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CANADIAN Journal of Fabrics

THE JOURNAL OF THE Textile Trades of Canada.

Vol. XII.

TORONTO, OCTOBER, 1895

No. 9

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Canadian Journal of Fabrics

THE JOURNAL OF THE
Textile Trades of Canada.

Vol. XII.

TORONTO, OCTOBER, 1895

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FOR THE CANADIAN JOURNAL OF FABRICS.

THE COLLEGE SUPERINTENDENT.

BY GEO. DAMON RICE.

Much has been said and written concerning the capabilities of a technically educated man for practical work, but the subject was never before brought so forcibly to my mind as it was a short time since while in conversation with the superintendent of a large company engaged in making cotton goods.

This superintendent wished to engage a man to help in the management of the mill. A young man of about twenty-six or so presented himself for the position, and, in giving his experience, mentioned that he was a graduate in mechanical engineering from a technical school, and was surprised—aye, stunned—to receive the abrupt reply that his education would be a

damage to him, that the superintendent "had previously had experience with two or three of the class, and had found them sorely wanting."

This superintendent told me that the "technical men" he had employed to work for him were always going to revolutionize things by doing such "big things."

Good practical experience is what a man needs, and if he can add to it a technical education, so much the better, but it will not do to let the one over-ride the other.

I asked the names of some of the graduates rated as failures, and among others he chanced to name a young man with whom I was at one time quite well acquainted. He said that this young man had worked for him before going to college, and that when he returned he did not know or handle anything quite as well as he had before entering school. I do not know how good a workman this man was, or what position he filled before going to college, but it has always been my opinion that men such as I knew him to be were a damage to the profession, and that they were responsible in a great degree for the slurs cast upon the "college superintendent" by non-educated practical men.

Having had frequent opportunities to observe this young man's work, I noted that he seldom did any original work, always trying to imitate the methods of others, without having any clear idea as to just why he took a particular step in the solution of a problem, or the demonstration of a mathematical formula. In his laboratory and testing work he usually followed closely the rules set down by his instructors, filling out reports according to precept, and his whole aim appeared to be to get a good percentage mark on his term record, without appearing to care whether or not he knew anything about what he had been doing. This class usually succeed "by hook or by crook" in securing good records, and at the completion of their college course are "turned loose" on the world, and are falsely rated on a par with the competent.

Under the heading of competency for mill service comes the necessity of a knowledge of the needs of machinery best adapted to do certain work.

Only actual mill experience will qualify a man to purchase machinery. A few hints as regards the right kind of spinning to secure may be desirable. The frame system seems to be gradually, is gradually, sup-

planting the mule. Whether one system or the other is employed, the first point required in order to spin a good yarn is first-class carding.

The mule system first spins the thread of yarn, then winds it afterwards. For this reason the drag in mule spinning can be regulated to a nicer degree, and consequently a tenderer thread can be spun. The ring frame, on the other hand, both spins and winds at the same time; hence, if the roving is uneven, more threads will break at the spinning, because of the constant pull the traveller exerts on the yarn while it is receiving its proportion of twist.

Many fine goods manufacturers find that improving the carding plant improves the roving to such an extent that, when equipped with modern frames, the yarns can be produced cheaper, of as good quality, and be perfectly free from kinks, which latter consideration—in the weaving of filling sateens and twills—is a very important one. Hence the importance of good preparation.

The modern frame can and does compete with the mule (on certain counts), for the reason that it is a constant spinner, while the mule is intermittent, first spinning, then winding. And, as before stated, the mule for this reason is enabled to spin a weaker and poorer thread, because the drag can be altered to suit the yarn, and the mule spinner can regulate the tension so as to prevent the threads from breaking, whereas the tension cannot be altered on the frame except by changing the traveller, all of which takes time.

In these days the system that produces the least waste is looked upon with the most favor.

In all mills there are, more or less, a variety of yarns used, as the producing of various weights requires a variety of thickness of yarns, or, as they are termed, numbers or gauges. Besides this, there are the various colors used, and the different principles of yarns according to the fibre of which they are composed, and of the material from which they are spun.

These various sorts of yarns necessarily leave us at the end of the year with certain quantities of each, many of which, for some cause or other, we are not using at this time upon regular goods; and again, we may have certain numbers not in use because we had to change from the number first used to another number, to perchance cause a difference in weight or for some other object. None but those who are closely connected with the trade will understand how these accumulate, though the most careful watch may be kept on them throughout the year. But when stock-taking comes, whenever that may be, and all the corners are turned out, the little here and the little there, when added together, amount in figures to a number that often considerably surprises the principal as well as the manager of the department.

Another department will produce a similar surplus; I refer now to the manufacturing department. If we are making yarns, we have "oddments" of the various kinds that are the surplus of orders, or that may have been made wrong through some neglect. But all these

should come to the surface at the annual stock-taking, and it is then a question of how to turn these to the best advantage.

Machine methods are used to reduce this accumulation to fibrous form, so that it can be used again, yet it is waste product, and not quite so good as at first. To employ a spinning machine so it will cause the least waste is a chief aim. While on the cotton waste question, it may be well to remark that cotton thoroughly cleaned will make less waste during the process of spinning than would be the case with cotton only partially cleaned. The old methods of picking and lapping in vogue a dozen years ago were not calculated to do what the present styles of pickers are doing. If there is anything to be improved in the spinning department now, we must look in the direction of the waste for it. Old pickers, such as we were using up to a recent date, and are using yet in some places, were great waste makers, and still did not produce as well-purified stock for carding as those we have now. Most of our overseers say, "What difference does that make? There is just so much refuse in cotton, and if you don't take it out at one place it must be done at another."

So I would suggest right here that in every place where the picking department has been overhauled, and in most instances a whole new set of picking machinery of the most improved pattern set down, good results have followed.

The machines are so enlarged in every direction that the old picking is in almost every case wholly inadequate to make suitable laps, so that when we decide to adopt the English system of carding we must also adopt the English system of picking, and all the other alterations incidental to it. These are numerous, and often very expensive, for one thing introduces another until both the inside and the outside of the works take on a different appearance. It must, therefore, be evident to all who have made this part of the work a study, that cotton coming to the cards thoroughly cleaned not only makes less waste during the process of carding, but also assists the cards in the production both of quantity and quality, and results in less waste at the spinning. All these things are learned by actual experience in the mill. No school can teach them wholly, but can well prepare the man to receive them. When a man takes hold of a mill, whether he come from a school or from another mill, he should not try to do too much at once. A mill proprietor once engaged a man and gave him full control of the works, from the spinning of the yarns to the finishing of the goods. The previous man turned out good work, but not enough of it. The goods were well made and immediately found sale in the market, but the profits were too small to be of interest to the proprietor of the mill, and so he changed bosses. The new man was engaged with the understanding that he should get more pay providing an increased product should be obtained from the machinery. He at once began to arrange matters so that he could increase the output. He began in the spinning department, and there he ordered that the

boss spinner make the different grades of yarns a little heavier than usual. The yarns being heavier, less twist was, of course, needed, and so the mules and frames could spin more, and the output was increased here. Then, when the yarns reached the machines, of course more work could be turned out, as the heavier yarns did not require such close setting, and so a little time was gained, and still the goods came off same weight on account of heavier yarns. The yarns being heavier they broke less. The looms were speeded up, the goods rolled off. But there came an end. The commission houses began to complain, stating that the goods were not up to the standard as regards fineness of texture. The man was discharged and the experiment proved costly to the mill. Any man can go into a mill, and, by increasing the weight of the yarns, enlarge the output, and for a short time be looked upon as a wonder. But when it comes to placing the goods on the market the matter takes on another phase, and some one gets left, usually the manufacturer of the goods.

The proper way to enlarge the output is to manage everything to its best advantage, and to give strict attention to business. To get best results from the spinning, the roving should be in good shape. The operation of the roving frame is really the same as the drawing frame, except being on a much finer basis. The drawing operation is for the purpose of making the sliver uniform in its weight per yard, and at the same time to keep the fibre parallel. It is quite important that a skilled man be in charge of this department, otherwise bad and costly work will follow. If the roving is made too fine for the grade or condition of the stock, it will be impossible to make good yarn of it, as when it is spun it will not hold together, and if it did would not be strong enough for any practical use; on the other hand, if the drawer knows the stock cannot be properly drawn to the size of roving required for a certain fineness of yarn, and he reduces it as much as he considers safe, and leaves it for the spinner to do the rest, the spinner is apt to have considerable trouble to make good yarn out of it, as the spinning frame will have to do its own work and the work of the roving frame too.

RAW MATERIALS OF TEXTILE FABRICS.

WHAT THE MICROSCOPE REVEALS CONCERNING THE STRUCTURE OF FIBRES.

Sometimes an examination with the naked eye of the thread set free by picking out, is sufficient to distinguish the material used in the construction of a fabric, but usually either a chemical or microscopical examination is necessary. The simplest method is by means of a microscope, says E. A. Posselt in his new work, "Textile Calculations." On account of the different surface structures of various fibres used in the manufacture of textiles, the microscope at once determines which of them have been employed. An

enlargement of about 200 times is necessary. Pick out a few threads, then untwist some of these and arrange the fibres on a glass slide, retaining them in place with a cover glass or by moistening the slide with glycerin or gum water.



A. B. C.
Fig. 50.



Fig. 51.



Fig. 52.



Fig. 53.

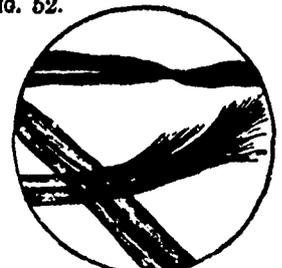


Fig. 54.



Fig. 55.

Cotton fibres under the microscope appear as spirally twisted bands with thickened borders and irregular markings on the surface. The spiral character is less evident in the better qualities of cotton. Wild silk also shows the spiral twist, but other tests may be used if any uncertainty exists on this point. In fully ripe cotton the twisted form is more regular than in unripe, half ripe, or structureless cotton. See Fig. 50, where A represents unripe cotton fibre, B half ripe fibre having a thin cell wall, and C the ripe fibre with a full

twist and well defined wall. Fig. 51 shows a structureless fibre. As unripe or structureless fibre does not take dye well, its presence injures the quality of the stock.

In its natural state silk is a double fibre (see Fig. 52), being two threads glued together. In the process of "scouring" or "boiling off" these two threads are separated, and under the microscope appear as structure-

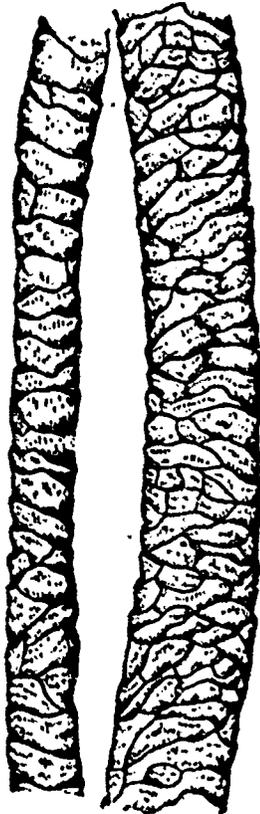


FIG. 56.



FIG. 57

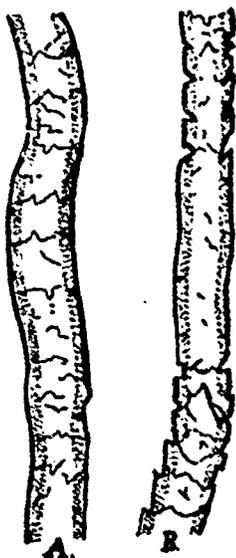


FIG. 58.

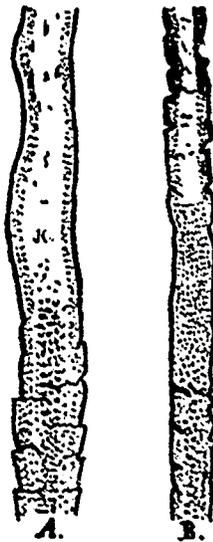


FIG. 59.

uniform thickness, while others are irregular and bent. (See Fig. 53).

The most important wild silk is Tussah (Fig. 54); it requires bleaching for bright colors.

Weighted silk is readily distinguished by means of the microscope, the accompanying illustration, Fig. 55, representing weighted silk waste as appearing when viewed with the microscope.

Wool is readily distinguished from other fibres by means of the microscope, being built up of an immense number of epithelial cells, scales or serrations, as shown in the accompanying illustration, Fig. 56, representing a typical wool fibre under the microscope. The amount of these scales found per inch varies with reference to quality—the finer grades having more, and the coarser less. If these scales cannot be readily seen, treat the fibres in question with *ammoniac copper*, and the scales will become distinctly visible to the eye during the swelling up of the fibres.

Another feature of wool is its *wave of the crimp*, which agains varies with reference to the different grades of wool found in the market. The more scales per inch and the more wavy in construction the fibre, the more its felting capacity.

Untrue fibres (caused by neglected or sick sheep), now and then found in wool, are readily ascertained by means of the microscope, as seen by the accompanying illustration, Fig. 57, representing two such fibres as termed untrue, and which will readily show that where these abnormal forms occur there are changes in the form and size of the epithelial scales of the outer layer, as well as in the diameter of the fibre, consequently the internal structure of the fibre must be equally affected, thus reducing the strength and elasticity on such fibres, and consequently decreasing the value of such lots of wool, as well as fabrics, in which these fibres are found. Kemp wool fibres are hairs of dead silvery white, thicker and shorter than the regular wool. They do not seem to differ in their chemical composition from the good or true wool fibres, but they present different mechanical arrangement, and possess no absorbent power, thus resisting either entirely or partly the entrance of dye-stuffs, and in the latter case even producing a different shade from the good fibres of the same lot, hence they will be readily detected.

Figs. 58 and 59 are given to illustrate the various degrees of these kempy fibres. Fig. 58, *A*, is a fibre where the kempy structure continues throughout the entire fibre, which looks like a glass rod, yet has short and faint transverse lines which indicate the margins of the scales. When the change is complete, even the application of caustic alkali fails to bring out the lamination of the scales distinctly, and they seem to be completely attached to the body of the fibre up to the top of the scale. In some instances even the margins of the scales are quite obliterated, and the entire surface of the fibre has an appearance resembling frosted silver. In Fig. 58, *B*, a fibre is shown where

less, transparent, cylindrical little glass rods. There is no spiral character and some are straight and of

the change from true wool to kemp is only partial. The lower part of the illustration shows wool structure (the scales being distinctly visible), whereas the upper portion of the fibre shows the kemp structure (having the scales closely attached to the surface, giving the fibre the usual ivory-like appearance.) Both illustrations, Fig. 58, *A* and *B*, are representations of fibres seen by reflected light. In Fig. 59, *A* and *B*, illustrations are seen by transmitted light. In *A*, a kempy fibre is seen with transmitted light, and there we see a gradual passage of the kemp into wool. In this case, with transmitted light the kempy part retains almost the same transparency as the wool, but exhibits none of



FIG. 60.

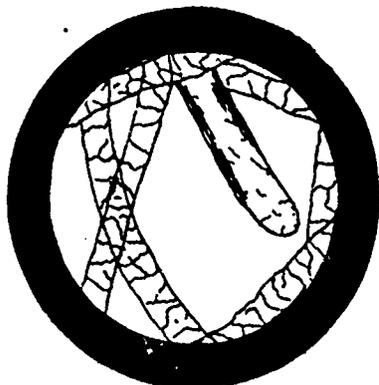


FIG. 61.



FIG. 62.

the interior arrangement of cells. Frequently fibres are noticed which have a tendency to kemp, and which possess an unusual distinctness in medullary cells. Indeed, it frequently happens that the kempy structure tails off in the same fibre, not so much as we should have

supposed on the outer surface, but down the interior of the fibre, as though the change commenced in the central cells and was gradually extended to the outer surface as the fibre grew. At the extremity, where the kempy structure first appears, the central cells are often not contiguous, as though the change commenced in a few cells first and then became more numerous both in the longitudinal as well as the diametrical direction. These kempy fibres often have a considerable degree of transparency when viewed with transmitted light, and in this respect they vary much, but they are seldom as transparent as the adjacent wool fibres.

Sometimes, however, they are very opaque, as will be seen in the fibre shown in Fig. *B*, where the light seems hardly to penetrate the centre of the fibre, although it is refracted at the thinner edges, while the true wool, both above and below, is quite transparent to the same light. In this case, the same fibre, when viewed with reflected, instead of transmitted light, exhibited no more signs of a dark color in the kempy than the true wool part, so that the want of transparency was not due to coloring matter.

Kempy fibres are not always white; they are frequently found in coarse, dark colored, foreign wools, and even in the colored fibres of more cultivated sheep.

