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Vol. XI.

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## THE CANADIAN TEXTILE DIBECTORY

A Handbook of all the Cotion. Wunen and uther Texite nauutactuies of Can2.da, with lists of manufacturers' $2 p^{\prime \prime}$ ts and the wholesale and retail dry goods and kindred trades of the Dumathon, wh whit is djpendea a vast amuunt ot valuable statistics relating to these trades. Third edition 487 pages, prlce $\$ 3.00$. E. B. BIGGAR, Publisher, Montreal.

## REVIEW OF TRADE.

The settlement of the American tanff, coupled with crop reports, which are favorable, taking in the country as a whole, has already given a hopeful tone to the fall trade prospects. Thuugh there is hitle tangible improvement in the movement of merchandise, there is a more hopeful feeling and a steady fall and winter trade is generally anticipated. The good harvest reports from Manitoba and the North-West lead manufacturers and wholesalers to expect an improvement in remittances from that quarter, though there is no disposition in Toronto or Montreal to press for fresh trade there. In eastern Ontario and Quebec there is an improved tone, while trade in the Maritime Provinces is very farr. Fall and winter trade in dry gools all over Canada would show a considerable expansion if it were not for the amount of heavy gouds which retailers in some localities repurt having on their hands from last winter.

The wholesale trade has veen interested, not to say excited, over the recent reduction on Canadian culored cottons. On the higher class of denims of 8 uz . and upwards, the reduction was 2 tents a yard, and un denims under 8 oz . about $x_{1}^{1}$ cents. On $y^{6} \mathrm{in}$. ginghams, or apron checks, thete was a reduction frum $S$ cents to $7 \frac{1}{4}$ cents, while 33 in. govels of the same class were reduced from $7 \frac{1}{2}$ to $\epsilon$ cents. There was aisu a slight cut in cottonades. This cut appeats to have been occasioned by the appearance in the Canadian market of the agent of an American commission house who had bought out the product of a mill and came over bere to
unicad. He sold 38 inch burdered gouds at $5 \frac{1}{2}$ cents, which would cost 7.33 cents laid down in Canada, but as these goods, though having a softer finish and attractive designs, were not what is demanded by the Canadian trade, it is not very likely the American invader would have made a permanent impression here, even if the Canddian culured cutton mulls had held to their prices, which were reasonable. Very few of the American goods were placed in Montreal. A later feature in the Canadian cotton trade has been an advance of about five per cent. on two or three lines of grey cottons. During the past month all of the Canadian cotton mills which had beer clused, excepting the St. Croix mill, have resumed work, generally on a reduced scale of wages.

During the month a conference was held between the wholesale trade and the Dominion Cotton Mills Company looking to a uniform dating and terms on these goods when sold to the retail trade, but no agreement was arrived at.

Among the woolen mills there is a slightly improved feeling, arising from the brighter trade prosperts, but a number of mills are still running below their full capacity, while there is a general complaint of lun prices among the tweed manufacturers. One class of Canadian tweeds are selling at the unprecedented price of 20 cents a yard-at which prise the manufaturet is not going to get rich.

## COMMERCE AND CHRISTIANITY

The question is ofter ashed, "Can a busmess man be a true Christian ?" and many semmons have been preached on the sulject. A very mastructive cuntribution to the question was given $\mathrm{b}_{\mathrm{y}}$ the Wharchuascman and Draper, of London, in a report of a discussion on this topic at the Comnervial Travcllets' Chnistann Association. The discussion was of cuurse amung travelling men, but the application might be general. One of the speahers saila the cummerwaitratellus wanted the three " G's," Grace, Grit and Gunuption. The first and must important was grave, fur withuat that gat and gumption were of no arail. A sieat help tu a man was a goud wife. There were many manried men who had not got wives, and many marrich wumen whu had not got husbands. They could not lay duwa any had and fast lines for a commercial traveller tusto un, but aif a man pu. his faith in the living Chist, and acted ap to
his belief, then he would not go far wrong. Another speaker said the spirit of the age was the desire to make money quickly. This spirit got hold of everyone, and it was due to this very largely that there was so much commercial immorality. Bribing oi buyers, lying, and misrepresenting things made it very difficult for a Christian man to get a living. They knew, unfortunately, of men on the road who were preachers, but whose actions did not correspond with their professions. If there were any in that room who in th: past might have misled a buyer, he would like to ask them did it pay? He did not believe that any transactions that were not conducted on Christian lines could pay in the long run. He knew it was a difficult matter for a commercial to keep a straight line, especially if he had a wife and family dependent upon his energies; but they must ever remember that they could not serve God and mammon. They should never forget that Daniel in the 'ion's den was much better off with God on his side than was the king, and if they had God on their side they would not be losers in the end.

Another speaker took the ground that it was impossible for trade to be carried on strictly on Christian lines. Upon this the Warehouseman and Draper makes the following comments:-"This rhetorical trick is a very old oue, and in this case transparently worthlessthe question being, of course, only whether trading is incompatible with His teachings, to which we would reply it certainly need not be. It is too frequently forgotten that trade does not exclusively benefit the seller, but, on the contrary, is like mercy, 'twice blessed,' for ' it blesseth him that gives and him that takes.' And although the seller is mainly. guided ky self.interest, seeking to enrich hmmelf, he confers an equal benefit on the buyer who obtans what he wants, and purchases not for the advantages of the seller, but for his own purposes. What in the world there can be in such an interchange of benefits inconsistent with the purest morality or with the deepest prety, we du nut know. That the hife of a commercial traveller is one of temptatoon is generally admitted, but we are not sure that it is exceptionally so-temptations of one kind or another come to men in every sphere of hfe, varying in therr nature and depending for their intensity upon the personal character of each individual. What is a temptation to one man is not necessanly such to another, but we know of no position in hife in which it is not essential for anyone who wishes to preserve his Christian chatacter to be on his guard."

One of the debaters well said that a man could possess the qualities of tact, industry and perseverance in business without any sacrifice of Christian character. If a man had a good artucle for sale, and he knew it was a good artucle, he was doing good work if he pushed that article. If a man put conscientiousness intu bis work he would please his Lord as well as his employers. As they were all well aware, a commercial man had to put up with many things, but his advice was this, if a man wanted bribing let him go. As Christian men they were bound to resist bribing.

The general opinion of the speakers was that in the long run Christian integrity paid better than dishonesty. It is well, however, for those who are debating the question in their own minds to realize in the beginning that a time may come when, viewed from the mere standard of dollars and cents, Christianity will not pay. But surely character is worth more than money. The living man hirnself is $w$ rrth more than the inanimate "truck" he may command ; and when a man realizes the dignity of character, he will at the last, like Job, be the gainer even in a worldly sense. Had Job stuck on this snag, "Will it pay?" he never would have regained his lost wealth. His trial was no joke; he had to choose between two losses-the loss of his wealth and the loss of his higher manhood, his moral character. He kept his character and was stripped of his property. His integrity made his name immortal. And who would rather not have such an immortality as that of Job or Socrates, than the paltry possessions they might have held on to at the cost of their conscience ?

As our contemporary says, "The man who is honest merely lecause honesty is the best pulicy, is not really so, and the man who professing to act upon Christian principle, is moved thereto because it pays, demonstrates thereby the absence of the principle upon which he professes to act." Therefore when we ask the question, "Does it pay to be a Christan?" we want to ascertain what is our standard of value-whether, morally speaking, we are bi-metallists, or believe in the gold standard fixed by the laws of heaven and not of earth.

## MILDEW.

Mildew, mould, or fusty stains are the product of a fermentation caused by moisture and heat, whereby fungi are produced, which destroy not only the colors, but by advanced development the material also. Wherever wet or moist material is allowed to lie a length of time in an elevated temperature, there are the conditions for the development of mildew, especially when the pieces are piled up in heaps, since the pres sure prevents the access of air, and at the same time causes heat. The development of mildew has three distinct phases, says the Textile Manufacturer. The first, at the beginning, is that in which the vegetable growth, yet in a rudimentary state, may be removed by energetic washing, or chloring, without altering the fabrics. In the second stage the fungus growth can no longer be removed. In spite of all that can be done, the stains remain, but the material is not weakened. The sputs covered with mildew, however, according to the degree of develupment, do not at all, or only very imperfectly, take the dyes, either vat or boiler. In the last stage the material becomes weakened, even burnt, the fabric is irretrievably spoiled, and in strongly affected places, it is easy to break by pressure, and tine mechanical action of fulling, washing, and gigging produces holes in such places. Mildew is most frequently found upon grey or white cotton goods and white or light vat-blue woolens, which are to be dyed in the
piece or to be printed, and there it causes the greatest damage by its resistance to the dyes. Eiven in dark indigo-blue dyed gooas mildew stains destroy the color, although not so readily and frequently as in light shades of indigo blue. Less frequently they appear in goods which are dyed upon boiling baths. It appears, therefore, that boiling of the material to a certain extent protects it against muldew, probably because traces of impurities, such as suint, grease, etc., still adhering to the fibre, are thereby either removed or destroyed and converted into other less injurious bodies. Besides, the mordants employed for other colors than indigo, such as alum, tartar, sulphuric acic, bichromate of potash, green or blue vitriol, etc., probably act as preservatives. The greater tendency of vat-blue dyed goods to favor the development of mildew is doubtless attributable to the fact that the material is not boiled in dyeing, and to the nature of the dyestuff itself promoting fermentation.

As we have ilready stated, there are three phases of development of mildew observable. In the first, when the material is not yet attacked, and the stains are only superficiai, they can be removed from the grey, or white, or even dyed goods by energetic washing, soaping, and weak chloring repeatedly performed; and this is the only case when the material can be restored to its original good condition. In the second phase, when mildew is on the point of attacking the fibre, it is hardly possible any longer to remove the fungus growths, as it would require often repeated chloring, which would eventually damage the material. In the third phase, when the cloth is already damaged, nothing can be done with it. Grey or white goods naturally can stand a more energetic treatment than dyed ones; but in printed goods, when the color has been destroyed, the damage can seldom be remedied.

Although mildew is quite often found upon lyed and pronted goods, it occurs far more frequently upon pieces of goods in the raw condition as they come from the loom or from the fulling mill, unless they are washed without delay. There is nothing more apt to cause fermentation, and consequently the growth of mildew, than the impurities naturally adhering to the fibre, especially to wool, and those which have been deposited upon it in the course of manufacturing. Remnants of suint, of dyestuff, wool oil, glue or dressing, etc, in combination with the moisture introduced with the wet filling in weaving, contribute materially to heating the goods, so that in sultry weather, if the goods are left in a heap under the loom, os in some other little-ventilated place, twenty-four hours are often sufficient time to start the formation of fungi. The space under the loom should be kept perfectly clean and airy, and in weaving looms on the ground floor it is advisable to drop the pieces loosely in laps into a shallow box, and not directly on the floor under the loom.

The safest method to prevent the formation of mil dew is to wash the pieces clean immediately from the loom, and in the case of woolens, if they cannot pass
directly into the fulling mill, to dry them, or to carbonize them, as it has been observed that light vat-blue goous, when carbonized with sulphuric acid, can be left to lie in the wet condition much longer than non carbonzed goods without being attacked by mildew. Carbonization is, moreover, recommended not only as a preventive, but even as a curative operation as long as the development of mildew has not passed beyond the first stage.

In all cases, the goods coming from the loom or from the fulling mill ought to be dried at once and kept in a dry place; and in no case should they be allowed tolieduring the manufacturing process for any length of time, while moist or wet, closely packed. The neglect of this precaution, leaving the full go ids for many hours, perhaps days, unvashed in the fulling mill, or even washed in the trough of the washing machine, be fore drying, is the principal cause of muldew, particularly upon vat-blue dyed pieces.

