract from the larger all those fibres which have been operated upon by the dabbing brush. All short, curly fibres remain adhering to the pins. These are removed by the agency of a sharp-toothed wheel, called the "stroker." This device operates on the small circles. It strikes the fibres, turning the ends, so that a small set of rollers can seize and draw them out and deliver them into a can.

The "beard," or the wool of the larger circle, is removed by a leather apron device, which works with the drawing-off rollers, and conducts the combed wool from the machine. The nip comb consists of two main parts, namely, the circle with drawing-off rollers, and the screw-gill box with the nip motion. When the wool enters the nip comb the fallers operate on it to their fullest extremity. Every time the faller drops the fibres adhering to it remain above and projecting forward. The use of the "nip" is now evident. It rises, opens and presses against the fallers, and closes over the wool which the faller left above. The nip moves automatically forward, carrying the filaments along with it, and drawing all those which are of sufficient length through the fallers. In this way the wool is well combed, and all the lumps, noils and curly fibres are cast out. The square-motion comb is the invention of Isaac Holden, a mechanical genius who has done much towards improving wool-combing machinery. In this machine the wool is combed by the circular method, and the wool is delivered to the working parts of the machine by feed-rolls. These rolls vibrate back and forth with the wool, which is in the form of two continuous ribbons. Every time these feed rolls move forward they come in contact with the teeth of the comb, on which they deposit a part of the wool and then move back. This is the movement that draws out the good fibres, and leaves all the short, curly ones remaining on the inside of the comb. The feeding mechanism keeps a constant supply of wool going into the machine, a large portion of which hangs loosely from the pins and is whirled around until it comes in contact with what is termed the square motion, consisting of a set of seven fallers usually, formed in the shape of an arc. The fallers move very rapidly, and each of them, when rising, conveys off a part of the wool. The accumulation of noil is removed by a small comb which falls between the pins at the time when they are

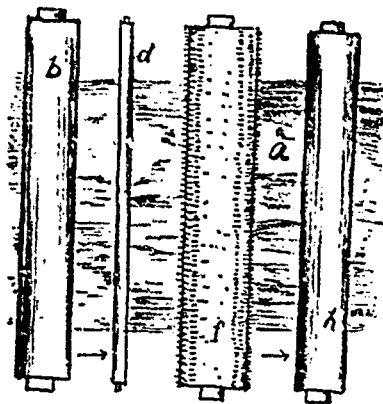
falling. Drawing-off rollers remove the combed wool. The square motion comb is used principally in the manufacture of medium and short-stapled wools.

Balling is a process of secondary importance, yet it is a part of worsted manufacture, and needs to be mentioned here. After the wool is taken from the comb, the fibres must be straightened and levelled again so as to prepare them for the next operation of drawing. This is done by passing the fibre through a common gill-box, and instead of allowing the slivers to run into a can, they are automatically wound into the form of a series of balls, thus putting the fibres in shape for use in the racks of the drawing frame.

Drawing comes next, and is one of the most important operations in the work of worsted cloth making. The object of the drawing process consists in combining a number of strands of ribbons or slivers together, and drawing them out again to the size of a single



I



II



III

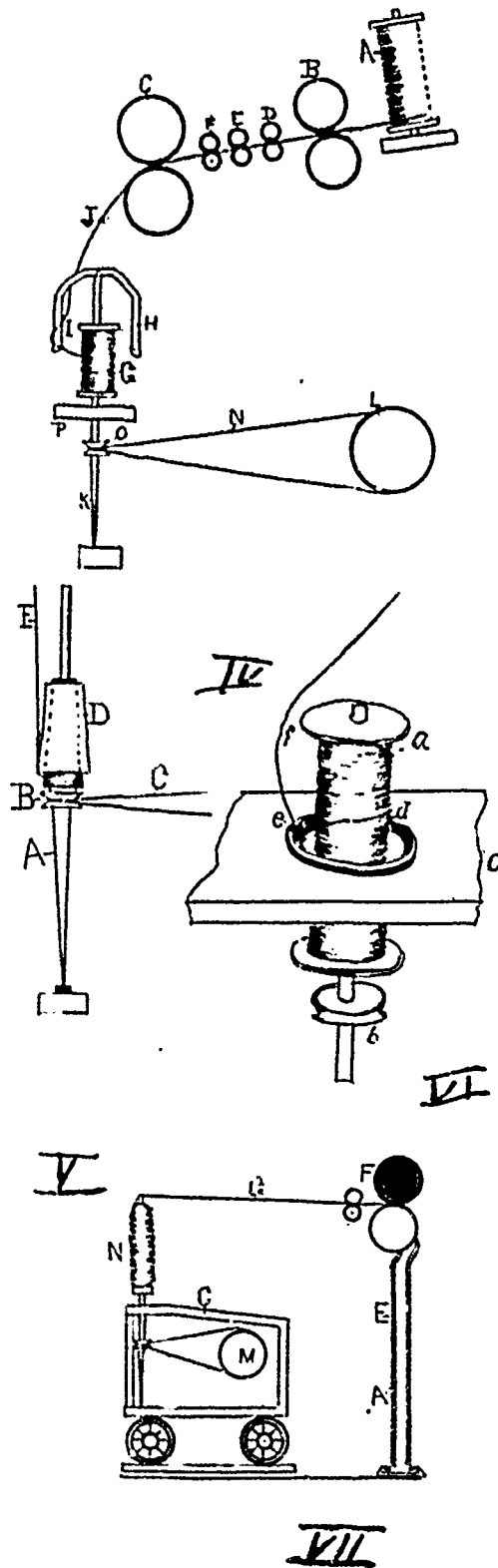
strand. Five, six and sometimes eight ribbons are doubled in this way. The rule observed in drawing is, that if six strands, for instance, are formed into one, the new strand will measure six times the length of all

combined. If eight strands are used, then the lot is drawn out eight times the original length and so on. This system of drawing out the strands tends to regulate and equalize the product of the wool comb. It makes the fibres assume a uniformity that could not be obtained otherwise. There are three systems of drawing out the product of the wool comb:—(1) The French system; (2) The open system; (3) The cone system. The principle of extenuating the slivers is substantially the same in all three.

The French system is used in drawing medium or short, stapled wools. A view of this system of drawing is shown in the accompanying diagram (I). In this view *A* represents the ribbon of worsted in process of drawing. The balls of worsted which were made on the balling machine, are put in racks and feed into the first pair of rollers *B* and *C*. The next pair *D* and *E* are simply conveyors. The pair *H* and *J*, however, are adjusted so as to make a "draft" between the point where their surfaces meet the ribbon and the point where the surfaces of rollers *B* and *C* come in contact with it. Between these rollers is set what is termed the "porcupine roller," *F*. This peculiar name is given to it because the numerous points that project from it make it resemble the porcupine. Its object is to sustain the weight of the fibres and prevent the material from becoming clustered too densely together. When the ribbon leaves the last pair of rollers it passes between the endless apron *R*, where it is well rubbed and made sufficiently firm to resist ordinary strain without breaking. The roller *G* is used to press the paper cover to the roller *H*. The brush *I* is for cleaning this roller; *M* is a guide pin; *N* is the bobbin on which the drawn ribbon is wound. A top view of this method of drawing is given (II). By comparing this diagram with the sectional view of the same part of the French drawing machine, it will be seen that *A* is the ribbon in process of drawing, *B* is the first draft roller, *D* the conveyor, *F* the porcupine roller, and *H* the second draft roller. This continual drawing process has the effect of straightening the fibres, and making the ribbon true and uniform.

In the process of roving the flat ribbons from the French system are given a slight twist, so as to prepare them for the spinning.

Spinning is for the purpose of imparting a twist to the previously prepared strands of wool. This will be understood by referring to the following sketches, in which the larger represents a magnified specimen of a strand of unspun "roving," and the smaller represents an enlarged view of the same strand after the twist has been put in. The application of the twist to the yarn is one of the most important pertaining to the business. There are four methods of spinning: (1) The flyer, (2) the cap, (3) the ring, and (4) the mule. The flyer system is extensively used in spinning worsted yarns. The principle of this mode of spinning will be understood by conferring with the diagram (IV.). *A* is the roving bobbin.



The strand *y* passes between the rollers *B*, *D*, *F*, and *C*. The object of the rollers *D*, *E*, and *F* is to convey the roving from one point to the other; the rollers *B* and *C* effect the draft, which is done by running the pair *E* at an increased speed over that of the pair *B*. The grooves in the lower rollers prevent the roving from slipping. The twist is put in the yarn by the revolutions of the flyer *H*, which turns at a rapid rate. It is

the revolutions of the spindle *K*, turned by the band *N* and the cylinder *L*, that cause the flyer to revolve. The yarn is put through a hole in one of the flyer's legs, then on to the bobbin. The flyer is fixed to the spindle shaft, and when revolved it not only puts in the twist, but serves to wind the yarn at the same time. The amount of twist put in the yarn is regulated by the respective speeds of the bobbin and the flyer. The lifter plate automatically guides the spun yarn on to the bobbin. In the cap-spinning system (*V*), *A* is the spindle, *D* is the cap. The spindle is stationary, and the part that revolves is represented by small shell *C*, to which the pulley *B* is fixed. The band *C* turns the pulley and the shell, which in turn communicates motion to the bobbin. The yarn in process of spinning is marked *E*. In ring spinning the flyer is dispensed with, and a ring substituted in its place. It is not extensively used in worsted spinning, but from the present outlook ring spinning is gradually finding its way into the worsted mills. Ring spinning is an American invention. The twist is communicated to the yarn by means of the revolutions of the bobbin *A*, Fig. VI. The spinning necessitates the adherence of the bobbin to the spindle *B*. It therefore turns with it. A contrivance termed the "rail" *C*, regulates the winding process, and also sustains the ring *D* in position. The yarn *F* is passed under the traveler *E* and around the bobbin. The exceedingly high rate of speed of the bobbin compels the traveler to follow it. The spindle is turned with great velocity and the twist put in. Worsted roving made by the French system is spun on the mule. The peculiarity of the draft of the mule is such that it draws out and spins the roving very evenly.

The accompanying sketch (*VII*) is a sectional view of the main working parts of the self-acting mule. The principal mechanical movements are mostly concentrated at the point designated by *A* in the sketch. The mechanical devices for imparting motion to the carriage *C* are not shown, but a system of gears are so arranged that the latter is propelled to and fro at the proper time. The twist is communicated to the yarn *G* in the following manner: The carriage having receded from the spool frame *E*, in which are set the draft rollers *F*, the latter cease turning, thus stopping the delivery of the roving in time to give the end one-half draft. This tends to straighten and reduce the irregular places in the roving. Simultaneously with the outward movement of the carriage, the cylinder *M* revolves and imparts motion to the bobbin *N*, thus twisting the yarn *G*. The twisting operation is continued until the twist gear causes it to stop, when the bobbins unwind a few inches, the faller wires *L* close on the thread, the carriage returns and the yarn is uniformly wound on the bobbins at the same time. Sometimes the worsted manufacturer needs to have some of the regular woolen mules in his mill. This is because worsted goods are frequently made with a woolen backing, or, as is sometimes the case, a woolen warp is used and a worsted

filling. The woolen mule, therefore, belongs to the worsted mill almost as much as it does to the woolen mill. The mechanical construction of the woolen mule is not very different from that of the worsted mule. In both a long carriage containing from 200 to 500 spindles is used.

These two systems are the "right" and "left" twist. Take a piece of yarn in the left hand and twist it so that the top will go to the left, and if it is "left twist" the yarn will become more twisted; if the "right twist," it will untwist. The reason for the distinction in the two kinds of twists is that a firmer piece of goods is made when warp of a right twist is woven with filling of a left twist. In looking over a sample of goods, it is well to examine the twists of the yarns. Double and twist, or two-ply yarns, are obtained by twisting two individual threads together, thus forming them into a single strand. A very large variety of yarns of this style are obtainable by twisting the different colors and shades in combination with a white thread, or by applying on colored yarn to another. Three-ply yarn is constructed similarly to two-ply yarn, the only difference being the addition of one more thread to the strand. Knickerbocker yarn is manufactured on a machine constructed essentially for this purpose. The principal characteristic of this thread is the series of knops, or bunches, which regularly occur on its surface at uniform distances apart. Looped yarn is procured by a mechanical contrivance attached to the twisting frame, which imparts a series of loops or curls uniformly throughout its length.

(To be continued.)

CONDITIONING.

One of the ways in which German textile manufacturers endeavor to cheapen their products is by effecting small savings, no matter how great an initial outlay. It has been found that loss often occurred through the amount of moisture existing in woolen stock varying according with the condition of the atmosphere. The continual misunderstanding arising from this cause between buyer and seller has led to the establishing of conditioning establishments, whose first duty is to ascertain the amount of humidity contained in the stock submitted for test. Such works are now common in Germany, and it is a sharp commentary on the enterprise of the textile manufacturers of this continent, that the only conditioning establishment in America went out of business last month. Besides ascertaining the proportion of moisture, other offices are assigned to the conditioning works, such as ascertaining the percentage of yolk contained in wool, the number of the yarn, the boiling of silk, etc. "A conditioning process," says Grothe in his Manual, "together with a method of thoroughly scouring the wool, must be introduced, in order to re-establish confidence in wool commerce, which has been sadly shaken during recent years. Considering the difference of percentage of yolk in wool, especially in that of fine quality, and

the difference of the humidity in that offered for sale, a conditioning and scouring method would end every dispute and doubt, and herein lies the principle for a better future understanding in the wool industry."

It is well known that every fibre greedily absorbs a certain quantity of humidity from the air or by contact with water. Although this quantity varies with different fibres, the absorbent power of each has been accurately ascertained. This degree of humidity is called the hygroscopic, but for convenience may be designated as the "normal humidity." A certain degree of humidity remains in the fibre when it is moistened; it cannot be expelled by the usual means, such as twisting, whizzing, squeezing, etc. This is called "capillary humidity," because it is retained by the capillary attraction of the minute cells and pores of the fibre, while the water which can be removed by simple mechanical means is called the "adhering humidity." In estimating the percentage of humidity in a particular piece of goods, it is first weighed carefully, and then the water is expelled to a degree of absolute dryness. The loss in weight suffered by the expulsion of the humidity is to be ascertained, and the normal humidity—that is, the quantity of water which the material at once re-absorbs when exposed in the open air—is in per cent. added thereto. It would be well if the normal degree of humidity for each material were fixed and adopted as a standard. This is not done, however, as various scales are in use for the same grade of raw material in different institutions. In 1875 a scale was introduced by the Turin Congress, which met to establish a standard for the numbering of yarn, etc. After thoroughly testing the scale, it was declared to be the authoritative standard, but it never was adopted by the textile trade.

The method of conditioning is, on the whole, very similar for the various classes of fibres. A receptacle with double sides is used, and the spaces between the sides are filled with some non-conducting material. A wire basket is placed in the receptacle and in it is laid the material to be conditioned, or, in the case of yarn, a wreath to which it is suspended. This setting hangs from one arm of a scale beam, the suspension rod passing through the cover of the receptacle. The scale is enclosed in a glass case. Upon its other arm hangs the usual plate for the weights. It is necessary that the scale should be of the greatest attainable exactness and sensitiveness, for upon these qualifications will depend the success of the investigation, and for this reason the scale must receive constant care and attention. After the sample has been placed within the receptacle, hot air is admitted, or the air within is heated, which causes the material to lose its humidity. During this operation the weight in the scale plate must be constantly reduced in order to preserve equilibrium. When the weight no longer diminishes the material is dry. The difference between the last and the original weight is the quantity of humidity evaporated. In some establishments only one sample is dried; but the usual custom is to experiment with two samples of the same lot. The temperature employed for drying varies largely for the

different materials. While silk withstands a comparatively high degree of heat without essentially changing in weight; this is not the case with wool, and still less with cotton. For this reason silk is dried at about 120° C. (248° F.), wool at about 110° C. (230° F.), while cotton is exposed to a temperature only of from 105° to 108° C. (221° to 226° F.).

The construction of the conditioning apparatus used in various establishments, although similar in its fundamental principles, varies considerably in form. Without entering into details it may be stated that, in spite of endeavors to construct an apparatus which would have in all its parts a perfectly uniform temperature, the main object to be attained, none completely achieve it as yet.

SAMSON, KENNEDY & CO.

The investigation of affairs of the S., K. & Co. estate is not quite complete, but from the statement given out the causes of the failure are evident. The following analysis of the business during the period since 1891, shows clearly the course it took in its downward career; but how it was done remains a mystery. It is consoling to reflect that there is very small possibility of any other firm being able to do business on the airy basis. From a net profit of something over one per cent. on a capital of \$150,000 in 1891, to a deficit of \$219,486 in 1895, is, indeed, a "far cry."

AN ANALYSIS FROM THE STATEMENT OF THE BUSINESS FROM DECEMBER 1, 1891, TO DECEMBER 14, 1895, SHOWS.