Shoddy is wool fibres re-manufactured out of soft woollen rags which have yet felting properties. If examining the shoddy wool more closely its color will betray the inferior article compared with wool. The rags had previously to re-dyeing different colors, which will influence the second color accordingly. Of the accompanying illustrations Fig. 60 shows cheviot shoddy. Fig. 61, Thibet shoddy as visible under the microscope when magnified. Mungo is the name for wool fibres re-manufactured out of hard woollen rags, *i.e.*, a cheaper grade of shoddy, made out of rags from fulled cloth. During the process of re-manufacturing said rags into wool by means of picking, carding or garnetting, a great many fibres get broken. Besides, on account of the rags coming from fulled cloth, this mungo wool has no more fulling properties left. The point regarding color previously mentioned as shoddy wool will also distinguish mungo wool from wool. Frequently cotton fibres will be found amongst mungo, in some cases silk fibres. Fig. 62 gives us a typical illustration of mungo when seen under the microscope. Wool extract, also called *extract*, is artificial wool produced from mixed rags from which the vegetable fibres were extracted by means of carbonizing.

An examination of a sample of extract by means of the microscope will show traces of the process of carbonizing, by means of the carbonized vegetable refuse. All three divisions of artificial wool are by some manufacturers simply collectively graded as shoddy, and will be so considered when dissecting woven or knitted fabrics with reference to materials used in their construction.

Among the foreign wools are Mohair, Cashmere, Alpaca, Vicugna, and Llama wool. Mohair is obtained

from the Angora goat. The epidermal scales are extremely delicate and can only be noticed by giving the greatest care to the experiment. The fibre gets smaller in diameter toward the top end, although not forming a point, and is of bright metallic lustre. Characteristic to it are the fine spots found all over the surface, as shown in the accompanying specimen, Fig. 63. Cashmere is the product of the Cashmere goat. The fur of



FIG. 63.

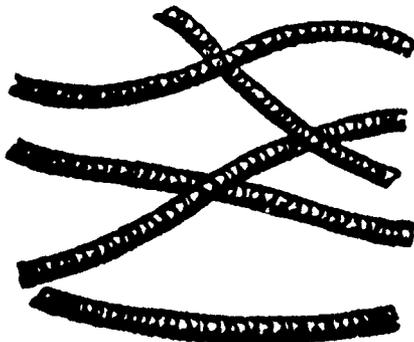


FIG. 64.



FIG. 65.

this animal is of two sorts, viz., a soft woolly under coat of grayish hair, and a covering of long silken hair, that seems to defend the interior coat from the effects of winter. The under coat, *i.e.*, the fine fibres, are readily distinguished by means of the structure of their epidermal scales; besides there is no central or medullary portion found. Fig. 64 gives us a specimen of these fibres. They are used only in the manufacture of the finest textiles on account of their high value.

The outer coat, which is of a coarser nature, is used in the manufacture of cheaper yarns, and shows under the microscope fibres containing the central or medullary portion as clearly shown by the accompanying illustration, Fig. 65. Alpaca possesses less lustre than



FIG. 66.

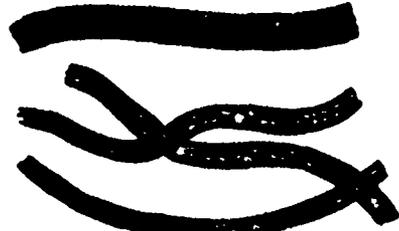


FIG. 67.

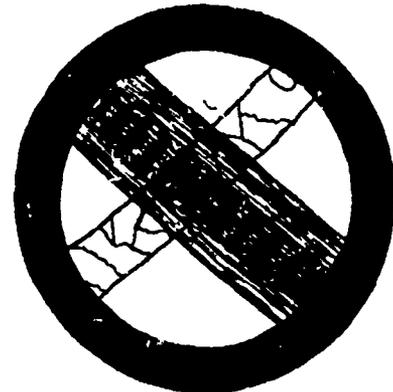


FIG. 68.

mohair, and only shows its fine scales by strong magnifying. In white fibres grayish colored medullary cells are seen. Fig. 66 gives us a specimen of this fibre. Vicugna looks, at a first glance, like alpaca wool; it is a delicate, soft structure. The scales are fine, closely resembling those of wool. The medullary cells are visible. Fig. 67 is a specimen of this fibre. Llama wool is coarser in structure compared to vicugna wool and of less value, being only used in the manufacture of cheap yarns. Camel's hair is frequently used in the manufacture of lower grades of yarn for backing purposes. Fig. 68 shows camel's hair fibres magnified.

Sometimes we find what is claimed to be finer grades of camel's hair in the market; this material, however, refers to fibres of the outer cover of the angora, the fur of the vicugna and alpaca; whereas the fur of the llama joins more toward the camel's hair.

The fibres mentioned cover most materials a manufacturer will come in contact with.

S. W. Wardell, Boston, Mass., has patented a method of rolling yarn. The yarn is first wound on a spindle to form a cop; it is then wound in layers laterally from end to end of the cop. The whole makes a flexible solid mass of yarn in a convenient form for use.

VAT BLUE ON COTTON YARN.

An old oil barrel that has been cleaned may be used as the vat for cotton yarn. It must be 59 inches high and 39½ inches in diameter. The barrel is filled with cold water to which is added the solution of 5 lbs. 8½ ozs. sulphate of iron and 8 lbs. 13 ozs. burned lime, after which the whole is stirred. Then 4 lbs. 6½ ozs. Bengal or Java indigo are ground with water in the mill into a fine sediment, and to this aqueous mass is added the solution of 13 lbs. 3½ ozs. sulphate of iron and 8 kilog. burned lime. This is to be stirred until the liquor has assumed a yellow color, and when this is reached the mass is stirred while being poured into the vat barrel, then stirred again, and left standing. The bath has clarified and is of a nice green yellow color in about 6 hours, and may then be used at once for dyeing, entering with the well moistened yarn, and drawing about the yarn until the desired shade is obtained. Cotton yarn dye houses, which make a specialty of vat colors, generally keep on hand from 6 to 8 such vats of different ages and percentage of indigo. They are distinguished by being called weak and strong vats, light shades being dyed in weak vats, while dark shades are started in them and dyed to shade in the strong vats. The more the yarn is drawn about in a weak vat, the faster will be its color. A vat prepared according to the above recipe will dyelight blue on 220½ to 330.7 lbs. cotton. The principal requirement in vat dyeing is that the indigo is very finely ground, because it will exert its full strength only in a highly reduced state. The longer indigo is ground the more can its power of dyeing be called upon, in fact all the saving in indigo dyeing lies in the grinding of the pigment. The most highly recommended bottoms for vat blue on cotton yarn, as also the most highly praised tops, cannot replace pure vat blue. The blue tone of cotton dyed in the vat is an entirely characteristic one, and without exception has never yet been rivaled by an artificial dyestuff, although there are different dyestuffs that dye a shade similar to indigo, but without producing all the peculiarities of the latter. Nor are these dyestuffs as fast as indigo, and for this reason it will remain indispensable for dyeing certain articles.

THE INGRAIN CARPET TRADE.

An American paper having spoken of the prospects of shipping American made Ingrain carpets to England, the *Textile Mercury* made this comment: "The Ingrain or Kidderminster carpet in this country is permanently dead. It is not likely to be revived by Americans or others. Jute Brussels and other cheap goods, such as oil cloth and the lower grades of linoleum, have killed the Ingrain trade."

Upon this a correspondent writes as follows from Philadelphia to the *Carpet and Upholstery Trade Review*:

"Word comes to us from across the water that the

Ingrain carpet industry, on account of the close competition of the lower grades of Tapestry and Brussels carpets, is almost destroyed. This may be true of the English Ingrain industry, but it will not apply on this side of the water. The fact is that, so far as American Ingrains are concerned, the demand for them was never greater than now. I am not aware to what extent Ingrain carpets in England have been improved during the past eight or ten years, but in the United States new weaves have followed each other in such rapid succession that they have brought the extra Ingrain carpets to such perfection that they do not fear the competition of low grades of Tapestries or Brussels. At one time, and perhaps now, among the English manufacturers not more than two colors could be introduced into an Ingrain carpet without producing stripes, which destroyed the wrong side of the carpet and interfered with the symmetry of the design on the right side. Now new weaves have been invented which not only permit the introduction of any number of colors without interfering with the symmetry of the designs, but also unite the two webs perfectly, so that the Ingrain is no longer a two-ply carpet, but one solid mass. These new weaves make it possible to produce perfect Brussels effects, not only in the designs, but in the shading of the colors. Now, taking all these improvements into consideration, and the fact that a first-class American Extra Ingrain will wear better than any Tapestry or Brussels carpet which can be sold low enough to compete with them in price, I do not see that there is any reason for believing that the good old Ingrain carpet is on the decline. In fact it is on the forward move, for we are not yet done with improving it. A few months ago the popular taste was much in favor of very small figures in carpets, not only for small rooms but for large also. Self color effects were much called for, and they appeared first in Body Brussels carpets. It was not long, however, before the new weaves enabled the Ingrain manufacturers to produce precisely the same effects in their goods, so that laid side by side in adjoining rooms no one but an expert could tell which was Brussels and which was Ingrain."

The strike of burlap and jute carpet weavers in Dundee, which took place in August, was ended early in September by the weavers returning to work at the former wages. It was shown them very clearly that, owing to the close competition between Dundee and Calcutta, it was impossible to advance wages, and the workers, therefore, concluded that they had better work on and wait for a peaceable change in the conditions of the business. The strikers in the Ingrain carpet trade in Philadelphia came off somewhat better. Before the end of August it became evident to the leading mill owners that looms must be started, and one after another began to compromise with the hands. They have gained this advantage that their present schedule gives them an advance of 7½ per cent. on extra supers, and the mills generally are running full time in Philadelphia, the chief centre of this trade.

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IN ALL ITS BRANCHES.

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THE
Canadian Colored Cotton Mills Co.

SPRING, 1895

GINGHAMS ZEPHYRS
CHEVIOT SUITINGS
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DRESS GOODS SKIRTINGS
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AWNINGS, TICKINGS, etc., etc.

NOW READY

See Samples in Wholesale Houses

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COMING FASHIONS IN PRINTS AND SUMMER GOODS.

The prevailing rage for separate waists makes it certain that there will be a heavier demand for light colored prints and wash goods of more fanciful designs than would be popular were the goods intended for costumes exclusively. A novel feature in print is the new dog-tooth check which is shown by import in a number of colors, and in all grades. White with light pink, blue and mauve will be popular, especially in the smaller check. A prominent feature of the new designs is short lines of highly contrasting colors, giving somewhat the effect of an overshot thread of mohair. Self colors with small spots and lines are selling well, and will be greater favorites than last year. Wood grain designs in white and color are new and promise well. The new crinkle cloths, which are a development of the Duchess of York crêpons, so popular during the last two seasons, are neat and attractive in design, and now so low in price as to make them certain leaders in next year's wash goods trade. The better qualities can hardly be distinguished from silk. Many of them show all over designs of small sprays and bunches of flowers, suggesting the old time pompadour effects. Black crêpe cloth in cotton, with white designs, are shown. In fact the whole crêpon family is still well to the front, and promises to stay there. The most noticeable novelty in color is the frequency with which canary yellow appears. Plaid and checked grounds, with small figures scattered over them, will be much seen.

ONE of quite a number of arts and crafts, that seem at different times in the world's history to have died out so entirely that they have had practically to be

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TORONTO and MONTREAL

discovered over again, is the gilding of silk. No further back than the Middle Ages the gilding of silk was well understood, though it was by no means an open secret. Then the fashion went out, and with it, apparently, all practical knowledge of the art itself. At about the beginning of the present century a new method of gilding silk was discovered, but it was too expensive to be of any practical use. Now, however, says *Invention*, the result can be produced by the process known as electrolysis. The fibres of silk are actually gilded with metallic gold, and yet retain their pliability and softness to the touch.

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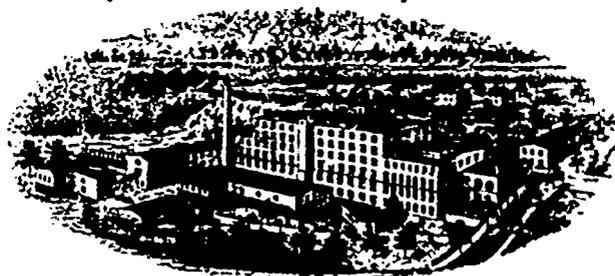
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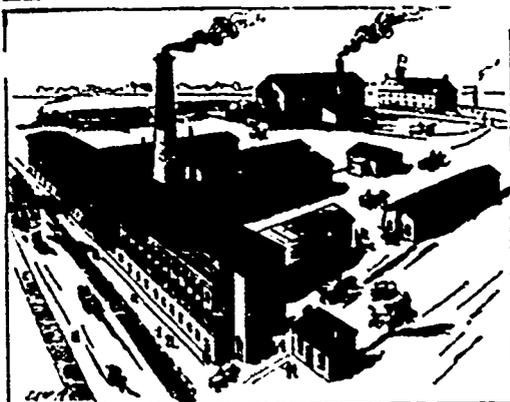
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BROTHER CASSIDEY'S "PLEASANT ASSOCIATIONS."

It is not the practice of this journal to retort when uncomplimentary things are said of us by contemporaries, but we have been the subject of the distinguished attention of the *Canadian Manufacturer* to such an extent recently that we might be accused of a lack of sociability if we forebore all expressions of appreciation. When the woolen manufacturers were last preparing to go to the trade for orders, the *CANADIAN JOURNAL OF FABRICS* gave them a lecture on the folly of selling their goods at cost or below cost in the face of the advance they were obliged to pay for raw wool, cotton and other raw materials, and we showed that such a policy of fear as they were exhibiting was not only weak-kneed, but unnecessary, considering the advance in manufactured goods that was being asked for woolen goods in foreign markets. Our advice was timely and it was badly needed. Moreover, we have the evidence of more than one Canadian woolen manufacturer struggling for a fair profit among faint-hearted competitors, that our article was taken in the right spirit and highly appreciated. "Just what I have told them," said one manufacturer who was standing out against the bluff of certain wholesale buyers. And that the article has done more good is evidenced by the fact that generally speaking the mills have obtained better prices than they could have expected six months ago. In telling the mill-owners a wholesome truth this journal has shown that it is the manufacturers' best friend, and the great majority of them have taken its advice as it was meant.

Our contemporary, the *Canadian Dry Goods Review*, quoted our article on the "invertebrate" action of some manufacturers, and added a few wholesome words on their failure to appreciate the value of a trade paper. "They are either too penurious, or too back-woodsy to take a trade paper," says the *Review*. Certainly, the manufacturer who thinks more of a dollar bill than of the means of increasing knowledge in his business, debars himself from all hope of progress, and we regret to confess there are quite a few of this class scattered among the textile trades. To gently lead such people up to appreciate the importance of a trade paper, we have often been tempted to do as the *Manufacturer* has done, and send these gentlemen a free copy of this journal, under cover of the pleasant fiction that the paper was being paid for by a friend of theirs in the trade. While, however, we have not risen to this height of generosity, we, like Tigg Montague, "admire that quality in others," and hope the *Manufacturer's* missionary work will result in good to the general cause.

The *Canadian Manufacturer* winds up its compliments to ourselves and the *Dry Goods Review* as follows:

The *Dry Goods Review* proposes a remedy for the ills which it supposes the manufacturers suffer, and to cure them of their obtuseness in not appreciating its value as an educator in the production and sale of woolen goods. Its proposition is that there shall be a woolen manufacturers' association to educate the trade and introduce an *esprit de corps* that would help maintain paying

prices.' Wonderful! Where has the sleepy-head been that it has not discovered that a woolen manufacturers' association has been in active existence for many years; has regular meetings and special meetings whenever the same may be necessary? These journals aspire to be the moulders of thought for the manufacturers, professing to be devoted to their interests, and watchful over their welfare, and yet they know so little of the people they profess to serve as to be ignorant of the fact that they have a real live active organization.

Now we like the delightful self-assumption of the *Manufacturer*. If our contemporary has such a precious commodity as a "constant reader," that constant reader must have observed on its title page the long list of associations of which its editor, J. J. Cassidey, is secretary. It starts off with the Canadian Manufacturers' Association, and then follows a "Woolen Manufacturers' Association," a "Knit Goods Manufacturers' Association," a "Carpet Manufacturers' Association," a "Glove Manufacturers' Association," and a committee on the "Toronto Industrial Exhibition Association," of each and all of which J. J. Cassidey is secretary. When one reads this imposing list of secretaryships, one is not surprised that the *Canadian Manufacturer* claimed to have inspired the most important of the last tariff changes of the Dominion Government. Rather is one disappointed at not seeing it intimated somewhere in the title page that John J. Cassidey is secretary to the Premier, secretary to the Governor-General, and secretary to the Imperial Privy Council; and, as has been suggested, this luminous list of organizations and satellite associations might be fitly completed by the following addition:

LIGHT, HEAT AND POWER ASSOCIATION OF THE UNIVERSE.