## TWITS IN ROVING.

The word "twit," as employed in the woolen mill, is one of the many terms which have been sanctioned by long usage, and which to the unintiated are meaning. less, and what is unfortunate, too, they are more or less frequently misleading to those who are almost constantly associated with the work of the carjing, spinming and weaving departments. They probably originated in some local, provincial usage, and had a special and well understood meaning, but after many years have come to be applied to a variety of objects, or conditions, which have no connection with the original signification of the term.

Taking the word "twit," for instance, the writer has had has attention called to almust every species of unevenness in roving and yarn under the general desig. nation of "twitty work," by carders, spinners, and weavers, and even managers and overseers themselves. Had the shorter and universally understond word "cut" been apphed to the defect that is now known as a twit, when this word is intelligently used, no such confusion would have resulted, for cut would so clearly define what the defect really is, that hardly any one would be likely to class other faults under this head.

The real twit is a short, fine place in the roving which has not received its full complement of fibres, or from which a portion of them has been taken. In euther case they have the following distinct features: absence of the shorter fibres composing the stock, uniformity in size for their entire length, with shoulders at each end coming almost to a square cut down from the adjoming coarser roving. They are unlike the fine places which cannot properly be called $t$ wits. It seldom happens that any of the stock which these places lack finds lodgment in other portions of the stran 1 by means of which a perceptible enlargement would be produced.

The original loss of stock at these places may be caused by the teeth becoming jammed down, or broken out from one or more of the cylinder sheets, or from
other spaces on the cylinder surface from which the points of the teeth have been faced. But these spaces must be of considerable width and the teeth quite low, or the teeth or points altogether gone. Low surfaces, lack of teeth or of points on the rings, will also make twits, only in this case a very slight defect will produce them.

Again, ring twits are often made by high teeth, which are roughened by contact with the cylinder, or by those which are set up too straight, or are pitched too far backward, as well as by those which have for short distances been loosened in their setting, so that they drop backward on the down turn of the doffer, and fail to catch the stock from the cylinder.

It will be seen that with perfect clothing, true surfaces, good points, and clean stock there will exist none of the causes which ordinarily produce twits. Therefore, if the above causes exist because of the abuse or neglect of the carder, or his assistants, or because when he finds them in existence he fails to remove them, then it is his own fault, and the blame should rest upon him alone. But if his employer compel him to use worn out card clothing, or work stock that cannot be thoroughly cleaned before it reaches the rings, neither he nor his overseers, who may suffer because of the defective roving resulting, have any right to complain.

There are, however, twits which are produced by other causes than those mentioned, for which no one but the carder is responsible. There are twits which result from the web of the roving being pulled from the rings with hooked points or being drawn too rapialy from smoother points, or because bits of stock are torn from the roving by the roughness of the wipe or rub rolls. Another class of twits, known as roller twits, are produced when the rub rolls are either out of true or unevenly set.

The twit is, in fact, nothing more nor less than an incomplete break, and the same causes that make them are often sufficient to completely sever the strand. But whether any cause or causes will make a more or less pronounce.' twit, or a a break, depends very much on the kind of stock that is being worked, and how well it is carded at the time that it reaches the rings. Long, even stapled wools, especially the coarser qualities, are the least affected by any of the causes mentioned above when worked alone; but wher these same wools in small proportions are mixed with shorter fibre stocks, they form a combination that is especially susceptible to the formation of twits. The fact is that where the difference in the length of the fibre is extreme, the longer ones will often pull twits when none of the other enumerated causes exist. Short fibres of uniform length will not escape breaks and depressions without twits, but are not so easily pulled into unevenness as in the case of mised stocks.

It also depends much on the size of the roving whether twits appear at all, and to what extent the roving is cut if they do appear. Very coarse roving from stock that is particularly liable to twits will show
no defects from causts that will completely break finer strands made from a much superior stock. Twits which are not serious when made can be render ed very much worse, or be changed into breaks by being drawn too tightly from the rub rolls to the spools on the card, and from the spools to the rolls on the mules, and by the mule carriage being drawn too rapidly while the roving is running out, or by getting in too much twist before the drawing is finished. In fact, these things and some others, such as too much weight in winding, and a labored and jerky motion of the mule carriage and followers, will make both twits and breaks where none previously existed.

There is no defect in yarn so annoying to the weaver or more injurious to the fabric than twits, and this is especially the case with knit goods. They make a weak yarn, multiply the breakages, and in consequence increase the knots from the card to the loom and during weaving. The knots and such of the twists as remain unbroken are both flaws that often may and do become holes in the finished fabric or appear as soon as the goods are used.

In view of the close inspection given to the goods by buyers and their ever increasing disposition to find defects, it seems very poor policy for any manufacturer to give his carder any excuse for making roving that is almost sure to make damaged goods. It is all the more unwise to put conditions upon him which make it impossible to avoid poor work. This is one of the results when manufacturers do not inform themsel ves as to the minor details of the mill: There is a too prevalent disposition to "save at the spigot." A small increase in the amount spent in properly attending to the machinery and cleaning the stock would put the danger of a loss on the finished goods completely beyond possibility.

In the matter of card clothing, doffer rings are liable to injury at any time after they have been put in use. They are expensive to replace, and it often happens that when a few of them are damaged, even so much as to make them beyond repaii, they are run for montrs and even years, because in many instances the replacing them would involve the purchase of a whole set of rings for both doffers. Even when this must be done a little calculation will show the economy of it. Two damaged rings on ach doffer will injure to per cent. of the work produced from that card. If this is worked into goods, there will be of course to per cent. of the production in imperfect goods. But it is seldom that such yarn is kept separate from the perfect, and therefore this io per cent. is liable to affect the entire cutput of the machine, and this is often used with the production of several other machines. The defective yarn produced by one machine will frequently injure many thousand yards of the finished product. if not the entire output of the establishment.-Manufacturers' Reviez.

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## PREVENTION BETIER THAN CURE

A mistake made in any process can never be altogether remedied; more thought should be given to the prevention of bad work than in finding out remedies for it, says Hugh Ballentyne in Wade's Fibre and Fabric. It is therefore of great importance that each process, from the first onwara, should have the utmost care, that no faults should be left for the succeeding process to rectify. In the first process, the wool sorting, meny manufacturers think that by reducing the sorter's pay and demanding an increased quantity of work they are saving money. Generally speaking, ycu will find no really practical men trying to do that sort of thing (for you must remember that all manufacturers are not practical men) if they understand wool sorting thoroughly and realize what results from long, coarse, and dead hairs getting into the finer sorts, which cannot be avoided if men are made to rush a certan quantity through each day; tie long, coarse hairs causing the roving on the finisher doffer rings to catch each other, in spite of the dividers, and either cause two rovings to run on the spool together or make them ragged, spoiling the yarn and causing extra waste. The dead or kempy hairs will not take the dye hike the other wool, and in some classes of goods much money is wasted in the finishing room, pulling out those specks or covering them with the pen. They save a cent a pound in wool sorters' wages and pay two ce ts trying to remedy the evil, and leave the finished gonds, to a certain extent, ragged from the use of the burling irons, or spotted from the ini.. In regard to the picker room, although I have spoken of it in former articles, I must further saj that the ignorance displayed in this department in many mills is simply disgraceful. Every kind of material is treated alike. They seem to have no idea that any skill or care is required. They allow their picker man to rush the stock through as heavy as the machine will take 14 , the longer and heavier stock flying in one direction and the lighter weight stock in another; and if they find him loafing around for an hour or two, they think-well, he is the best man we ever had ; he can put a batch through in half the time the other fellow could. Now let us look in the card room for the result of this expertness in the pickerman: The carder finds himself in a snarl ; part of his batch is in lumps that can hardly be torn apart, and cannot possibly be mixed evenly with the opener stock in the process of carding; whereas of he had given the machone all the time necessary to do the work propely, and run the different kinds of stock in the lot through a number of times in proportion to their openers, or otherwise, instead of rumng the machne half the tume and loafing the other haif, the carder would have got his stock in better condition, ard the Eramwell or other feeder would nut have to bear the blame of bad work, which rightly belongs te expert ignorance. The same applies to the hatuts of some few rarders with rush the work through ther first breaker, causing them to be stopped an nour or two each day, till the other parts catch up. They
simply spoil their work, and make of no effect (or worse) one-fifth of their carding space. The first breaker should be fed hight enough to cause it to run every minute of its time to keep the other parts going. The average carder has skill enough, if he gets his stock in good shape, to so set his wire and arrange his speeds that good work will be produced; but in many cases he errs in not realizing that his workers, strippers and spool drums should have as steady a motion as his cylinders, instead of the jolting motions they sometimes have without causing him any thought or uneasiness.

## DUNDEE AND INDIA JUTE TRADE

We have referred in past issues to the condition of the jute trade in Dundee, the great centre for the manufacture of that article in Great Britain. Within the past year over a dozen Dundee firms have had to meet their creditors, and in too many cases the dividends paid in these insolvent estates have been very small. The fact, appears to be that Calcutta is gaining what Dundee has lost, and it has become a saying that Dundee is being transported to the banks of the Hughli. The promoters of the new factories in Calcutta assert that they are able to produce standard makes of hessians at littie more than the cost of Dundee labor ; and Lancashire also in a lesser degree is feeling the effects of Indian competition in this line.

A report by J. A. Baines, of the Indian Civil Service, on the progress and condition of India during the year 1891-92, gives some information regarding the growth of the jute-manufacturing trade of India. The following table shows the advance since $188 \mathrm{r}-82$ :

| Yeas | No. sills | Number of |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 1200ds | Looms. | Spindies. |
| 188982. | 21 | 40.551 | 5.655 | 90.755 |
| $1 \mathrm{SS}_{2} \mathrm{~S}_{3}$ | 20 | 42,797 | 5.633 | 95.737 |
| $12.33-4$ | 23 | 47.855 | 6.139 | 112,650 |
| 1584.85 | 24 | 51.002 | 6.926 | 132.740 |
| $1 \mathrm{CS}_{5}$-5ti. | 24 | 47.640 | 6.653 | 120.94 |
| 18550.87 | 24 | 49.015 | 6.911 | 135.593 |
| ISS7-S5 | 25 | 56.007 | 7.389 | 146,302 |
| 1859.59 | 23 | 59.722 | 7,S19 | 152.667 |
| 1SS9-80. | 27 | 60,630 | 8,104 | 158.326 |
| IScony | 27 | 62.739 | S.204 | 164,745 |
| 1831-92 | 27 | 66.333 | 8,695 | 179.155 |

While the manufacturing business has thus increased, the progress of the export trade in jute has developed even more. In 1 S 92 the quantity of manufactured jute was a little more than double that of 1881, while the shipments of raw jute increased :7 per cent.

In is noteworthy that though the home trade in the United States was never more depressed and prices never lower than during the past year, tie American exports of textile manufactures are considerably less so far this year than in the corresponding part of $x$ S93. The exports of woolen manufactures from the United States for the seven months ending July were $\$ 22,327$,267 last year, agr ${ }^{2}$ nst $\$ 9,636,27 x$ this year, while coton manufactures declined from $\$ 3 x, 632, \$ 34$ to $\$ 13,381,806$
in the same period. The reports from American trade centres seemed to show that the low prices at home were enabling manufacturers to export more largely, but the trade returns do not bear out the impression.

Ir is pleasing to be able to note that the factories in several towns of the Southern States, which were built and have been carried on under the co-operative system, have been remarkably successful, even during these hard times. The shares are subscribed for in small weekly payments extending over several years.

The American Wool and Cotton Reporter is lahor. ing under the illusion that India offers a wide field for American cotton goods. Considering that from tume immemorial the skill of the Indians in the manufacture of all kinds of textile fabrics has been one of the marvels of the industrial world, and that since the adoption of modern machinery the Indian mills have not only been steadily ousting foreign goods, but are encroaching on the Euglish and German manufacturers in neutral markets like Africa, it is hard to see on what ground such an ambition is built. The United States has no trade in its textile manufactures there now, and, unless for some odd lines, it is not likely to have, this side of the millennium.