CAPITAL ACCOUNT.

On December 1, 1891	\$136,862 30
On December 1, 1892	150,523 36
On December 1, 1893	137,387 08
On December 1, 1894	106,388 07
On May 31, 1895	102,850 84
At time of collapse	53,917 17

SALES.

Year ending November 30, 1892	\$1,212,969
Year ending November 30, 1893	1,137,388
Year ending November 30, 1894	1,139,208
Year ending December 1, 1895, over	1,100,000

GROSS PROFITS.

Year ending November 30, 1892	\$130,253 50
Year ending November 30, 1893	100,399 46
Year ending November 30, 1894	86,410 02
Year ending December 1, 1895	96,538 88

DISBURSEMENTS.

Year ending November 30, 1892	\$116,592 44
Year ending November 30, 1893	113,535 74
Year ending November 30, 1894	117,409 03
Year ending December 14, 1895	149,009 80

GENERAL EXPENSES.

Year ending November 30, 1892	\$15,120 38
Year ending November 30, 1893	16,166 20
Year ending November 30, 1894	17,794 04
Year ending December 1, 1895	21,286 08

SALARIES.

Year ending November 30, 1892	\$41,537 57
Year ending November 30, 1893	42,851 21
Year ending November 30, 1894	44,026 68
Year ending December 14, 1895	55,968 72

TRAVELING EXPENSES.

Year ending November 30, 1892	\$17,502 85
Year ending November 30, 1893	14,615 75
Year ending November 30, 1894	22,374 95
Year ending December 14, 1895	20,822 54

INTEREST AND DISCOUNT.

Year ending November 30, 1892	\$19,661 87
Year ending November 30, 1893	17,263 04
Year ending November 30, 1894	20,629 94
Year ending December 1, 1895	27,492 45

BAD DEBTS.

Year ending November 30, 1892	\$ 14,769 77
Year ending November 30, 1893	17,639 54
Year ending November 30, 1894	12,583 42
Year ending December 1, 1895	16,596 13

The following accounts were written off December

14, 1895:—	
Suspense account, old unascertained balance	15,948 63
Warehouse property, set off against bank rating	20,858 38
Reduction in valuation of Manitoba lands	8,466 86
Saskatchewan Land and H. Co. stock	2,070 07
Souris and R. M. Railway	3,567 92
Shoal Lake Co.	1,948 00
Provident and Commercial Land Co.	3,086 56
Nt. debit, partnership insurance account	8,359 80
Written off fixtures account	7,025 86
Written off horses and wagons account	3,321 06
Loss on accommodation paper	2,500 00
Bad debts, per statement	\$9,031 38
	1,810 28

7,221 10

Amount at debit, special account, drawings Mr. Kennedy	12,535 48
Warring Kennedy, 1891 account	13,750 05
A. G. Samson estate	16,827 94
Old bills receivable, account bad	\$25,863 89
	3,811 20

22,052 69

Insurance account	1,180 00
S. M. Kennedy, overdraft	8,155 45
Alex. Gemmill, overdraft	1,120 89
Old bad book debts, extending back ten years	100,259 99
Stock-taking wages and rent	1,442 00
Mrs. Samson, account not in ledger	2,061 00

\$273,403 56

Less capital account	53,917 17
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Deficiency, as per assignee's statement	\$219,486 39
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USE OF THE BRUSH IN FINISHING WOOLEN GOODS.

The brush in its various forms—as, for instance, the hand brush, the brushing roller, the brushing drum, etc.—occupies a prominent place in the finishing process of woolen goods. It partly serves the purpose of raising the nap of teased cloth for certain operations, such as shearing, and partly of smoothing the wet or dry nap. The brush has also been used lately for wet laying in nap, for which purpose worn-out teasels were formerly used; and as far as experience goes, the brushes specially made for this purpose give entire satisfaction, and at the same time fully resist the moisture. The brush is first used in the drying process. It is well known that the wool fibre will retain the position imparted to it in a wet condition, and that if it becomes disarranged in the dry state it can by dry brushing be readily brought back to its original position. The more carefully the fibre is smoothed before drying, and the better the cloth is brushed, the nicer and smoother will the nap be after drying. To accomplish this result suitable brushes are indispensable. They must neither be too stiff nor too soft, nor old and worn. Unduly soft brushes do not penetrate sufficiently to the bottom of the cloth, while those which are too stiff and worn are rather inclined to raise the nap, instead of laying it down firmly and smoothly. A want of smoothness is the natural consequence in both cases. In order to preserve the brushes in good working condition, whether they are either simple hand brushes as are used in the cloth-tentering frame or the movable brush rollers of the tentering and drying frames, it is necessary to clean them from time to time. With a tentering and drying machine, which is kept steadily at work, this operation of cleaning should be performed at least once a week. If the brush floes collecting at the bottom of the brush are allowed to remain there, the elasticity of the bristles is diminished. A brush in this condition may be compared to a flocked piece of card clothing. It works as if it were old and worn out, no matter how good it may be. Moreover, when the floes in the bottom of the brush reach a cer-

tain thickness, they prevent the bristles from penetrating to the bottom of the cloth. Special care must be taken that the brush on the tentering and drying machine is pressed neither too hard nor too loosely against the cloth. It must also be adjusted each time the machine is set at a narrower gauge. Otherwise it is crushed at both ends by the guides and needle chains. Still greater injury will result if the brush is left to stand full width, and is permitted to revolve when turning the machine. This will completely destroy both ends of the brush in a very short time. The effort to avoid such consequences has recently led to the invention of several devices by which the brush may be set wider or closer, at the same time with the machine, and by an automatic attachment to ensure the correct position of the brush and make it independent of the supervision of the attendant.

The use of good brushes in shearing is also of great importance. An experienced shearer said recently:—"As soon as I enter the shearing room of a strange mill, my first glance is directed toward the brushing apparatus of the shearing cylinder; its appearance—I mean the attention paid to keeping it in order—is to me an almost unfailing indication of the care which is bestowed in the finishing operation." This statement contains much truth, for good brushes are just as necessary in producing a satisfactory shearing as sharp cutting apparatus. The best and sharpest shearing gear cannot remedy the defects caused by bad brushes. It often happens that shearing machines are equipped with old and worn brushes, which do not run true. Their journals rattle in the bearings, the bristles are worn down to stubs in some places, and are longer in others. They are of full length only at those places which do not come in contact with the cloth. They have, therefore, only preserved their elasticity in part. Just imagine the work of such a brush! The short, hard bristles dig into the nap and forcibly tear out the bottom fibre, because the brush must be placed close to its work, or it will not work at all points in consequence of the unequal height of the bristles. The inevitable result will be that the nap is cropped closer at the points where it is thus dug up. The napped surface, forcibly torn up by the repeated passages of such a brush, can by no possibility be smoothed again in a dry condition, even by a repeated hard brushing. The only remedy is to wet and tassel it again. This would, of course, be to no purpose, if it is afterwards treated again with old and worn brushes. The ready shorn cloth, therefore, not only appears rough and uneven in finish, but is also transparent and threadbare, because the ground is torn up sharply, and in consequence the nap is cropped closer. In any event, with the cutting gear in good condition, the shearing will never leave the cloth as smooth and elegant in finish as when it has been brushed with good elastic and true-running brush-rollers. The unequal wear of the brushes, and more especially their warping and drawing out of true, can usually be traced to the faulty construction of the old brush rollers. Experienced and skillful machine builders have in recent years greatly improved the brush rollers. Another important point to be considered is the condition of the bristles. These must neither be so stiff that they tear up the cloth unnecessarily, nor so soft that they will bend easily. This does not apply to the sharp brushes of hair, or wire, used in the bare shearing machine.

It is important that the brushes used in the shearing department are preserved in good working order by an appropriate treatment. They should be reversed from time to time, at least every three or four months. The unequal wear of the brushes is thus avoided, for ordinarily the fabric is not sufficiently wide to cover the entire width of the machine. On the so-called cutting side (the right side), a part of the machine, as well as of the brush, remains free, and as a result the latter is worn either very little or not at all at this end, and the bristles remain longer. As wider and narrower stuffs are most generally worked alternately, it is plain that the brush will gradually taper more and more towards the end which is most used. This can be prevented by reversing the ends occasionally, and the brush will then remain at a uniform thickness. The brush should not be allowed to extend beyond the cloth at the attacking side—that is, the side on which the selvage of the cloth runs even with the corner of the cutting gear, for the brush would

have an uneven spot in consequence, in spite of reversing. The reversal of the ends of the brush is also advisable for the purpose of straightening and stiffening the bristles and increasing their resistance. From the continual rotation of the brush in one direction, the bristles are apt to become bent and assume the direction and motion of the brush. When the motion is reversed, therefore, the bristles will work in a contrary direction, and consequently with increased elasticity. It might be said that the advantage of this method is doubtful, because the cloth is shorn alternately against and with the nap. This may be true to a certain extent, but it must be remembered that in large mills and finishing establishments, equipped with a number of shearing machines, the finer grades of goods especially are alternately treated in different machines, both for the purpose of obtaining a more uniform shearing, and for securing the advantages of the division of labor. In such a case, one machine always shears with the nap, the other against it, and on this account the reversal of the brush ends may be dispensed with. The several machines of this class are generally ground and adjusted in keeping with the special grade of work which they are to perform. The preservation of the brush rollers in the shearing room requires that they shall be cleaned from time to time, and the flocks gathering within them removed. The remarks made in regard to the tentering-frame brushes apply here, for the brush will lose in elasticity, and consequently in efficiency, if it is choked up with flocks. For the final clipping of fine grades of cloth in the shearing machine, a plush roller may be used to advantage in place of the brush. The lifting of the short nap upon steam-lusted cloth is better accomplished by plush than by a roller, and the shearing thereby becomes smoother and more uniform. For these plush rollers absolute true motion is of great importance, and frequent cleaning is to be recommended. Such rollers should be reversed more frequently than brushes, as the plush becomes ineffective more readily if it works for a long time in one direction. Besides this, such rollers should be re-covered often. The re-covering is done by wrapping spirally around the roller a fillet cut at a certain width similar to the clothing of a card-roller, or by slipping over the roller sleeve previously sewed so that it fits tightly. The latter method is considered the most preferable, if it is done well. The plush roller must be arranged in such a way that the cloth, after leaving it, does not pass with its napped side over a guide roller, as the raised short nap would be pressed down again, and could not be seized by the cutting apparatus. In the shearing of fresh cloth, the nap of which is raised by the brush, this danger is of little consequence. A certain style of shearing machine is provided with both brush and plush rollers, which may be introduced as required, and the cloth manipulated in such a manner that it can be treated by either the one or the other.

The quality of the brush is of less consequence when the latter is used for raising the nap on the back of the cloth, should this be required. In such a case the brush used is generally a little stiffer than that employed for the face. It is only necessary that the brush for the back be uniformly stiff throughout. Should it have worn spots, there will be certain places where contact will not take place, and this will cause shear stripes. Besides the drying and shearing machines, the brushing machine and cylinder press of the finishing room must be considered, for in both cases the larger drums are covered with brushes. The sharpness of the brushes for the brushing machine drums must be suited to the purposes for which the machine is intended. For brushing the cloth between the operations of shearing, or after the first clipping for steam lustring, sharper brushes are necessary, because a deeper nap is to be treated, and besides this, the loose shearing flocks clinging to the cloth must be removed. On the other hand, for brushing ready shorn cloth, softer brushes are required in order to obtain an elegant nap. This applies especially to brushing machines with steaming apparatus, in which the cloth is brushed immediately after leaving the steaming table. If a slightly extra sharp brush is used at this point, the short nap softened by the steam will rise, making the face of the cloth blurred and rough. The softer the brush used at this time, and the lighter its touch upon the cloth, the smoother and

more elegant will be the face. For the cylinder press no unduly sharp brushes are to be used, especially when this machine is used for pressing the cloth ready. It is also evident that the brush drums must be cleaned from flocks and dust from time to time in order to preserve their complete elasticity. A serious defect of the steam-brush is that it becomes moist by the steam, causing the wood and bristles to rot, and the binding wire to rust and break. New brushes and frequent repairs of the old ones are inevitable. The brush drums of most recent construction are built with a system of ventilators which draw in dry air from one end of the drum and eject it at the other. A continual air current is thus produced in the interior of the drum, tending to keep dry the parts coming in contact with the steam.—*Translated from Deutsche Wollen Gewerbe.*

TO NUMBER YARN.

The system of numbering yarn is very simple, when it is understood, but most people have not looked into the matter, or if they have they have noticed that there are many systems of numbering adopted. The numbering of cotton yarn is based on the number of hanks in a pound. Each hank contains 840 yards, and the number of these in a pound is the count of the yarn. Thus, 20 yarn consists of 20 hanks of 840 yards each in a pound, which equals 16,800 yards. To find the number of yards of any count, multiply the 840 yards in each hank by the count of the yarn, and the result is the number of yards in a pound. If the number of yards in a pound is given, and it is desired to know the count, the number of yards should be divided by 840, which equals the count.

Thus, if the yarn contains 33,700 yards to a pound, this divided by 840 gives 40, or the count of the yarn.

This method of counting is used in the United States and England, but in France the hank contains 1,094 yards, and No. 20 yarn, according to the French method, is equal to about No. 26. If it is desired to change yarn from the French method of counting to the English method, the number of yards in a hank (1,094) should be multiplied by the count, and this result divided by 840, the number of yards in an English hank, will give the counts.

The counts of worsted yarns are based on the number of hanks in a pound, each hank containing 560 yards. Thus, No. 30 worsted yarn consists of 30 hanks of 560 yards each, or 16,800 yards in a pound. The German method of numbering worsted yarn is in hanks of 840 yards, and consequently their corresponding numbers are much finer than ours; thus, No. 20 German count equals 16,800 yards, which divided by 560 English hanks equals No. 30. The French method for worsted yarn is the number of hanks containing 787 yards in one pound. And consequently their corresponding number, while not as fine as the German, is still a great deal finer than the same number in our count. No. 20, French count, equals 15,740 yards, which is equal to about No. 28 in our count.

Linen yarns are based on the hank, or lea, of 300 yards, and the number of these in one pound is the count of the yarn. Thus No. 30 linen yarn consists of 30 hanks or leas of 300 yards each, or 9,000 yards to the pound. This, strange to say, is the only yarn where a really universal method of numbering is employed, the French and German hanks each containing 300 yards.

The method of numbering woolen yarn is entirely different in almost every country, and in the United States there are two methods in use, but the general system is one where the hank is based on 1,600 yards, which is called a "run." Thus a yarn containing 8,000 yards to the pound is called a "five-run" yarn, and in this method of counting, the fractional parts of a "run," down to one-quarter, are used. Thus a yarn with 5,200 yards to the pound is equal to $3\frac{1}{4}$ run. In the vicinity of Philadelphia, the woolen yarn is based on the "cut," each "cut" consisting of 300 yards, and the count is the number of cuts in a pound. 30 "cut" yarn contains 9,000 yards to the pound, and is equal to about $5\frac{1}{2}$ "run." To reduce yarn numbered in "cuts" to "runs," multiply the yards in a "cut" by the number of the "cut," and divide the result by 1,600 which gives the number of "run." To reduce

"runs" to "cuts," multiply the number of yards in a "run" (1,600) by the number "run" the yarn is, and divide by 300, and the result will be the number of "cut."

In England, woolen yarn is numbered the same as worsted, 560 yards in a hank. The Prussian system has 1,604 yards in a hank, and is very close to that used in the United States. The Saxon has 495 yards, the Austrian 1,500 yards, the Elbuef 3,938 yards, and the Sedan 1,633 yards. The method of reducing to runs or cuts yarn numbered according to any of these various systems, is to multiply the number of yards in a hank by the count of the yarn, and divide by 1,600 if it is desired to reduce it to "runs," and by 300 if to "cuts."

Spun silk is numbered on the same system as cotton—that is, 840 yards in a hank—and the number of hanks in a pound is the count of the silk. The Swiss method is an exception to this, their hank consisting of 547 yards, and the number of these in 1 lb. is the count of the yarn. Thrown or net silks are numbered on an entirely different principle. The hank, or "skein," as it is called in this kind of fibre, contains 520 yards, and instead of reckoning the size by the number of hanks in a pound, it is found by weighing a skein, and the number of deniers that the skein weighs (reckoning 533 $\frac{1}{3}$ deniers to the ounce) is the size of the yarn. If a skein weighs 30 deniers, that is the size, and to find the number of yards in an ounce, multiply the number of deniers in an ounce (533 $\frac{1}{3}$) by the number of yards in a skein (520), and divide by the number of deniers the skein weighs. $533\frac{1}{3} \times 520 = 277,333 \div 30 = 9,244$ yards in an ounce.