The Sun, president.

The Moon, vice-president.

Jupiter, Venus, Mars, Neptune and Uranus, executive council.

J. J. Cassidey, secretary.

It is comforting to know from so high an authority as Brother Cassidey that a woolen manufacturers' association is in "active existence" and that it holds "regular and special meetings whenever the same may be necessary." One might be disposed to think from the constancy with which the same names appear year after year as officers of these textile associations, that the "regular meetings" referred to are quadrennial or quinquennial; and there are some good manufacturers connected with these trades who would like to be enlightened as to what work has been accomplished at the meetings of these associations, how many have attended them, what are their names, and how many assistant secretaries Brother Cassidey employs to take down the minutes and attend to the voluminous correspondence of all these "special meetings," etc., etc. We do not place any credence in the insinuation made that this majestic list of associations is placed on the title page of the *Manufacturer* for the purpose of catching a stray advertisement among foreign firms who have no acquaintance with the actual conditions of trade here; but we should be happy to relieve the

curiosity of many a reader who would like to know something from time to time of the transactions of the associations controlled and owned by Brother Cassidey.

WHY NOT?

The interests covered by the term "woolen manufacture" are much too diverse to be easily united into a manageable combine for general purposes, yet there are some points where combination appears more possible than at others. For instance, cannot something be done towards raising the standard of quality for the average output of our mills? There can be no blinking the fact that the quality of Canadian goods is not what it was even five years ago. Some people go so far as to say that there is no absolutely pure stock worked up in our mills to-day. This is of course not true, yet the average of a year's output is in most instances lower than in former years. This is a condition which is not confined to the Canadian trade, as is evidenced by a series of articles in the *Dry Goods Economist* recently, by C. O. Boring. He seems to take the ground that the manufacturers themselves are responsible for this condition of the trade, and while he blames the trade for handling inferior goods, he seems to consider them not only the victims of circumstances, but also of the manufacturers. The facts of the case, in Canada at least, are that the blame rests entirely upon the trade, which appears to control the manufacturers. There is not a manufacturer carrying on business in the country who is not prepared to turn out a reliable class of goods in his line if he had any demand for them. Year after year samples are got out, covering in some cases a range of a couple of thousand patterns, and representing every grade in quality. You know the whole story when you see the orders come in. The lower the quality of the goods the more freely are orders placed; as the quality rises the orders fall off, and when it comes to numbers representing goods which are absolutely pure wool, dyed in fast colors (and Canadian manufacturers can and do make such goods, though many people refuse to credit it), the orders disappear altogether. The matter would right itself if a good demand in the retail trade for Canadian wares of the best quality could be created. As it is, the better class of goods is sold by the wholesale men as English and Scottish goods. If the Canadian goods bore the manufacturer's name or trademark the demand would rapidly improve, for when the consumer had the opportunity of comparing prices and wearing qualities of Canadian and imported goods, he would soon see that the advantage was with the home producer. In the meantime, a combine to stamp out the production of the lowest class of goods would be a good thing. Remember the consumer is with the manufacturer in this. In this cold climate people want something that will wear, and they are willing to pay for it. The wholesale man is the offender. Can he be induced to do better?

COUNT THE COST.

Enthusiasm is a great thing, and it is very desirable in starting a new industry, but we think an Owen Sound contemporary has, perhaps, a little more of this desirable commodity on hand than the state of the market warrants. In an article entitled "The Knitting Industry," in a recent number, occurs the following:—"It should not be a difficult matter to secure subscriptions for \$20,000 worth of stock amongst the business men of the town, and the investors of town and country. Only half of the amount would be required. From information in our possession, we learn that the necessary plant of knitting machines of the most improved kind, sufficient to give employment to fifty hands and able to compete with the best, would cost well under \$3,000. The advice comes from authorities on the subject to go into the manufacture of knitted goods of the better class only. The factories have always succeeded best that have used Canadian or imported worsted or cashmere yarns, instead of going into the manufacture of poorer grades, where combining yarn-making and knitting, the machinery for which would cost over three times that of the knitting machinery where the yarns were bought." Upon reading the facts based upon "information in our possession" it becomes evident that the article was written in order to insure its "not being a difficult matter to secure subscriptions for \$20,000 worth of stock." Now as to the improved plant that is to cost under \$3,000. The following at least are essential to the scheme outlined: One knitting machine, probably Balmoral, 18 inch, \$500; one sewing machine, \$200; cuff sewer (looper and raveller), \$100; button-hole cutter, \$75; washing and fulling machine, \$400; extractor, \$500; press, if hosiery press is used, \$200, but if regular knit goods press is used, \$1,200. This represents \$2,975, upon which a reduction might be made for possible bargains in second-hand machines. This, however, is only the beginning. A boiler is necessary for heat, even if it were not required for power. Drying and bleaching and the thousand and one little things must be taken into account. This equipment will cost fully \$3,000, and when it is put in it will not afford employment to half of the fifty operatives of whom our contemporary speaks. Then, as to the mills using ready-made yarns. We are somewhat doubtful as to the statement that they have succeeded better than those spinning their own yarns, because so many mills that we know to be paying well are spinning their own yarns. Competition for orders is so keen that the delay necessary to procure a certain grade of yarn must often be a serious difficulty. If the mill is to confine itself to goods of the highest class it cannot do business at all, as the mills now running are producing all of this class of goods that the market is able to take up. If low-class goods are turned out there may be an opening, but it is only to be secured by cutting prices, and the trade is of the opinion that the limit in that direction has been reached.

MILDEW.

Whenever wet or moist materials are allowed to lie for a time in a high temperature the conditions are established which produce mildew. The heat and moisture induce fermentation, and the product of the fermentation is a fungus which destroys the color of the goods, and will, if the process is allowed to advance far enough, destroy the fibre itself. It is noticeable that mildew is more apt to attack moist pieces that are heaped up, as the pressure upon the irregular folds prevents the circulation of the air, and at the same time causes heat. During the first stage of mildew the fungus may be removed by energetic washing or chloring, without injuring the fabrics. In the second stage of growth the fungus cannot be removed and leaves a stain, but the fibres in the fabrics are not weakened. In the third stage the fibres are weakened and destroyed, and the fulling, washing and gigging produces holes in such places.

Mildew is most frequently found on grey or white cotton goods, and white or light vat blue woollens, to be dyed in the piece or printed, and there it causes great damage by its resistance to the dyes. Even in dark indigo-blue dyed goods mildew sometimes destroys the color. Goods which are dyed upon boiling baths are found to be less liable to mildew, in all probability because the boiling either removes or converts into other forms such impurities as may still adhere to the fibre. In the colors other than indigo the mordants, such as alum, tartar, bichromate of potash, etc., which are used, are preservative. In indigo dyeing the nature of the dyestuff itself promotes fermentation.

Unless goods are washed without delay when they come from the loom or fulling mill, there is danger of mildew. Remnants of suint, dyestuff, oil or dressing, which are some of them natural to the wool and others deposited in the process of manufacture, contribute materially to heating the goods when combined with moisture. If the goods are left in an ill-ventilated place, sometimes twenty-four hours are enough to start the growth of the fungus. It has often been noticed that light vat-blue goods, when carbonized with sulphuric acid, are not nearly so liable to mildew. Carbonizing is strongly recommended, not only as a preventative, but even as a curative operation, as long as the development of mildew has not passed the first stage. Care must be taken not to leave washed cloth for any length of time on the bottom of fulling or washing machines. In many cases the wood in these machines is already in a state of decomposition, and assists in the production of mould spots. In the same way old cloth horses with partially decayed frames are dangerous even to fully cleaned cloth. Cloth manufactured from dirty wool is in great danger after wet gigging, if it lies for any length of time closely piled together. When cloth is wet it is more dangerous to leave it smoothly folded than if it is loosely heaped up.

The action of soap upon fulling cloth is often the cause of as much damage as is that of sizing in crude

material. While the decomposition of the fibre and dyestuff by the soap differs from the production of mould in the first place, yet a few hours storage of fulling cloth will often produce spots of larger size and more injurious character than would be the case in crude cloth. When fulling cloth cannot be placed at once in the washing machine, it should be washed in the fulling machine. The woolen manufacturer should be always on his guard against delays. When they must occur, dry the wet pieces as soon as possible. There is a notion prevalent among cotton manufacturers that mildew stains cannot be removed from cloth with soap and water, and that this may be used as a test for mildew. This is incorrect, as the washing out of mildew stains all depends upon the stage of growth to which the fungus has attained and the looseness and proportion of the size present. Almost any bleaching agent may be used with advantage in treating mildew stains.

STREAKS IN WOOLEN GOODS.

Among the many evils which may arise in the process of manufacturing woollens, injuriously affecting their appearance and finish, the production of a streaky cloth is one of the most serious.

When the streaks are not due to difference in color, the causes often exist in the cloth before it comes to the finisher at all, says the *Textile Mercury*.

Differences in twist, or tension of the warp threads, are fruitful sources of streakiness, and in certain lots of stock may be the most likely causes. The matter of tension, when the goods are being beamed, or woven, will be very apt to cause so great a variation in the face that the fulling will lead to variation in effects. This sort of streakiness will not appear unless it is on a two-and-two twist, or some such class of goods. There the variation will be more apt to cause a shade, when on a solid color, or on an ordinary yarn, no variation would be noticed. If a yarn has any tendency to be unevenly twisted, there is the same liability to streakiness when it gets into the warp. The fulling mill is often the source of streaks. The warp, the flocks, or the mill itself, may be the cause of the defect. If the scap is poured on to the goods from a spout, and the goods allowed to run into folds and remain there during the fulling, streaks will appear. The flocks will act mainly along the line of soaping, and when short fulling with little alteration in position of the goods is given, streaks result. This bunching of the goods or letting them run in folds without frequent opening out, also streaks the goods from the more perfect felting of those parts of the goods which have been most exposed to the friction of the pulleys and the sides of the mill.

In the washers there is very little to fear from this form of defect, if the machine is in good condition. Bad eyes for the cloth to go through, or ruts and grooves in the rollers, must be guarded against. Very often the defects are caused by the careless manner in which the ends are sewn together. A bunchy, bumpy

seam will always tend to produce streaks, not only at the ends of the piece, but at times far up into the goods.

In gigging and steaming the matter of tension calls for special notice. If the cloth is not uniformly stretched, or the roller is at all lumpy, streaks may be expected to show themselves. A knot or nail on the roller may occasion trouble, as it elevates part of the goods, and so makes the spot receive more tension and work than the rest. The brushes must be exactly even, and if at all worn must be clipped level or discarded. The brushes on the press and the shear are often the cause of many defects; an economy which would use them as long as possible is a false one. Whenever this defect appears a careful examination of the whole process of manufacture is sometimes necessary to discover the source; until the exact spot where the mischief has its origin is known, it is useless to think of a remedy.

IN a recent number of the *Dry Goods Economist* there is a sketch of a fanning apparatus for burning sulphur in the bleach-room of a knitting mill. This is not always a necessary adjunct of a bleach-room, and indeed, under ordinary conditions and where pure sulphur is used, such a machine is quite unnecessary, as pure sulphur burns down in a pot without any artificial draught, and when the fumes are confined in a close bleach-room the natural circulation of the warmed air is sufficient.

LISTER & Co., Ltd., Manningham Mills, Bradford, have taken out letters-patent for an improved system of pile cloth weaving, the object of which is to produce, in double-pile fabrics, woven face to face, two or more different lengths of pile, by employing, in addition to the ordinary pile threads, auxiliary pile threads, which are tied into the fabrics, floated on the face for a number of picks to form the required length of pile, and then floated on the back for a few picks. After the ordinary pile threads have been cut, the short floats are cut, and the threads thus freed are brought to the face of the cloth by carding or other means. Instead of forming short floats, the auxiliary threads may be crossed from one cloth to the other, in which case they are cut at the same time as the ordinary pile threads.

THE influence which the structure of the textile fibres has upon the absorption of dyestuffs in the process of dyeing has not yet been fully investigated, but that it is very important may be seen from Georgievic's experiments bearing on this point. He prepared some structureless cellulose from filter paper by dissolving it in Schweitzer's re-agent, and re-precipitating with an acid. A good quality of cotton was employed. On dyeing with pure Benzopurpurine 4B it was found that the cotton absorbed much more dyestuff than the cellulose; of Benzoazurine G there was but little difference in the result. Cotton had a much greater power of absorption for tannic acid than the cellulose. Experiments made with mercerised cotton and mercerised cellulose showed that the former had a greater absorptive power than the latter for coloring matters. Wool

fibre takes up color much more freely than wool powder, while asbestos fibre also takes up more color than does asbestos powder.

SPEAKING of English trade with Newfoundland, a correspondent of the *Draper's Record* writes from Manchester: "Newfoundland seal is rather dear, an English firm having secured the bulk of the catch. There is not much doing with St. John's at present, but merchants there are said to be more careful in their habits than has been the case for a long time past. Local business men are now actually to be seen wending their way home *on foot* at one o'clock for dinner from the Merchants' Hall. The business men of St. John's often had conveyances formerly if they went home for dinner at all. We know some of them in Manchester, and they certainly do not bear the reputation of being strict economists."

AMONGST the quaint customs that have come down to us, none is more interesting than that of making an annual distribution of livery cloth to the great officers of State and other functionaries. A gift of four and a-half yards of the best black cloth is sent to the Lord Chancellor, the Lord Chief Justice of England, the Master of the Rolls, the Lord Chamberlain, the Vice-Chamberlain, the Lord Steward, the Treasurer of her Majesty's Household, the Comptroller of the Household, the Home Secretary, the Foreign Secretary, the Attorney-General, the Solicitor-General, the Recorder, and the Common Sergeant. The Town Clerk receives six yards of black cloth and six yards of green cloth, and his principal clerk four yards of each. There are also gifts to minor officials. The custom, which has just been observed, comes down from the times when the citizens used to wear the cloth or livery of their special guilds or fraternities.

THE American Consul at Bradford has made an interesting report to the State Department upon the production and manufacture of mohair. "The almost unprecedented rise in the price of mohair and mohair products has aroused renewed interest in that lustrous material. In the last few months," he says, "immense fortunes have been made here in the mohair business. The price of the raw material has increased from 28c. to 64c. per lb., or more than 125 per cent.; of yarn (two-fold 32's light grey Turkey mohair) from 48c. to \$1.03 per lb., an increase of nearly 115 per cent., and of the finished product suitable for linings, dress goods, summer coatings, etc., from 17c., 21c., 23½c. and 27c. per yard, a year ago, to about 70 per cent. above these prices. One firm of manufacturers is alleged to have cleared \$5,000,000 in less than five months. Half-a dozen other firms, including spinners and raw material dealers, are reputed to have done almost as well, while merchants and all others who have been in a position to buy or sell the hair, the yarn, or the fabric, have made great profits." The most remarkable feature in the mohair trade is the enormous increase in the production in South Africa. From nothing at all thirty years ago, it has year by year increased, until now the exports from the Cape are

21,000 bales of 450 lbs. each per annum. The Turks also have increased their production very largely. From 1863 to 1873 about 25,000 bales were exported from Constantinople yearly. From 1873 to 1883 about 33,000 bales was the average, while from 1883 to 1893 it was about 40,000 bales. Since 1893 the exports have averaged 42,000 bales yearly. The bales from Turkey weigh 170 lbs. each.

TO PRESERVE THE SOFTNESS OF WOOL IN DYEING.

(Translated from *Leipsiger Monatschrift für Textil-Industrie.*)

Not less important than the quality of the wool itself, and next to the sorting and washing processes, when it is desired to obtain soft goods, is the dyeing operation. It happens occasionally that the properties of the staple necessary for soft goods, as well as its appropriate treatment in sorting and washing, are nullified in the dye house. Too many experiments are now being instituted with large amounts of various kinds of mordants, all of which have a more or less corrosive action upon the wool by making it harsh and brittle, and diminishing its natural softness and pliability, as well as its felting capacity. The strength of the wool is also impaired by these corrosive agents. This can be readily seen in the fulling of the cloths, especially when the felting capacity of the wool used for the weave is to be developed to its highest degree. The fibre having become brittle, can no longer withstand the pressure and strain, as well as the friction of the working parts of the fulling mill, and it will break. These goods, besides lacking in softness and pliability, lose largely in weight in the finishing operation, and the manufacturer, therefore, suffers loss from two sources. The careful manufacturer, who desires to produce such a line of goods, which are at the same time to be exposed to a strong fulling, should remember that cloth which has to resist a strong fulling is not to be treated with such excessive quantities of mordants that softness, pliability and strength are impaired. It is marvelous to what excess dyers will occasionally go in this respect. One dyer recently published a mordanting recipe for black in which he used 24 per cent. of the weight of the wool in mordants.