The weakening effect of steam on woolen goods is not fully realized by many manufacturers. A simple test will show how much injury can be done to woolen goods by steaming. Take two bobbins of yarn, steam one of them well, and stretch a thread of equal length from each. Even a test by hand will show the difference if a strength testing machine is not to be had. The unsteamed yarn will be found to be not only much more elastic, but will not break till a much heavier strain is applied to it. If a magnifying glass is applied to the two, it will be found that in the steamed thread the fibres are broken in places, swelled in other spots, and that the scales have started or separated more or less. To make good substantial cloth out of such yarn is impossible.

OUr Australian cousins of New South Wales have decided to establish several sericultural experiment stations in various parts of their colony, the principal one to be at Hawkesbury Coliege. There seems to be a large number of people in sustralia wishing to enter into the industry of silk culture, but who have not the requiste number of mulberry leaves at hand to render this feasible, and the Government have already, there fore, leased a large plantation at Booral. This and other plantations will be used for supplying leaf and scions to private persons. It is probable that the Agricultural Department will establish a farm, where students will be taught not only the art of silk culture, but also how to set about in the formation of small private sericultural farms for themselves. Australia has many adiantages for the successful operation of this attractive industry, and we wish it success.

Inish manufacturers have been delighting in prospeets of the renewed popularity of embroidered muslins. In $18_{30}$ and thereabouts the industry of making cotton
embroidered skirts to bodices was one which gave employment to hundreds of thousands of hands in I'ster and all parts of the Emerald Isle. It is stated that one of the chief reliefs to the people in the time of the famine of $\mathrm{I}_{4}+7$ came about by ext-nding the distribution of embroidery. There was some talk in lashion's circles last spring as to a renewed lease of life for embroidered muslins, but the dull and wet summer put an effectual stop to any further developments Now, however, the promise is repeated, with the provisc, however, that the designs are to be worked in silk instoad of cotton as heretofore. Whether anythingr will rome of these brightened prospects remams to be seen. but anything that promises hope for Ireland's industrial masses is to be heartily welcomed, and Delfast manufacturers are on the qui yive.

Ans English draper (it is a pity, by the way, that we do not get into the use of the word "draper " instead of "dry goods man," and of "haberdasher" mstead of "men's furnisher," or that still mure inelegrant and more common phrase, "gents" furnisher,") adopted an original means of advertising himself and pushing trade. He had opened out a drapery shop in a thickly settled part of the town, but though he made a living he did only a quiet trade. At last, becoming tured of the slowness of business, he rented a place farther duwn the same street, and, inder another name, ertered into a violent rivalry with him self. The result was that he dod a rusinng trade in the new place, while there was an immediate increase in his trade at the old stand. The circumstance illustrates one of the weaknesses of human nature. The scheme, though a shrewd one, will not have many imitators in Canada-there are too many mer on the look out to start the ather store.

The growth of the imports of Egyptian cotton to the United States is one of the most remarkable of the incidents connected with the textile indusiry of that ecuntry. This business, says the Tixtile Ricurd of Philadelphia, began so recently as isst, so that it has attained its present considerable proportions within a period of ten years. In 1889 the imports of the staple to the United States amounted to a little less than three million pounds. In 1593 they had reached the quantity of twenty-eight million prunds. The Egyptian staple is valued here because ts unuvual lingit purmits it to be spun into soft yarns. For that prorp ise it is. mixed with domestic cotton and the yarns are used for hosiery and other knit fabries. Indeed the increase in the use of Exyptian cotton has luen win. cident with the extraordinary development of knit goods manufactured in the lenited states. Simultaneously a demand has appared for Pornvian rotion, of which, in 1889, this country took urly 2.873 pounds, while in 1 N 93 the imports amounted to $3.412,619$ puands. This tibre in many partuculars resembles wool, and it is very servizeable for mingting with wool in the knit garments of wo 1 and cotion, for which there is a gieat demand. The Sea lilimulention planiers in our southern countries observe with some
alarm the favor extended by American spinners to Egyptian cotton, the price of which is low. If the imports shall continue to increase we shall probably find the planters insisting that Congress shall give them the benefit of a protective duty. A demand to that effect has indeed already been heard from some individual planters. But if the duties upon cotton fabrics are to be reduced, it will be a long time, we imagine, before the representatives of Northern manufacturers will be willing to extend protection to Americans, who have always refused to approve of protection to Nerthern industry.
H. M. Neill, the cotton statistician, estimates the American average under cotton at $21,000,000$ acres, and allowing the yield to be so per cent. better this year than last, the probable output of the present crop at $8,000,000$ bales. This estimate caiculates $2,450,000$ bales for Texas and $6,450,000$ for all the remaining States. It may be remarked that should each one of the cotton-growing States equal its previous best production, there would be an averase product of 216 pounds per acre, which on $21,000,000$ acres of land would represent about $9,600,000$ bales, and present prospects in each State point to a prospect equal or even superior to any previous crop. Taking $8,900,000$ bales as a basis, and giving to Americau spinners an allowance of say 320,000 bales more this season then last, and to European spinners the same as last season, there will be added to the visible supply by Sept. 1st, 1895, over $1,000,000$ bales more than on Sept. ist this year. Of course this leaves out of account any possible decine in prices such as would be likely to stımulate consumption considerably and to tempt spinners to carry extra latge stocks.

While agreeing in the man with our article on the subject of intercolonial Conference and our relations with the other British colonies, the British Columbia Commercial furnal has this to say as to the attitude of Canada: " Wie must confess to having a liking for thes idea of national unity; but, in order to attain it and its best results, there must not be-as we fear is too prominent-the idea of all the giving being on the one side ard all the taking on the other. Some of the colonies have already shown their disinclination to make any more concessions than they can avoid, while Ca nada has mamfested the utmost magnanimity in conceding almost everything that is wanted, trusting to Providence or to the future for her reward. We may be parochial in a measure, but may not the same be said of the people who heve under the Southern Crossonly to a larger extent? We are content to wait to see how they will be preprared to meet the situation; but we want them to do something soon in the way of reciprocity in their local tariffs with whi h it will then be possible to deal. Let them show their sincerity in the question of relations with Canada by taking action in this direction, following it up by assuming a fairer share of the burdens of the steamberat and cable service than at least some of them appear at present disposed to shoulder."

The China-Japanese war has drawn the attention of civilized cotton mill owners to Corea, and they are wondering whether, under the present aspect of affairs in that oppressed country, the gathering of this season's cotton crop will ever become a fait accompli. The area in Corea under cotton is roughly computed at 872,000 acres, and the annual consumption of the natives would be about $300,000,000$ pounds of cleaned cotton, their garments almost exclusively consisting of this fibre. The quality of the cotton grown in the peninsula is thought by some to be superior to that of Japan in durability and warmth-giving qualities. The plant blooms in August, and the gathering of the crop usually takes place in October, and is carried on by women, who chiefly perform also the work of separating the lint from the seed. For this purpose, the primitive roller gin is used, the daily output per worker being about 3 lbs. of clean from 12 lbs. of seed cotton. The spinning is done upon the old-fashioned "wheel," one thread being made at a time. The size of cloth usually turned out in Corea is about 60 ft . long by 14 in . wide, and weighs between three and four pounds, the price varying from 53 to 66 .

Some of the American trade papers are of the opinion that under the new tariff the Anerican woolen manufacturers will have a fight for their lives. The importations of woolen and worsted goods in men's wear, says one paper, have been confined in past years to the finer grades and to what are known as Bradford goods, corkscrews and Clay worsteds; very few fancy goods have been brought in aside from the finer grades of Scotch cheviots in woolens and the fine fancy worsteds from England and Belgium; specific duties have been a bar to the importation of the medium and low grade woolens made largely out of shoddy. It is probably within bounds to assume that the importation of fine goods would not be materially affected by a change in the tariff-they have a certain outlet here which is not dependent upon or disturbed to any degree by tariff schedules. There are some people who will buy an article that bears a foreign stamp-the fact that it was made abroad is sufficient to sell it regardless of its intrinsic value. The domestic manufacturer has never been brought into direct competition with the low and medium grade foreign goods, except in Clay worsteds, and he has no accurate knowledge as to what such a competition would be should it ever occur. Naturally under these condtions ne is ap-prehensive-he faces an unknown danger. He regards the pending bill as a menace to his industry, and this means that over 75 per cent. of the men's wear industry of this country is threatened. He argues that if Bradford can accomplish what she has accomplished on Clayworsteds, why cannot Battley, Dewsbury and other centres of low grade geods do likewise on their specialties? As the Bradford manufacturer held this market up to a few months ago, it seems fair to assume that under a low doty the English made low-price goods can come in in large quantities.

The Bureau of Statistics at Berlin complates that the power capable of being exerted by the steam engines of the world is equivalent to that of 200,000 ,000 horses, representing approximately $1,000,000,000$ men, which is, roughly speaking, about three times the working population of the earth. This is an interesting fact, though the figures are too colossal to be thoroughly comprehended by those not born statisticians, but its interest will no doubt be dwarfed by the result of the forthcoming inquiry into the effect of modern machinery upon labor and production, which will be commenced shortly by authority of the American Congress, under the presidency of Col. Wright. In 1885 it was stated that the mechanical industries of the United States were carried on by steam and water power representing $3,500,000$ horse power. Each horse being taken as the equivalent of six men, it would require for this work, if. men alone were employed, $21,000,000$ men, representing a population of $105,000,000$, or about twice the entire population of the United States when the computation was made. These industries were carried on infact by $4,000,000$ persons, representing a population of $20,000,000$. To judge correctly the various influences which this vast amount of inanimate power must have had upon the fortunes of the human race, will prove a difficult matter, but there can be but little doubt but that the general verdict will be that it has contributed in an enormous degree, more perhaps than any other single agency, to man's elevation and happiness. The working man of to-day has in many respects more privileges and comforts than the millionaire of two centuries ago, and yet we may say with Laveleye that the industrial activity of the past fifty years has merely been to equip the world with mechanical tools, the full use of which have been reserved for future ages to carry out.

## gigging.

If a practical woolen finisher could have taken a look at a woolen worker in ancient times, he would have seen many things to interest and amuse him. And we might say that could he have taken a look at a maker and finisher of woilen goods of a century or so ago. he would see much that would surprise him as well. One of the departments that would have surprised him most, no doubt, would have been the gisging.

The most crude way of doing the work which is now done by the gig was to use a large hand frame or stretcher on which the comb-like teasel was meunted.

The operator sat before a large frame over which the fabric under treatment was drawn. When it was pretty taut the hand card or teasel frame was brushod lightly over thes surface of the goods. first in the direction of the warp, and then in the direction of the filling. Thus, after much time and toil in this crude and uncatisfactory way, the goods at last presented a-nap which could be subjected to the work of the shears. For practical purposes we may lock upon this method as being the predecessor of the modern gis.

Great skill was often attained in the handing of this primitive implement, so that a wonderfully evenly finished picee of goods was the resule. The strealed and irrecular appearance of some gigsed goods of the pracent day was almost wholly wanting. But the great trouble with the process was that it was so very lengthy, and then it could not be successfully made to raise a thick and well haid nap.

To make a really uniform fabric the gigging must be exactly alike in every part of the piece, and no spot must be subjected to any amount of working of which another as deprived. It is quite plan that when the giggong vas done according to the old method described, it was impossible to produce such a perfectly finished fabric and such a uniform nap

While the old hand method was successful in avoiding the streaks which are too common on the modern gig, it erred just as far the other side in being the cause of tou much irregularity in finsh over the whole length and breadth of the piece.

It was a very natural advance now from the primitive method up to the old style up and down gig, and in both cases the teasel was the most natural thing to use for the purposes to which it scemed particularly suited. Now in gigging as it is carried on today there are two or three considerations connected with the mere mechanical part of the work which it is very impurtant to notice

The first of these is the teasel. the second is the tension of the goods as they are brought into contact with the running surface of the cylinder, and a third that may be mentioned is the condition of the fabric as regards dampness when the operation is undergone.