Another system is used in Manchester, where the yarn is based on a scale of 1,000 yds. to the hank or "skein," and the number of drachms which one hank weighs is the size or number of the yarn. When using the Manchester method, the number of yards in an ounce of a 2-drachm silk can be found by multiplying 1,000 yards (the number in a hank or "skein") by 16 (the drachms in an ounce), and dividing by the number of drachms which a hank or "skein" weighs. $1,000 \times 16 = 16,000 \div 2 = 8,000$ yds. in an ounce.

Sewing silk is graded entirely different from anything as yet, and the following table will show the numbers and corresponding yards:

	Yds. per oz.
000=	32,000 yds. per lb., or 2,000
00=	25,600 " " 1,600
0=	20,800 " " 1,300
A=	16,000 " " 1,000
B=	13,600 " " 850
C=	10,400 " " 650
D=	8,800 " " 550
E=	6,400 " " 400
EE=	5,250 " " 330
F=	4,192 " " 262
FF=	3,392 " " 212
G=	2,000 " " 125

Mohair and alpaca yarn are numbered alike, the hank containing 560 yards, and the number of these in a pound being the size of the yarn.

Two-ply yarn in cotton, worsted, etc., is numbered according to the size of the single yarn with the number of the ply before it. If two threads of 20's are twisted together, the yarn is called 2-20's, and means that it is composed of two ends, and will weigh 10 hanks to the pound.

Sometimes in fancy yarns threads of unequal thickness are twisted together; thus a 70 and a 30 are twisted, and the count of this yarn would be 1-70th and 1-30th of a pound added together.

$$\frac{1}{70} + \frac{1}{30} = \frac{3 + 7}{210} = \frac{10}{210} = 21.$$

the count of the yarn.

If three, four or more ends of unequal count are twisted together, the count of the yarn may be found by pursuing the same method employed in the two-ply yarn. If a thread each of 10's, 40's and 80's are twisted together, the size of resulting yarn will be 73-11ths.

$$\frac{1}{10} + \frac{1}{40} + \frac{1}{80} = \frac{8+2+1}{80} = \frac{11}{80} = 7 \text{ 3-11ths}$$

In all ply yarn some allowance must be made for the twisting, but as this varies according to the number of turns per inch, it can only be taken into account when the number of turns is known

In spun silk the yarn is nearly always two or three ply, and the number of the yarn always indicates the number of hanks in a pound. The number of ply is usually written after number of hanks in a pound. A yarn which is size 50's-2 has 50 hanks to the pound, and is made up of two threads of 100's single.

Textile Design

WOOLEN TROUSERING.

Warp:

- | | |
|----------------------------|-----------------------|
| 1 end Red Twist 14 skeins. | 6 ends Grey 14 skeins |
| 6 ends Grey, " | 1 end Black " |
| 1 end Black, " | 1 " Grey, " |
| 1 " Grey, " | 1 " Black, " |
| 1 " Black, " | 2 ends Grey, " |
| 2 ends Grey, " | 1 end Black, " |
| 1 end Black, " | 1 " Grey, " |
| 1 " Grey, " | 1 " Black, " |
| 1 " Black, " | 3 ends Grey, " |
| 3 ends Grey, " | |
| 1 end Blue Twist " | 36 ends in Pattern |

3,200 ends in warp; 50 ends per inch; 6 1/4's reed, eight in a reed; 52 picks per inch; 64 inches wide in loom; 56 inches wide when finished. Weight 29 1/2 ozs.

West:—

- 2 picks Black, 13 skeins.
2 " Grey, " "

No. 661. 4 picks in Pattern.



DESIGN.



DRAFT.



PEGGING PLAN.

WOOLEN SUITINGS.

Warp:—

- 4 ends Brown, 9 skeins.
1 end Brown and Yellow Twist, } 9 skeins.
2 ends Brown and White Twist, } " "
2 ends Brown, " "
2 " Brown and White Twist, } " "
2 ends Brown, " "
2 " Brown and White Twist, } " "
1 end Brown and Yellow Twist, } " "

16 ends in Pattern.

No. 662.



DESIGN.

1,920 ends in warp; 30 ends per inch; 7 1/2's reed, 4 in a reed; 31 picks per inch; 64 inches wide in loom; 56 inches wide when finished. Weight, 26 1/2 ozs.

Warp:—

- 2 ends Thick Twist, 3 skeins.
2 " Black, 8 " } 5 times.
2 " Blue Twist, 8 " }
2 " Black, 8 " }

24 ends in pattern.

West:—

- 22 picks Black, 10 skeins.
2 " Red and Black, 10 skins.

24 picks in pattern.

No. 663.



DESIGN.

FUR AUCTIONS, 1895.

Furs may, in this day of substitutions, be classed as a luxury, and as such, are quick to respond to trade depression. At the beginning of 1895, so weak was the pulse of commerce that the outlook for the year's fur trade was anything but bright. A review of the market, however, by Culverwell, Brooks & Co., London, shows a record that is not without pleasing features. The January sales, occurring as they did, early in the month, were consequently not a subject of unqualified congratulation. The two main articles, represented by beaver and musquash, had to submit to a decline of 10 to 15 per cent, while black bear and raccoon fell 10 per cent. On the other hand, the English demand caused an advance in marten, mink and skunk of 15 per cent. Active competition was also created for bastard chinchilla, owing to its revival as an article of fashion in France, America and England. Soon after the January auctions a change from mild to severely cold and bracing temperature was welcomed by fur traders, and the fact that it lasted almost without a break until after the spring sales, naturally put the market in a promising position. The sales held during March were consequently approached in a hopeful spirit, for it was clear that the expansion in the retail trade must react favorably on the demand for raw furs. The sales were attended by buyers from all parts of the world, and the general competition was marked by activity. Amongst some of the more imposing advances may be mentioned bastard chinchilla, marten and white fox, which show a rise of 75 to 100 per cent compared with the rates current the year before. Of the more costly furs (the value of which is regulated to a great extent by the Russian demand), foxes, cross and silver, receded 10 per cent. from figures considered high, a few exceptional specimens of the latter, as usual, brought fancy prices, the highest being £170. Red fox realized advanced rates for fine Labrador skins. Otter were slightly dearer, while the diminution in the supply of the valuable sea otter prevented any decline from the high level prices had already attained. The remaining sales of American furs took place in June and October. On both occasions the supplies were neither large nor particularly attractive in quality. At the former, lower prices were almost without exception registered, while at the autumn sale the alterations were mostly in favor of sellers. A sale of bastard chinchilla was held last month, when prices for good parcels remained firm. The world's supply of salted fur seal skins was disposed of at two series of sales held during the past year: at that in March, only 14,000 skins - mostly of N.W. coast origin—were sold at an improvement of 10 per cent. No further sales took place until December, when 140,177 were offered and sold. The result, however, although far from unsatisfactory, must have disappointed the more sanguine dealers' expectations, owing to some failures in the trade in America as the December sales approached. The bulk of the supply which was then offered was composed of the N.W. coast catches, upon which an advance of 20 to 25 per cent was established.

PEROZONE.

Perozone is a specially prepared peroxide of hydrogen which is adapted to and intended for use in bleaching wool, cotton, and, in fact, all animal and vegetable fibres, whether in the form of raw stock, yarns, or piece goods. The advantages of its use, especially in woolen manufacture, are many and important, of which we may note two of the more prominent. First, the bleaching agent attacks the coloring material incorporated in the fibre, and not the cellulose of which it is built up. The importance of this statement will become apparent if a little consideration is given to the subject, especially if taken in connection with the further remarkable feature which has been noted, namely, that the coloring matter is not superficially neutralized, as is the case with the sulphur bleach, but is dissolved out, leaving the structure of the fibre uninjured, but in a somewhat open state as to its structure, and peculiarly fitted to receive delicate and even shades of dyestuffs. Indeed, it is believed that in some special lines of manufacture it would be highly profitable to use this bleach as a preparation for the dyebath.

BELLHOUSE, DILLON & Co. are agents for the West Indies Chemical Co., whose advertisement appears in another column. B. D. & Co. make a specialty of logwood extract, and have placed a large number of orders for the West Indies Chemical Co.

The second feature to which we would direct attention is the fact that the bleach produced by this agent is a permanent one. That the sulphur bleach on wool is most unsatisfactory in this respect is too well known to require extended comment. It is sufficient to observe that such is necessarily the case from the conditions which are present. The sulphur bleach may sell a line of goods, if they are not allowed to remain any length of time on the shelves, but it will not carry them through any considerable amount of wear after they have been made up into garments, and it perishes at the laundry. It is in these respects that the new bleaching agent is specially valuable. The bleach being effected by the extraction of the coloring matter, to get it back again recourse must be had to the dye tub.

Foreign Textile Centres

MANCHESTER.—The mind of the trade was considerably exercised recently by the details of the scheme for modifying the cotton duties. At first conflicting views were expressed upon them, some approving, some denouncing. The protective element, so far as the Bombay mills are concerned, is about removed, but only to be granted on a much larger scale to the native handloom industry. By freeing both home and Indian yarns from taxation, the worst feature of the old arrangement has been reintroduced and intensified. This is the inequity of the incidence of the tax, which misses one-half of the Bombay trade and a large portion of the English one, whilst it inflicts an unnecessarily heavy tax upon the manufacturing branches of the trade both in Bombay and England, and consequently, the spinning branch that caters for the weaving portion. A simple tax of $2\frac{1}{2}$ per cent. upon both yarns spun in Bombay and those imported from England, and which are distributed for the consumption of the handloom industry, would have been thoroughly equitable to all sections of the trade, and would have left the handspun yarns and the hand woven cloth quite free, whilst protecting both to the extent of the tax imposed upon the value of the labor expended in transforming yarn into cloth in the mill industries. But never have men gone more perversely wrong than the Indian Government in this matter. Their action shows that professional politicians are utterly unfit to deal with such things without the advice of experts. For cloth there has been some more demand, supposed to result from the putting forward of inquiries that had been held back owing to the discussion upon and uncertain future of the Indian duties. The China demand has of late been slow, and the demand for cloth has been disappointing in a number of cases. The trade generally has been dull, and while there has been an undoubted steadiness with regard to quotations for cloth, yarns have not maintained the same strength. In not a few instances needy spinners have accepted bids which they would not listen to a short time ago. Bundled yarns have not infrequently brought forward Continental buyers under these conditions, but the transactions thus recorded have not been to any very great extent. Home American yarns are firmer, without being accompanied by an average turnover. Cloth sellers have scarcely secured the amount of business which might have been expected from the improvement in cotton.

LEWIS.—The cloth trade is dull, as compared with what it was a week or two ago. Manufacturers have been compelled to advance prices for cloths of all grades, except the lowest, such as mixture tweeds, unions and printed meltons. Some of the finest cloths, which are now in season, have gone up as much as 10 per cent. in price. In other cases the rise varies from 5 to $7\frac{1}{2}$ per cent. All the cloth mills are running full time, a few overtime. Plain black and blue serges are most in favor with London buyers. During the last day or two not much new business has been reported from America.

DEWSBURY.—Manufacturers are still very busy, and repeat orders for summer goods are coming in much better than last year at this time. Serges and fancy worsteds are in great request at late rates, and presidents are going well into consumption. In the

carpet trade Brussels sell well, but for narrow loom goods there is little or no demand. The blanket trade remains active, colored goods taking the lead. The fancy rug trade is improving, and more orders are coming from South Africa. In the raw material market soft rags are in good demand, and there is a better feeling in the mungo department.

HUDDESFIELD.—In Huddersfield there is a cheerful feeling with the more settled state of the political horizon, and in addition to the continued activity in regular goods for the home trade and the continent, there is more inquiry for fancy and plain worsteds for the United States. In the flannel and blanket trades, although this is usually a quiet time, all the principal makers continue fully employed, and the upward tendency of the wool market makes prices very firm.

BRADFORD.—The spirit of the London and Liverpool wool sales for lower wools has continued remarkably strong up to the close of the series. The foreign element showed a certain amount of hesitation on the opening nights, but as the sales progressed both continental and American buyers competed with increasing spirit for all good wools of a fashionable character. Although prices in Bradford for merino wools and tops continue very firm with a hardening tendency, it must be admitted that the market is following the lead of London somewhat slowly, and it would be difficult to buy wool at these sales which could be profitably sold in the form of tops; but this discrepancy will probably soon wear off, and local prices will get levelled up. The increased inquiry for mohair yarns for export tends to confirm the idea that there were distinct signs of a revival in the demand for braid yarns developing at an early date. In the piece trade the firm prices of raw material are prompting buyers to complete their arrangements for all classes of plain winter dress fabrics, so as to avoid being compelled to pay higher prices later on, but this process is rendered somewhat difficult, as some of the makers here, who have generally been relied on for large quantities of good class goods, are fully engaged on bright dress goods orders to the end of June, and consequently are prevented from supplying their usual contribution of winter fabrics. No novelties in bright dress goods are being placed on the market, but the demand for Sicilian makes in blacks and navy blues continues strong, and there is a good demand for glacés for both home and abroad, but deliveries will be difficult to obtain before May. There appears to be a distinct taste for cloths of the crepon character in expensive handsome goods of good weight and bright fabrics, but the styles must be novel and the fabrics rich. The unfortunate death of Prince Henry of Battenberg seems to have brought the demand for these goods into especial prominence for mourning purposes in fashionable circles. The new printed silk delaines in Paisley shawl designs are being well taken up, and many of them are most artistic in design, and exhibit quite a new departure in colorings. The piece trade with the United States, both in coatings, linings, and dress goods, is just now very quiet in respect to new business, but this is attributed solely to the uncertainty which still prevails as to whether any alteration is to be made in the duties levied on the textile exports to America. The feeling is growing that no alteration will be made, and should that be the case, new orders will be at once placed, whilst on the other hand an alteration in the tariff would create the greatest disorganization, not only in the importing trades, but also in the internal trade of the country.

HALIFAX.—There is a slightly better demand for wool in small lots, and values are maintained, but without advance. The yarn trade is rather quiet, especially in twofolds for export. Offers are lower than spinners will take. They remain firm, being mostly fully employed. Coating yarns are quiet for the home trade. Manufacturers are pressed to complete orders, but new business is quiet. Prices about steady.

KIDDERMINSTER.—The volume of business in the wool trade is increasing, and in the past week there has been considerable activity. There is only a moderate alteration in the local wool trade, but what change there is in the right direction. Spinners find their position improved, though new business is coming to hand somewhat slowly. The strengthened tone of the raw material com-

pels them to be firm, and in some instances they have advanced prices. Carpet manufacturers are moderately well employed, and in some cases are making additions to their plant.

BARNESLEY.—Trade showed little change, but the outlook is regarded as hopeful. Yarns of all qualities are advancing, and prices of finished goods are moving under that influence. For the United States the demand is of a very general character and fairly steady, though in volume it is not above the average. Bed linens and wide sheetings move steadily, and all grades of towellings meet a fair average trade. Fine table linens are extremely quiet and handloom goods very dull, but light cloths move fairly. Coarse linens steady. A fair enquiry for spring goods is experienced. Bleachers and printers quiet.

SOUTH OF SCOTLAND.—The trade in this district still keeps very dull, many of the manufacturers now being on short time. Confirmation orders for next season are not yet coming in, and repeats for the present season are very scarce. One or two of the makers who are making very good chevots, and also worsteds, are busy, and have a fair amount of work before them. There is nothing doing in wool or yarns.

KIRKCALDY.—The general tone of trade is fairly good. In the millspinning and weaving branches employment is steady, and recent improvement is maintained. Floorcloth and linoleum makers are in a similar condition.

DUNDEE.—Latest advices show that the Dundee jute market remains quiet, but sellers are anxious for business, and show more willingness to meet buyers. Yarns are very firm, and spinners refuse to accept new orders unless a small advance is made. Sellers of jute cloth are steady, but there is less demand, and buyers are bidding a fraction under current prices. The demand continues general, but more is taken for the United States.

BELFAST.—The improvement reported for some time past has made steady progress, and though there has been much public excitement in connection with political events just now, the course of trade has not been materially affected in any way. The proposed revision of the American tariff following the recent diplomatic correspondence caused a temporary lull in business with that market. Supplies of flax are keeping fairly good at the Irish markets, but as the great bulk of what comes forward is chiefly of the coarser description, demand is slow, and prices, from a grower's point of view, small. Good medium to fine lots find ready buyers at former prices. Hand-loom Ballymena and County Down makes have shared in the better demand, and prices show a hardening tendency. In cloth for dyeing demand has been limited. Stocks, however, are small, and prices very steady. Not much new business doing in roughs, but most manufacturers are well occupied with old orders, prices very firm. The improvement in the handkerchief trade continues. Linen makes, both power and hand loom, sell better, and cambrics are in very good request at somewhat better prices. Damasks, both power and hand-loom, but especially the former, have good attention, and stocks on the market are light. For drills, towelling and glass cloth there is a fair demand, and union makes of nearly all classes of goods are freely bought at late rates. Manufacturers are asking higher prices for fresh contracts in several instances where they are oversold, but buyers are slow in meeting them.