Another very essential point to observe in preserving the natural properties of the wool after dyeing is the time during which it is left in the mordanting and dye baths while these are at boiling temperature. Finally, it is important to know whether the necessary quantity of mordant and dye liquors is provided for the lot to be dyed in order that it may expand sufficiently in the two baths. Two hours' boiling in the mordanting bath is decidedly too long for the wool, even under normal conditions, and especially when the bath contains an unduly large quantity of mordanting agents. A moderate boiling from $1\frac{1}{4}$ to $1\frac{1}{2}$ hours is amply sufficient for preparing the staple for the subsequent process of dyeing, so that it will absorb the dyestuffs. Too violent a boiling can never result to the advantage of the wool, but will invariably injure it. An insufficient quantity of the liquor will make the staple not only brittle, but cause it to lose its softness, and its felting capacity is materially deteriorated. In the dye bath the wool may be subjected to boiling for about the same length of time that is required in mordanting, but it is obvious that this general rule must often be departed from. When dyeing to the shade of a given sample, additions to either the one or the other dyestuff cannot be avoided. When forced to do this, even though the extra boiling be ever so short, it must be continued until the added dyestuff is fixed on the fibre. If this subsequent boiling is done moderately, it cannot greatly injure the wool. Prolonged boiling evaporates the dye bath, and since the dyer is apt to concentrate his attention on the shade to be produced, he may overlook this fact to the detriment of the wool.

Regarding the different working arrangements of the dye house, the oldest system of heating, the open fire, might be considered one of the most rational, though it is inferior to steam heating. The wool, if correctly treated, remains soft and open—a feature frequently wanting in that treated by direct steam heating, since the

portions of the wool lying nearest to the steam feed pipe often become felted by the action of the steam.

The direct steam heating system possesses one merit, that the dyer is able to regulate the boiling in the kettle or vat to a nicety; but this, however, does not prevent the felting of the wool. This system of dyeing gave way, however, to that of indirect heating with steam, by which the direct contact of the wool or material to be dyed with the heating steam was avoided. In kettles this heating is obtained by using a false bottom, between which the steam exerts its heating effect, and in vats by a finely perforated copper sieve bottom, which is placed over the heating coil, whereby the wool is protected almost entirely from the action of the entering steam. This last system of indirect steam heating may be considered as the best in general use. Although Obermayer's system, which was introduced a few years ago, may justly be regarded as superior, it has not been adopted extensively. The cooling of the wool at the right time after it issues from the mordanting or dye bath, is an important point to observe. As soon as the wool has been withdrawn, the dyer's first care must be to drain it as quickly as possible from the dye liquor, which is best done by placing the baskets high and upon their lower edge. When no more liquor drips off, the baskets must be emptied at once and the wool drawn apart with hooks, so that it will cool well and quickly. If this is omitted, or if the wool is left in the baskets, dry vapors will develop in the hot wool which have an injurious effect upon the softness, elasticity and strength of the fibres, and produce that condition generally designated as "burned or scalded." It is correct to let the mordanted wool cool for twenty-four hours before it is entered into the dye-bath, because the prolonged influence of the mordanting agents upon the staple will better prepare it for the reception of the dyestuffs than when it is entered immediately after coming from the mordanting bath. It is all the better if the mordanted wool can be spread out to permit the admission of the air to every fibre. Dyers should lay due stress on this, because it is of great assistance in the preparation of the wool for the actual dyeing process.

MOVEMENTS OF TRAVELLERS.

Among the recent arrivals in England of travellers in the dry goods and kindred trades, are the following: A. H. Hardy and W. Greenshields, Greenshields, Son & Co., Montreal; William Kisson, Caverhill, Kisson & Co., Montreal; G. A. Woodhill, Kenny & Co., Halifax, N.S.; H. J. Caulfeild, Caulfeild & Co., Toronto; H. L. Smyth, H. L. Smyth & Co., Montreal; F. X. Garneau, P. Garneau Frères, Quebec; James Slessor and his son, W. P. Slessor, James Johnstone & Co., Montreal; E. St. Pierre, Thibaudeau Bros. & Co., Quebec and Montreal; E. Guiguère, Shehyn & Co., Quebec; J. Daoust, Montreal; John Lillie, Wyld, Grasett & Darling, Toronto; Henry Macartney and V. de V. Dowker, Gault Bros. & Co., Montreal; George Kent, McMaster & Co., Toronto; J. E. Bizzoy, Knox, Morgan & Co., Hamilton; A. J. C. O'Brien, Toronto.

The following departures for Canada are recorded. J. Sander-son, John Macdonald & Co., Toronto, Thomas Alison, Toronto; A. Hewat, McMaster & Co., Toronto, A. Murray, A. Murray & Co., Hamilton, R. Ackerman, L. A. Brais & Co., Montreal; J. T. Donnelly, Montreal; J. W. Reid, Ottawa; G. H. Smith, Manchester, Robertson & Alison, St. John, N.B.; T. Bilsbury and W. E. Williams, Canadian travellers for Rylands & Sons, Manchester.

Several dry goods travellers were on the steamer "Mariposa," which was wrecked in the Straits of Belle Isle, but were picked up and taken on to England by the "Sardinian."

LATF reports from Batley, Yorkshire, state that the cloth manufacturers there are well off for orders, some firms having what will keep them going for six months, and others well into the next year. Two large manufacturing premises, which have been standing idle, have found new owners, and are expected to be soon set to work again.

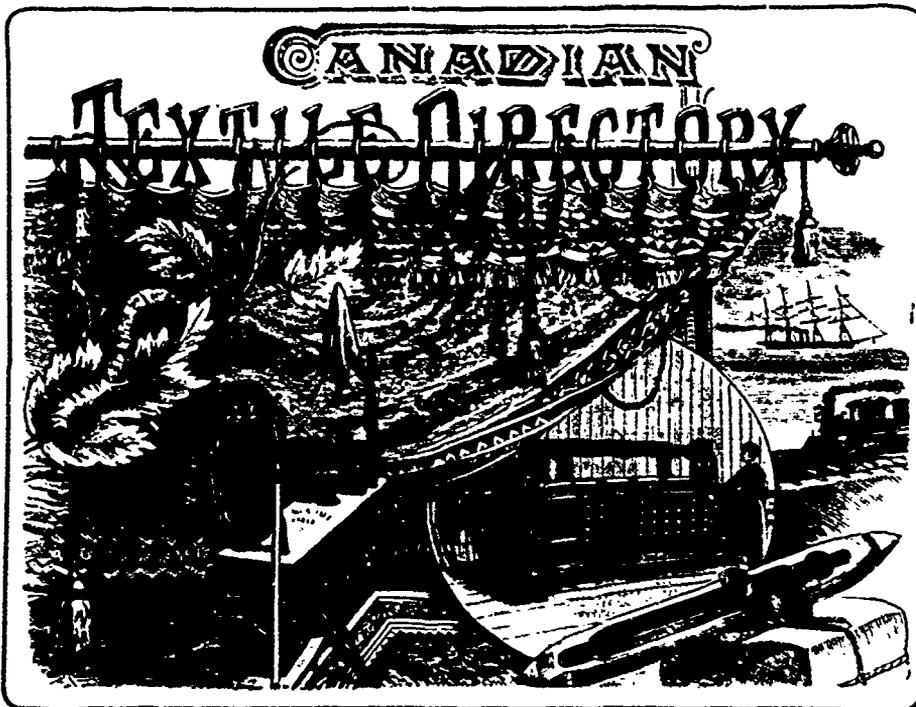
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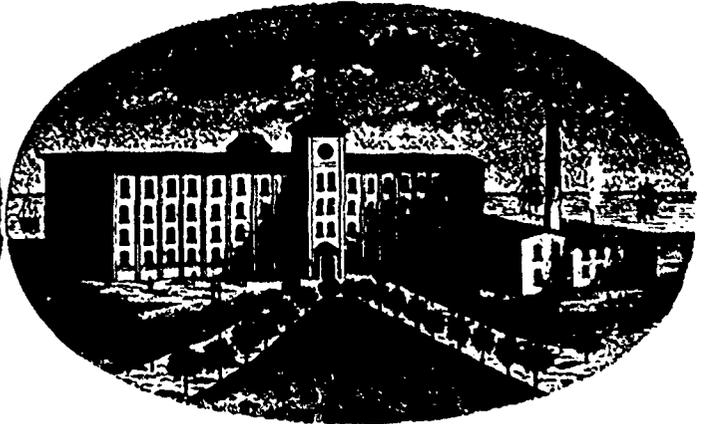
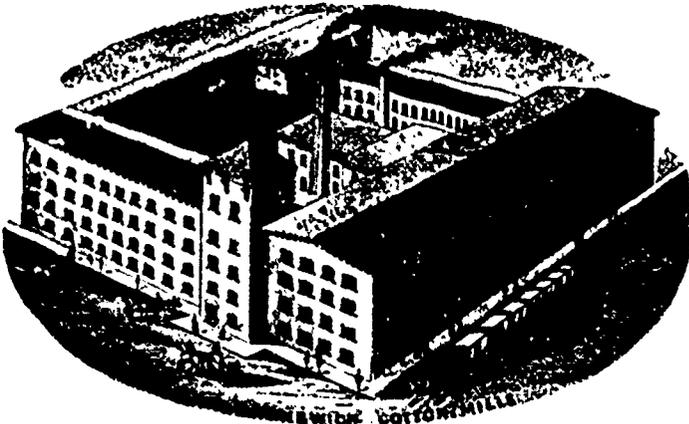
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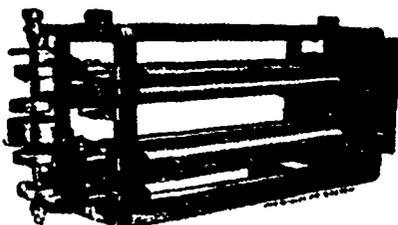
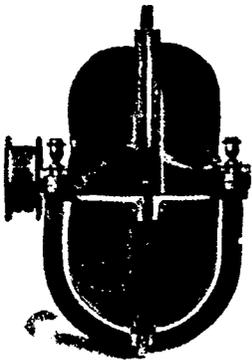
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Foreign Textile Centres

MANCHESTER.—The cotton market presents at the moment a perplexing appearance. Although continuing to rise in value, it is subject to sudden fluctuations. One day the Agricultural Bureau furnishes an alarming report as to the condition of the growing crop; the next, private advices of an entirely different nature are to hand. Meantime, the small daily port receipts are the one fact in evidence, and, as a consequence, advancing prices. Cotton is now nearly 50 per cent. dearer than in the early part of the year, and many here believe in a still considerable advance. These remarks, of course, apply only to American cotton. Egyptian continues to decline under the influence of the approaching new crop. Other descriptions are firm, but call for no special remark. The trade here, both in grey cloth and yarn, continues in an unsatisfactory condition. Undoubtedly more business has been put through lately than producers are willing to acknowledge, but much of it has been profitless. The Bombay trade continues depressed, and shipments to that port are reduced, but other centres increase their purchases. It is encouraging to note our larger trade in yarns to Germany and other Continental sources. Unquestionably, Lancashire has not yet participated to the extent of Yorkshire in the improved commercial situation, yet probably the situation here is by no means as bad as our market reports would cause outsiders to believe. Signs of improvement are not wanting. Some of the Lancashire manufacturers are engaged on fancy goods for the United States, and find themselves unable to accept all the business offering. This is not an unremunerative trade, but is unfortunately in few hands.

MACCLESFIELD.—Some sections of the silk trade are much more promising than others. The Macclesfield Silk Manufacturing Society, a concern conducted on co-operative principles, is advertising for inside weavers, and promises regular employment. French, Swiss and German makes of silks are so well ordered that producers are able to go on for some time to come, looms being well engaged. Even locally—that is, in the Macclesfield as well as in the Manchester district—manufacturers have taken heart, and weavers are in great demand. It is unfortunate for weavers that silk is such a season trade, with periods in which there is no happy financial medium, work being either too plentiful or too scarce. The average earnings of silk weavers in the North have for years been very low, and the *Drafter's Record* correspondent says their income during the course of the year seldom exceeded £35. This refers to the earnings of men who are heads of families. At present, however, trade is fairly brisk and dyers are well engaged. The buyers also are to come in force, and gladden the silk mills of the district with their presence; but some persons have been frank enough to suggest that the only way to build up trade is for the seller to call on the consumer. A meeting has been held at Macclesfield to consider the replies received to a circular recently sent to twenty-four leading distributors of British silks. The circular, signed by Thomas Wardle, as president of the Silk Association, asked for the opinion of its recipients as to the advisability of a conference between manufacturers and distributors. Of the twenty-four whose opinions were asked, seven replied in favor of such a conference, while twelve were of the opinion that no useful end would be served. From five no replies were received. In view of the fact that so few reported in favor of the conference, and that the other silk centres, such as Leeds and Congleton, were also opposed to the idea, the meeting at Macclesfield resolved that the whole matter had better be postponed.

BRADFORD.—The *Drafter's Record* correspondent says: The business in Merino wools, which now forms so large a part of the Bradford trade, is always quiet for a few days previous to the opening of a sale of colonial wool in London. Even after the sale has commenced the first week has to elapse before a standard of prices can be fixed. The opinions of the course of the present sale are endless, but it is generally acknowledged that unless an advance of nearly 20 per cent. on the close of last sales is established, the

prices current in this market will not have been sustained. At the present sales about 240,000 bales are to be offered, which is as near as possible the same quantity as was put up at the corresponding sales a year ago. The terminal market in Antwerp may usually be considered as a fair indication of the feeling on the continent. Prices there show much fluctuation. Figures during the recent excitement had attained quite an unjustifiable height in comparison with Bradford, and the weakness displayed in futures may only have meant that the market was expected to come more into line with the quotations for the better class tops made here. The prices for all classes of English wools are gradually hardening but the greatest interest is still taken in wools of a lustrous character. Although there has recently been little business doing in mohair, the prices at the source of supply are again quite dearer, and a thousand bales of alpaca realized a few days ago the top price of 2s. 3d. per lb. In yarns there are large offers for coating purposes at slightly under to-day's rates, which will probably be got through if the sales do not open excitedly. There is also a good deal of business coming from the continent in serge, warp, and welt yarns, but some of these have limits for price and time of delivery, which prevent them being delivered. There are still inquiries for bright yarns of both alpaca, mohair, and lustre for wets from the continent, but at present the spinners here seem unable to supply the demand from the Bradford manufacturers. In the piece trade the greatest attention is being paid to bright goods, and, as might be expected after the late sharp rise, prices are very irregular. Merchants, as a rule, have contracted for all they can get from manufacturers, and have already placed the greater part of this supply either with the home trade retailers, or with shippers to the continent, the United States or South America. In addition to the plainer makes of bright fabrics very beautiful specimens are being made, some showing great taste, and a novelty quite apart from the old-fashioned jacquard alpaca, etc. In worsted coatings the inquiry for the United States and other markets shows no signs of falling off, although I am told that orders for the American market are being kept back rather than pay the extreme quotations of to-day. In the alpaca serge lining department the latest advances are also unobtainable.

LEEDS.—The Leeds clothing business continues fairly active, as, in addition to the improvement in the home trade, better orders for shipping are coming to hand. Travellers report stocks in the country unusually light, and retailers are in much better spirits, on account of the good harvest weather, and the signs of improvement in the iron and coal trade. The heavy woolen districts also continue unusually busy, and most of the leading Dewsbury and Batley mills are running all possible overtime. Low and medium presidents and serges sell well in the home trade. There is a revival in the demand for backed worsteds for shipping. A few years ago very large quantities of these goods were consumed. Although there are hopes of an early settlement in the carpet weavers' wages dispute in Dewsbury, a settlement has not yet been arranged. During the week a few weavers have left work in Yeadon and Shipley on a refusal to grant them an advance of wages. There is a particularly good sale for fancy rugs and sealskins. Could merchants only give the advances asked for new blanket orders, business in that department would be very good. In flannels there is a fair demand, especially for Yorkshire whites. The machinery is running full time. The fight for advanced prices is, however, coming more to the front every day, and in many cases causing orders to be held in abeyance pending the fixing of prices from the London sales.

HUDDERSFIELD.—Trade in Huddersfield continues good in all branches, and the volume of the general exports increases. In view, however, of the loss to the district of the manufacture of low worsted on account of the non-adoption of the two looms to a weaver system, several conferences have been held between representatives of the masters and men to try and arrange for the system in special departments of the trade.