It will be well, then, to take up successtvely these three important fac'ors, as it would only be a waste of time to argue as to the relatue merts and demerits of the arious hinds and makes of gigs as they appear in the market at the present day

The teasel is a part of the gig which usually gets but little consideration, far less indeed than it really deseryes. There is a tendency to replace it by the use of wire, but this is by no means an innovation which will take the place of the old teasels entisely. The wire gig may be better suited for some kinds of work and on some classes of stock, but to be universal there must be many changes in the nature of the hook or point which at present have by no means matcrialized.

The teasel point possesses a certain rigidity and at the same time a degree of elasticity which no manufactured article that has ever been discovered can attain.

If the teasel pount comes in contact with a knot os lump on the surface of the cloth. it will be bent back by the velocity of the cylinder, but after the bunch is past the point returns to its original position and no damage is done. With a wire or steel point the likelihood is that either the cloth would be injured or the point would be permanently impaired.

From the nature of the teasel puint it is particularly welt suited for this purpose. Not only is it made up of a barb or point similar to a wire or steel point, but all along the edges of the barb there are little teeth or points uhich add their part to the ease with which the barb is enabled to do its work.

It is for these reasons that the teasel seems so much better adapted for its work than any other article. Its effect in soorking up the felt into a nap and in opening up the thbres so that all imperfections and foreign substances are removed, is so markedly superior that its cultivation has become quite an industry, and where it is used in the mills its care and preservation demand the special attention of those who have anything to do with it.

In making the use of teasel the two great points to be kept in mind are the mounting in the teasel slat. and the wear upon it after it is in use in the gig.

When a lot of teasels is received at the mill it should be stored in a dry place where the teasels will no: absorb moisture and become limp and useless. Then in mounting the teasel in the slat much of its effectivences is secured They must be set in the slat so firml; that they will stand all the speed and workigg about which will be brought to bear upon them after they are in the cylinder. There must be no open spases between them, and the ieasels must be as much as possible of one quality. Some advocate moistening the teasel before it is mounted, so that it can be the more firmly and casly pressed into place. But the desirableness of this stcp is not sufficiently demositrated to anpeal to all, as yet.

When the teascls are properly set, witit the whole surface of the teasels as they are ranged in the stit uniform and regular. there is no reason why they should not run on ordinary woolens for eight or ten days and do rood work.

Then for economy's sake and for the sake of the teasel, too, the slat can be remounted and the teasels placed so as to expoje another and yet unused side to the working part of the slat. If this is done we have our everal grades of teasels, and at the same time make use of the same teasel in three or four different sets where it will do good work in each

It has alwars been one of the greatest and most important points in gig manufacture to regulate properly the tension of the cloth as at is stretched before the cylinder of the gig so as to allow the machune tudoits must effecture wurk, and yet brang about the best results in the cloth. This is the second pent under cunsidemtion. and it is a point which cannot be satd to have been wholly mastered even yet.

In the old style method of dung the work of the gig. ic . by the hand card or teasel stretcher, we saiv huw impossible it was to exautly regulate the tenston of the c.luth suas to make it possible to treat every part of the fabric exactly as every other part was treated. This difficulty, which presented itself thus early in the histury of the process, existed as well in the early gigs of a more modern type.

The difficulty is one which is natural to the process. While the tension of the cloth asit is stretched between the two rollers of the machune may be the same at different tumes, it is quite evident that if a prece of gwods weighs lighter or heaver than the standard, the same teasion on pleces of such differing werghts will give different results in the finished piece. It is when such goods as these are taken into consideration that the matter of tension becomes one of importance.

Then, too, a difference in the number of picks will so alter the construction of the goods as to make them act differently under like tension, and consequently receive the same treatment at the gigs differently also The most modern and improved gigs have done much to obviate the difficulties which were attendant upon the matter of tension. But it has mainly been of a mechanical nature, and so long as goods come along quite similar in weight and weave the tension can be well enough regulated. But on light weight tabrics, requaring but little gigging and differing more or less in weight, we still find it more or less hard to overcome the trouble even at the present day.

In the third place we have ye to consider the actual condition of the process. The man thing to be taken into account is the state of the cloth when the process is undergone. In certan cases the cloth is dampenid either before or during the gixging process, and in others it is sourked on achale at is perfictly dry. The difference of course is at once evident in the difference of finsh. Where the cloth is gigged damp of wet the fibres will naturally tend to lie down close to the surface of the fabric. and when the piece gets to the shear the revolver blades pass over them and leave them much as the gix left them, at least so far as the bottom is concerned.

The cause of this is fuund in the nature of the wet fibre, which more readity retams uts position when damp. The teasel serves to comt and lay the nap in a certann way, and when the shear gets at it. it is whth difficulty that it touches it at all.

The wetting of the goods is aceomplished by means of an ordinary sprinkling can, or by a series of perforated pipes so arranged as to eject a strcam of water at the proper time and place. It is in this way that such goods as dcenkins. broadcloths and beavers ate treated, and it is the distinguishing feature of many of the finest tinishes in the market to day

By the other method of gigging dry a different kind of finish entirely is produced, but the process is much the same. except that the water is !eft out. This method is not used where the surface of the geons is experted to poness the fine and soft finish which the former always produces.

The libres when dry stand up more conspicuously in place. and are readily eut by the shear. This makes the gieat difference in the finish. Close cut faces. dress soods, some worsteds and cesimeres are usually ticated in the dry methed.

In torth casescare must be taken not to push the cloth too foreilly on to the teavels, or a tender fabric will be the result. The
teasels should be started slowly and gradually and with the oldest and softest teasels first, then the sharper may be used as the work progresses.-Textile Record.

## DIAMINE BROWN.

W. J. Matheson \& Co., manufacturers of dyestuffs, New York and Montreal, have issued a set of beautuful samples dyed with patented "Diamine Brownal.' They give the following as among the properties of this color:-

It dissolves very essily and completely. In shade Diamine Brown M stands between Dramine Brown V and Cotton Browns $A$ and $N$, of this firm's products.

Method of dyeing cotton. - Dye as usual for one hourat the boil with the addition of 5 per cent. soda and ro per cent. glaubers salt, or 20 per cent. glauber, salt only. It dyes very level, and the baths are aimost completely exthausted, when light and medium shades are dyed.

The fastness of washing of Diamine Brown M is very good indeed, and surpasses that of Cotton Browns $A$ and N. However, by boiling the dyeings for $1 / 2$ to $1 / 2$ hour in a bath containing $21 / 2$ per cent. sulphate of copper and $21 / 2$ per cent. potassium bichromate of the weight of the cotton, the fastness to washing is rendered as complete as can be obtained even by diazotizing and developing. They recummend this treatment with metallic salts after dyeing. as it also makes the shades fuller and richer, and increases the fastness to light.

Diamine Brown $M$ is of all the brown direct dyeing dyestuffs the fastest to light, and in this respect it will, especially in dark shades, answer all requirements. Its fastness to acids is good. Its fastness to hot pressing is excellent. It can easily be discharged with either tin salts or zinc dust, the latter giving somewhat better results. This property, as well as its dyeing very level and its good fastness to light, renders this product very valuable for padding and discharging.

For dyeing fabrics composed of wool and cotton, Diamine Brown M will be found particularly suitable. and its property to dye the cotton is such fabrics a deeper shade thar the wool renders it of special value for this industry.

With the addution of 5 per cent. acetic acid or 5 per cent. acetate of ammonia and 2 per cent. acetic acid, dycings very fast to washing are obtained on wool, which by subsequent boiling with the addition of 3 per cent. fluoride of chrome or 3 per cent. bichromate of potassium, are rendered very fast to milling.

Silk is dyed the same way as wool. Direct dyeinge possess a very fair fastness to washing and water. If, however, the dyed silk is boiled with 3 per cent. bichromate of potassium, or still better with 2 per cent. bichromate of potassium and 2 per cent. sulphate of copper, dyeings of an extreme fastness to milling are obtained.

Amongst the difficulties which bleaciners have to confront. stans of lubricating oils and oily threads woven into plain cotton goods are the most troublesome. They resist all bleaching operations, even the lime boil, and can hardly be removed, previously to bleaching by hand, with soap and warm water. Boiling with soap before bleaching is of no avail. The removal of such stains is considerably facilitated by the application of a solution of $\$ \mathrm{oz}$. of best white soap dissolved in 2 pts. of water, 10 which 302 acetyl ether and 202 ammonia have been added. The dirty places are wetted and well rubbed with the solution by means of a sponge or white rag. when the dirt and oil are so loosened that it is usually easy to wash of the lukewarm water. It is best to apply this treatment before bleaching. because the bleaching operations have a tendency to react upon the oil and change its character, so that it becomes more pronounced in color and mere difficult to remove Then, again, should the process not entirely remove all the oil stain, the little whech may be left will be more easily removed in the bleaching operations. Very dark and old oil stains are difficult te remove, but the remedy given above may be tried. Another plan is to wet the places with olire or cotton-secd oil, allow it to soak for some days, and then bleach as usual.-Textile Mercary.


THE "Canadian Textilo Directory" is a relerence booh comprising all manufic. turers and dealers in the testile trades of the fominion it embraces Cuttons, Werilens, I'rint Giowls, Carpets. silt, Jute, Ilax, lelt, Ikubber, and Asbestos Goods. Clothnes. Den's Eur nishang (Inderdashery). I adien Wear Buttuns, Ieather, Jili Desing Poth Itshments, and Laundries. Iurniture. Cphulstety and l'ghedsterer- Sispries S.uls, Tents, Inning. Winlau Shulem and Wall Iapers. Mannfaturery and Dealers in IIats and Furs. Paper Millv. Traler in Raw Wimil Furs and "'aptoll "ith prinrigal Dealers in Derectufis efr

It grinecs lists of all Vannfarturers' Agents, Commission Merchants, and Wholesale and Retail Dealers in the Irs Fomeds and kinired trades of Canada Also, Statistics, Tables of Imports and lisports Customs Tariffs of Canada. Newtoundland and the Inited States, the Canadian lioards of Trade and Testile Associations and other information The Third Edition includes also the Trade of Newfoundland.

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## THOMAS BROADBENT and SONS

CENTRAI IRON WORES
CHAPELHILL, HUDDERSFIELD FNGLAND

## Textile ${ }^{\circ}$ Design



Warp $-2,030$ ends, to harness straight draw
Reed : $-141 / 2 \times 2=70$ inches wide in loom.
Dressed :-

| $\left.\begin{array}{lll} 1 & \text { end } & E \\ 1 & \square & B \end{array}\right\}$ | $\times 2$ - 4 ends. |  |
| :---: | :---: | :---: |
| $\left.\begin{array}{lcc}1 & \text { " } & A \\ 1 & \text {. } & B\end{array}\right\}$ | $\times 18=36$ | * |
| $\left.\begin{array}{lll}2 & \because & A \\ 2 & \because & B\end{array}\right\}$ | $\times 2=8$ | * |
| $\left.\begin{array}{lll}1 & \because & A \\ 1 & \cdots & B\end{array}\right\}$ | $\times 6=12$ | 4 |

Repeat of pattern 60 ends.
Filling. -30 picks per inch
Arrangement:

| pick C | $\times 2-4$ picks. |
| :---: | :---: |
| $\because{ }^{\square} \mathrm{E}$ |  |
|  | $\times 6=12$ |
| $2 \because{ }^{\circ} \mathrm{D}$ | $\times 2=8$ |
|  |  |
|  | $\times 18=36$ |
| Kepeat of | 60 pici |

Description as to yarns:
$A=21 / 2$ run, dark color.
$B=21 / 2$ run, medium color.
$C=21 / 2$ run, light color.
$\mathrm{D}=2$-ply twist 5 run dark color.
composed of 5 run light color.
$E=$ fancy twist, dark and light shades $17 / 8$ run compound size.