LYONS.—The demand for silk fabrics in Lyons has continued moderate, and activity after the usual holiday rest has not yet been resumed. The manufacturing situation remains unchanged and good, the looms having plenty of work secured by previous orders. With fashion as much in favor of silk as it is this condition of affairs in the industry is not likely to be changed this Spring unless some unforeseen event interferes. But buyers of goods are not showing great anxiety to make purchases, and the orders that have been placed with manufacturers have been of small proportion. In the business done taffetas figure prominently in stripes, changeable and in printed effects. Taffeta plaids are also in demand. Piece-dyed and yarn-dyed satins are selling, but striped satins are slow. A good demand is reported for damasks in all-silk and in mixtures. Piece-dyed fancies are also good. Much activity has prevailed for

some months in the production of silk muslin, which is still in good demand. Moiré, while not a leading article, is receiving some attention. Satin duchesse, merveilleux and surah find buyers. The ribbon market is active and a good demand is reported for satin ribbons in black and colors. Plaid ribbons are liked. Fancy ribbons and novelties are good sellers. The demand for velvet is small, and in all silk, as well as in chappé velvet, the lots taken out of the market are only small.

CREPELD.—The demand for goods is fairly active, but more or less centred on dress and blouse silks, which, to all appearance, will have a season of good consumption and equal to the expectations. In medium priced goods are favored taffetas and gros de Londres with two-colored warp or with chameleon effect. Supplementary orders in these are being placed. Wholesale houses report a better inquiry by retail buyers. Of the other branches of the industry outside of dress silks the production of umbrella and parasol silks is the most active. Tie silks are quiet. Linings find a market for the cloak trade. The ribbon branch has been favored by good orders in plain ribbons and in piece-dyed fancies. But in yarn-dyed fancies some disappointment is experienced, and the good preparations made by manufacturers in the form of liberal sample lines have not met with as good orders as were expected. Velvets and plushes are unchanged, and in the industry there is not much hope of an improvement until the advance orders for fall are placed.

CHEMNITZ.—Manufacturers in this district are still very busy filling orders taken between last June and September. Most of them are behind in their deliveries, owing to the fact that they have taken too many orders and the goods cannot be turned out on time. But this season it is not felt so much, as the American houses, not having sold so well as usually, give them more time than in other seasons. Lately several importers have also placed orders for fall goods in liberal quantities, and all over the market a feeling that the tariff question will not greatly affect the coming season's trade is developing. Orders will most likely come later than usual, and therefore be pushed through in a hurry. Duplicate orders on spring goods are rather scarce, but the late deliveries are as much to blame for that as is anything else. In coarse gauge hosiery manufacturers are pretty well sold up, and hardly any stocks have accumulated in these articles. Prices on them are stiff, as the yarns are still high in price and there is no outlook for any reduction yet. Wages are the same as they have been for the last few months. In fine-gauge hosiery the demand is not quite equal to the production, and in the staple qualities there are some stock lots in the market, but even those are not thrown away at any offer, but may be had at a slight reduction. Richelieu ribbed hose and fancy drop-stitches are selling well in ladies' hosiery in blacks and tans. Fine hosiery are in good demand in delicate opera shades. The all-maco feet are not selling as well as the maco soles with herringbone stitching. In better qualities the bleached soles are preferred. Fancy goods are expected to sell well for the coming spring season. In men's hosiery a large variety of styles is shown in merino, in various mixtures, plain as well as striped. In cashmere qualities complete lines, from the lowest grade up to the finest, are shown in plain and ribbed. An improved finish on these goods will help the manufacturers a good deal when taking orders. The finishing of cashmere goods was the weak point in this market, but this season most houses succeeded in improving them, so that these goods can now compete with the English makes in that regard. In misses' hose the fine gauges in good qualities are in large demand. Those goods are now mostly bought in black. In gloves manufacturers are still busy on spring goods, and the season has been satisfactory to all. Profits, however, have been small in many instances, as the raw materials went up while the selling prices did not rise in proportion, for which the competition among the different makers is to blame. Mostly plain styles were bought. Fancy prints and embroidered backs did not take very well. A good business, however, has been done in ladies' taffeta and all-silk gloves in long lengths for evening wear. These were bought in white, cream and delicate fancy shades. Large buttons have been called for a great deal, especially in four-button lengths. Better

silk qualities are mostly taken with double-woven finger tips, which make the tips last long enough to wear the glove out. Landed silks are not so much in demand any more, as they did not give satisfaction in wearing. Gauntlets were also tried by a few houses, but did not prove a success. For winter wear black cashmere will be the leading glove again, with silk or kid points. Ringwoods and imitations thereof are also expected to sell well. For men's wear large lines of Astrakhan gloves are shown, either with kid or cloth palm, the latter to avoid the higher duties placed on kid palm gloves.

NOTTINGHAM.—Business improving, but very slowly. Some moderate orders have been placed for the home trade, while export houses are also doing fairly well. There is considerable dubiety as yet as to the direction which the fancies of fashion may take, as this checks speculative business. At present, antique and other Valenciennes in ivory, and to a less extent in tones, are favorites, as are also guipures and imitations of the Plauen goods. American and heavy laces have also been selling well. The plain department is fairly active, and demand for bebbins keeps up. Light tulles are also selling. In necklaces, a few Chantillys are selling, and small parcels of Spanish and Bourdon. Veilings are selling well, but prices are unsatisfactory. Silk tulles are dull. Fancy linens are pretty well off. In the lace curtain branches there is a steady trade, and worsted goods seem to increase in favor. Much more could, however, be done with ease. In the hosiery branches trade has fallen off a little. The wages dispute is practically settled. No alterations in yarns, and demand rather quiet.

THE FELT INDUSTRY.

Felt is defined as a stuff composed of wool, fur or hair, of which the fibres are so entangled and interlaced that they cannot readily be separated, this being done without spinning or weaving. There is a tradition that felt was discovered by St. Clement while on a pilgrimage. Having put a bat of carded wool into each shoe to save his feet from blistering, he found at his journey's end that moisture and friction had converted the wool into felt. It was a common material for caps, brosiery, floor cloths, tents and cloaks, having long since been used for this purpose in the East, where the nomads of the desert largely occupy tents of felt.

At present it is largely made from waste wool, which is first deprived of its oil, then carded and placed in a machine, where it is kept wet with hot water and subjected to a process of beating, by which the fibres are made to move upon each other until the interlocking of their serrations and the curling of the fibre itself unite the whole into a compact sheet of felt. The "fulling" of cloth is but a partial felting of wool already woven. This felted wool is used for carpets (often beautifully printed), carpet covers, coarse hats, carriage linings, pads in saddlery, shoulder pads for men's clothing, slippers and shoes, and even for cloaks and other garments. The cheapest woolen rags and similar articles are worked into felt for covering steam boilers, being used before the introduction of asbestos for that purpose more than at present. They are both excellent non-conductors and greatly diminish the waste of heat. Roofing felt, when not made of wood fibre, is a coarse kind, usually coated and filled with coal-tar, and sometimes with tar and powdered slate. Felt stiffened with dextrine is used for making surgeons' splints.

By far the most important use to which felt is put is that of making hats. Technically they are of three different kinds, known as plain soft, plain hard and "napped" or "ruffed" felts. The quality of felt hats ranges over a great extent, fur composing the entire body in the finer and more expensive qualities. For commoner qualities a mixture of fur and Saxony wool is used, and for the lowest kinds wool alone is employed. The processes and apparatus necessary for making hats of fur differ from those required in the case of woolen bodies. In large manufactories machinery is generally employed for operations which, at no distant date, were entirely manual. In the smaller factories, and for special purposes, the old hand processes are still employed.

The fur used by hatters consists principally of the hair of rab-

bits (technically called coneys) and hares, with some proportion of nutria, musquaan and beaver hair, and generally any parings and cuttings from furriers. Furs intended for felting are deprived of their long coarse hairs, after which they are treated with a solution of nitrate of mercury, an operation called carroting or "secretage," which greatly increases the felting properties of the fur. The fur is then cut by hand or machine from the skin, and in this state it is delivered to the hat maker. Rabbit fur for hat making now comes in large quantities from Australia, and it is also largely collected in Northern Europe and America.

FABRIC ITEMS.

The Silk Association of America has changed its offices to Silk Exchange Building, 445 Broome street, New York, U.S.A.

The T. Eaton Company, Toronto, has secured additional frontage on Queen street west, and is now busy putting the new premises into shape for occupation.

McKendry & Co., another of Toronto's big stores, is taking in adjoining premises.

M. McGillivray, of McGillivray & Spears, Listowel, Ont., has bought the stock of G. F. Preuter, of Kincardine, and is going into business in Listowel for himself.

Johnston, Kerfoot & Co., clothiers, Vancouver, B.C., say there is no truth in their reported dissolution of partnership. The business will be continued as before.

It is reported that Fraser, Fraser & Co., ready-made clothing, St. John, N.B., will open a branch store in Halifax, and will occupy the Golberg store on Barrington street.

Wilson & Sons, merchant tailors, Hamilton, Ont., have disposed of their business to R. A. Campbell, who has been connected with the firm for a number of years as head cutter.

A new woolen firm, in Montreal, is Finlay, Smith & Co. The *Dry Goods Review* says the principals were formerly with the Gault firm, and that Mr. Finlay is a son of Samuel Finlay, the wealthy retired merchant.

The attention of the members of the London Trades and Labor Council, London, Ont., was directed at a recent meeting to a firm of pants and overall manufacturers, who pay their employes \$1 a week, or 3 cents a pair for overalls.

The postal authorities recently called the attention of the public to the fact that addresses to points in the United States were not complete without "United States" or "U.S.A." in addition to the name of the post office and State.

The inspectors of the Samson-Kennedy estate, acting on legal advice, have decided that the 82 cases of cotton removed from the warehouse to the premises of D. Morrice & Co., after the suspension, were the property of the latter firm, and that they shall remain in their possession. Some of the creditors will take action to recover the goods.

The retail dry goods merchants of Montreal recently held a meeting to discuss measures for preventing the departmental stores from taking the trade away from the smaller firms. A committee was formed to consider the matter, composed of: Dry goods, C. P. Chagnon; grocers, Ovide Corbeil; boots and shoes, T. L. O'Brien; proprietors, Patrick Wright, J. R. Savignac, L. E. Beauchamp, Arthur Gagnon; toys and fancy goods, J. D. Couture; druggists, S. Lachance; tobacco, T. Martineau; journalists, S. Cote.

The Toronto dry goods section of the Board of Trade met recently, when the annual report was presented. The following gentlemen were elected as the executive committee for 1896, viz.: J. T. Ivey, Andrew Darling, J. Short McMaster, John Macdonald, W. Blackley, W. R. Brock and T. O. Anderson. Andrew Darling, chairman; John Macdonald, vice, and A. Will, secretary. There are three candidates in the field for the second vice-presidency of the Board of Trade, viz.: James Carruthers, A. A. Allan and John Flett. The following are candidates for harbor commissioners: Capt. Hall, Geo. A. Chapman and A. E. Mathews.

During one week last month \$500,000 of raw silk was crossed from Prescott to Ogdensburg.

An investigation has been made into the affairs of G. Chrysler-Brantford, who recently assigned. It was quite satisfactory, we believe. Stapleton Caldecott, E. Yeigh, and J. Fraser Macdonald were the inspectors.

Mayor Vineberg, of Quebec, dealer in dry goods and manufacturer of suspenders, will transfer the former branch of his business to Winnipeg next May, and leave a manager to conduct the manufacture of suspenders in Quebec.

The ratepayers of Toronto are holding meetings to discuss the suppression of the departmental store. It is found that the movement of retail trade to the centre of the city is causing great loss to the owners of less central property.

Andrew Boyd, of Boyd, Gillies & Co., Montreal, has been arrested in London. It will be remembered that Mr. Boyd left the country at the time of the investigation into the incendiary fires in Montreal, in one of which the B., G. & Co. warehouse was destroyed.

The people most interested profess to know nothing of the matter, but the rumor is that the firm of W. A. Murray & Co. is about to amalgamate with R. Simpson, at least to the extent of both businesses being carried on in the fine new store of the latter on Yonge street, and under, to a certain extent, the same management.

The *Kidderminster Shuttle*, in a recent issue, corrects a statement which appeared some time ago in the *New York Carpet Trade Review* to the effect that J. M. Miller, for some years with T. B. Shoaff & Co., New York, had been appointed agent in the United States and Canada for the well-known firm of Cook, Son & Co., of Friday st., London, England.

W. S. Rough, representative in the West of John Macdonald & Co., Toronto, is in charge of the T. A. Garland stores at Portage la Prairie, Man. Other creditors in the East are represented by Mr. Bradford, of Galt, who is taking account of the stock. The local papers say that the business will be carried on upon a more extensive scale than ever by Nicholas Garland, of Toronto, and that a son of T. A. Garland will act as manager.

Judge Macdougall dismissed the suit of E. R. C. Clarkson vs. Belding, Paul & Co. Plaintiff asked that \$200 worth of goods, obtained by defendants from the Worsted and Braid Company, which assigned to Mr. Clarkson last August, should be declared to have been the property of the latter company at the time of the assignment, and should have been included in the goods assigned. Defendants contended that the goods were given as collateral security for a debt.

A settlement was proposed in the case of Goldberg, clothier, in Halifax, but it fell through. Goldberg agreed to settle on a basis of fifty cents on the dollar, which meant the payment of \$6,500 to his creditors. The creditors were willing to accept the offer, and sent a man from Montreal to complete arrangements. But Goldberg could not furnish the security proposed by the creditors, and the matter was dropped. A Halifax paper now says. "By the decision given at Chambers in the Supreme Court recently, the assignee of the estate is to pay the moneys he received from sale of stock, etc., to the receiver."

In *Hepton vs. Chapman*, Chief Justice Meredith refused the injunction asked for, and let \$25 paid into court by Chapman go to the plaintiffs. A certain waterproof material called Heptonette is registered under the trade mark laws by Hepton Brothers, of Leeds, Eng., who have only one agent in London. The defendant, John H. Chapman, a dry goods merchant, London, Ont., had on hand some waterproof garments of the kind called Cravenette; and one of his employes, by inadvertence, advertised and sold some of them as Heptonette; whereupon the plaintiffs, Hepton Brothers, brought suit for damages and an injunction, asking also for an advertised confession of wrong-doing. The defendant Chapman stopped advertising and selling under the name of Heptonette when he found what he had been doing, and paid \$25 into the court as damages.

The striking tailors in Toronto are not always peacefully inclined, and recently two of them were arrested and charged with assault. It appears that a regular system of spying is carried on, and everyone leaving a tailor's shop with a parcel or bag of any kind is followed, and his destination noted. In this way it is hoped to keep track of work done outside. Sometimes the shadows and the shadowed collide with results as above. In order to remind the public of their existence the striking tailors are causing a black bearded man in oriental costume, turban, bloomers and turned up slippers, to parade in front of the obnoxious tailor shops on King street. Back and front he wore a sandwich board giving notice that nine King street tailors had locked out 138 of their employes, who had done their work for many years past. The notice further proclaimed that the work was now being performed by scabs and sweaters. The placard was brilliantly illuminated; the words scabs and sweaters were inscribed in large capitals of a blood-thirsty red, and the sandwich man's costume was startling in its color effects. Altogether the incendiary announcement attracted a great deal of attention.

DIAMINE DARK BLUE B

Diamine Dark Blue B belongs to the group of Diamine Jet Blacks, possessing the same tinctorial power and a fastness to light equally as good as that of the known marks of this class of dye-stuffs. While, however, Diamine Jet Black SS and F produce jet blacks, and dark blue, blackish blue shades are obtained with Diamine Dark Blue B. This new color will be of importance principally for the following purposes. (a) On cotton, for the production of dark blues as a self color, as well as in combination with the various Diamine Blues. Dark blue dyeings fast to washing are obtained by treating them after dyeing with sulphate of copper. Shades produced with Diamine Dark Blue B by itself or in combination with Diamine New-Blue R or Diamine Blue RW, and treated in the above manner, are extremely fast to washing and light and will render good service for yarns, loose cotton and piece-goods (especially cloths used for workmen's suits). (b) On cotton and wool mixed goods for dyeing dark blues and blackish blues direct, as well as for shading purposes, especially for saddening dark browns. Diamine Dark Blue B covers both fibres alike, and is distinguished by its extreme fastness to light on this kind of material also. Diamine Dark Blue B ranks amongst the most easily soluble diamine colors, and can therefore without hesitation be used for dyeing cops, slubbing, loose cotton, etc., on all kinds of mechanical apparatus. Cotton is dyed at the boil for one hour with the addition of either 5 per cent. soda and 15 per cent. Glauber's salt, or only with 20 per cent. Glauber's salt. The after-treatment of dyeings is accomplished by boiling ½ hour with the addition of 3 per cent. bichromate of potassium, or 3 per cent. sulphate of copper. Bichromate of potassium is to be preferred, if Diamine Dark Blue B has been shaded with one of the Diamine jet blacks, while for direct dyeings as well as such produced in combination with Diamine New-Blue R or Diamine Blue RW, it is better to use sulphate of copper or a mixture of equal parts of bichromate of potassium and sulphate of copper. The fastness to washing is similar to that of the other direct dyeing blacks. In light shades Diamine Dark Blue B is in this respect as good as Diamine Jet Black SS; in deep shades, however, not quite as good. Dyeings treated with sulphate of copper are very fast to washing and almost as good as the developed dyeings already known. The fastness to light is very good, even somewhat better than Diamine Jet Black SS. Owing to its good fastness to light Diamine Black Blue B is of special interest also for light shades and for shading purposes. Diluted acids hardly affect the shade at all. Light shades suffer somewhat under the influence of direct heat, the original shade, however, being restored soon afterwards. Dark shades can be considered as fast to hot pressing. Dyeings done with Diamine Dark Blue B are not fast to chloring. Diamine Dark Blue B behaves in discharging in the same manner as Diamine Jet Black SS, it can be discharged white in light shades with either tin salts or zinc dust, while in dark shades it can only be recom-

mended for colored effects Cotton and wool mixed goods are dyed with the addition of $3\frac{1}{4}$ ozs. Glauber's salt per gallon of water. For wool, silk, and fabrics composed of silk and cotton, Diamine Dark Blue B offers no advantages over the Diamine Jet Blacks. Samples may be obtained from W J Matheson & Co.