DUNDEE.—The Dundee jute trade remains steady, and values are well maintained. Some further business in Ralli's jute has

been carried through, including R F D at £8 17s. 6d., and rejection at £7 17s. 6d., September; also in S B at £8 15s., October. The higher rates now quoted for jute yarns are restricting sales, but common worsted are wanted and very stiff; 1s. 3d. has been paid for 8 lb., rising 1½d per lb. per spindle. Warps are selling at 1s. 3½l. for medium and up to 1s. 4d. for good color and spin. The inquiry for hessians is less active, but values are maintained. For 10½ oz. 40 in., 1½d to 1¼d. is being paid, and 1¾d. for 8 oz. goods, and on basis of 1¾d. for wide floorcloth qualities. Flax moves slowly from day to day in small lots for special purposes and prices can hardly be fully tested, and may be said to remain normal. Reports to hand from the different Russian markets regarding the new crop are generally favorable, and there are indications of a good supply of flax. Yarns continue in fairly good demand, and prices are firm, but it may be that hardly so much business is being carried through, as manufacturers appear slow in responding to the advanced prices, and this may have the tendency in limiting sales. Linen goods are again reported a trifle firmer, and manufacturers continue to speak more hopefully of their end of the trade, buying becoming more general and of greater extent, both for home and export. In the south of Scotland makers are well employed, and in some cases are working overtime or putting in more machinery to keep work for ward.

BELFAST—The trade in most branches of the linen business shows a steady improvement on that of the past few weeks. The shipping trade is well sustained, orders being received on a satisfactory scale from the American, Colonial and Continental markets. The West India trade is still very dull, but there is a marked increase in the amount of orders from the home trade. Prices are firm all round. For some classes of heavy goods, such as dowls, higher prices are being quoted, and some sets of bleached linens are the turn dearer. Higher prices are being asked for brown Ballymenas. For union pales, union crashes and towelings, etc., there is a brisk demand, and the prices have a distinctly upward tendency. The manufacture of hand-loom linens in the South of Ireland seems to be growing steadily. This trade may be said to have been begun at Skibbereen through the action of William Ewart & Sons (Ltd.), Belfast, in presenting looms to the Convent of Mercy at Skibbereen, and sending up capable instructors, with the result that the pupils have become good and skilful weavers. Looms are now being put down at Rosscarberry, Co. Cork, and schools and a weaving factory are being erected through the agency of the parish priest and the nuns of the Convent of Mercy there. The movement is worthy of the hearty support of the commercial classes of Ireland. Almost all classes of cotton goods are steadily advancing in price, although prices obtainable for cloth so far do not show an increase proportionate to the advance in cotton and yarns in the Liverpool and Manchester markets. Whatever the cause of it may be, the advance in the cross-channel markets has been considerable, and, to all appearance at least well established, and reluctant as buyers on this side have been to pay advanced rates, they have been compelled to some extent to follow the market. In the local warehouses a fair business is passing in heavy cloths, and orders for future delivery are freely placed where any slight concession from full current quotations can be made. In the finer end of the trade an average amount of orders have been put through, but some considerable contracts have had to be refused, especially in coarse reeds and American worsted goods, on account of the advanced rates demanded by makers. A moderate trade is passing in warp yarns, prices showing a further fractional advance.

PLAUN—Advices from Plauen state that in lace goods there has been little development during the past few weeks, business being without animation. For embroidery goods there is a fair demand, especially for cambric and madapolam embroideries. A good business is being done in curtain laces, although in very hand-to-mouth fashion. The makers of English curtains are meeting with a fair number of inquiries. Generally the curtain business is good, and it is quite likely that some of the works will have to be enlarged.

LYONS—The demand for silk goods on advance orders for fall

and next spring has been so good during the summer months that a little halt before the opening of the consuming season is only natural. The market has been less active, but business has by no means been at a standstill, as the demand for fall requirements has kept up fairly well, supplemented by a goodly number of spring orders. Advices from Paris are of a very hopeful character, and Parisian buyers have been ordering warp-printed silks, armures, damasks, plain and printed velvets, etc. London buyers are less sanguine, and business in that market is not yet very brisk, although orders are being received for novelties in small lots. If, as is likely to be the case, the demand for warp-printed taffetas increases, manufacturers will find it hard to fill all the requirements. Among the goods that are being manufactured are included all kinds of fancies with printed-warp combination, satin de Lyon, duchesse, Pékin taffetas, black and colored damasks, plain taffeta and faille.

CREVELD—Wholesale buyers have been operating on a better scale, but retailers, having done but little business for fall, are not calling for large quantities of goods, and the reassortment demand from that quarter is therefore small. The warm weather has interfered with fall consumption and this is felt by manufacturers who have received few supplementary orders for fall. Plaid effects in velvet are favored for blouses. A larger consumption of plain velvet and plushes is also likely to interfere with that of piece silks. But nothing interferes with the good prospects for next spring, and the slowness of fall demand makes the better outlook for next season still more noticeable. Some orders have already been placed for next season, and more will follow. Manufacturers continue busy, and the slackness in dress silks is made up by a better production of tie and umbrella silks on orders already secured. This will keep the looms well employed for some time. Jacquard effects and small figures in tie silks have been favored. Ribbons continue in good demand at firm prices. Velvets sell well in plain as well as in novelties. Mantle plushes are in regular movement.

ZURICH—More business is being done in silk goods, but the actual fall demand has barely started, although there are a number of buyers in the market. Representatives of English and German houses have been here, but have paid less attention to fall goods than to spring orders, having done business preferably for next spring. The higher raw material is likely to cause a further advance in goods, and it is likely that manufacturers will advance prices as soon as greater activity in the fall demand makes this step advisable.

OLDHAM—The cotton trade in the district is in anything but a satisfactory condition. Two strikes have been settled this week, and two others are still existing. A good many spindles are stopped, both on American and Egyptian yarns, and there are no signs of them being re-started. Other firms are contemplating stopping machinery. Money is being lost, and the companies taking stock at the end of this month are expecting to present unfavorable returns. "Almost everyone in the trade," according to our correspondent, "is taking a gloomy view of the cotton industry." The Chairman of the Commercial Mills Co., at the last quarterly meeting, in commenting upon the state of the cotton trade, said it was in a deplorable condition, and Oldham was no better situated than its neighbors, the margin being such that the company could not avoid making a loss. During the quarter the directors had thought it essentially necessary to keep their machinery up to the mark, and had therefore been compelled to spend extra money and to have a portion of the mill stopped. In answer to a suggestion to stop the mill rather than lose on an average £75 per week, the chairman said "we cannot stop under £1,500"—presumably a loss of £1,500 for the quarter.

NOTTINGHAM—Silk veilings with chenille spots have been moving more freely. The demand has been principally for black and colored spots, with a few white goods, and, notwithstanding the keen foreign competition, the sales have reached a gratifying total. The business passing in silk laces is not of any considerable amount, and silk tulle are both slow of sale and unprofitable to manufacturers. Makers of certain specialties in Valenciennes have been doing well, both in narrow edges and insertions, and in laces up to

eight or ten inches in width. The favorite colors continue to be butter and ivory. Irish guipures and other laces of the same class appear at present to have quite lost their hold. Cheap qualities of Maltese, Torchon, Bretonne and Brabant laces are selling for special markets for assortments and for making-up purposes, but the sales are not sufficiently large to keep all the machinery employed. There is only a limited inquiry for muslin laces, Point de Paris and Broderie Anglaise. Surprise has been evinced at the diminished demand for Swiss embroidery, beau-ideal and everlasting trimmings for underclothing, and there is but little encouragement to produce novelties in these goods. Irish trimmings and crochet laces are at present slow, but shipping orders for a moderate amount have been placed for delivery later on. There is a fairly good sale for specialties in Honiton braids, beadings and purils. The hardening yarn market is having an effect on the prices of brown cotton nets, which are firm. Stiff foundation nets are being superseded for some purposes by cheap buckrams, and as a consequence they are only in limited request. The demand keeps steady for certain classes of bobbin nets. The machinery for producing these goods, however, is not kept fully employed. Prices for mosquito, corset and antique nets remain firm at recent quotations, but these goods are not in full request. Business has scarcely started yet for the current season in lace curtains and window-blinds. The new designs in many instances are out, and, as many of them display novel features, there is every possibility of trade being brisk in this department ere long. At present the demand is not sufficient to keep either the machinery or finishers fully employed. Hosiery goods, on the whole, continue to sell well. Black merino stockings are moving freely, and there is a demand for colored goods and fancy half-hose. There are many pretty designs in chevroned stockings selling, and manufacturers are constantly endeavoring to produce something fresh in these goods. Natural wool vests and combinations still sell in large quantities, and prices are firm. White merino and pure-wool vests are also in request. Cotton stockings and socks are somewhat slow, but there is a moderate demand for larger goods. No improvement is perceptible in the glove branches, which are not in a prosperous state.

LEICESTER.—Foreign competition in our branch of industry was never felt more keenly than it is at the present time. Foreign-made hosiery is finding its way into all parts of the world, and is even offered in competition with our own goods in our own markets. We have already felt the keen competition of our German neighbors, notably in cut goods, fancy and cotton hose departments, and though the majority of the latter class of goods made in Germany are shipped to America, in case of a falling off in that market, we shall find them here in larger quantities. Our English manufacturer does not readily appreciate the present conditions of trade, where all markets are competing for the trade of the world. Not a few look somewhat with disdain on the foreign manufacturer, but the vast strides Germany has made in hosiery manufacture would surprise them. The most improved machinery being at work, many of the finest grades of goods are produced. Especially noticeable is the quantity of fancy ladies' hose in lace work, diamonds, etc., in very fine gauges, such as are notably produced on Paget & Cotton's system of rotary frames. The German manufacturer is not only a man of business, but also a man of enterprise, ever ready to study the wants of those particular markets he is supplying, and to provide for those wants as far as he is able, however much that may inconvenience him for the time being. In a conversation with an American buyer this character was fully portrayed, in the case of ladies' cotton hose, which, to suit the particular habits of the American ladies, required to be much wider than our English goods. This was pointed out to the English manufacturer, but before he was ready to alter his particular styles the German manufacturer had made his samples and the orders were placed. Another instance of a similar kind came under our personal notice, where an article of German manufacture, on being shown to a buyer, was not exactly as he would wish. The required alteration being pointed out, no further comment was made, and a new sample with this alteration was submitted in a few hours, and the orders taken. The apparent aim of the German

manufacturer is to suit the purchaser, and of this we would advise our English manufacturers to take note. We may look forward in the future to a large trade in hosiery manufactures being done in the different parts of America. Every mail brings word of the opening of new knitting mills, or of additions to already existing ones, and though they are at present only largely employed in seamless stockings, and lower grades of rib and plain underwear, they are daily advancing in the manufacture of better class goods.
—*Knitter's Circular*

KIDDERMINSTER.—The *Shuttle* says that the general outlook of the local carpet trade is more hopeful, and the reports to hand inspire confidence in a coming revival. At a conference between the manufacturers and the carpet weavers of their recent difficulties the following rules were unanimously agreed to. (1.) That overtime to be worked by any firm shall not exceed fifty days in one year, the extra time worked shall not exceed two hours per day, but this rule shall only apply when more than four looms are run. (2.) That no overtime be made on Saturdays. (3.) That any firm desiring to work overtime under Rule 1 shall give ten hours' notice to the local secretary upon the firm, stating the time such overtime will commence and the probable duration of it. (4.) That where not more than four looms are run, and they are intended to run later than eight o'clock, a fresh weaver shall be put on after 5.30. Weavers on the firm wholly at play shall be preferred for doing the work. The same principle shall apply to looms run during meal hours. (5.) The rules shall come into force on October 1st, 1875, and be tried for twelve months.

SOUTH OF SCOTLAND.—The wholesale drapery trade of Glasgow is reported fairly active. South of Scotland tweed manufacturers report that good orders for next season are being booked. A fair business is being done in repeats. The demand for worsted cloths is still large, and makers engaged in this branch are exceeding their loom power. Spinners are fairly well employed. Good trade has been done in wool. The Kirkcaldy linen industry is satisfactory, home and foreign demands being encouraging. The floor-cloth and linoleum factories are moderately busy, and the outlook is considered hopeful. The Glasgow wool market continues active, and the demand for all classes is becoming more pronounced. Half-breds and crosses are all but cleared out, and cheviots—which form the bulk of whitefaced stocks—are rather more inquired for. Well-grown clips of blackfaced are in request, and of these a considerable quantity has been taken up by home buyers. The cotton market at Glasgow is fairly active, and prices show an upward tendency. Buyers are refusing to place orders ahead, and small lots only are at present being taken. In the Angola yarn trade all kinds have been advancing, and there is a confident feeling that values will go still higher.

BERLIN NOVELTIES.

Manufacturers of silks are doing their best to get all the advantage which fashion can give them for next season. Light colored taffeta grounds, plain or changeable, are principally shown for the coming spring.

The cashmere effect on light grounds prevails, and palm designs and cashmere arabesques are being made on grounds of white, straw yellow, corn yellow, gray blue and cornflower blue. Persian and Moorish designs in bright color arrangements are also seen.

Chiné effects are produced in large patterns. Flower designs are not used exclusively on these, and other figures are also made in warp-printed effects, principally on a light-colored foundation.

Large plaids with warp-printed designs, or crossed with wide stripes and plaids with designs in flowers and blossoms in the large squares, are seen.

Fluted stripes on light-colored grounds are made in tasteful combinations. Thousand-stripe effects crossed by wide colored stripes are shown in various arrangements on taffeta grounds.

New color combinations for changeable and chameleon taffeta are numerous.

Swivel effects in gros de Londres show very small flower effects, while other patterns are in large flower bouquets.

Changeable armures with small and large designs are also shown for next spring.

In printed effects on Japanese silks, on surah, on satin Liberty, etc., are seen almost exclusively cashmere designs, the grounds being either plain or gaufré.

Printed plissé goods are so embossed as to produce a shaded effect. On elegant grounds, bouquet patterns interwoven with narrow garlands of forget-me-nots produce a very attractive effect.

Epin-lés in warp-printed effects with flowers, cashmere, plaids, etc., are represented in next spring's collections.

Among other novelties are opera cloaks which have been made for this season in liberal variety. One model is made like a circular with deep folds in the back. A shoulder cape with round flat collar and ruchings in the neck is open in the centre back. It is bordered with ostrich feathers, and the same trimming is on Stuart collar.

The material for this garment is a light-weight wool in delicate shades of red, terra cotta, sky blue, grenat, cherry, héliotrope, réveda, brown, etc. The lining is of satin.

Another garment of dark blue material has loose Empire folds at the back, and a double shoulder collarette, the lower cape of which is round and falls in folds. The upper cape is flat, without folds, and has a Vandyked border. This cape is trimmed with colored bead embroidery and has along the edge swan trimmings or feathers. The Stuart roll collar is also Vandyke bordered, and is trimmed with a feather boa inside.

Another model has a close-fitting back on which a double Watteau fold about six inches wide falls loosely and becomes wider towards the bottom.

The cape collar, which reaches over the shoulders, is in one piece with the Stuart collar, and is open at the back. This collar is bordered with fur or feathers, and in the better garments is trimmed with fine bead embroidery and lace.

Simpler models are close fitting in the back with deep fan folds. A double shoulder cape is in bell-like form. The round collar and the front parts are trimmed with cheap coque's plumes.

Capes of wool crépon with woven lining back find ready buyers. They are about 28 inches long and have an underpart or vest with feather boa.

Other makes have a double edging of feathers, with a feather ruche on the collar combined with bows of ribbon.

A well-trimmed plush cape is 24 to 26 inches long, with trimming of narrow bead galloon arranged in stripes running up and down to form small triangles. The cape is bordered around with feathers, has a feather neck ruche, and below this in the back a large ribbon bow.

In jackets shorter forms, 26 to 28 inches long, are liked. These have revers and are trimmed with a velvet collar only, being close fitting at the back and loose fitting in front, with double row of buttons.

The leading Berlin milliners are now showing their latest models. Contrary to expectations the forms of these are more within the limit of medium sizes than large. This is on account of the way the hats will be worn this winter.

While formerly the round hat was placed more on the back, leaving the forehead free, fashion now demands that it be placed as much as possible in front, shading the face. For this fashion chenille braidings and velvet hats are well thought of. The front and side brims in a large number of models are slightly bent backward.

Many hats are trimmed with velvet. Silk ribbon is also a favorite trimming for hats, black and colored satin being preferred. Black ostrich feathers and aigrettes are also used for this purpose.

— Correspondence of *N Y Dry Goods Economist*.

MACKAY BROS., dry good dealers of Rat Portage, are giving up business at that place and moving to Winnipeg, where they have taken in J. Norris as a partner. The new firm has bought the dry goods stock of J. Armington & Co., Winnipeg.

LITERARY NOTES.

Captain Alfred J. Mahan, who has recently won high honors in Europe, and who is considered one of the foremost naval tacticians in the world, has written four papers, which will shortly appear in *The Century*. These are studies of the naval engagements which gave Nelson his fame—the battles of Cape St. Vincent, the Nile, Copenhagen and Trafalgar. Recently there has been a marked revival of interest in the romantic career and the heroic achievements of Lord Nelson. This has been emphasized by the sale of the medals, decorations and personal relics of the great commander by the impoverished representative of his family. From the rating of Captain Mahan's book, "The Influence of Sea Power on History," it is not unlikely that his conclusions in this series may be accepted as the final estimate of Nelson's genius in naval warfare.