Finish.-Shrinkage in length at fulling so per cent; rough (cheviot) finish, 58 inches finisued width.

Fancy Woolen Cheviot Suiting.


COMPLETE WEAVE.
$8 \times 8$

Warp:-2.244 ends, 16 harness, straight draw
Reed:-11 $\times 3=68$ inches wide in loom.
Dressed:-
$\left.\begin{array}{ccc}1 & \text { end } & C \\ 1 & \because & A \\ 2 & \because & B\end{array}\right\} \times 2=8$ ends.
$\left.\begin{array}{lll}2 & " & B \\ 2 & " & A \\ 2 & " & B\end{array}\right\} \times 12=48$ "

Repeat of pattern 56 ends.
Filling:-32 picks perinch.
Arrangement:-

$$
\left.\begin{array}{lll}
1 & \text { pick } & A \\
1 & \because & C \\
2 & \because & B \\
2 & \because & A \\
2 & \because & B
\end{array}\right\} \times 14=8 \text { picks, }
$$

Repeat of pattern $\bar{\sigma}_{4}$ picks.
Discription for yarns used:-
$A=21 / 2$ run, dark color.
$B=2 \sqrt{2} / \mathrm{run}$, light color.
$\mathrm{C}=2$-ply 33 3 run twast, daik and hvely colors, 6 turns per inch
Einish.-Woolen cheviot finish. 7 per cent. shrinkage in length at fulling, 56 inches finished width.-Textile Record, Phila.
alphabet for weaving


Draft straight . 17 picks, 15 shafts for A. 12 picks, 15 shafts for B, 12 picks, 15 shafts for $C$ Colored yarn ends to be taken as desired. Pegging as required, double or single.- Buston fournal of Commerce.

## SPECIFIC GRAVITY OF TEXTILE FIBRES.

The figures for the specific gravity of textile fibres, as given in works which have appeared in connection with textile industries, are only approsimate. This may have been partly due to the circumstance that the fibres when steeped in water contain air bubbles, which can only be removed with difficulty: and also that fibres possess the property of swelling in water or watery solutions of salts. M. Vignon has endeavored to get over these difficulties by employing benzine instead of water or water containing salts The material to be examined, which possesses the normal quantity of moisture, is first weighed in air and then dipped in benzine, a vacuum ( 0.05 m .) being applied for from five to ten minutes in order to effect a withdrawal of the air. It is afterward weighed in benzine, and the weight is noted. The vacuum is again applied for the same length of time, and if the weight decrease the process is repeated until it remains constant. The following results were obtained in this way. All the materials tested possessed the normal amount of mosture, and the temperature was $18^{\circ} \mathrm{C}$.

Nature of Fibre. Gravity.
Raw cotton................................................... . . 1.50
Cotton yarn. . . ............................................... . . 1.51
Combed wool................................................ . . 1.30
Woolen yarn . . .......................... . . . . . . . . . . . . . 130
Glass wool . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 272
Heckled hemp................................. . . . . . . . . . . $1.4^{8}$

China grass yarn . .......................................... 1.52
Linen yarn....................................................... 1.50

Combed monair. 1.30

Raw French silk ........................................... 1.33
Scoured French silk . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1.50
These figures show that the specific gravity of the vegetable fibres varies from 1.48 to 1.52 , whereas that of animal fibres is far smaller, ranging from 1.30 to 1.34 . Further experiments were made with raw silk, soupled silk (that is silk which had lost 4 to 5 per cent. of its gums), boiled silk and weighted silk, in order to ascertain the influence of weighting and of coloring stuffs on the specific gravity of fibres. In the irst series the fibres were colored with different dyes, in the second they were dyed only black.