RECENT TEXTILE FAILURES.

The present month has been an unusually trying one for the trade, and a large number of assignments have been made:—

McCabe, Robertson & Co., wholesale fancy goods dealers, Toronto, have assigned as a result of the effect of depression of trade upon their capital, and have placed their affairs in the hands of John Flett, of Flett, Lowndes & Co., as trustee. The assets are roughly placed at \$30,000, and the liabilities slightly over that. The largest Canadian creditors are Belding, Paul & Co., of Montreal. The business was established in Hamilton many years ago under the name of Foster, Hillman & Co., and after its removal to Toronto, Mr. McCabe was made a partner. When Mr Foster died, the house joined with that of James Robertson. As no offer was made by the firm, the estate will be wound up — In 1886, Geo. A. Chrysler, dealer in dry goods, who has assigned, moved from St George to Galt, where he remained about eight years, apparently without making substantial progress. About a year ago he left there and came to Brantford, and opened with stock of more than \$7,000, on which he had heavy liabilities.— Since 1883 Alex. Robertson has been trading in dry goods in London under the style of Robertson & Co. Formerly he was a clerk in Chapman & Co.'s. He has carried too heavy a stock, and this often cramped him. He has assigned.—A Sorel dry goods firm, Mongeau & Frere, in business since 1893, are reported insolvent. The business is a sort of succession to that of their father, C. Mongeau, who had previously been unsuccessful.—Albert Perrault, a small dry goods dealer in Montreal, owing less than \$1,000, is being wound up.—At the meeting of the creditors of A. E. Pentecost, general dry goods, of Seaforth, the statement presented to creditors showed liabilities of \$10,600 and assets of \$12,000. An offer of 50 cents on the dollar, cash, was made, but this was not considered sufficient by the creditors, who think that they should receive at least 65 cents on their claims.— Last September H. Proctor left Toronto and went to Drayton, where he opened a dry goods store. His success has been limited, and now he makes an assignment. —D. Davidson, dry goods merchant at Woodstock, has been unable to effect a compromise with his creditors, who held a meeting to consider his case, and he has assigned.—Z Cordeau, dry goods, Actonville, Que., has effected a compromise on liabilities of \$1,400.—An assignment has been made by A. C. Wilson, dry goods dealer in Chatham, who succeeded his father, A. J. Wilson, who assigned in June, 1893.—An Ottawa dry goods dealer, H. H. Pigeon, has assigned, after making an unsuccessful attempt to settle at 50 cents. Liabilities are somewhere about \$29,000. Mr. Pigeon got an extension last August.—Dupuis, Lanoix & Co., dry goods, Montreal, have assigned at the demand of Gault Bros., with liabilities of about \$22,000. The following are the principal creditors: Gault Bros. & Co., Montreal, \$5,131; John Calbert & Co., Hamilton, Ont., \$713; A. A. Allan & Co., Toronto, \$353; E. H. Kortosk, Montreal, \$308; W. E. Sanford Manufacturing Company, Hamilton, \$240; Dupuis Freres, Montreal, \$200; Thibaudeau Bros. & Co., \$4,586; Glover & Brals, Montreal, \$399; J. P. Michaud & Fils, Levis, Que., \$339; Skelton Bros. & Co., Montreal, \$244; Estate Rodler, Montreal, \$2,700. Assets about \$15,000.—O'Neil & Co., clothiers, Barric, Ont., have assigned.—Broderick & Son, men's furnishings, St. Thomas, Ont., have called a meeting of creditors.—Allen & Co., dry goods, of Ottawa, Ont., have made an offer of 60c. on the dollar. Liabilities in the neighborhood of \$25,000.—Within the last few days the following retail dry goods people in Montreal have come before their creditors. E. Dagenais, quite a leading dealer in the north-east section of the city, finds himself overloaded with stock, and is reported to be asking an extension over fifteen months. He owes \$31,700, with interest, and shows an apparent surplus of \$26,000.—P. E.

Beauchamp finds business unremunerative and proposes to pay 75 cents, on liabilities of about \$10,000, and withdraw —S. Thibaudeau moved to the city from Valleyfield last spring. The change has not proved beneficial, and he has arranged to pay 50 cents on the dollar.—Lussier & Leduc, men's furnishings, etc., who began business last spring, have now assigned, owing \$1,800.—The creditors of Jas. MacDougall, wholesale dealer in woollens, Montreal, refused an offer of 30 cents on the dollar. Liabilities are \$80,000 and nominal assets \$45,000. The business does not seem to have been at all carefully conducted, and the failure is a disastrous one, the figures submitted at the meeting of creditors showing a most lavish extension of credit by this firm to the very weakest class of risks. In one case, a balance of \$9,500 is shown against a customer, to whom a reasonably conservative house would not extend a line of one-tenth of that amount, and of \$35,000 of book debts, apart from the above amount, some \$29,500 are appraised as doubtful. The chief English creditor, who is interested to the extent of \$42,000, made an offer of 30 cents, cash, for the estate, which is doubtless more than could be realized if the estate were wound up by an assignee. Mr. McDougall was formerly of the firm of Mills & McDougall, which liquidated several years ago.—An assignment has been made by Mrs. M. L. Parker, who is a dealer in clothing at St. Catharines. An extraordinary statement was placed before creditors in this case. This showed liabilities of about \$13,000, against which was only \$2,000 of nominal assets. Under these circumstances creditors will not expect much dividend, if any.—About the first of the year the dry goods premises of James B. Williamson, Guelph, trading under the style of J. D. Williamson & Co., were damaged by fire, and it was thought the loss was covered by the insurance, which has been paid. Now creditors are offered $87\frac{1}{2}$ per cent. of their claims.—Switzer Bros. are engaged in the retail dry goods business in Ottawa. It was only in August last that they assumed the business of their father, R. Switzer, and already they come before their creditors with an offer of 65 cents in the dollar, on time with security. Creditors do not seem to entertain the proposition good-naturedly. The liabilities are estimated at \$16,000 to \$18,000.

THE RED HAND OF IRELAND.

In the leading centres of commerce all over the world, the device of an open hand is to be seen prominently figuring as the trade mark upon Barbour's thread, and much speculation has been caused in different nations as to its significance. There are numerous legends concerning the red hand in different parts of the world, and it figures largely in the myths and traditions of other countries as well as our own; but it will be found that the popularity it enjoys at the present day is due to the old world story—that in an expedition of some adventurers to Ireland, their leader declared that whoever first touched the coast should possess the territory which he reached, and that this ancestor of the O'Neills, from whom descended the kings of Ulster, bent upon obtaining the reward, and seeing another boat likely to land, cut his hand off and threw it on the shore. "The bloody hand" has been for centuries a famous sign, and that entirely through the hardy vigor of the race of Hy Nial. In 1784 the Barbours invaded the shores of Ireland with their linen threads, and adopted as their trade mark the same "Red Hand"; but, so far from being treated in a hostile way as adventurers, they were received in the most open-handed manner. The steadiness with which their business has increased, and the avidity with which their productions have everywhere been used, are satisfactory proofs, if such were needed, that the Open Hand is as supreme (in the trade it represents) to-day as ever it was in the palmy days of the kingly O'Neills. Thomas Samuel & Son, Montreal, sole agents in Canada for Barbour's threads, have, by their energy and intelligent style of advertising, made "the sign of the open hand" familiar throughout the whole Dominion; and have been rewarded by succeeding in working up an immense demand for the high grades of threads that Barbour's are celebrated for producing. Last season this firm made a great hit in the advertising line by issuing a set of 12 dolls lithographed in bright colors,

which they sent out on receipt of three two-cent stamps. The sale of these ran up into tens of thousands. This year they have something of a similar nature in a fleet of yachts. These are perfect representations in shape and color of some famous yachts, steamboats, ocean steamers, etc., of the day. They are beautifully lithographed in several bright colors on heavy cardboard. The length, size, speed and the most important points of interest are given on the reverse side of each yacht. The set contains a folding board, 22 in. long, with slots (representing the sea) in which to place the vessels. Thus a beautiful and interchangeable marine scene is presented. 1. Tug boat. 2. New York. 3. Steam yacht. 4. Priscilla. 5. Valkyrie. 6. D. Lauder 7 Swallow 8. Lucania. 9. Ethelwynne. 10. Lighthouse. These miniature boats are so true to nature that they are of real interest to old and young.

The complete set mailed to any address on receipt of four two-cent stamps.

Barbours' business was established in 1784—one hundred and twelve years ago—and now forms a flax thread manufactory employing 5,000 hands, and as large as any two other linen thread firms in the world.

WOOLS IN ENGLAND.

A London correspondent affords a great deal of information about the English wool sales during 1895 and the years preceding it back to 1890. The total imports into Britain for those years are as follows:

	1895. Season Nov. 18, '91, to Nov. 22, '95.	1890. Season Nov. 27, '89, to Nov. 23, '90.
Colonial—		
Sydney	445,456	300,860
Queensland	214,841	116,031
Port Phillip	359,613	327,705
Adelaide	103,595	82,942
Tasmania	22,563	23,283
Swan River	26,168	26,351
New Zealand	374,669	272,846
Australasian	1,546,905	1,170,018
Cape	244,419	278,719
Total into England	1,791,324	1,448,737
Of which forwarded		
Australasian ..		
To Interior	160,000	121,000
" Continent	50,000	39,000
" America	15,000	9,000
Total	225,000	169,000
Cape ...		
To Interior	40,000	22,000
" Continent	97,000	79,000
" America	9,000	1,000
Total	146,000	102,000
Total forwarded	371,000	271,000
Continent (direct) ..		
Australasian	427,466	236,090
Cape	11,173	2,663
America (direct) ..		
Australasian	26,765	4,320
Cape	13,133	6,724
Total	2,001,136	1,410,428
Cape	268,725	288,106
Total Colonial bales	2,269,861	1,698,534
River Plate—(1st Nov.—31st Oct)		
Into Europe	470,000	303,000
" United States	43,000	14,000
Total bales	513,000	317,000

Partly on account of increased production, partly because of heavier stocks at the beginning of the year and earlier arrivals at its close—the total deliveries to the trade during 1895 exceed those of last year by 202,000 bales, a surplus of which America has taken no less than 152,000 bales, England 37,000 bales and the Continent only 13,000 bales. The proportion is 37½ per cent. for home consumption, 54 per cent. for the Continent and 8½ per cent. for

America, against 39¼, 58½ and 2¼ per cent. last year. The whole of the 200,000 bales increase has been sold in London, the direct purchasers having remained stationary.

The first two series of wool sales for 1896 have been fixed for Tuesday, January 14th, and Tuesday, March 3rd, without limitation of quantity in either case. It is rather early to give an estimate of the quantity that is likely to be available in January, but as far as we can judge from advices to hand, the net total will probably be about 230,000 bales.

LITERARY NOTES.

The *Sherbrooke News-Letter* is not an old paper, being in its first volume only, but it will certainly be so some day, if its weekly appearances are always up to what they have already been. The Eastern Townships' news is very well given.

Sheldon's Buyers' Reference Book contains much valuable information to every one interested in the textile trades of the United States. While the lists do not claim the fullness of a directory, they have the better quality of being representative. The monthly circular and weekly special reports are exceedingly useful.

Le Moniteur du Commerce, Montreal, has sent us a most handsome pocket-diary and calendar. It is not only neat but beautiful.

The Canadian Photo-Engraving Bureau, 16 Adelaide street west, Toronto, have sent out a neat pamphlet of about thirty pages, giving specimens of the work done by this firm. It is in every way a most creditable production.

SHEEP BREEDERS MEET.

The Dominion Shorthorn Breeders' Association met on Feb 13th in Shaftesbury Hall, Toronto, and elected the following officers: President, Arthur Johnston, Greenwood, Ont.; James Russell, vice-president, John I. Hopsen, second vice-president Vice-Presidents—Robert Miller, Brougham, Hon. D. Ferguson, M.P.P., Charlottetown, P.E.I.; J. H. Ladner's Landing, B.C.; James Cochrane, Hillhurst, Quebec, Senator J. Wood, Sackville, N.B.; Malcolm McInnes, Calgary; O. Chase, Church, N.S.; John E. Smith, Brandon. Board of Directors—W. J. Bygins, Clinton; James Fulton, Walkerton, William Linton, Aurora; D. Rae, Fergus; J. Davidson, Ashburn; D. D. Wilson, Seaforth; H. Wright, Guelph; John Isaac, Markham. W. G. Pettit, Freeman; C. M. Simmons, Ivan, Edward Jeffs, Bondhead, H. Smith, Hay, Y. E. Robson, Ilderton; F. T. Patten, M.D., St. George, W. Dawson, Victoria. A deputation waited on the Ontario Government to ask for an addition to the annual grant.

PERSONAL.

Geo. Thomson, who operated a woolen mill in Galt about eighteen years ago, died in Birmingham, Eng., not long ago.

J. O. Robinson, of Wyld, Grasett & Darling, makes his home in New York city in the future.

Geo. Milford, who has been with Samson, Kennedy & Co., Toronto, for some years, is now in Hamilton, Ont.

R. W. Heneker, president Paton Manufacturing Co., Sherbrooke, Que., is spending some time in Bermuda.

Michael McDonald, of the Granby Rubber Co., Granby, Que., leaves for the United States on May 1st, as he has bought an interest in an iron industry there.

Robert Hunter, who for many years carried on a clothing business in St. John, N.B., is dead at his home in that city.

R. S. Bell, who has been in the employ of John Macdonald & Co. for 13 years as a traveler, is leaving for Canton, Ohio, to commence business on his own account. A number of his fellow travelers tendered him a complimentary banquet at the Board of Trade restaurant before his departure, and presented him with a handsome traveling set of useful articles. R. H. Mitchell, of W. R. Brock & Co., acted as chairman.

F. Lauder, who has been in a responsible position for a num-

bor of years with Knox, Morgan & Co., wholesale dry goods, Hamilton, Ont., is going to Detroit to take a good position with a firm there.

W H Perry, a son of the owner of the Napanee woolen mill, who was elected a town councillor in Napanee at the last election, is having his right to take the seat disputed, on the ground of disqualification.

Senator Sanford, president of the Sanford Mfg. Company, Hamilton, Ont., has gone to Mexico for some months, accompanied by his family.

R. W. Meadows, of Meadows & Co., who formerly operated the woolen mill in Woodstock, Ont., was killed by the fall of a heavy piece of machinery which was being unloaded at his mill, on February 3rd.

THE WOOL MARKET.

TORONTO—Very few offerings are made, and hardly any sales are reported. The mills have not yet come into the market, and all they do, little or nothing will be done. Quotations are same as last month. What Canadian fleece comes into the market is taken at 20 to 21c.

MONTREAL—The market here is very quiet, but firm, and prices remain unchanged. Greasy Cape, 14 to 16c.; Natal, 15 to 17c.; Canadian fleece, 22 to 25c.; B.A. scoured, 27 to 35c.; Canada pulled wools, 22 to 23c.

PEAT FIBRE FOR TEXTILE USES.