The September number of the *Canadian Magazine* is a very bright one; in the twenty-two articles and poems, besides miscellaneous notes, the reader will find all the variety he seeks. Among the contributors to this number are Robert Machray, W. E. Edmonds, O. A. Howland, R. Gourlay, David O. Lewis, Thos. O'Hagan, Stuart Jenkins, A. C. Galt, Jas. B. Peat, W. A. Sherwood, Hector Charlesworth and others. Mr. Howland reviews Mr. Hopkins' life of Sir John Thompson, and Mr. Peat criticizes our banking system, maintaining that Canada's weakness is a lack of cash reserves. Mr. Galt gives facts to ponder on in his contribution, "The Financial Incidents of War." We understand that John A. Cooper, late with the J. B. MacLean Publishing Co., has been appointed editor of this magazine in succession to J. Gordon Mowat. Mr. Cooper will soon make his presence felt in his new field, for he is a young man of more than ordinary ability. He took a brilliant course in the University, and is a B.A. and LL.B., and the work he did while with the MacLean Company showed him to be possessed of great industry and enterprise, as well as of good administrative capacity.

Le Prix Courant, of Montreal, has last month issued a special autumn number to celebrate its ninth anniversary. The issue is a very creditable one, and is covered with an artistic picture cover done in blue and pink, and representing the bountifulness of autumn.

The J. S. Robertson Co., 86 Bay st., Toronto, has issued a bright little journal, *Business*, which is going to be a welcome monthly visitor to many Canadian offices and business places, or we are no judge of appearances. It is specially devoted to the subject of advertising and office work.

With the October number *The Century* closes its twenty-fifth year and its fiftieth volume, but, notwithstanding this rather venerable age among magazines, its contents show youthful vigor and a particular timeliness. This month marks the centenary of Keats, and there are several articles on the poet. There are also several tributes to E. J. Glave, the young explorer who died a few months ago in Africa, where he was conducting an investigation of the slave trade in the interests of this magazine. Professor Cesare Lombroso has an essay on "Nordau's 'Degeneration': Its Value and Its Errors," in which he takes exception to many of the conclusions of his follower. He differs from Nordau mainly on the question of genius, citing the case of Wagner, of whom he is evidently an admirer, at some length. There is a study of "The Marriage Rate of College Women," by Miss Millicent W. Shinn. It is reinforced with carefully compiled statistics, and is in line with recent discussion. Besides the concluding chapters of Marion Crawford's dramatic novel, "Casa Braccio," the fiction of the number is contributed by George A. Hibbard, Ruth McEnery Stuart, and George Wharton Edwards.

The Cotton States and International Exposition number of *Traffic* (Burk-McFetridge Co., Philadelphia) is a handsomely illustrated journal of some forty pages. The original and selected articles present a wide variety of information, and some of the figures given about the industrial progress of the South are astonishing.

We have received a copy of "Essai de Bibliographie Canadienne," by Philéas Gagnon, Quebec. Mr. Gagnon's work on

Canadian books makes a volume of 800 pages, and contains a brief account of over 5,000 books, pamphlets and prints relating to Canada, all being from the author's own library. Mr. Gagnon is a comparatively young man, a merchant tailor of St. Roch's, Quebec, who in his spare hours has devoted himself to the collection of books and the study of Canadian literature. In the 3,000 odd works he has collected, he has been fortunate enough to get some of the scarcest of Canadian books, and the catalogue before us gives a brief comment on most of these books. His notes and comments show him to have gained a wide range of knowledge relating to the books and pamphlets treated of, and indeed the information Mr. Gagnon possesses regarding the printing and authorship of many of these early Canadian books is more accurate and extensive than that of any collector in the Dominion. Mr. Gagnon took up this work as a labor of taste and love, and his achievements in this field show what the talent, industry and perseverance of some of our French-Canadian fellow-citizens can accomplish. Mr. Gagnon started without any wealth or outside aid in his business, and what he has achieved in his literary studies in spare hours is all the more creditable to him.

DRY GOODS IMPORTS

The importation of dry goods into Canada during the year ending June 30 shows a noticeable decrease. The dutiable goods imported are as follows:—

	1891.	1895.
Cotton, dyed	\$1,997,089	\$2,390,933
Cotton, not dyed	354,137	405,097
Cotton clothing	342,864	362,018
Cotton, thread, yarn, etc.....	190,168	223,512
Cotton thread on spools	255,879	322,981
Cotton, other manufactures of..	879,098	579,569
Bracelets, braids, fringes, etc..	953,539	755,070
Laces, collars, nettings, etc....	616,501	547,859
Other fancy goods.....	264,376	338,960
Furs, manufactured	714,619	569,317
Hats and caps, felt, silk, etc....	714,661	746,581
Hats, other kinds	495,036	445,273
Silk, manufactures of	2,486,170	2,217,221
Carpets, Brussels and tapestry.		713,766
Clothing		817,589
Cloths, worsted, etc.....		2,550,727
Dress goods		2,769,849
Knitted goods.....		390,067
Shawls		91,459
Yarns		133,706
Other woolen goods	9,482,834	474,780

It will be seen that in cotton goods only was there an increase in value during the last year. The value of raw materials imported shows an advance over last year of about three quarters of a million dollars. The details are:—

	1894.	1895.
Cotton waste.....	\$291,455	\$300,725
Raw cotton.....	2,610,538	3,226,467
Fur skins, undressed.....	627,678	510,244
Jute cloth and yarn	298,813	362,369
Silk, raw.....	482,289	632,253
Hemp, sisal, etc.....	203,063	130,726
Wool	1,085,254	1,142,467
	\$5,599,090	\$6,305,251

An interesting article on "Factory Inspection in India and England" appears in the *Indian Textile Journal* for August. The writer, an old Anglo-Indian, recounts many amusing expedients adopted by manufacturers in this country to hoodwink Her Majesty's inspectors. The most ingenious dodge the writer remembers, was where a few boys under age, employed in a cotton mill, were put in bags, kept ready for the purpose, and slung to the ceiling while the inspector was busy making inquiries of the older hands whether any lads were employed on the premises.

Textile Design

CHEVIOT BASKET WEAVE.



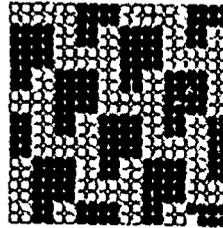
Complete weave. Repeat 6 x 6.

Warp—5400 ends face warp = 2/50's worsted, dark shade; back warp = 17 cut, 12 or 18 harness, straight draw.

Reed—12½ x 6 = 72 inches wide in loom
Filling—70 picks per inch; face fulling = single 12's worsted; backing = 12 cut.

Finish—Shrinkage at fulling, 8 per cent., rough finish; 58 inches wide.

COATING.



Complete Weave. Repeat 90 x 90.

Warp—3,250 ends, 2/16 cheviot worsted (vigoreaux yarn), 20 harness straight draw, or 10 harness two ends to the harness straight along.

Reed—12½ x 4 = 65-inch wide in loom.
Filling—50 picks per inch, the same yarn as used for warp.

Finish—Full, shear and press.

THE SERBIAN CARPET INDUSTRY.

In the manufacture of Oriental carpets at Pirot, near Belgrade, the women who do the weaving have no drawings to help them, but evolve the designs out of their own minds as they work, mirroring the figures as memory, tradition or imagination suggests. The result is not unlike tapestry, only in the Pirot carpets the colored woolen thread is always laid horizontally over the colorless vertical warp, which it, of course, conceals. In tapestry the colorless groundwork consists of a weft as well as a warp, and the colored wool is drawn over both vertically and horizontally. Thus in tapestry we have minute squares of color, whereas in the Pirot carpet we have the color lying in horizontal lines. As the groundwork of tapestry is divided into small squares, the details of the design can be measured out with mathematical precision. Therefore, in tapestry, though worked by hand, we find designs reproduced with the monotonous exactitude inevitable in machine made tissues.

Tapestry designing, or copying of design, is like the school-boy who draws his map after the lines of longitude and latitude have been put in. But with the Pirot carpet there are only the lines of longitude. Nor are they fully utilized as guides to the design, for, in reproducing the same figure, no attempt is made to attain absolute similitude. Like nature's work, which gives the tree similar leaves, but no two leaves absolutely alike, so in the Pirot carpet, though the same idea, figure, or design may be reproduced over and over again in the one carpet, they are never absolutely alike. Thus, in the midst of a general similitude we find endless variety. Even in an old and familiar carpet we can constantly find something that had not yet been observed. The flower, the arabesque, or some original Serbian design, is in one corner exceptionally lean, in another ludicrously stout, here it is small, there it is much bigger or somewhat out of place, or lopsided; and all these irregularities impart to the broad outlines and the general design of the carpet a charm and an interest which no machine made article can ever convey.—*Carpet and Upholstery Trade Review.*

GEORGE ANDERSON & Co., of Toronto, wholesale dealers in hats and caps, are in difficulties, and have made an offer of 30 per cent.

JUDGE LORANGER, in the Superior Court, Montreal, a few days ago rendered judgment in the case of E. Halton & Co. vs. J. C. Wilson, Montreal. The plaintiffs, a New York firm, claimed \$1,554 from defendant as the price of a quantity of bagging sold and delivered. The plea to the action was that, after examination, the goods were refused as not being according to sample. The Court maintained this plea and dismissed the action.

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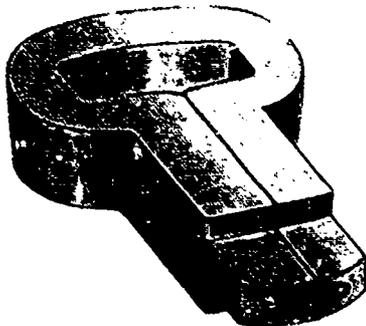
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NEWARK, N.J.

Steel Ring Burring Machines a Specialty.

Among the Mills

The new knitted goods factory at Goderich is to be opened this month.

Mr. Henry Walte, of St. Mary's, thinks of establishing a dye works in Exeter.

Robt. S. Fraser is adding another garnett machine to his garnetting factory in Montreal.

D. M. Fraser, Almonte, has changed the lighting of his knitting mill from gas to incandescent light.

We are indebted to Messrs. Jno. Macdonald & Co. for information about prints in another column.

The woolen mill owned by G. B. Lossing, at Otterville, Ont., was destroyed by fire on the 17th. No insurance.

M. Johnson, late designer at the Hawthorne woolen mill, Carleton Place, is now with the Cobourg, Ont., Woolen Co.

Mr. Thomas Ker, of Ker & Harcourt, spool and bobbin manufacturers, Walkerton, Ont. was in Toronto a few days ago.

Thos. H. Miller has bought the woolen mill at Burritt's Rapids, Ont., formerly owned and operated by S. Petitpiece.

Thos. Devine, an employe of the Wallaceburg, Ont., flax mill, had two fingers badly lacerated in the machinery a few days ago.

The people of Owen Sound are discussing the possibility of forming a joint stock company for the manufacture of knit goods.

Since the Kingston cotton mill has been closed a great many of the operatives have left for the United States to look for situations.

Samuel Potts, employed in the Kingston knitting mill, was thrown against a pulley not long ago, and seriously cut about the head.

W. F. Fraser, late designer of the Auburn woolen mill, Peterboro', has gone to the Yarmouth, N.S., woolen mill as superintendent.

The King, Jones Co., of Toronto, is applying for incorporation with a capital stock of \$50,000, to manufacture and deal in dry goods specialties, etc.

The Rosamond Woolen Co., Almonte, Ont., is working to the full capacity of their extensive mills. Some of the departments are running overtime.

The woolen mills at Creemore, Ont., are being overhauled, and extensions are being made. The mills will be in running order again in a week or two.

J. Robertson & Co., Hamilton, wholesale woolen cloth merchants, have leased the premises lately occupied by the Bowman Hardware Company in that place.

J. A. Murray, of W. A. Murray & Co., Toronto, has been elected president of the Toronto Carpet Manufacturing Company, and Dr. C. S. Murray, vice-president.

The action for damages brought against the Canada Colored Cotton Mills Co. by the widow of James Kervin, who was killed in the company's mill last fall, is still in progress.

John Connor, St. John, N.B., and N. K. Connolly, Michael Connolly, E. A. D. Morgan and John Ogilvie, all of Montreal, are applying for incorporation of the "Continental Cordage Co.," capital, \$50,000.

W. Peters, of Kingston, aged 70, left his home one day last month to go to the cotton mill where he had been working. At four o'clock his body was found floating in the bay. It was either suicide, or while in a fit he had fallen off the bridge.

The valuable milling property at Almonte, known as Baird's Mill, is for sale by tender. Our advertising columns give details as to time of tendering, etc. The buildings are equipped for carrying on a one-set mill, and has a fine water-power which cannot be impaired by any of the neighboring users. The successful litigation carried on by the Messrs. Baird in defence of this water-power was so expensive as to seriously hamper their subsequent operations.

Ira Dimock, president and manager of the Nonotuck Silk Co. of Florence, Mass., and president of the Corticelli Silk Company St. John's, spent a few days recently in that town, and seemed very well pleased with the development of the business in Canada.

A. Williston, of Chatham Gore, Wallaceburg, Ont., put in last spring 20 acres of flax, from which he has taken 2½ tons per acre. One parcel of 3 acres yielded 10 tons and 60 lbs., or a little over 3½ tons per acre. The Wallaceburg *Herald* thinks this is the largest yield of flax that has been reported in the province.

W. R. Brock & Co., in a circular letter to the trade, announce that owing to the action of the Dominion Cotton Mills Co. in supplying certain favored retailers (departmental stores) with goods at wholesale prices, they have not placed any orders for Magog prints this year, and will confine themselves to imported goods.

The contract for operating the Central Prison binder twine factory has been let to P. L. O'Connor, of Brantford. He makes a deposit of \$5,000 as a guarantee of the performance of the contract, which will extend over five years. The contractor is a brother of Mr. O'Connor, who has charge of the binder twine works at Kingston Penitentiary.

There is a report from Montreal that the T. Eaton Company, Toronto, contemplate opening a large branch dry goods house in Montreal, and that the building to be occupied is that of H. & N. E. Hamilton, at the corner of St. James Street and Victoria Square. A prominent member of the firm, however, assures THE JOURNAL OF FABRICS that there is no foundation for the report.

The annual general meeting of the shareholders of the Riverside Manufacturing Company was held at Montmorency Falls, Que., on the 5th inst., when a satisfactory statement was shown. The following were elected directors: C. R. Whitehead, Thomas Pringle, H. M. Price, J. T. Ross and L. G. Craig, and, at a subsequent meeting of the board, Thomas Pringle was elected president, and H. M. Price, vice-president.

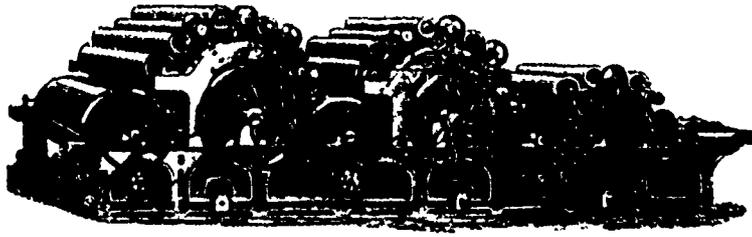
The following letter appears in the Quarterly Report of the Department of Trade and Commerce for the 30th June, just issued. C. E. Soutum, Canada's Commercial Agent for Norway, Sweden and Denmark, reports: "From Perth, Ont., I have just had a shipment of woolen mitts, which seem to be very suitable for this climate, and I am in hopes to send in repeat orders. The lot received was sold to one of the largest importers here; terms cash in 30 days."

A pleasing event took place on Friday, Sept. 20th, at the offices of the Gutta Percha and Rubber Mfg Co. of Toronto, Ltd., in the shape of a presentation of a handsome clock to Mr. A. F. McKenney, the company's representative in Ontario, who has lately joined the benedicts. The fall staff assembled in the offices and the presentation was humorously and felicitously made by Mr. H. D. Warren, the president of the company, and was feelingly replied to by Mr. McKenney. The clock was a very handsome one of onyx and bore a gold plate with a suitable inscription.

G. Garrett, glove manufacturer, of Gloversville, New York, has visited Brandon, Man., with a view to establishing a glove factory in that place. He believes that a factory in Brandon would be a very profitable investment. He called on members of the city council, the board of trade and other prominent citizens, and met with encouragement on every hand. Mr. Garrett proposes to employ at the outset fifteen or twenty hands, and these would manufacture about 3,000 dozen pairs of gloves in a year. It is said that the demand for gloves in the north-western country is very large and is certain to increase. The proposition he will make to the council is to establish the factory in Brandon, if the city will give him a bonus of \$5,000.

William Wilson, manager of the Kingston cotton mill, recently resigned his position and sailed for England on October 12th. After a short visit to his native land he will decide whether to remain there for the rest of his days or return to Canada. He has two sons in Canada, but for that he would have no hesitation in deciding. He resigns his position here because his health is giving out, and because he thinks he has worked long enough to be entitled to a rest.