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                                    FIRSI SERIES
```

Soupled silk:
Original loss, $4 \cdot 33$ per cent........... . . . . . . . . . . . . . . . 1.33
Weighted with tannin : increase. 47.2S ............... 1.37
Weighted with tin : increase. 7 s.10 ................ 1.94
Weighted with tin and tannin; increase, 32.82 ..... 166 Scoured silk:
Original loss, 25.70 per cent. ............................. 1.34
Weighted with tannin: loss, 7.04 ................... 1.37
Weighted with tin: increase, 5864 ................... 2.01
Weighted with tin and tannin : increase, 32.S2 ...... 1.60
The figures of specific gravity for the second series ran-for soupled silk, 1.34, 1.39, 2.40, 1.43: for scoured silk, 1.34, 1.34, 21.60, and 1.52. This shows, reasans Vignon, that tannins add little to the specific gravity of silk, whereas metallic salts excrt a perceptible influence in this respect.

## AMERICAN TEXTILE PATENTS.

The following list of pateats granted by the Uniter States patent office for inventions relative to textiles and textile machinery is reported for Tue Canadian Journal of Fabrics by Glascock i Co. patent attorneys. Wastington, DC., of whom printed copies can be obtained for 25 cents each.
patents granten since last issue, during august.
IV Senior, et al, Manchester, England, means for fastening card clothing to tlats of carding engines.

J K Proctor, Philadelphia, Pa, carding machine ring doffer cylinder

B H Gledhill, Philadelphia, la., loom jacquard mechanism.
H. Beaumont and G. Washiagton, Leeds, England, loom pattern mechanism.
di T Bartelt, it al, Philadelphia, Pa., loom shuttle picking mechanism

F A Garnsey, Southborough, Mass., loom temple.
H Hardwick, Philadelphia, Pa., woven fabric.
T Halton, Philadelphia, Pa., jacquard apparatus for looms.
W I: Clarke, Kansas City, Mo., cloth measuring device.
r and J Seed, Preston, England, spinning and doubling cops of cotton.
W. W Gordon and T. F. Pye, Hartford, Conn., feed alarm ior carding machines.
W. R. Cartledge, Guelph. Canada, knit fabric and method of and apparatus for producing same.
S. Borton. New York, N.Y., seam for cut knit goods.
E. Gessner, Aue, Gerinany, ring frame spindle
granted during september.
G Lateissiere and G. Chamunt, Dasalle, France, fabric and forming same

Lecaisne. Paris, France, circular knitting machine.
W. P. Kirkpatrick, Arrowsmith, Ill., carpet loom shuttle.
T. Sykes, Philadelphia, Pa., loom temple.

G O Diaper, Hupedale, Mass., spindle bearing adjusting device. sletere whirl and load equalizer for spinning spindles.
of Whight, Hopedalc. Mass , thread receiver for spanang and twisting frames

I II Xurthup, If pedale, Mass., luad equalizer for spinning and iwisting spindles.

J Platt, London, Eng., method of and means for manufacturing card teeth

J II Morin, Wilkinsonville, Mass., loom shuttle.
if s Clarh, Easton, Mass, sewing machine.
J. H Way, Philadelphia, Pa., sewing machine.

G A. and G O. Draper, Hopedale, Mass., spinning frame separator
F. H. Lewington, Burrillville, R I., spiomang mule attachment.
R. H. Gledhill. Philadelphia, Pa.. loom jacquard mechanism.
J. Hill and E. Smath, Nelson-m-Marsden, England, loom pattern mechanism.

A H. Sutton, New York, fabric measuring and marking machine.

R W. Watson, Preston, England, speed regulating attachment for machines for measuring or packaging fabrics.

## AUSTRALIAN WOOL.

Australasia still overtops the rest of the world as a source of our woolsupply The extent to which it preponderates ever other districts growing the fibre is in fact much larger than many would imagine, the proportion being -Australian, 471 million lb .: other growths, ózy millions. These figures, however, do not represent the comparative importance of Australia and the rest of the world as worl-gowing centres They refer mainly to the origin of the supplips forwarded to the English market. It is well known that the bulk of the South imerican wool goes direct to the Continent, and that a considerable proportion of other wools now proceed direct to the districts of consumption Nevertheless the share taken by Australia in the British wool supply is sufficiently striking,
remarksan English exchango. From extremely humble beginnings the Australasian wool trade has risen to a leading place among thegreat productive industries of the world. The live stock which accompanied Capt. Philip from the shores of England to New South Wales, in 1788 , included 29 sheep. In 189 r , notwithstanding that the limits of New South Wales had become restricted by the creation of Victoria and Queensland into separate colonies, the number of sheep was $61,831,416$ This illustrates the suitability of a considerable portion of the land of the colony for pastoral purposes. The earlier sheep were of anordinary character, but the systematic importatron of stud sheep has done much to make the Australian animal equal to any in the world for meat or for wool production. To Captain Macarthur largely belongs the credit of establishing the wool industry in New South Wales. With a view to improving the character of his flocks, he procured from the Cape of Good FIope, at great cost and trouble, a number of superior rams and ewes. A happy circumstance occurred which favored his enterprise; for he had the good fortune to secure possession of three rams and five ewes of very fine Spanish breed, which had been presented by the King of Spain to the Dutch Government. These animals, out of a total of twenty nine purchased at the Cape, arrived in Sydney in 1797, and were disposed of to various breeders. The importation of stud sheep from foreign countries - notably France, Germany and America-which was continued for many years after the superfine quality of Australian wool had been established in the markets of the world, practically ceased even before importation was legally prohibited; for it had become apparent that the fleece, instead of showing signs of deterioration under the influcace of the climate, had on the whole a tendency to improve.

It is now generally admitted that as far as the fleece is concerned, the Australiar. merino has little to gain by any further admixture of European or American blood, but it is also admitted that there is room for improvement in the physique of the animal. To produce a larger carcase, without interfering with the quality of the fleece. many experiments bave been made, but without much success. and it has been found that the crossing of noted breeds of English rams with Australian cwes has invariably resulted, after a generation or two, in a deterioration of the merino. The breeding of sheep for consumption, and for the sake of the wool, has therefore developed naturally into two distinct fields of industry, each of which has become developed on an extensive scale.

## THEORY OF THE FORMATION OF ANILINE ELACK.

Aniline black is formed from aniline by the abstraction of hydrogen This can be effected by several oxidizing agents-by the oxides of chlorine, chromic acid, ferric salts, manganese peroxide, etc. Chloric acid by itself does not transform aniline into black. A solution of aniline chlorate may, in fact, be boiled without decomposition ensuing But as soon as a drop of acid or a small quantity of a metallic salt, whose chlorate is easily decomposed (vanadium, cerium, copper, manganese, iron), is added. black is formed. The chloric acid is decomposed, and the combinations resulting therefrom oxidize the aniline.

For a long time the presence of a superoxidized metal was, on the strength of Lightfoot's experiments, considered necessary for the formation of black. It was thought that the chlorate transformed the metallic salt into its highest oxide, which in turn, becoming nartly reduced, oxidized the aniline. The metallic combination would then be again oxidized by the chlorate and so on. This theory has been defended by several chemists, and more particularly claborated by Antony Guyard. Rosenstiehl, on the contrary, has proved that this view is erroneous, and that the task of the metallic salt is sather the decomposition of the chloric acid. Chlorine, and especially the oxides of chlorine, first transform aniline into emeraldine, and then into black. He supplies in a series of essays distinguished by thoroughness and acamen the undoubted proof that black can be obtained with the oxides of chlorine only, without a trace of metal. The electrolytic experiments of Coquillon and Goppelsroeder likewise show that even without the assistance of a metal the formation of black is possible.

Should we, therefore, conclude that the theory based upon the action of a peroxidized metal is matirely erroneous? We do not believe so, but think, on the contrary, that according to conditions both reactions can occur alteruately. When aniline is oxidized with cupric chloride and an insufficient quantity of chlorate, the misfure after the formation of black contains cuprous chloride.

Like the chlorate, aniline bichromate in a pure state is comparatively stable, but if acid is added to a solution of this salt, black is formed immediately This occurs equally on the tissues and in solutions On the principle, without acid no black, several methods of forming resist pastes under aniline black are founded. The system of Prud'homme is an application of this principle. Often a distinction is ande between aged black and direct black. This might cause the impression that there is a difference in principle between these two kinds of black But in our opinion the ageing has simply the object of allowing the oxidizing agent the requisite time for acting oa the aniline The solution containing the substances required for forming the blacl: becomes more concentrated by the cuaporation of water, and the osidation proceeds gradually in the fibre. The oxygen of the air appears to play a part in this. The ageing can be replaced by an increase of temperature. Thus Lightfoot's black and vanadium black are developed in one to two days by ageing, but can be produced in one or two minutes by steaming.

## VENTILATING APPARATUS.

For the removal of foul air from rooms, of steam from dyehouses, dust, etc, from factories, or for general purposes of venti. lation, the Barney Ventilating Fan Company, of Boston, make the broad claim of having the most effective apparatus known to science.


Edge View.


Face View.

As will be seen by illustrations in this article and in their advertisement, the Barney Compound Ventilating Wheel is a scoop wheel, and is constructed in two sections, each section consisting of a series of blades mounted upon hubs at an angle to the axis of the hub, with the inner straight edge of each blade lying in the plane of the rear face of the section, and the outer curved edges forming the front face of the section. These two sections are united upon a common shaft, with the planes of their inner faces abutting, and the outer ends of each blade secured to a common peripheral central ring, the concave inner surfaces of each two alternate opposite front and rear blades forming channels for the passage of air through the wheel at an angle to the axis of the wheel, corresponding in degree with the angle at which the blades cross the shaft. The compound wheel in central cross section presents an elliptical outhne.

When this compound wheel is rotated, as the blades on the front and rear faces of the wheel flare in opposite directions, those on the front or feeding face will draw the a.. into the wheel, while the blades on the rear or discharging face will beat away the surrounding air and form a vacuum at the rear of the wheel and in $2 d$ vance of the discharged column of air, thereby increasing both the volume and velocity of the columa of air moved throngh the wheel. Another new and valuable principle of this wheel is the pecular form and construction of the vital part of any air-moving wheel, viz., the blade. It will be seen, by reference to the cuts, that the
blade in application is reversed from the form in general use ; that is, the widest part of the blade is at the centre of the wheel, where the speed is the slowest, and the narrowest part at the periphery. where it is the fastest, and as this wheel feeds from every angle, even at right angles to its shaft, the air is drawn into it in a more even volume, and when under pressure the air is retained and does not escape back through the centre, as is the case with other fans or wheels whose blades are not constructed to meet the difference in velocity of blade between the centre and periphery. This is especially valuable in blowing or exhausting air under pressure caused by friction, such as drying wool, forcing air through long ducts, and like work. The "end bucket," a peculiarity of the blade of the fans of some of our competitors, is the cause for the larger h-p. required to operate them, and its efficacy is in a large measure counteracted by the leakage of air back through the centre of thete fans when under pressure. The Barney Compound Ventilating Wheel is constructed with a view to service, made of the best material to be rbtained, carefully adjusted, balanced, and put together, and fully guaranteed to be the best wheel for moving large volumes of air at the smallest outlay of power in the world. It is a modern invention and the result of years of observation, experiment, com. parison, and reflection.

Full particulats regarding sizes of wheels, prices, etc. can be obtained by addressing the Barney Ventilating Fan Company, 54 Oliver street, Boston, Mass.

## ABOUT BURRING.

A writer in an American paper gives the following hints on the removal of burrs, dirt, etc., from wool in preparing it for yarn.-

The worst substances found in wool, and those that give us the most trouble, are the burrs, seeds, etc., and we must get rid of them before we attempt to go any further in preparing to make yarn. There are two methods now in use, namely, by carbomzing and by the burring machine. Each system has its supporters.and whoever uses the one condemns the other. some say that burr.ng breaks the staple, and others say the the chemeals injure the wool and make it mure diffult to card and spin, there as some truth in the objections, but with all the improvements in both systems we can, whih care, uvercume must ut the defects. I he burring machune is the best to use when the burrs are large, but when the wools are full of the smaller impurities, such as broken burrs, seeds, etc, the chemical process is by far superior, and by the use of the same, one will secure much better results, and if this is done properly, sedy wool can be used profitably. Wools that contain dyestuff impurities ought to be run through a good willow to get rid ot the same. Some of these machines that are in use to day, do more injury than good, rolling the stock in such a manner that it is almost impossible to straighten the fibres in the process of carding; see to it that your machine does its work properly, and you will have accomplished one great object for the success of future operations

In burring fine wool, when the burrs are small, the guard must be set very close, just so that they do not tourh, but if the wool is coarse and has large burrs clingin; to it, the rollers must be set a little more open: one's judgment is here called into use, todetermine what the spece must be. A few points where care must be exercised in the successful running of such machines the screen must be kept cican, so that the dirt and other foreign substances can pass through: keep the burr cylinder clean, for if it is not it will not tale wool from the main cylinder, and the machine will roll up the wool until it stops, by not having an outlet , be careful to keep the burrer :mooth If wool flies out with tise burrs, one of two things is wrong: your plate over the top of the guard is not close enough, or your guard is running too fast

The Victoriaville, gue., Furmature Manufacturing Co. have been ancotporated with a capital stock of $\$ 10,000$.
H. \&. N. E. Hamilton, the Montreal dry goods merchants. are instituting an action for $\$ 50,000$ against Bradstreet's. on the ground that they were rated in the latter's July book as having no capital. though in the one published in March their credit was given as good and their capital stated to be $\$ 75,000$ to $\$ 100,000$.

foreign
Textile Sentres
M wenester - According to last reports, a notable feature of the previous week had been the occurrence of the Oldham " wakes," during which, a period of ten days, the mills stopped work. This imparted strength to the market, but whether of more than temporary character remains to be seen. There has been a gradual swelling of the demand for goods for the Eastern markets, whilst the advance in the exchange in the early part of the week improved the offers in hand that had not then been negotiated. Crop reports from all American points continue excellent, with the result that prices of futures have tended downwards. Though the movement has hitherto been only slight, yet it is anticipated with some confidence in certain circles that this will be accelerated, owing to the desire of American dealers to sell the crop as soon as possible. in the conviction that the present will be the best prices. The trade demand for cotton has been considerably larger than many people anticipated, but this is easily explained by stating that observers who expected t to fall of during the holidays have simply missed the time when the falling.off really occurred. While cotton continues dull, it is pleasant to record an improved fegling in both the cloth and yarn market. Yarn is x -16d. per pound dearer in home trade counts. This change is in a great measure the result of cur tailed production, which has induced increased buying. Not only has the home trade been more active, but there has been considerable buying for Bombay in $4^{\circ}$ 's bundles The Continent has also contributed a moderate business in casks. Unfortunately, prices are still unremunerative Bolton counts are exceptionally dull In cloth some business has been done for China for quick delivery in shirtings. Dhooties have been in better demand. Bombay and Calcutta have also contributed to the general buying. There has also been increased activity in the Levant trade, while Egyptian business continues quiet, but healthy Still, there is much to be desired both as regards price and demand. Complaints deep and loud are not yet banished from our Exchange - Offers for mulls and jaconets are very unsatisfactory, and shirtings move slowly. A slight improvement is reported by some sellers of printing cloths in the volume of trade at the low rates current. Fancy cloths command little attention, and makers find difficulty in keeping employedYarn continues steady without evidence of any increase of demand. The preparations for autumn and winter trades are rapidly being pushed forward, and full lines of autumn goods are in the warehouses. In the mantle departments, the three-quarter length jackets give every sign of popularity in medium goods, and the full-length mantle scems to be confined chiefly to the higher grades. It may be taken for granted that velvet will be very extensively used this season for every purpose to which it is adapted, and the makers should do a very fair business.