It is among the possibilities that for certain manufacturing purposes wool and cotton may find a rival in peat fibre. This is one of the latest and important uses of peat. The fibre is a portion of the moss peat, which was formerly absolutely wasted. When the fibre is extracted, says Mr. C. W. Chancellor, United States Consul at Havre, the moss fibre is not only improved as a litter, but gains in value for subsequent use as manure. In addition, a material is saved which becomes of great value when worked up by a patented process. This fibre can be bleached to snowy whiteness and will dye any color. It is specially adapted for the production of a variety of hygienic materials, including surgical and veterinary dressings, hygienic flannels and dress goods, rugs, blankets and a number of minor articles. The fibre can also be used in the manufacture of paper. One of the great advantages of cloth made from peat fibre is that it is entirely antiseptic and possesses properties which render it inimical to parasitical organism. In appearance the finer makes are quite equal to the best tweeds, and closely resemble camel's hair cloth. It is possible that "peat wool" is destined to play an important part in army and veterinary surgery. Wherever suppuration has set in, it has been found to replace advantageously and very economically all other materials, such as lint, impregnated cotton wadding and hydrophile wadding. Its cost is very low, scarcely reaching half that of ordinary cotton wadding, and its absorbent principle is far greater than that of other textile materials. Peat wool, as now prepared for surgical purposes, is a fine, brown, glossy wool, with a faint aromatic smell. It feels a little rougher than fine absorbent wool, but makes more comfortable dressing, as it is much more elastic.—*Textile World*.

SEAMLESS shirts and pants are likely to cause some competition with the wrought goods of this class, says the *Knitter's Circular*.

We invite attention to the advertisement of "The West Indies Chemical Works," which appears in another column of our journal. This firm is represented in this country by Messrs. Bellhouse, Dillon & Co., 30 St. Francois Xavier street, Montreal, who make a specialty of logwood extract, and, so far as we have been able to learn, have been very successful, receiving large orders for the West Indies Extract. For prices and samples, write to Messrs. Bellhouse, Dillon & Co., 30 St. Francois Xavier street, Montreal.

THE LONDON WOOL SALES.

The first series of London sales of colonial wool for 1896 which commenced on the 14th, closed on the 30th ult., the following quantities having been catalogued:—

		In the corresponding series of last year.
Sydney.....	41,135 bales	against 62,372 bales.
Queensland.....	25,836 "	26,741 "
Port Phillip.....	43,416 "	47,060 "
Adelaide.....	19,852 "	12,965 "
Tasmania.....	315 "	638 "
Western Australia.....	2,660 "	7,554 "
New Zealand.....	37,184 "	35,537 "
Cape.....	21,582 "	25,913 "
Total.....	190,980 "	218,780 "

The net total available amounted to 206,000 bales. Of these 184,000 have been sold, 79,000 bales for home consumption, 84,000 bales to the continent, 21,000 bales to America, leaving 22,000 bales to be carried forward to next series. The result of these sales, which throughout have witnessed very animated and general competition, is a rise of 5 to 7 per cent. in Australian merino wool. The improvement is least marked in the very best Victorian wools, which relatively to medium and good grease have sold only moderately, but it covers all other greasy wools without exception, and shows most in superfine clothing lots and in good broken and pieces, where it often reached 7 to 10 per cent. Scoured have risen in the same proportion as grease, medium sorts benefiting comparatively most. Extra fine clothing, scoured like very fine grease, were in strong demand and commanded high prices. Lambs' wool also showed a marked advance all round, the rare superior lots which were free from burrs selling considerably higher than last series. Unlike Australian merino wools, crossbreds have not only not risen, but rather lost ground. They were firm at first, but during the concluding week grew weaker for all qualities. Of Cape wools the best snow whites sold about ½d. higher than in December, while the other sorts under 1s. 3d. remained unchanged. Cape grease fluctuated a good deal during the series, but the better class must be quoted on the average ¼d. higher, and lower sorts on a par with December. The sales close with a firm tone, leaving the market fairly clear of stocks.

The following shows the supplies and deliveries of Colonial wool as compared with last year:

	1896.	1895.
Held over from December.....	20,000 bales	63,000 bales
Net imports for the first series.....	186,000 "	189,000 "
	206,000	252,000
Home consumption.....	79,000 bales	94,000 bales
Export.....	105,000 "	108,000 "
Total sold.....	184,000 "	202,000 "
Held over.....	22,000 "	50,000 "

These figures call for little comment. It will be seen that 18,000 bales less have been sold than in the first series last year, the reduction in the home consumption being 15,000 bales, and in the export 3,000 bales. The American share is 21,000 bales against 16,000 bales last year.

APPROPOS of the irritation caused in England by the German Emperor's telegram to the President of the Transvaal, the *Financial Times* tells the following story of a London "dressmaker's" witty method of making himself solid with his patriotic customers: "A commercial traveler, bearing an unmistakable German name, is making good use of the feeling evoked in this country by the Kaiser's attitude. When a customer greets him with, 'Good morning, Mr. Bradenburg,' he promptly replies, 'My name, sir, is Macpherson, and Macpherson it will remain until the German Emperor has apologized to England.' This ebullition of commercial-traveler wit puts the customer into a good humor, and business almost invariably results."

Among the Mills

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

The Galt Knitting Co. has leased additional premises for use as a stock room.

The woolen mill of Meadows & Co. at Woodstock is being equipped as a bicycle factory.

The Forest, Ont., town council is holding out inducements for the erection of a flax mill at that place.

Not long ago Miss Lamb, who is forewoman for the Almonte Knitting Co., fell in the street and broke her arm.

G. Loomis, Rhoda Island, U.S.A., has taken a situation with the Dominion Cotton Mills Company, Magog, Que.

A couple of hand weavers from Bolton, Ont., are going into business in Portage-la-Prairie, to weave carpets, nettings, etc.

J. E. Warnock, of the Galt Knitting Co., Galt, Ont., is taking a business trip through the North-West in the interest of the G. K. Co.

Two of the employes of the Milltown cotton mill, Winfield and George Keith, have secured a patent on an improved picker stick.

The Williams, Green & Rome, Berlin, Ont., shirt factory is working overtime, and it will take some time to catch up on the orders.

James Hounan, employed in the mill of the C. Turnbull Knitting Company, Galt, Ont., was injured by falling upon one of the machines, on the 6th inst.

The Markham Woolen Mills Co., Markham, Ont., has reduced its employes wages considerably, as the employes refused to accept the reduction the mills have closed down.

Elmira, Waterloo Co., Ont., *Signal*: "The proposed joint stock company for the purpose of carrying on the manufacture of woolen and felt goods, may possibly become a reality. About \$13,000 of the \$20,000 required have already been subscribed."

E. M. Leyden, who has been overseer in the finishing department of the Hawthorne Woolen Mills, Carleton Place, Ont., for some time past, has taken a similar position at Cornwall. W. H. Matthews, of the same department, has taken a position in Almonte, Ont.

J. M. Masson, formerly of the Hawthorne Woolen Mills, Carleton Place, has secured a position with the Vassalboro Woolen Co., North Vassalboro, Me., to which there is a salary of \$2,500 attached and a free residence, besides a horse and the other perquisites. Mr. Masson succeeds Mr. Bolbain.

Cornwall is to have an electric railway, and much of the expected success of the proposed road is to come from the facilities which it will offer for communication between the G. T. R. station and the different mills. It is expected that the road, which is three miles long, will be completed during the coming summer.

As some of our readers know, negotiations have been in progress for some time for the establishment of a glove factory in town by M. Waind, of Elora. It is understood now that all arrangements have been completed and Mr. Waind will have his plant shipped here in the course of a day or two—*Georgetown Herald*.

Dyers will be interested in knowing that W. J. Mathewson & Co. will send their monthly circular free of charge to any of them sending in their address. New ideas will be found in the circular often, and its reception is not construed by the firm as creating any obligations to deal with them. They will also receive samples of goods, dye them, and return altogether free of charge.

The Canadian Colored Cotton Mills Co.'s mill in Hamilton is having its water supply re-arranged.

A carload of factory cotton, from Windsor, N. S., went through Truro lately by C. P. R., en route for China.

T. Coxford, employed in P. MacDougall's woolen mill, Blakeney, Ont., was injured recently by getting his hand caught in the picker.

David Maxwell, C. E., was in St. Stephens, N. B., recently making a survey for the branch from the St. Stephen & Milltown Railway to the cotton mill.

A young man named Russell Kitchen, employed in Newlands & Co.'s glove factory, in Galt, Ont., was caught in the shafting and killed on February 4th.

The textile town of Valleyfield, Que., is prospering. A number of new houses are going up; one block of twelve houses is to be ready for occupation on May 1st.

By a re-arrangement of the factory inspection districts, J. R. Brown now has charge of the Lincoln and Wentworth counties in place of A. R. Barber.

The flax mill at Shakespeare, Ont., owned by Heiderman & Trachsel, was completely destroyed by fire on Tuesday, the 11th inst. The total loss is estimated at \$2,500. No insurance.

W. J. Gibson, Gananoque, Ont., is going extensively, we understand, into the manufacture of gloves. Leather coats are, at present, being turned out, and are in growing demand.

The firm name of Richard Roschman, manufacturers of ivory buttons, Waterloo, Ont., is changed to Richard Roschman & Bro., by the entry of Rudolph Roschman into the business.

Dominion Cotton Mills Co.'s employes, Magog, Que., had their annual dining party and social evening on February 8th. A number of the most prominent citizens of the town were present.

The "Levis Knitting Company" is the name of a new organization, with a capital of \$5,000, seeking letters patent for the manufacture of stockings and woolen goods, with headquarters at Point Levis, Que.

Wm. Currie, machinist, of Almonte, is placing the machinery in the carding mill at Pakenham. Mr. Brazeau, the proprietor, is pushing the work with vigor, and expects to have the mill ready for operation by April.

The loss occasioned by the fire last month in the store room of the Standard Hosiery Mills, Pembroke, Ont., did not interfere with the operations of the mill, and spring goods will be delivered on time in spite of the disaster.

The analysis of the water supplied to the operatives in the mills of the St. Croix Cotton Co., Milltown, N. B., has been completed, and the water is reputed free from all harmful substances or properties, so that the recent cases of typhoid fever occurring in the mill did not originate from impurities in the water.

The Montreal Cotton Co., Valleyfield, Que., has just placed in position a new boiler made by Jno. MacDougall, Montreal. It is a Lancashire boiler, 7 feet 6 inches in diameter, and 30 feet long, weighs 18 tons, and is the second of the kind with which Mr. MacDougall has supplied the company during the past year.

At the annual meeting of the Montreal Cotton Company, the regular quarterly dividend of 2 per cent was declared. The old board of directors was re-elected, as was also the old board of officers. The directors are A. F. Gault, president, Charles Garth, vice-president, E. K. Green, Jacques Grenier, Hon. J. K. Ward, S. H. Eving, and R. R. Stevenson. D. F. Smith was reappointed secretary-treasurer.

At the annual meeting of the Merchants' Manufacturing Company, Montreal, in the office of the selling agents, Alex. Ewan & Co., a satisfactory statement was presented. The following officers and directors were re-elected for the ensuing year: President, A. A. Ayer, Gilman Cheney, vice-president. Directors—R. B. Angus, J. P. Cleghorn, James Crathern, Jonathan Hodgson, Robt. McKay, W. G. Chene, secretary-treasurer, and A. Hawksworth, superintendent works.

We were somewhat in error in speaking of the woolen mills of R. Gemmill & Son, Perth, Ont., as a 2-set mill. It is a 3-set mill, has 1,132 spindles, 4 broad and 10 narrow looms.

The Auditor-General's report shows that the W. E. Sanford Company, of Hamilton, supplied militia clothing to the amount of \$33,035, and H. Shorey & Co. to the amount of \$37,741 last year.

New Denver, B. C., is the scene of a textile industry called into existence by the development of mining now going on in that region. The ore bag factory recently set up there has more orders than it can fill.

It is reported that the worsted mills, formerly carried on by Dixon Bros., Dundas, Ont., but which have been idle for a year or more, will be started up again by a new firm in a short time. Preparations have already begun, by putting machinery and plant in order.

A new company, known as the "Sherbrooke Yarn Mill Company," Sherbrooke, Que., is being formed by Messrs. G. T. Armstrong and R. B. Robinson, the latter gentleman having been connected with the Paton Mills Co. for 25 years, lately as foreman of the spinning department. The works will be located in the Gas and Water Co.'s building on Factory street.

One of the leading industries of Yarmouth, N. S., is the woolen mill. During the past year the management of the Yarmouth Woolen Mill Company have enlarged the mill and put in new machinery of the latest pattern, so as to be abreast of the times. We are told that one of the largest manufacturers of clothing in Western Canada is a large buyer of the product of these mills.

TEXTILE IMPORTS FROM GREAT BRITAIN.

The following are the values, in sterling money, of the imports of textile interest to Canada, from Great Britain for the month of December, 1894 and 1895, and for the year ending December, 1894 and 1895:

	Month of December.		Year ended December.	
	1894.	1895.	1894.	1895.
Raw wool.....	£ 2,011	£ 3,375	£ 14,092	£ 16,312
Cotton piece-goods	62,842	58,442	431,269	447,919
Jute piece-goods	8,916	6,727	99,040	98,057
Linen piece-goods.....	9,688	11,317	111,693	142,597
Silk, lace	3,739	662	32,358	21,842
" articles partly of....	4,965	1,744	41,950	35,234
Woolen fabrics	13,947	11,439	265,436	228,875
Worsted fabrics.....	35,356	52,147	463,737	551,454
Carpets	9,988	10,510	162,113	166,450
Apparel and slops.....	19,552	21,460	297,901	351,059
Haberdashery	5,713	12,315	144,647	148,370

A CARPET THREE CENTURIES OLD.

In the Indian section of the South Kensington Museum is now exhibited one of the most splendid examples of the product of the Persian loom that has ever been seen in Europe. This is the famous Ardabil or Ardebil carpet, so called from a Persian town in the province of Aderbaïdjan, which from time immemorial has been an emporium of merchandise, en route between Tiflis and Ispahan. Ardabil, which from the salubrity of its climate and the abundance of water which it enjoys has been called "the abode of felicity," is full of mosques and the tombs of exceptionally pious or otherwise renowned Mussulmans, and the famous carpet now on view is said to have been obtained from a mosque at Ardabil.

It was not without difficulty that this wonderful piece of weaving was secured for South Kensington. The price demanded

for it exceeded that which the authorities of the museum thought themselves justified to offer; but it is stated that through the liberality of a number of gentlemen deeply interested in Oriental arts and crafts the sum which the museum was prepared to give has been supplemented to an adequate amount. The carpet thus obtained for the nation measures thirty-four feet six inches in length and seventeen feet six inches in breadth, and an idea of the extreme fineness of its texture may be formed from the fact that it contains three hundred and eighty hand-tied knots to the square inch, which gives thirty-three millions of knots to the whole carpet. The main design comprises a large central medallion in pale yellow, surrounded by cartouches of various colors, disposed on a dark blue ground diapered with floral tracery. Each of the corners is filled with a section of a large medallion surrounded by cartouches. The border is composed of long and circular panels alternating with lobed outlines on a brown ground covered with floral embellishments, while at the summit of the carpet is a panel bearing a devout inscription tending to the inference that the carpet was originally used as a veil or curtain for a porch, and that it was the work of the slave "of the Holy Place, Maksoud, of Kashan, in the year of Hegira 942," corresponding with our A.D. 1535. Now, Kashan, on the high road between Teheran and Ispahan, was founded by Zobeide, the favorite wife of the Caliph Haroun-al-Raschid. It has been destroyed once or twice by earthquakes, but is at present a flourishing town adorned by a palace for the Shah, many large and beautiful mosques, and a number of caravanseries and public baths. At Kashan numerous manufactures of carpets, shawls, brocades and silk fabrics are still carried on; but in 1535, when Maksoud, the slave of "the Holy Place," executed this marvellous work, admirable alike for its fineness of texture, its beauty of color, and symmetry of design, Kashan, with the rest of Persia, was under the sway of the Sophi dynasty, and the town is alleged to have contained no fewer than a hundred and fifty thousand inhabitants.