TEXTILE MACHINERY (New and Second Hand)



English Sales Attended.

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Stock in Canada's

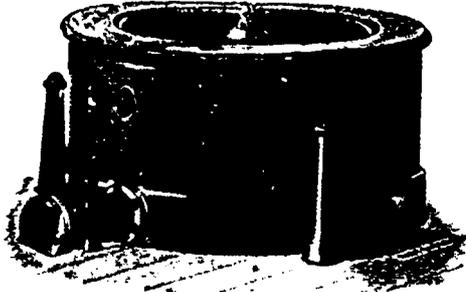
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Direct Steam Driven. No Shafts or Belting required.
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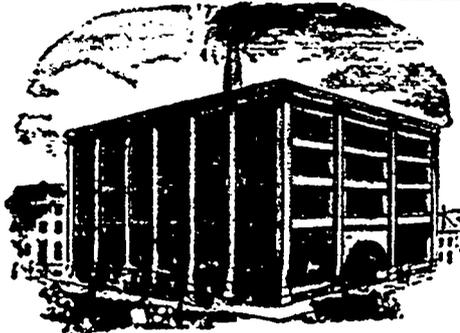
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Telegrams: "BROADBENT, HUDDERSFIELD."

Agents for Canada: - - Wm. SHAW & CO., 164 McGill Street, Montreal.



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Leather Belting

We make Belting for all kinds of work. In ordering state where belts are to run.

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Sole Agents in Province of Quebec
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Manufacturers of all kinds of

ENGINEERS and CONTRACTORS

PUMPS, CONDENSERS and HYDRAULIC MACHINERY

COMPLETE MOTIVE PLANTS, etc.

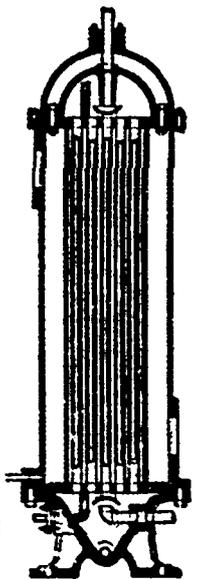
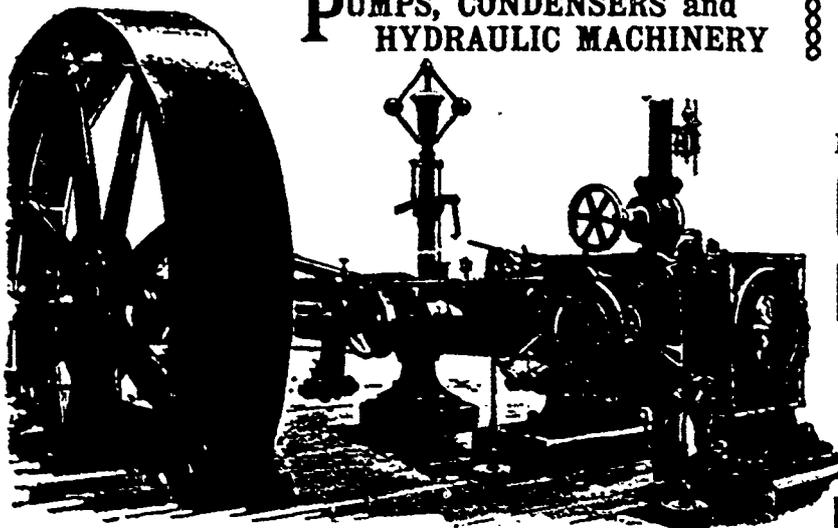
IMPROVED

CORLISS ENGINES

High-Pressure, Condensing and Compound

Feed-Water Heaters and Purifiers

HEAVY FLY-WHEELS a Specialty



Mr. Wilson has spent the most of his life in a cotton mill, beginning to work when he was eight years of age. For forty-six years he was a cotton mill manager, and for thirty-five years manager of one mill. He shows with pardonable pride a very handsome clock, presented to him by Turnstell Bros., Newton Mill, Burnley, England, "as a mark of affection and esteem," on his leaving the employ of that company after a period of thirty-five years as manager. This was in June, 1884, the year he came to Canada. As he has seen nearly the whole development of the cotton milling business, he is up to date in everything, is a thorough mechanic, and knows everything about a mill from a steam engine to a spindle. While employed in the old country his services were in great demand as a valuator, and he was usually engaged two days a week in that work. Mr. John Foote, latterly manager of a mill at St. Anne's, Que., succeeds Mr. Wilson in Kingston.

The Dominion Blanket and Fibre Co., Montreal, is in difficulties. The liabilities are \$305,000, including stocks, bonds and debts. It is said the assets will hardly be enough to pay the privileged claims of \$10,000, which are salary and bank paper. The fine new mill of the company was recently built in Beauharnois, Que. The company was chartered in 1892, with an authorized capital of \$500,000, of which \$125,000 was subscribed. The mill property of the company was calculated to cost about \$80,000, but it really absorbed more than the subscribed capital. A considerable sum was lately advanced by one of the directors, but no amicable arrangement could be arrived at as to the management of affairs, and after extended bickerings among the directors, bonds were issued last year at a pretty low figure to pay off the mortgagee, and an extension of the general liabilities was negotiated. The original shareholders see their investment of \$150,000 completely wiped out; but an effort will be made to form a new company on condition that the old stockholders abandon their claim, accepting a small amount of stock, or other consideration, in the new concern. The bondholders consider themselves secure by mortgage on the property and plant, but there is a question as to their claim upon the machinery, which cost \$75,000, and is said to be worth about \$40,000. The mill is running meanwhile to work up stock and fill current orders.

To Manufacturers.

A FIRM of Manufacturers' Agents, selling to the Retail Dry Goods trade of Ontario, have an opening for another good line on commission. Highest references. Address—

MANUFACTURERS' AGENTS,
CARE CANADIAN JOURNAL OF FABRICS.

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

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

New York and Boston Dyewood Co.

Manufacturers of

DYEWOOD EXTRACTS

Sole Agents for the
United States and Canada for the

ACTIEN-GESELLSCHAFT FÜR ANILIN-FABRIKATION

Manufacturers of ANILINE COLORS, Berlin, Germany

NEW YORK: 55 Beekman St.
BOSTON: 115 and 117 High St.
PHILADELPHIA: 122 and 124 Arch St.

A. W. LEITCH, 16 Hughson St. South, HAMILTON, ONT.

EXPORTS OF TEXTILES—GREAT BRITAIN TO CANADA.

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

	Month of August.		Eight months ended August.	
	1894.	1895.	1894.	1895.
Raw wool	£ 2,139	£ 543	£ 6,578	£ 5,326
Cotton piece-goods	32,851	37,687	310,595	327,165
Jute piece-goods	7,260	8,626	65,723	67,182
Linen piece-goods	10,183	14,260	82,241	104,259
Silk, lace	2,470	1,936	26,919	19,802
" articles partly of	6,996	6,975	29,759	28,226
Woolen fabrics.....	47,407	45,568	204,808	171,616
Worsted fabrics	55,703	77,718	359,743	401,605
Carpets	13,351	17,775	132,828	132,138
Apparel and slops	44,785	56,706	197,383	238,722
Haberdashery	15,855	25,060	116,193	106,863

E. M. GIBB, of the well known tailoring firm of Gibb & Co., Montreal, died suddenly on his way to the office on the morning of the 11th of Oct. The firm of which he and his brother Alexander were for many years the head, was founded in the last century.

CHEMICALS AND DYESTUFFS.

The market shows signs of improvement, but up to the present no marked changes in prices have been observed. Sal soda has advanced from 67½ to 70c.; this is the second advance in sal soda during the last month. Manufacturers are now getting in their winter orders. The following are current quotations in Montreal:

Bleaching powder.....	\$ 2 15	to \$ 2 30
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 15	" 0 20
Alum.....	1 40	" 1 50
Copperas	0 70	" 0 75
Sulphur flour	1 50	" 1 75
Sulphur roll	1 50	" 1 75
Sulphate of copper.....	4 00	" 5 00
White sugar of lead.....	0 07½	" 0 08½
Bich. potash	0 10	" 0 12
Sumac, Sicily, per ton	65 00	" 70 00
Soda ash, 48° to 58°	1 25	" 1 50
Chip logwood	2 00	" 2 10
Castor oil.....	0 06½	" 0 07
Cocoonut oil	0 06½	" 0 07

A. KLIPSTEIN & COMP'Y

122 PEARL STREET, NEW YORK

Chemicals and Dyestuffs

ANILINE COLORS OF EVERY KIND

SPECIALTIES

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

Also CAUSTIC POTASH FOR WOOL SCOURING

WRIGHT & DALLYN, Agents - - HAMILTON, Ont

Loom Picker Co.

BIDDEFORD, ME.



MANUFACTURERS
... OF ...



Loom Pickers & Loom Harnesses

OF SUPERIOR QUALITY

Established 1842

ADAM LOMAS & SON,
SHERBROOKE, QUE.
Flannels, Dress Goods and Tweeds
Selling Agents, JAS. A. GANTLIE & CO.
Toronto and Montreal



"We hold thee safe."

The Dominion Burglary Guarantee Co.

Limited
Head Office, Montreal, Can.

CAPITAL, \$200,000.
Insurance against burglary and housebreaking. Policies clear and free from vexatious or restrictive clauses.
JOHN A. GROSE, GENERAL MANAGER.

THOMAS MEALEY & CO.



MEALEY STAIR PAD

Manufacturers of
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MANUFACTURER
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Woolen Machinery,

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

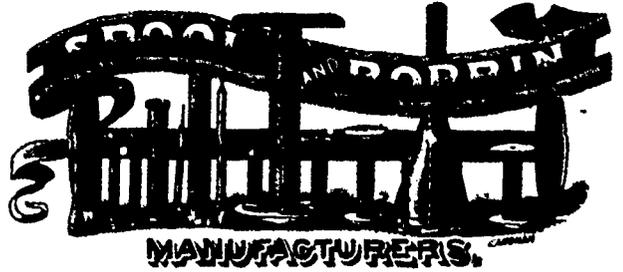


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KER & HARCOURT,

ESTABLISHED 1857



Orders by Mail
will receive prompt
attention.

Walkerton, Ont.

WILLIAM WHITELEY & SONS,



LOCKWOOD, HUDDERSFIELD, ENGLAND.

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

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WM. SHAW & CO., Agents,
164 McGill Street, - Montreal.

Thompson & Co.

SHERBROOKE, QUEBEC

Manufacturers of

BOBBINS and SPOOLS of every description
For Woolen, Cotton and Rope Mills

*Extra facilities for supplying new mills
and filling large orders*

Correspondence solicited. Orders promptly filled.



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 83 & 85 Front St. East, - - - Toronto,
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 Wholesale Dealer in
DOMESTIC AND FOREIGN WOOLS,
 Sumac, Japonica, &c.

LONG & BISBY
 DEALERS IN
 Foreign and Domestic
WOOL AND COTTON
 GENERAL COMMISSION MERCHANTS
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A. T. PATERSON & CO.
 Importers of **Foreign Wools**
 35 St. Francois Xavier St.
 MONTREAL, Canada

THE SMITH WOOLSTOCK CO.
 Manufacturers and Dealers in all Lines of
 Wool Stock, Shoddies, &c., Graded Woolen
 Rags, Carbonising and Neutralising.
 Best prices paid for Wool Pickings, Woolen
 and Cotton Rags, Metals, &c. Hard Waste, &c.,
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The Montreal Blanket Co.
 Manufacturers of
Shoddies, Wool Extracts
 and Upholstering Flocks
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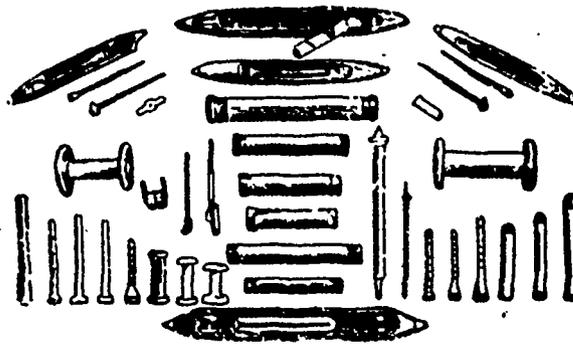
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Wools, Cottons, Nolls, Yarns
 Specialties:
 English Pick Lambs and Downs
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 3 St. Helen St., MONTREAL

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Dry Goods Manufacturers' Agent
 Sample and Stock Rooms:
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 REPRESENTING
 WM. PARKS & SON, Ltd., St. John, N.B.
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Lachute Shuttle and Bobbin Works



We are the largest Shuttle
 Manufacturers in Canada.
 Slubbing, Roving and all kinds
 of Bobbins and Spools for
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 We have always on hand
 a large stock of
 Thoroughly Seasoned
 Lumber.
 Orders solicited and all work guar-
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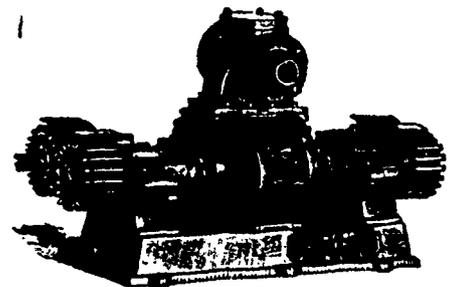
BUILDERS OF
WOOL WASHERS, BURR PICKERS
WOOL DRYERS, etc.

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ESTABLISHED
 1875



Manufacturers of English or American Fulling Mills and Washers, Wool Pickers, Ex-
 haust Fan Dryers, Dusters, Rotary Force Pumps for Fire Duty, Roller Feed Pumps,
 Shafting, Hangers, Castings, Pulleys, Gearing, Forgings.
 Full equipment of mills of every kind. **YOUNG BROS., Almonte, Ont.**

HAWORTH & WATSON

**COP
 TUBES**

PAPER COP. TUBES FOR MULE SPINNING
 LARGE PAPER TUBES FOR USE ON BOBBINS
 FULL LENGTH TAPERED TUBES
 PAPER TUBES FOR MANUFACTURERS
 PAPER TONES & TUBES FOR CONE WINDERS
 LOWELL, MASS.

MICA BOILER COVERING.

The difference between making money and losing it in manufacturing is not always a matter of buying supplies cheaply and getting a good price for the finished goods. Quite as important as either is seeing that absolutely nothing is wasted during the process of manufacture; or at least that nothing is wasted in your mill that is saved by one of your competitors.

Imperfect insulation of steam apparatus causes a serious leak in many mills, and may have driven many a man into the bankrupt court.

A really first class pipe and boiler covering has not been within the reach of the small consumer hitherto, but from what we have seen of the product of the Mica Boiler Covering Co. we are convinced that a distinct advance in this class of goods has been made, and a really desirable article introduced which must come into general use.

Mica has been known to electricians for many years as an almost perfect insulator, but previous to the inventions controlled by this company great difficulty was found in making practical use of it. The mica crystals are divided down to the fineness of tissue paper, then sewn with wire between a sheet of wire netting and one of stout duck. The under side of wire lies next the heated surface, and the outer side of duck is exposed to the air. As will be noticed, this forms a quilt which can be quickly removed at any time if examination of the boiler shell or piping is necessary. For use in a creamery where the boiler heat is wanted in winter to heat the building, but would destroy the milk in summer, if not confined, this covering has unique advantages.

This covering cannot erode the metal under it, and is not injured in the slightest by damp, as so many other coverings are.

The actual value of the mica covering has been determined by a series of tests conducted by the Boiler Inspection and Insurance Company. Below will be found the reports of the Chief Engineer: 46 King St. West, Toronto, June 25, 1895.

Manager Mica Boiler Covering Co., Toronto.

DEAR SIR,—The following is the result of a test made to-day of several boiler coverings:

Five vessels of same dimensions, and in as nearly as possible same circumstances, had steam turned on and kept on for two hours, at pressure ranging from 55 lbs. to 60 lbs. per square inch.

The temperature of room was 90° Fah.

The amount of water condensed was in—

No. 1—Covered with wood and air space.....	5¼ lbs.
No. 2— " mica boiler covering	3¼ "
No. 3— " magnesia "	4¼ "
No. 4— " asbestos cement	10¼ "
No. 5—No covering	21 "

Of the amount lost by having no covering—

The wood covering saved.....72.6 per cent.

The mica covering saved

The magnesia covering saved

The asbestos cement saved

The mica shows an absolute saving of 4.75 per cent. over the magnesia, and relatively is 23.5 per cent. better than magnesia, that is, taking the magnesia as the standard, the mica covering will save 23.5 per cent. more than the magnesia covering.

Yours truly,

(Sgd.) GEO. C. ROBB, Chief Engineer,

The Boiler Inspection and Insurance Company of Canada.

WOOL MARKET.