Bradford. -The recently improved tone of the wool market here is fully maintained. Values of some special sorts are quietly creeping upward, and although consumers delay buying as much as possible, both Merino and crossbred tops are hardening in price. Spinners of all classes of yarns are gradually getting more business as the arrangements of manufacturers, both in this country and abroad, for the coning spring become more advanced. The market is'in a very sensitive state, which mekes it extremely susceptible to contradictory reports, which are arriving every hour in reference to the interpretation of the American tariff bill. In piece goods there are rumors of orders being placed for America, both in dress goods and worsted coatings, and there is no doubt that some manufactur. ers are getting work for this market. Business in the warehouses is quiet, a state of things which is largely accounted for by the wretched weather and the attendant disastrous consequences to the harvest, both in this country and on the Conunent. Although there is decidedly more talk of bright goeds being required for the next summer, and one leading firm is reported to have already made some considerable sales of alpacas, I cannot hear of any increased general business in this class of goods. It seems likely, on the other hand, judging from some of the orders placed, that a nice
business will be done for carly spring in smartly finished mixture cheviots and covert cloths Broché and jacquard in neat effects still seem to be in demand, and there is a tendency in the direction of fancy crapes.

Nottingham -There is little change to report in the lace trade. Neither home nor Continental buyers show any disposition to place orders, and many manufacturers are still engaged in the preparation of patterns for the ensuing season. Good qualities of Valenciennes are inquired for yet. Orders for the Irish guipure lace are small, and there is no improvement in the sale of common cotton laces Stocks of these goods are, however, not large. Orders for silk goods continue to be placed with considerable caution. The demand for veiling and fall nets is fairly well susiained ilain silk tulles are not much wanted. In the cotton net trade demand for most qualities is inactive, and prices are without quotable alteration. The curtain department is still depressed. Orders for cotton yarns are given out slowly, and prices are very low. Raw and spun silk meets with a dull demand. Hosiery manufacturers are not fully employed.

Leeds.-A much larger volume of business has been transacted lately. and the attenciance of continental buyers has been fairly satisfactory. From the home trade orders for immediate delivery are not easily obtained, but for next year London 'and me iy provincial buyers are making preparations earlier than usual. The orders most freely placed are for better class serges in Oxford and Cambridge mixtures and blacks. Of coverts and check backs the turnover will, according to present appearances, be a large one. There is no longer a lull in the worsted coating department, so far as the home trade.is concerned, and producers of the highest and medium qualities have begun to work overtime. Dress goods, costumes, and unions sell in fair lots, without change in quotations. Some miscellaneous warehouse sales have taken place, which included twist fancies, mixture diagonals, birdseye and hopsack tweeds, and hairline and strupe trouserings, which realized steady prices. French orders placed for fancy novelties were on a more liberal scale than for many menths past. The Canadian demand shows less uncertainty now than for several weeks past. There is an average demand for blankets and rugs on ioreign account.

Leicester.-The wool market is healthy, and a larger business is being done at advanced quotations The consumption is well maintained, and spinners are now free buyers to the extent of their prospective requirements, but they are resisting all efforts to establish a further advance. Staplers are buying freely in country districts; but, as a rule, all choice lustre grades of strength are difficult to secure on satisfactory terms. The whole of the supplies * skin wools are cleared off as fast as they come to hand at firmer rates, while a healthy trade is doing in colonial at very firm rates. In the yarn market stocks are being rapidly clearedat firmer prices. The hosiery trade is steadily improving. Elastic web fabrics sell slowly, but cords, braids, beltings, and specialties are in active demand.

Huddersfield.-The market here is quiet. In medium and better class fancy worsteds, serges and vicunas there have not been many repeats received on winter account, but for spring good confirmations have come to hand, and now that the revised American Tariff Bill has become law, it is expected that it will give a spurt to trade, and relieve the pressureon the home markets, and the export trade will benefit. The home trade showe but little improvement. As concerns low goods, business shows signs of improvement. Win(er repeats have come in more freely, and spring confirmations are above the average. The local wool market is steady, and prices firm.

Belfast.-A more confident tone pervades the linen market generally, and there has been more buying both of yarns and piece goods than for many weeks past. There has, however, boen no improvement in prices so far, and the large transactions entered into have been at the very easy rates of the preceding week. Shipments of bleached and finished linens to the United States are said to be increasing considerably, but the American trade has been so dull for a long time past that a very slight improvement is much thought
of. The home trade continues steady, and a fair demand exists for most classes of houschold linens, power-loom damask goods, and, to a somewhat mose limited extent, for fine hand-loom damask cloths and napkins. Handkerchiefs are in somewhat better request: prorluction of the finer end is now very much curtailed, and stocks are being reduced very considerably.

Kipdemminstbr.-The demand for Brussele continues to be languid, and business is hard to do; but the situation does not grow worse. There are even faint sigus of improvement. Several buyers have been visiting the mills. Opinion grows hopeful with regard to the probable effect of the American tarift on the English carpet trade.

Glassow.-It is pleasant to be able to report a moderately cheerful time in both sections of the trave, although the coal strike still throws a cloud on the prospect. In the wholesale the diminution in orders from the Scottish mining districts is compensated for by an improvement in other districts. The cotton yoan market has been showing considerable improvement, and though large lots are not yet changing hands, prices have stiffened in favor of holders of yarns, and a more cheerful tone generally pervades the market. Tbere were large consignments of wool, and more than an average attendance at the wool sales held in Glasgow recently. The prices of half-bred and cheviot wools of the best quality advanced another farthing per pound, and a full clearance of all sorts was effected at full rates. There was no buying reported on behalf of the American market. Tweed manufacturers in the South of Scotland district are in an improved position during the past fortmght the improvement being mostly due to repeat orders for winter goods Confirmation of spring orders are still slow, but the firm position of the wool markets is expected to have a favorable eftect very soon.

DUNDEE.-The market remains firm, but is not at all e.cited. The fecling of confidence was strengthened by the passage of the American Tariff Bill, but there was no excitement. The eichange having stiffened makes Calcutta offers a shade furmer. Speculation having fortunately gone out of this market, there is none of that rush and unhealthy excitement which caused prices to fluctuate wildly. Best firsts are quoted at $£ \mathrm{t} 2 \mathrm{7s} .6 \mathrm{~d}$. On the spot there is a good deal at firmer prices, and the feeling is general that for a time prices are not to be lower. Jute yarns are firm, but not dearer. Cops fetch is. $31 / 2 \mathrm{~d}$, and warps is 4 d . to $1 \mathrm{~s} .4 \frac{1 / 2}{} \mathrm{~d}$, for common 8 lb . For good the price is is. 6 d . Fine (extra) 7 lb . a=e 1 s .7 d .10 1s. $71 / 2 \mathrm{~d}$. Hessians are rather st=onger, and $13 / 8 \mathrm{~d}$. is refused for $101 / 202.40$ in. common. Sacking and bagging are also rather stronger, with a better demand Flax is easier to buy on the spot Pernam D. is offered at $\left\{28\right.$ on the spot, and Riga at from $f_{2} 20$ ios to $f 21$ to arrive There is, however, very little business doing With cheap jute and very cheap cotton it is quite impossible to get up the prices for flix yar: : and if spindtes are to run the price of flax must fall. Flax and dry-spuns are without change, and are rather more in demand. Wet-spuns are at the moment almost unsaleable. Linens are in much better request. Jute carpets are stronger. The feeling grows that America will now buy more of these useful goods. The twine and cord trade is brisk, with a healthy demand. irbroath. while still running short time, is in better heart, and the outlook is more checrful.

Lyons -Thedemand for silk yarns is not of a lively character, but prices are well maintained. Cotton yarns do not show much turnover, and rates remain unaltered. As regards wool yarns, the demand is not strong enough to give much satisfaction. Plain silks sell to a moderata extent, but the languishing export business has caused many lcoms to cease working, and only black and some dark colored bengalines furnish work In shot silks, shot sarsenets and plain colored failles, a moderate amount of business is transacted. Broché silks have less than an average sale. dll-silk styles are in some demand for Paris consumption, winilst cotton or woolmixed textures, which generally sell to a large extent for shipping purposes, are greatly neglected, and even the low rates do not attract buyers. Muffiers and handkerchiefs continue to furnish but a small number of transactions. The ribbon business is better main-
tained as far as the number of transactions is concerned, but priees are altogether unsatisfactory for makers. The raw silk market has felt the effect of the fronger feeling in forejen markets, and, as a result, a larger business has been done in all sorts of greges at p:ices which for some sorts show an advance of as much as two to three francs per kilo, says the Dry Goods Economist. This better tone is the consequence of the resumption of buying for samerica on the Yolohama market After an entire siason of purchases from hand-to-mouthin the V'kohma market ane ican houses seem to think that the time has come for a more active policy, and are governing themselves accordingly. The present advance is almost entirely lue to the better feeling and the rise in Xokchama prices, together with the higher rate of exchange.

Minden. - The strengthening of prices in Japan has added strength to raw silk prices in this market, and although business has not been very brisk the feeling among spinners is one of confidence, as they know that the stand taken here previously has found an echo in the more active demand in other markets. It is expected that order business for next spring goods will start early this season, as buyers' stocks within the last 15 months have been kept within too safe limits and will need replenishing a good business in raw silk in September is therefore likely to follow, according to spinners' ideas, and will represent not speculative purchases, but manufacturers' actual needs Organzines and weaving greges are in regular demand.

Zuricit - The news of a quick settlement of the tarift questron in America has been very welome to the Zurich manufacturers, who profess to sec in it the end of the bad times which the Siviss silk industry has seen in commun with others. The change is also marked by an increase in the business that is done tor Amernca, which, although small at present, promises to develop more fully after the new ' . riff becomes an actual law. The number of buyers in the market is fair, and while the fall season is not offictally open its appreach is being felt Buyers are looking for supplies of goods they may de able to secure at low figures, but the stiffening of raw silk quotations is likely to render prices of goods no longer weak. Some demand is reported for fancy taffetas, colored mervelleux and surahs. The demand for raw silk is fair, but supplies are rather scarce, the news of the advance in Japan and the rise in the eachange to the Far East having induced some of the holders to ask higher figures-which in the present temper of the market practically means taking the silk out of the market-Dry Goods Economist.

Calals - Iace manufacturers in this historic town still complain as to the results of recent trade Unfavorable weather paralyzed business durung July, and in addition there has been the adverse effect of the crisis which overhangs commerce generally to reckon with Almost every class of lace has therefore been neglected. and a number of houses have curtailed their production. Besides. we have been between the seasons, when the trade ship lies idle in the doldrums, and progress is almost an impossibility. At such a period as that through which we have just passed business is not brillant. There have, howevar, been a few exceptions, and amongst the laces for which the demand has been a little more favorable may be mentioned bourdons with a coarse foundation, which continue to hold the premier place in the small group of artictes still demanded by consumers This success; unfortunately, is not accompanied by an improvement in prices, which contanue to be wretchedly low.

Plauen, Saxony - Both June and July were good months for the local trade, and one might have fancied himself right in the midst of the winter season. so. freely have orders flowed in from all parts. The American commissions placed at the beginning of June were, as a rule, delivered during the same month, and these consignments amounted to a substantial total The large English houses have again sent theis buyers to our market in order to post themselves as to the styles which have a chance of selling during the approaching season. Almost all of them have left fairly im--rtant orders. South America has also sent us a fair number of orders. especialiy for collars, the demand for which has become
calmer. Lately, however, local manufacturers have turned out collars in fine black silk, which, of course, renders the article excessively dear It must be admitted that it is very beautiful and seductive in appearance There is ground for the hope that in spite of its high price fashion will favor the black silk-lace collar Embroidery on muslin in various styles, such as muslin and bobbin tulle, muslin and Brussels tulle, silk tulle, gauze, etc., will, it is expected, sell well.

Creflld.-There is some improvement in the demand forgoods, and wholesale buyers are showing more willingness, but as far as manufacturers are concerned, this improvement is little felt. Buyers are looking more for odd lots which they can buy at a discount than for regular goods, and as the market has not yet been cleared of old goods. job offerings are still sufficiently numerous to interferi with the demand for regular goods, preventing also the placing of orders in advance. The demand for export is at present confined to the silks, for which the request is fair. In other lines of goods the export business has not yet started, but the prospect for a good export demand this season is good. English buyers are already making enquiries which lead to the supposition that their requirements will not be smail. The settlement of the tariff question in America is also likely to be followed by an improvement in the bust. ness with the United States.

Calcurta - A moderately large business in baled jute has been transacted in ranges of "crack" marks, the price for which is reported to be Rs 35.8 per bale, but at the close there is no longer any strong disposition to sell, as it is feared that the crop is not entirely out of danger. For the tine marks, such as A. B. in double trangle, the quotation at date is Rs 40 . The principal mofussil markets are firm and any giving way in prices has only been in this bazaar and some markets in which the jute has been coming in wet. There is little change to record in the jute fabric market since last report. Export business has been very quiet, and some orders come in at rates which sellers here refuse to work at. Re-sales of sugar bags have been done on the basis of Rs. 26.8. Cornsacks for the colonies were booked at Rs. 27 for near and Rs. 26.8 for forward Country trade has not shown any improvement. Although speculators were on to work forward, mills did not show much inclination to entertain business. Hessians are steady, with good demand for cloth. Wheatbags and cottonpacks were placed to a fair extent.