Oriental carpets have gained extensive popularity in Europe since the beginning of the present century. Prior to that epoch our close relations with the Ottoman Empire enabled the Turkey Company to import into England a moderate number of so-called Turkey carpets, the majority of which were of Persian make. It is only, however, within recent years that any very accurate knowledge of Oriental carpets has been disseminated in this country. The ordinary buyer knows three classes and only three, which he roughly distinguishes as Turkey, Indian and Persian carpets. The expert is, of course, a good deal more exact in his classification; but even his knowledge is sometimes vague. Carpets, either of cotton, silk or wool, have during many centuries been used in the Orient, from the south of India to European Turkey, for domestic use, for the prostration of the praying Moslem, and for occasions of State. The carpets employed by the ancients are thought to have been early employed in Persia, and those called Turkish were no doubt originally of Persian manufacture, and were gradually exported and at length imitated in Turkey. Kernanshaw in Persia has still a carpet manufactory producing rich, soft and beautiful goods, the sale of which adds considerably to the wealth of the province; while true Persian carpets are also made at Meshed in the Turkoman country and in Khorassan, and are justly renowned for the exquisite beauty of the patterns and the durability of the colors, which are purely vegetable dyes, comprising, among others, a green which cannot be made elsewhere, but which is conjectured to be a subtle combination of saffron and indigo. There is likewise a famous carpet manufacture carried on at Feraboun, near Teheran. The finest of all Persian carpets were formerly made at Herat, and one produced in the Chahal Minar at Ispahan largely exceeded in size the dimensions of the wonderful fabric at South Kensington, inasmuch as its length was a hundred and forty feet, and its width seventy feet. The majority of these exceptionally vast and gorgeous products of the loom were destined either for the adornment of royal palaces or the glorification of the holy Kaaba, or some scarcely less venerated shrine. Sometimes the entire interior of a mosque, such as

that at Meshed Ali, was hung with superb carpets; and the Mihrab or niche towards Mecca was always a favorite object for such ornamentation. Mats or rugs of a much less costly nature were spread on the floors. As regards Mecca the former rulers of the Mohammedan world vied with each other in presenting the richest covers to the Kaaba, and mention is made in history of one unsurpassedly handsome pall which was a three-pile plush coverlet studded with gold, pearls and precious stones, to the value of two hundred and fifty thousand gold dinars. With respect to the ordinary Oriental carpets, they may be roughly divided into two classes, the floral and the geometrical; and the former is the design affected by the higher Aryan races, the last being performed by the lower and Turanian races. The old woman whom Professor Arminius Vambery saw in Central Asia tracing the pattern of a carpet on the sand for the girls to follow is the typical designer of the Turkoman and Mongolian races, while the native Indian and Persian work is found in elaborately conventionalized flowers and leaves, the "tree of life" and other symbols.

The beautiful Persian carpet at South Kensington may, it is to be hoped, become a most valuable factor in technical art education in this country. Some humorist once said of a Turkish carpet that its pattern resembled nothing visible in the heavens above or in the earth beneath, or in the waters under the earth; and, to a slight extent, this hyperbolic disparagement is justifiable in the case of the Turkoman carpets for which Vambery saw the old woman tracing the pattern in sand. The girls employed in carpet-weaving would obviously prick or chalk down on the particular pieces of textile fabric assigned to them so much of the pattern as they were expected to weave, and these hasty sketches might in many cases deviate from the original model. Scores of workers were often employed in as many cottages in making these detached portions, which, when sewn together, may have presented a slightly mixed appearance, the incongruity of which was at the same time happily modified by the predominant traditions of design and color which had come down to the people from remote ages. The pattern of the Ardabil carpet seems to be one perfectly distinct and regular, and, even did it present some slight obscurities, the puzzle could be easily cleared up by a careful and minute analysis and dissection of the whole work by the aid of practical geometry and conventional botany. It is curious to learn that, at the very period when Maksoud of Kashan, the slave of the "Holy Place," was completing the Ardabil carpet, the manufacture of these commodities was first introduced into England by one William Sheldon, under the direct patronage of Henry VIII. The manufacture, nevertheless, was for many years exclusively confined to its use as tapestry or arras for the decoration of walls. The apartments of the palaces of Queen Elizabeth were hung with the costliest products of the Flemish looms, but her Majesty had certainly no carpets on the floors of her presence chambers or her banqueting halls. The floors were simply laid with rushes, which from time to time were renewed, but careless servants very often forgot to remove the

undermost layer of rushes. At dinner time the guests frequently threw bones of meat and poultry on the floor to regale the dogs therewith, and the natural and disgusting consequence was that these rush-laid floors became eventually heaps of filth and breeders of disease. The English, it must sorrowfully be confessed, were, until the coming in of Dutch William III, and that notable house-keeper Queen Mary II, an extremely dirty people in their domestic arrangements. The Oriental custom has always been, and still is, to employ carpets as hangings for shrines and porches, as coverlets for couches, and as rugs lying loose on the floor; and this sensible system, which has been largely adopted among us since the immense extension of the trade in Oriental rugs, will, in all probability, be still further developed by the technical as well as by the æsthetic teaching of the splendid carpet at South Kensington — *London Times*.

THE Mica Boiler Covering Co., Ltd., writes to THE JOURNAL OF FABRICS: "We were agreeably surprised to get an enquiry for our goods through your advertisement before we had ourselves noticed that our ad. had been published."

BELFAST.—This great linen centre still forges ahead; the increase in number of houses for the year ending 31st December, 1895, being 2,296, and in valuation £67,145. In thirty years the valuation has increased from £279,087 to £884,354, showing a net gain of £605,267 taxable valuation, equal to about 2½ actual valuation.

CHEMICALS AND DYESTUFFS.

Although trade is not brisk, the volume is up to the average. Chlorate potash is firmer; bluestone easy. Sumac for spring arrival, lower. Castor oil higher, and likely to continue advancing. The following are current quotations in Montreal.

Bleaching powder.....	\$ 2 25	to \$ 2 50
Bicarb soda.....	2 25	" 2 35
Sal soda	0 70	" 0 75
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 13	" 0 18
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 07	" 0 08
Bich potash	0 10	" 0 12
Sumac, Sicily, per ton	65 00	" 70 00
Soda ash, 48° to 58°	1 25	" 1 50
Chip logwood	2 00	" 2 10
Castor oil.....	0 07	" 0 08
Cocoonut oil	0 06½	" 0 07

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MANY good people think it wrong to indulge in a taste for the fine arts. They are even much exercised by conscience for wearing expensive clothing. They lay off broadcloth and silks, and dress in linsey-woolsey, that they may then still retrench and retrench, that they may have more for the poor. This principle, carried out, would lead back to barbarism. It is not the right one. Every man should do his part for the poor, and his heart should enlarge as his means increase; but he who can earn them has a right to refinement for himself and his children—*Henry Ward Beecher, Life Thoughts*

Our readers may be interested to learn that the inhabitants of the "spirit world" are beginning to take note of dress and fashion, and are, apparently, willing to act as our "guides, philosophers, and friends" in such matters. Here is a note received by a felt hat manufacturer last week, but the advice it contains will be equally valuable for other branches of trade: "At the earnest request of my guides, I write to ask you not to make black goods, but those of curative colors, such as blue, violet, red, yellow and white. Black is the symbol of death and decay. It came into the world through evil agency, and is against God's divine laws. Your guides earnestly pray that you will help us in this important matter,—Yours faithfully, SNOWDROP." The grammar of the note is a little "mixed," as is not uncommon, we believe, in communications from the "spirits," but perhaps we may be permitted to make a conjectural emendation, and read "them" for "us," and then the message will be clear. It is not, surely, the intention of our "guides" to confine their attention to colors, and we may reasonably expect ampler communications in a short time. They will doubtless have something to say about the respective merits of "all wool" and linen and cotton underclothing, tight lacing, "murderous millinery," the width and length of skirts, and a host of other matters; and then, if the "spirits" have not yet exhausted their capacity for wonder, they will probably be surprised at being told to mind their own business—which, it will be said, is neither dress-making and millinery, nor the supervision of fashion generally.

Poor human nature! to what depths of folly it does sometimes descend. Is there a lower depth than spiritualism?—*Warehouseman and Draper.*

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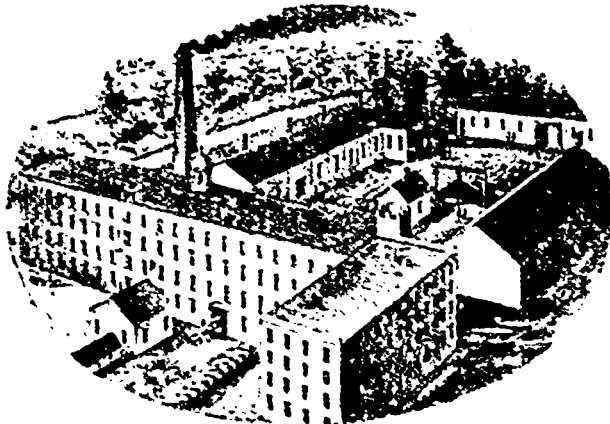
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I also have for sale, 1 set of 48-in. Cards, 2 sets of 60-in. Cards, 4 Tatham Mules, 20 Broad Looms, 2 English Gigs, 2 Chinchilla Machines, 8 60-in. Shoddy Cards, 2 Felling Machines, 3 Shoddy Pickers, 1 Rag Duster, etc., etc.

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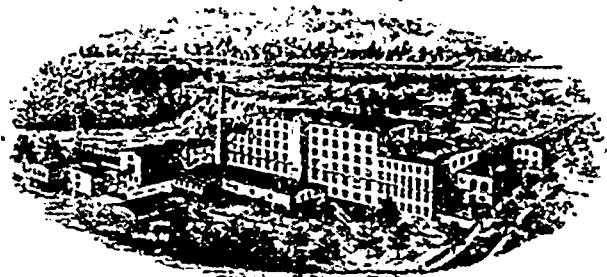
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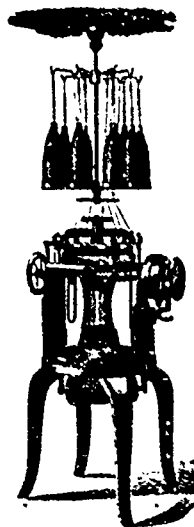
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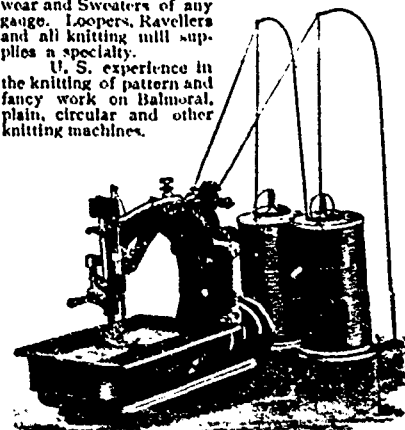
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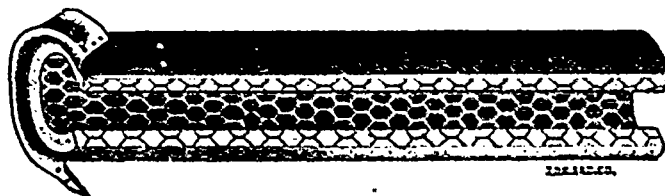
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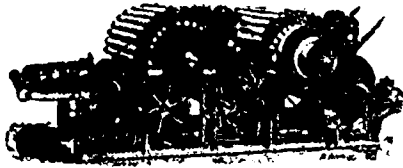
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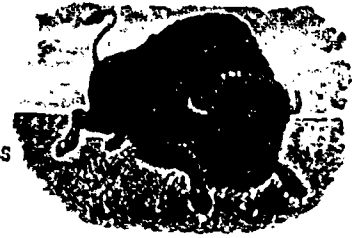
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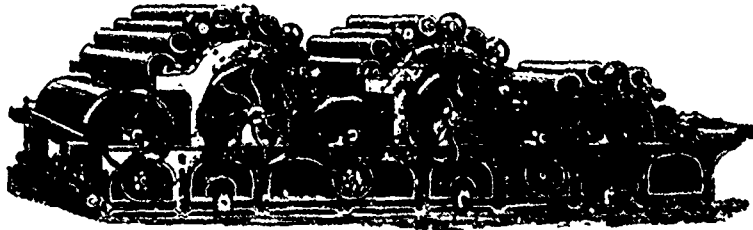
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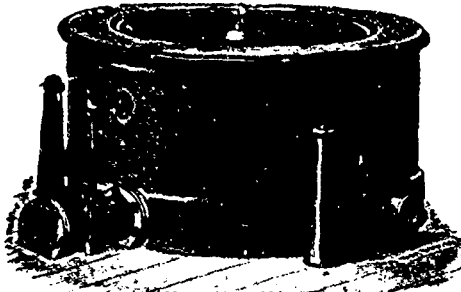
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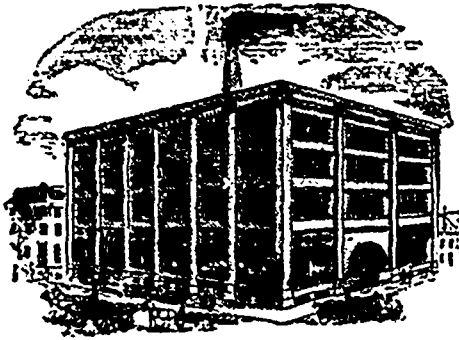
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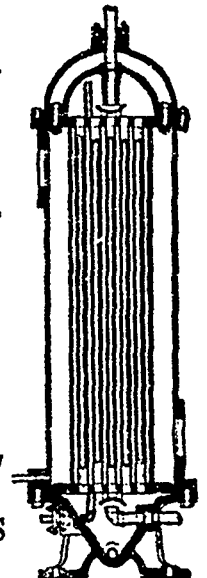
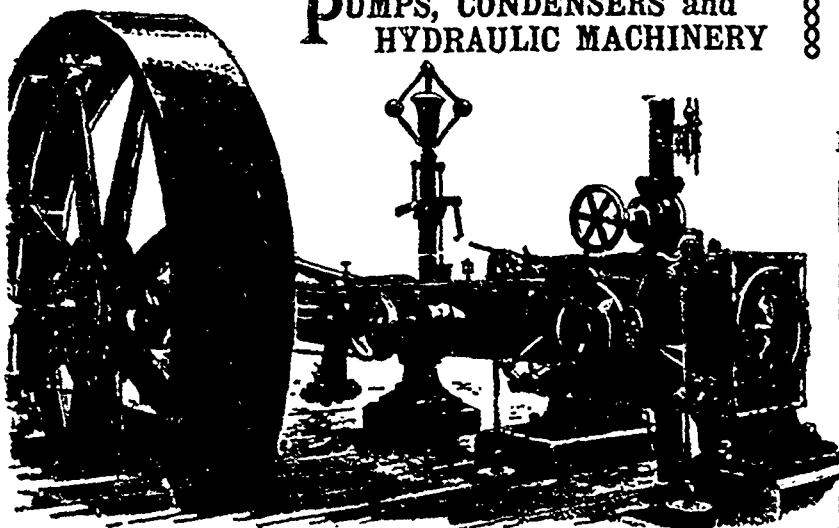
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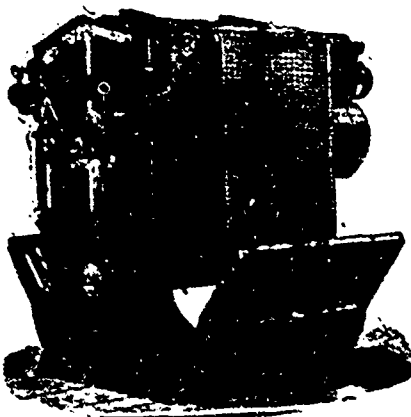
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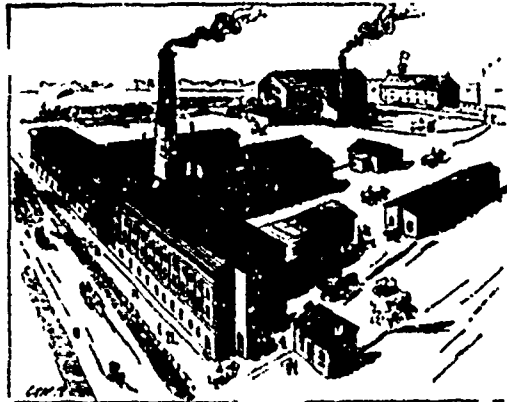
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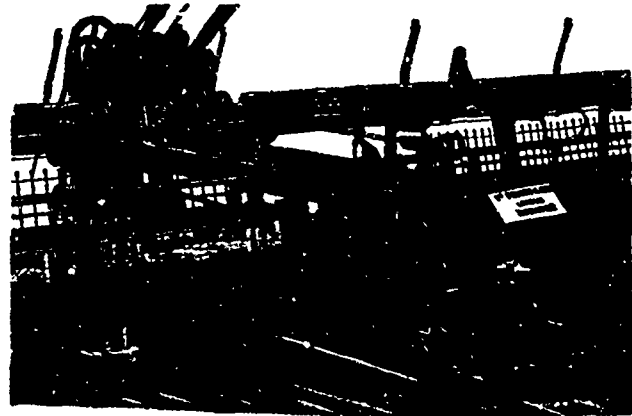
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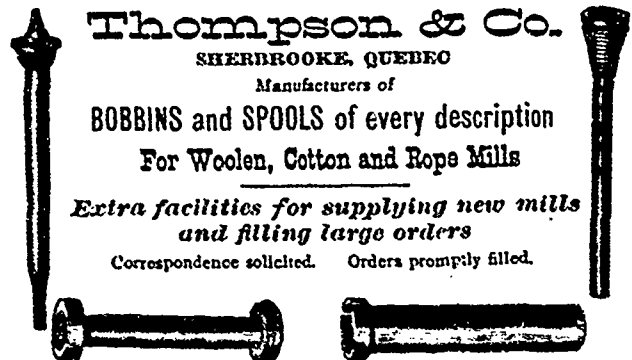
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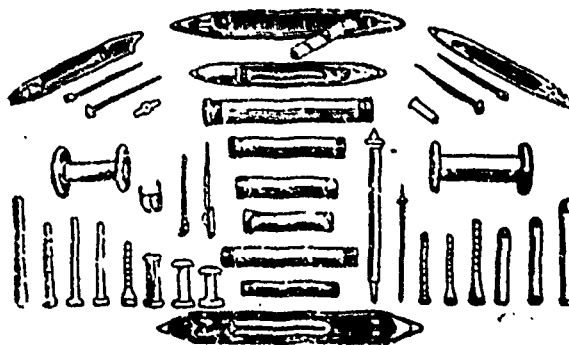
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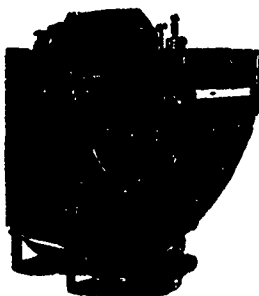
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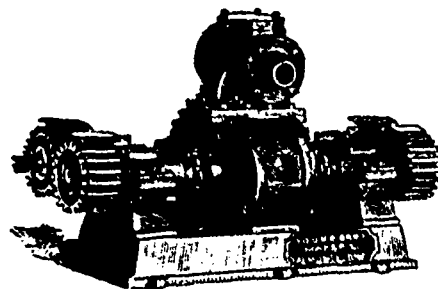
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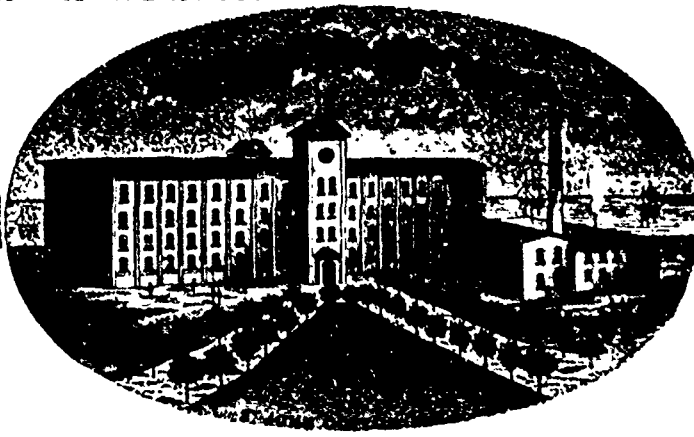
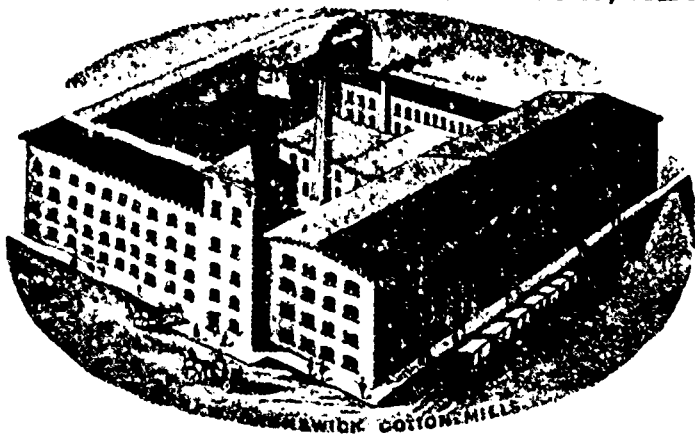