The clip has been marketed this season in a much shorter period than usual, and there is little fleece wool left in the market. A feature has been the request for coarse wools. A year ago dealers were willing to pay two cents a pound more for clothing than for combing, and at present combing wool is worth three cents at least more than clothing. Fleece in small lots is selling in Toronto at 25c., and a few sales of larger lots for direct export to the United States, are reported outside at 26c.

Things in the Montreal wool market are looking bright, prices

are well up and there is every indication of a continuation of the present prosperous state of affairs. At present stock in the local market is very low and nothing in wool can be had for less than 14c. The last shipment of wool was cleared out last week and a residue of 250 bales of damaged goods was advantageously disposed of. A new shipment for Montreal arrived in Boston on October 14th, and it is expected that rapid sales will ensue, as there are many enquiries.

The London wool sales closed on October 12. All wools sold readily. The prices of Natal and Cape of Good Hope wools were higher. Prices were: New South Wales scoured, 12½ to 37c.; greasy, 13 to 18½c.; Cape of Good Hope and Natal scoured, 26 to 34c.; greasy, 11½ to 14c. At the close of the market prices were from 20 to 23 per cent. in advance of recent sales.

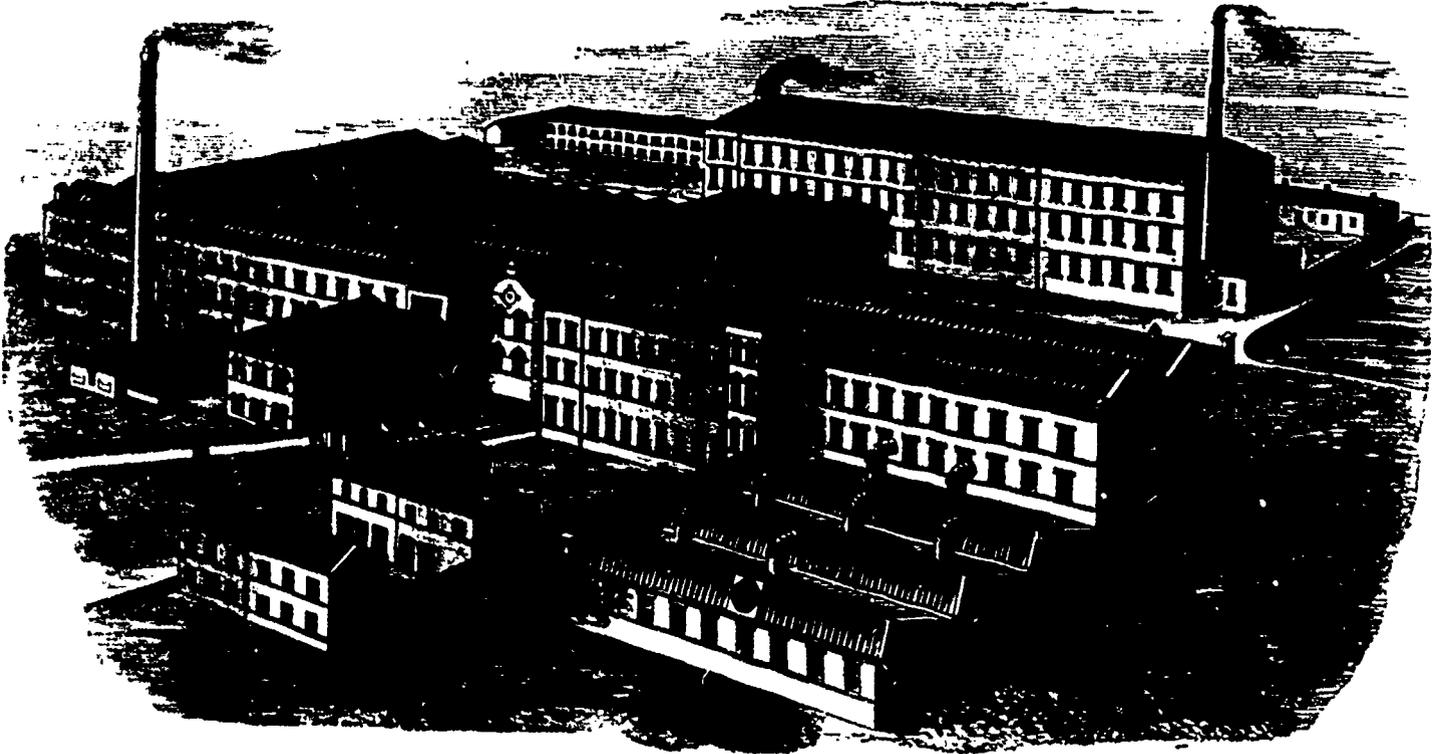
The latest mail reports of the Colonial wool sales in London are to Oct. 5th, and give the following account of the market:—The daily auctions continue to be largely attended by buyers from all parts, and competition remains very keen. Wools of all descriptions are most difficult to purchase at current market rates, there being so much animation in the bidding. French and German buyers are making a few purchases, but America is very quiet. The home trade has up to now proved the chief support to the market; its buyers take by far the greater proportion of daily-offered wools, both in crossbred and merino qualities. The very firm prices with which the opening of this series was characterized have until the last few days been well maintained, and indeed have shown a hardening tendency rather than otherwise; during the latter part of this week, however, prices have become steadier, and show less signs of fluctuation, and although there has been no quotable decline in market values, things are considered perhaps a little easier than at the outset. Deep grown lustrous crossbred wools in the grease, which sold at 9d. last sales, now realize 11d. per lb., a price which heretofore has never been reached. Superior to good, shafty merino wools in the grease show an advance of 1½d. per lb. on the July currency, while scoured parcels are fully 2d. per lb. dearer. Faulty pieces and locks show 1d. to 1½d. per lb. advance, and all slippe wools are in excellent demand. Merino and crossbred lambs do not show the advance to such an extent, however, as other descriptions. In Cape and Natal wools the greasies rule about 5 per cent., and scoured and snow-white parcels about 10 per cent. dearer.

Jacomb, Son & Co., in their report state:—The chief support has been from the home trade; while during the last few days there has been an increased demand from France and Germany, little or nothing is being done for America. The advance noted on the opening night has been fully maintained, and even exceeded of late, especially in the case of deep, shafty merino scoureds, both fleece and pieces, which may now be quoted 20 per cent. over the prices ruling during the fourth series. Superior merino wools in the grease, which were then proportionately dearer than scoureds, average 10 per cent. appreciation in value, while medium sorts are strongly competed for at the higher level. Fine greasy crossbreds are 10 per cent., medium 15, and coarse 20 to 25 per cent. dearer than in July, scoured average 15 per cent. advance, while slippe wools, in good supply, meet an animated demand at very full rates.

FADING OF COLORS.

The fading of the colors is a most important feature of dyed textile fabrics to the dyer, this fading being chiefly brought about by the agency of light. Hitherto the idea as to the actual influence of light on color has been of a very crude nature among dyers. They have known that it causes colors to fade; some perhaps have thought that some kinds of light will cause colors to fade more rapidly than others, and in general this particular virtue has been thought to reside chiefly in a blue light. Mr. Dufton, in a very interesting paper which he has just contributed to the Society of Dyers and Colorists, has, however, given some new views on this important subject, and which are expressed by the following statement: "The fading of colors under the influence of light is brought about by the absorbed rays, each color being most power-

CARD CLOTHING OF EVERY DESCRIPTION



SAMUEL LAW & SONS, LIMITED

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MOORLAND AND ROUND HILL MILLS

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fully affected by those rays for which it possesses the strongest absorption. It thus follows that the kind of light which causes the most fading will depend upon the nature of the dyestuffs; thus picric acid fades most under violet light, because it is the violet rays that it absorbs, while Victoria blue and diamine sky blue fade when exposed to orange light, but will not fade when exposed to blue light, because it is orange light that they absorb, while blue light remains unabsorbed. *Malachite green exposed to red light fades.*" This is a very interesting point in the fading of colors, and one that will bear further amplification, and we should like to see Mr. Dufton pursue the matter further. It is a well known fact that deep shades of dyestuff are much faster to light than light shades, this is probably because the light in passing through the uppermost portions of a dyed fabric is robbed of those rays which act upon the color, and so the undermost portions of the fabric are protected. Then, again, in dyeing shades with two colors, one a fugitive and the other fast, if both of these colors have the same absorbing influence on light, the fast color will protect the fugitive color, if, however, they are of different characters, then the presence of the fast color will have no retarding influence on the fugitive color. We recommend our readers to study Mr. Dufton's paper for themselves.

ONE HUNDRED YEARS AGO.

Every gentleman wore a queue and powdered his hair
Imprisonment for debt was a common practice.

There was only one hat factory in America, and that made
cocked hats.

A day laborer considered himself well paid with two shillings
a day.

Crockery plates were objected to because they dulled the
knives.

A gentleman bowing to a lady always scraped his foot on the
ground.

The whipping-post and pillory were still standing in Boston
and New York.

Buttons were scarce and expensive, and the trousers were
fastened with pegs or laces.

There were no textile manufactures in Canada, and every
housewife raised her own flax and made her own linen.

Leather breeches, a checked shirt, a red flannel jacket, and a
cocked hat formed the dress of an artisan.

A new arrival in jail was set upon by his fellow prisoners and
robbed of everything he had.

There were, of course, no railways, and only one stage line
between Canada and the United States, and that went to Quebec.

Bear skins and buffalo robes were common bed coverings.
Quilted comforts were a luxury.

Gloves were not worn either for style or for comfort. Mittens
of yarn were worn in winter.

Cravats were unknown, their places being supplied by huge
stocks that reached from the shoulders to the ears.

THE report of J. and P. Coats, the English thread corporation, has been issued. The figures show that the net profits for the year, after carrying the sum of £49,352 6s. 5d. to depreciation account, amounted to £547,518 7s. 1d. This, with £36,066 3s. 5d. brought from last year, makes a total of £583,584 10s. 6d.; and after deducting balance of income tax, debenture interest, and interim dividends on preference and ordinary shares, amounting in all to £225,615 1s. 6d., there remains a balance of £357,969 9s. This was dealt with as follows: To reserve fund, £150,000; dividend for the half-year, at the rate of 6 per cent. per annum on preference shares, £60,000; dividend for the half year of 6 per cent., making 10 per cent. for the year, on the ordinary shares, £105,000; leaving a balance to be carried forward of £42,969 9s., which is subject to auditors' fees and bonus to employees. The profits of certain companies in which this company is interested were not declared at June 29th. The company's proportion of such profits earned, but not included in above figures, is estimated to amount to about the same sum as last year.

EXPLOSIONS in flour mills, made possible by the presence of exceedingly fine dust, and sometimes completely wrecking the building, have been heard of again and again. But a similar "dust explosion" in a "shoddy" factory in Berlin, Germany, opens a new chapter.

JUDICIAL SALE

—OF VALUABLE—

WATER POWER, WOOLEN MILL & MACHINERY

In the TOWN OF ALMONTE, Ontario.

IN THE HIGH COURT OF JUSTICE, CHANCERY DIVISION.

RO BAIRD, CANNON V. BAIRD and CANNON V. BAIRD.

PURSUANT to judgments herein, tenders will be received by R. B. MATHESON, Esquire, Master at Ottawa, at his office in the Court House, Ottawa, Ontario, up to and inclusive of the 26th day of October next, for

The Woolen Mill and Water Power connected therewith, and the following Woolen Manufacturing Machinery for a two-set Mill situate in the Town of Almonte, viz. — 1 Wool Picker, 1 Duster and Burr Picker, 1 English set of Cards, 1 American set of Cards, 1 Card Grinder, 1 pair Spinning Mules, 1 Warper and Beamer, 2 Spoolers, 13 Crompton Looms, 1 Twister, 1 Fulling Mill, 1 Washer, 1 English Shear, 1 American Shear, 1 Hand Press, 1 Cloth Winder, 1 Hydro Extractor, 1 American Gig, 1 Canadian Gig, 1 Cloth Press, 3 Dye Tubs, 1 Boiler, 1 Office Safe, 1 Wool Dyer, 2 Pans, 1 Dynamo and Lamp, 1 Brusher, 1 Turning Lathe, Tools, Belts, 150 Reeds, 150 Harness and Frames, 1 Loom, 1 Hank Winder.

The Machinery is in good working order.

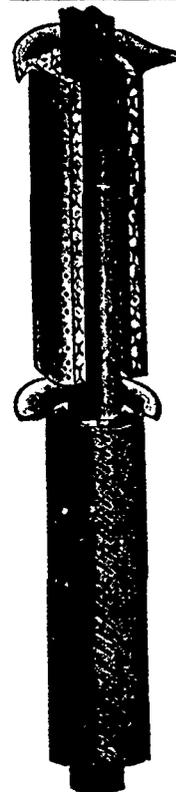
The whole are offered for sale in one parcel.

Tenders will be opened and considered on the 28th day of October next, and the Master shall not be bound to accept the highest or any tender.

TERMS.—Ten per cent. in cash on acceptance of tender, and the balance within one month thereafter. For other particulars and conditions of sale apply to GILBERT CANNON, Esq., Almonte, or Messrs. GRIMMILL & MAY, Vendor's Solicitors, Ottawa.

R. B. MATHESON,
Master at Ottawa.

Ottawa, 9th October, 1895.



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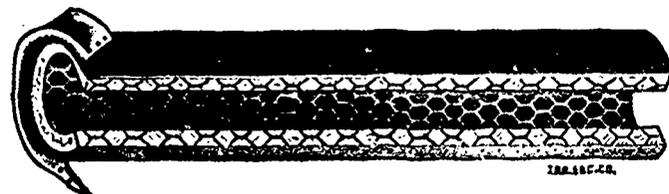
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QUEEN VICTORIA, it is well known, is able to spin, and various articles have been exhibited for which Her Majesty prepared the flax.

JOHN CHUTHAM, the hat manufacturer of Hyde, Eng., who fought the felt hat veneration case so long through the courts and was defeated at last, died last month.

A CARPET was originally a covering for a table, not a floor. Hence a topic was on the carpet when lying on the table for discussion, or when gossiped about by people sitting at table.

BESIDES ramie, aloes, pineapple and bananas, there are scores of plants in India and Ceylon which yield fibre excellent for textile purposes and the manufacture of paper. The one great difficulty is to obtain the substances in sufficient quantity in convenient localities, and to secure their preparation, so that the fibre may remain clean and undiminished in strength, while the cost of the

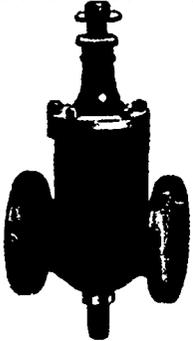
decorticating and retting process is moderate. One of these is a variety of *Hibiscus Esculentus*, well known in India and Ceylon as "bandekal," and is used as a vegetable; the edible fruits (glutinous pods with pea-like seeds, exceedingly wholesome) being called by the English "ladies' fingers." In America the plant is known as "okra," and is also used as a vegetable. The stem of this plant produces a fibre of fine quality and about three to four feet in length, and is apparently strong. Three crops are obtained in the year, and its preparation, by maceration, gives very little trouble. It was examined with interest by many experts in Ceylon, and the reply was that nothing could be done with it in connection with cotton or with cotton machinery, for it is more akin to jute, and could probably be manipulated by machinery adapted for jute. Nothing has as yet been done with the fibre, although it is surely capable of being utilized in paper, if not in textile manufacture.—*Indian Textile Journal*.

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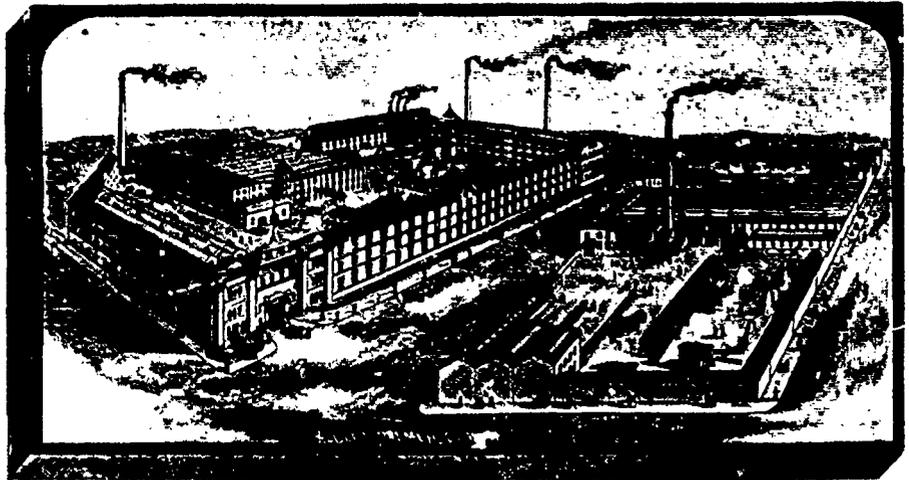
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