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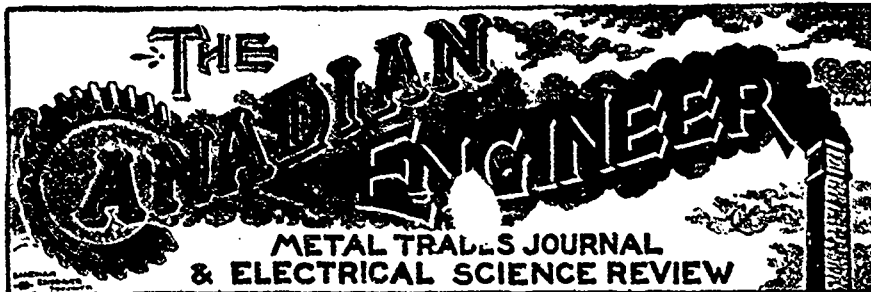
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The success of *The Canadian Engineer* has been unprecedented in the history of trade journalism in Canada, for not only was it encouraged and assisted from the start by able Canadian writers in the various branches of engineering, but it achieved 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 thrice enlarging the paper. It is now twice its original size. While this means a large growth in advertising patronage, it also means a greater variety of reading matter and illustrations for our subscribers.

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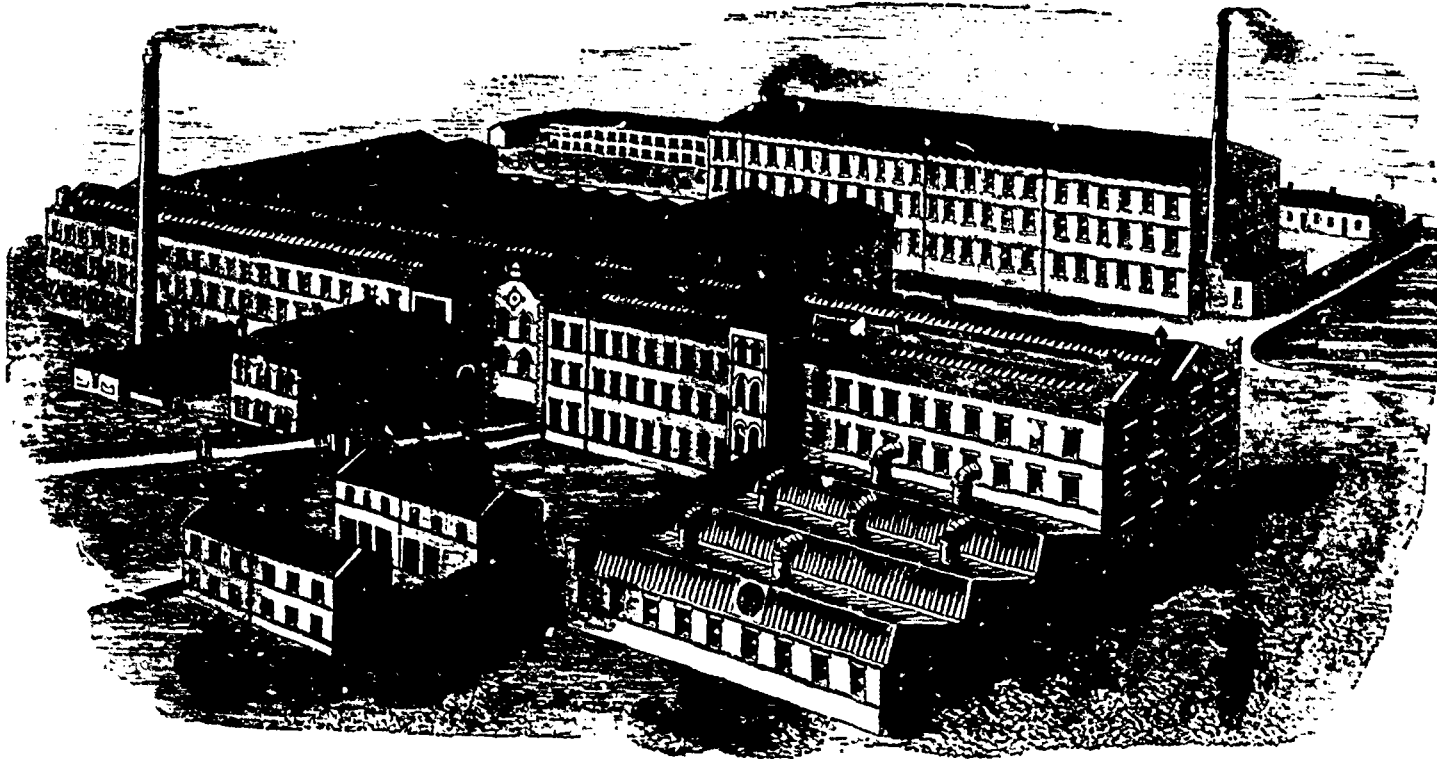
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NAPHTHA WOOL CLEANSING.

There is a description of a new process of wool cleansing, by means of naphtha, in the February number of the *Textile World*. The plant has, it appears, been put in the Arlington Mills, Lawrence, Mass., and is a most complicated and expensive one. Separate buildings are of course necessary, and they are situated in a vast copper tank in order to prevent the escape of the naphtha if the tanks in which it is kept should explode from any cause. Among the many benefits claimed for the new process are the following. "We understand that a great gain is made in the weight of clean fibre obtained by the new process over the old, that the noilage is reduced to a minimum, and that the finished products are superior in brilliancy, strength and softness. The use of soap and alkali being dispensed with, saves an enormous sum of money, and as the wool-fat being extracted from the fibre is, after being refined, used as a lubricant for the wool, this also effects another great saving. If we add to all the above the value of the by-products, consisting of wool-fat and carbonate of potash, which the Arlington Mills are able to dispose of, and which will amount to several millions of pounds yearly, the net gain will be all the more apparent. It is safe to predict that this new solvent process will arouse great interest, and is likely to be adopted by all those engaged in the woolen industry who wish to leave nothing undone which will tend to increase the financial success of their business."

THE mass of the people are going to use mohairs and every other weave must stand aside for them. They have the right of way now, and are going to keep it all season. The prevailing styles continue to favor wiry goods, and this quality can best be secured in mohair weaves—*The Dry Goods Bulletin, Chicago*.

THE *Dry Goods Economist* says that American markets are pestered with inferior threads in imitation of well-known brands. And they are dishonest in lengths, too. Among the most flagrant of these falsely marked threads is the "Family thread," billed as "Crown linen thread." This thread is put upon a red spool, with a red label which closely imitates the spools of standard makers. It is stamped "100 yards." Upon measuring several of these spools they were found to contain from 50 to 59 yards only.

THE following is a French method of testing linen fabrics to find out if there is a mixture of jute in them:—Put a little solution of chloride of lime into a saucer, and lay in it, for four or five minutes, the yarn or cloth to be examined, then squeeze out the solution and put the fabric into a solution of ordinary hydrochloric acid, and, after a few moments, take out and wash in plenty of water. Then apply a drop of ammonia to the fabric, and, in case there is a mixture of jute, a slightly violet red color is immediately imparted. Flax and hemp become slightly brown. The red coloration, however, does not remain long, and the proportion of the jute mixture can only be roughly shown.

A FABRIC in fair demand, and which can be sold moderately all the year around, is a wool covert cloth, in a sixteen-ounce fabric. It should be well felted, and made in the olive greens and olive browns now popular in this style of goods. This fabric, if made exactly right and once secures a place in the market, will hold that position, and will be what is termed "a filler in," when a manufacturer reaches a slack time of the year. While the bulk of business is in cheap goods, still some better fabrics are demanded; everybody is not poor, and the manufacturer who caters to the finer class of trade will undoubtedly do least worrying. He will not have to meet the immense competition incidental to the innumerable cheap grades. The coming fabric for light weights is a cassimere, made after the style of an Elbeuf cloth, not the velvet finish, but a close-sheared, soft finish. This fabric should be made firm and soft to the touch, and the colors should include the latest combinations in the greens and browns, in faint overplaids. This fabric is not good for stripes, but only for suitings, and the manufacturer who experiments on it, and gets it exactly right in light weights ought to meet with financial success.

The Starhroom advises truly as follows "Don't get the idea that you can make a fortune by cutting rates."

DANGEROUS DICK—"Ye tol' me yer father kep' a clothin'-store before he died, an' now I find out he was hung fer hoss-stealin'." Arizona Abe (indignantly)—"I never said he kep' a clothin'-store, I said he was in the clothes line when he died, that's what they hung him with. Understan'?"

WE regret to note that the trade of the Dominion shows a considerable falling off in the last year as compared with the year immediately preceding. The decrease in the exports of 1895 as compared with 1894 was \$3,886,146, and with 1893, \$4,925,549. The decrease in imports in 1895 as compared with 1894, was \$12,693,258, and 1893, \$18,292,586.

A FURRIER says there has been a decline in the amount of furs sold of late years, as far as male garments are concerned. On the other hand there has been a marked increase in the sale of garments made for ladies' wear. Ten years ago there were three fur coats sold to men to one sold these days. In other lines of furs it was just the same. At one time everybody who could afford to do so wore furs, but it has not been the custom of late years to do so.

FOR many years past all the world has been engaged in cheapening production by all the means in its power, with the result that, as Lord Playfair says, "As regards machine-made commodities, gold will now buy about 30 to 40 per cent. more than it did twenty years ago; but it will buy from 40 to 50 per cent. less labor in this country, and from 50 to 60 per cent. less in the United States."

THE Dundee manufacturers appear determined to go thoroughly into the advantages and drawbacks of ramie. On the invitation of the committee appointed to investigate into the manufacture of ramie, a number of local mechanical engineers and other gentlemen connected with the jute industry met in the Technical Institute, Dundee, a few days ago, for the purpose of testing Macdonald's decorticating machine. The machine was found to be extremely simple in construction. It consists of a pulley 18 inches in diameter, on the face of which are bolted small angle-irons, which act as beaters. In front of these is a movable plate fixed, when the machine is in operation, within 1-16th inch of the beaters. These are the essential parts of the decorticator. Those acquainted with jute machinery will understand its construction if they suppose it to be a shell-breaker. The cylinder, however, instead of having card cloth, has the iron-beaters, and the movable plate represents the shell. The stems of the ramie are fed in as jute is fed into a breaker. Those experimented upon were Algerian, about four feet long, resembling a bundle of walking sticks, smooth, hard and brown. The machine having been brought up to its proper speed, Mr. Macdonald fed in the stems, and instantly the core was separated from the fibre. He then reversed the stems, running the other ends through the machine, and in his hands, instead of a bundle of hard rods, he held a bunch of long ramie ribbons. The latter, although taken from dry stems, had very little bark left upon them, and in that respect compared very favorably with the ramie ribbons of commerce, which are hard, black, and full of shellac. Mr. Macdonald claims that his machine not only decorticates the stems, but debarks the fibre, so that the process of degumming is very much simplified, and the fibre emerges from the bath with greater strength and lustre than is possible when the fibre is decorticated by hand. Each of the gentlemen present expressed his opinion that the machine was all that was claimed for it, being simple in construction, easy to work, could be manipulated by unskilled labor, and, above all, could not clog with the gum of green ramie stems; and it was admitted that it solved the problem of decorticating the ramie stems. All agreed that from what had been seen of it, the machine would undertake more than a ton of stems per day, and a resolution was passed expressive of satisfaction at the results achieved.

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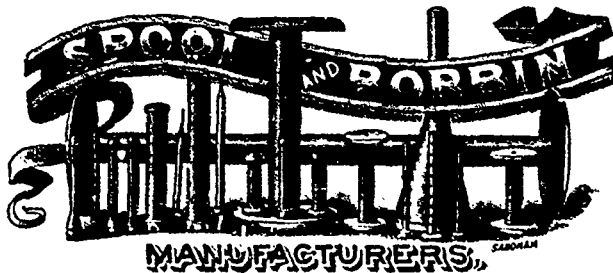
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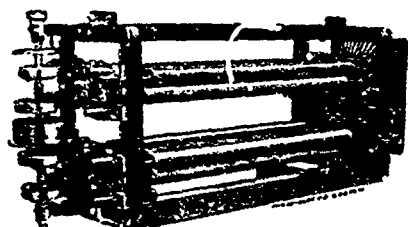
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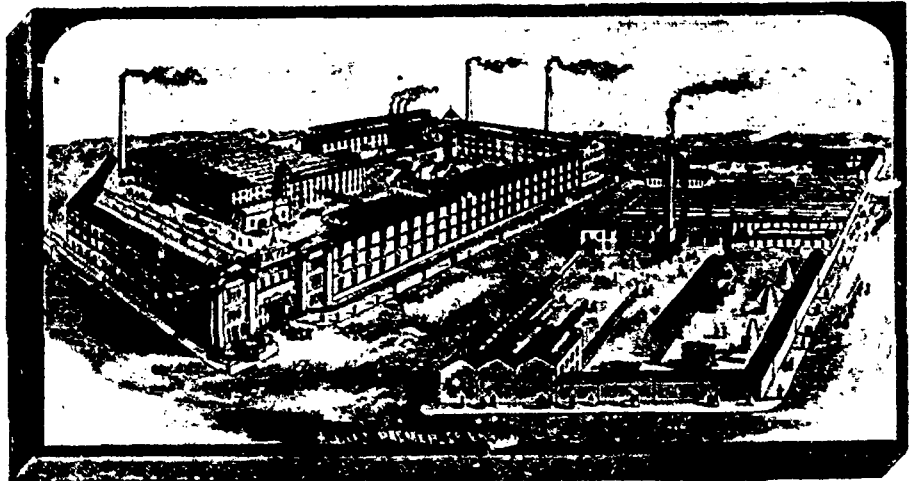
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