## A BEAVER COLONY.

There are many kinds oi stock farming in the world, but perhaps the strangest of all is the farming of Caaada's national animal in McLean county, North Dakota. Indeed, the chief industry of this section is the beaver farming. The county couldn't be profitably put to any other use. The soil is unproductive. In fact, it is the sterile corners of Stevens, Mercer, Burleigh and Sheridan counties and it is the smallest county in the State. It has but one town Washburn, the county seat. The Missouri river runs along the western border of the county, and innumerable streams flow into it from among the sterile hills to the north and east.

The banks of these streams are fringed with cottonwoods and a species of elm that has a warped and stunted growth. Thes ${ }_{c}$ small streams and the trees that grow along their banks are the valuable features of the beaver farms. The former gives the shy animal concealment, and the latter gives it an opportunity to demonstrate its woodchopping abilities.

While the wheat-grower in about every other county in the State is crying ruin and deploring the low prices of wheat, the beaver farmer of McLean county is enjoying himself, and rolling up a bank account that is in no way threatened by dry seasons, hail storms, or a demoralized market. There is always a demand for beaver fur. and, for the good article, the price is always satisfactory and unvarying. With $\$ 500$ in his pocket when he reaches NcLean county, a man establishes a beaver farm that will, in two years, pay him from $\$ 500$ to $\$ 2,000$ annually He first purchases from ten to fifteen acres of land through which runs a stream. At a point where the stream is narrow and the banks steep, a dam is built

This is quickly done by felling a few trees across the bed of the streain and filling it with dirt and stones In this way the water is held back so that two or three acres of land is overllown.

Along the banks of the stream and around the "pond a fence of wire netting, from two $t$ three feet high, is built, inclosing all the trees that can possibly be taken in " This is for the purpose of keeping the beavers on the farm of their owners This plan is generally successful, but it is not invariably so. Now and then a farmer loses a portion of his colony that escapes up or down the stream by burrowing under the fence, but he has the chance of getting some of his neighbor's animals, in the same way, and he makes no complaint. As a rule the beavers stay contentedly in the inclosure where they are placed To start with, a colony of twelve females and four males is sufficientiy large. The animals are purchased in the Saskatchewan valley, Mranitoba, where they are trapped. A colony of sixteen will cost $\$ 160$ They are placed in the ponds in the spring when the water is high, and all the farmer has to do is to keep his dam and fences up, and prevent hunters from killing the animals. The farmerexperiences but little trouble with poachers, however, for it is generally understood that a man caught in the act of beaver hunting on land that doesn't belong to him is more liable to get a butlet in his skin than he is to get a trial by jury.

It takes the animals but a short time to become accustomed to their now surroundings. In a few days they begin building their huts of mud and sticks. They work vigorously on the trees, and some of the smallest ones are gnawed off. The first year the farmer receives no income. The ammals propagate rapidly, and by fall, in the second year, the colony has largely increased in numbers.

The first two years on a beaver farm is a tedous existence. The farmer divides his time between caring for his colony and hunting. Upon the latter he depends puncipally for his fool. But little money is spent in the construction of dwellings. First, an excavation of five or six feet deep is made in the ground, and around this stakes are driven closely togther. When fixed in the ground they stand about six feet high. The tall, strong posts are set in the centre at each end, and running from one to the other is a ridge pole. Long poles are slanted from this pole over the ends of the surrounding stakes, projecting several inches On the roof thus made square cakes of sod are laid, dirt is then thrown overit, and the whole is covered with sod. Around the outside dirt is heaped until the ends of the roof poles are covered. The whole affair, from a distance, looks like a tent-shaped upheaval of the ground. The entrance is a square opening in one end. Although there is nothing attractive about the architecture of this abode, it is a very comfortable dwelling, and protects the occupant against the winter blizzards perfectly. Bear skins and deer pelts scattered over the floor, and pieces of rough furniture covered in the same: way, add to the comfort of the domicile.

The best of feeling usually exists between the residents of this out-of-the-way conner. The farmers are, for the most part, men whose lives bave been passed on the western hunting grounds. They are hardy, slow.going men, who take kindly to the hermit life that they live but, when the time comes for selling the product of their farms, they go down to Washburn and engage in a couple of weeks of high living that makes the good citizens tremble and the salonn keepers smile. They spend their money like water, and, not infrequently, go back to their farms with empty pockets. Notwithstanding their rough ways, they are good-hearted, and they extend the warmest hospitality to a person who happens to wander among them.

The butchering season begins the last of October or the first of November If there are several farms on one stream, the farmer whose corral is nearest the mouth of the stream butchers first. When the has finished the next one above him begine, and so on to the last farmer. The work begins by drawing of the ponds by the means of floodgates that are covered with wire netting to prevent the animals from passing through When the mud houses of the beavers are exposed, the farmer goes from one to the other and taps on them with aclub. The noise frightens the animals out From the
formation of their legs they are naturally slow runners. They are knock-kneed, and their hind legs are wide apart. When they leave the huts they are quickly dispatched with clubs. It requires but a short time to kill off the animals. When the colony is planted the an:mals are branded, and at butchering time these are preserved for breeding purposes. It is said of the beaver that it lives, active and vigorous, to the age of 50 years.

As soon as the killing is finished, the gates are closed and the barn flooded again. This is quickly done by the opening of the flood-gates in the dam above. The pelts are taken off and stretched over forms made of tent elm strips. The fur side is on the inside. Saltpetre is rubbed into the flesh side of the skin and it is exposed to the atmosphere for two weeks, then the pelts are packed in bales to be taken to the market. The pelts are classed according to their size and length of the fur. The poorest brings $\$ \mathbf{5}$, and from that figure the price ranges upward to $\$ 25$.

## EARLY HISTQRY OF LACE.

Lace, of all the dry goods articles, has of late assumed so many beautiful forms and attained such a leading position for itself, that a short review of its history and stages of development will not only be interesting, but useful, for all who care to know sumething more than just the value of the goods they handle. The difficulty is to compress such a review into a limited oace and fit it to the brief time busy men can give to the matter, for lace is more artistic in its nature and more historic in its surroundings than anything else in the whole range of the dry goods trade.

According to the Dry Goods Economist's Parisian correspondent, France is the premier country in this trade, since though at first sight this may seem a bold statement and visions may arise of Venice, Brussels and Honiton for real lace, and Nottingham, Plauen and St Gall for machine-made, after all is said France has played for centuries, and does play still, the first violin in the international band.

The history of lace and embroidery goes back to the Book of Exodus, and further still, as no doubt the Israelites learned the art from those great Egyptians, the founders of the earliest-known civilization. It then comes to us through Greece, and first makes its start in comparatively modern times in the Italian seaboard towns of Venice and Genoa, in the well-known point de Venise and point de Genes.

A pretty story is told of what first made the reputation of the former. A Venetian sailor boy, in the sixteenth century, brought home to his love is tuft of the lovely coral known as "siren lace." She was struck with its beauty, and after many fruitless attempts succeeded in producing an effect somewhat resembling her lover's gift, and, the legend continues, the delicate guipure, copied from one of nature's most beautifil productions, struck with admiration all who saw il and soon made the tour of Europe.

The names of three powerful monarchs are closely associated with this industry-Elizabeth, England's great queen; Louis XIV., France's most magnificent king, and the first Napoleon-all of whom gave immense support, and spent much time and money in encouraging its use and manufacture.

All the portraits of the Queen of England show her covered with laces, and it is said over 3.000 dresses were left in her wardrobe at the time of her death. She encouraged the industry by every means in her power, but, although all the gentiemen and ladies of her court were obliged to wear most expensive laces, she made very strict laws as to the use of it by those in the lower ranks. ifaving heard that some apprentice boys were wearing their linen collars with a lace embroidery, she issued an edict that the first offender caught wearing such luxuries would be publicly whipped.

As to le grand monarque, Louis XIV., volumes could be written on the role lace played at his magnificent court at Versailles. One fact only have we place for inere. Colbert, Louis' great financier, having tried by every means to stop the importation of Venice and Genoa point laces, finally resolved to make a State affair of it, and established in 1665, at the chateau of Louray, near Alencon, the institution which created the now far-famed point d'Alencon, or more familiarly, point de France.

Surprise may be expressed that the great solder-emperor Napoleon I. should have dergned to give attention to what might well seem an insignificant matte to so great a conqueror. The Revolution, which swept away so much, entirely destroyed this trade, and juring ten or twelve years the whace thing disappeared. first, because all business was impossible, and secondly, becnuse the furor was for Spartan simplicity in attire

As the Revolution waned, however, the old valuable laces began gradually to be seen, and Napoleon made immense efforts to resuscitate the manufacture, and protected espesially Alencon, Brussels and Chantilly. With all his power, however, he failed to revive Valenciennes. On the occasion of his marriage with Marie Louise of Austria, he gave orders for more than $1,000,000$ francs of point laces, and he was always proud of the taste and talent of Frenchmen in this beautiful industry. That he constantly had it in his mind is proved by his exclamation when he first saw Aniwerp cathedral: "Why, it is as beautiful as lacework!"

The historical side of lace would not be complete without some reference to a subject it will be difficult for Americans, born under the noble device "all men are born equal,' to understand and ap. preciate, and that is the sumptuary laws. These old civilizations were founded by military chiefs, kings or nobles, who by right of might held possession not only of the lands, but of the bodies and souls, so to speak, of their vassals, as they were called. Very gradually down the ages this yoke has been alleviated, but in the Middle Ages, when lace came into vogue, the sumptuary laws decided what dress each class in the social scale should alone wear, and lace was for a long time a class distinction, just as a black coat and kid gloves are more or less so now, with this difference, that transgression of the rule was punishable by law.

Lace, by its expense and style, was for long the exclusive and distinguishing sign of the aristocricy, and it was very long before the gentry and squires were allowed to wear it. It was considered a revolution when the rich bourgeois and his wife acquired the right to use it. This lasted down almost to our time, when the Nottingham stocking weaver invented his loom to weave laces, and the great democratic revolution of laces for everyone settled the question forever.

Robert Duclos, a Montreal dry goods merchant, is trying to arrange an extension of time with his creditors His liabilities are \$21,239.

The price of linen threads, which was increased about to per cent. last November, owing to the advancing prices of raw material, has now dropped again to last year's level, owing to the depression in trade.

Edward Schultze, of the firm of Edward Schultze, Son © Co . Canadian agents of the United States Felt Factories, Montreal, has been created a knight oi the Order of Francis Joseph is consu! for Austria Mr. Schultze has done much service in an unostentatious way for the corntry he represents, and the honor conferred on him is thoroughly deserved.

A meeting of the creditors of Williams, Greene \& Rome, shirt manufacturers, Berlin, Ont., was held on the 21st ult., and a statement of the company's affairs was made, showing their habiltties to be about $\$ \mathrm{r} 25,000$, and assets $\$ 166,000$, a nominal surplus of $\$+1$,000. It was pointed out that the company had paid out in wages and expenses since coming to Berlin about $\$ 100,000$ a year. It had started with 150 hands and now employed 300 . The company's losses were no doubt due to its business being spread over too large an area. The assignee, E. R. C. Clarkson, asked on $b=$ half of the company a loan of $\$ 25,000$ without interest, 10 be paid back in 10 years at the rate of $\$ 2,500$ per year. As security they would give a second mortgage on the plant, there already being one mortgage for $\$ 15.000$, and also $\$ 25,000$ worth of preferred stock in the company. After considerable discussion, a resolution was put asking the town council to grant the loan, but it met with very little favor. It is possible the company will continue, but in a small. ay One of the members of the firm thinks they will be able to pay 60 cents on the $\$ \mathrm{r}$.


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## Among the Mills

D Matchell is now operating the Marmora, Unt, woolen mill. The Valley Woolen Mills, Southampton, N.S., report trade good.

The flax mill at Floradale, Ont is now in operation, and flax is coming in quickly.

The Cormwall, Ont Manufacturing Co.'s woolen mill is now running but not to its full capacity.

B F. Brook \& Son, of the Listowel, Ont., woolen factory, are busy on tweeds, flannels, blankets, etc.

A large Nos they duplex pump has been put in at the Montreal Cotton Co.'s mills at Valleyfield, Que.

The St. Croix Mill, St. Stephen, N.B., has just shipped a cargo of Canton flannels direct to Shanghai.

Magog, Que., Cotton and Print Works were closed down a short time for repairs, but are now running again.

Mrs. Schoficld, wife of Jonathan Schofit'd, ul the Oshawa, Ont., Kinitting Mills, dieu last month, much repretted.

Geo. D. Forbes, woolen manufacturer, Puslinch. Ont., has been elected a member of the Toronto Board of Trade.

The Montreal Silk Mills, which were burned out last May, are again in running order with some new improved machinery.

The proprietors of the Woodstock, N.B., woolen mills have just gone into the manufacture of horse spreads and camp spread.

Newlands $\mathbb{A}$ Co , of the Plush Works, Galt, are crowded with orders, and their hands have been working overtime for some weeks.

The output of the Waterloo. Que., Knitting Co. has been considerably increased by the addition of a large amount of mocern machinery.

The Rosamond Woolen Cu., Almonte. Ont., are beng suppled with a complete system of pumps, valves, pipes, etc., by the Nurthey Co., Toronto.

Hewson Bros. have thoroughly overibauled and refitted the Peoples inills, Durham, ont., and will contanue to carry on all kinds of custom work.

The Vienna. Ont., woolen mills are hard at work on a large order from Mantoba. sunce rebuilding the mills thert trade has been much extcoded.

Thamesford. Ont., flax mill has resumed operations. The product of 400 aeres has been delivered at the mill within the last two or three wecks.

Listowel, Ont., flax mill is in fult blast it had to close down for a time on account of the dry weather, which rendered the fax unsuitable for seutching
T. H Watchon: last month gave up the Durham. Ont., woolen mills. and J. A. Hunter has now leased them and will continue operating them on the old lines.

Messrs. Eby, Cairnes, Mciride is Co have formed themselves inte a company for the manufacture of gloves, which industry the, will carry on in Ierlin. Ont.

Galbraith iE Co.. besicry manufacturers, Guclph, who made a compromise with their creditors a short time ago at 50 cents on the dollar, have now assigned.

A bold ace was performed by a youthful brigand in Montreal the other day. The drivers of the Deminion Transpurt Company, who have been carting lales of cotton to the mills at Hochelaga. had been anneyed for some days by boys throwing stones at them. But this day the annoyance came to a climax. One of the imps rushed oat with a burning stick in his hand and set fise to a load of cotton. The blazing lad could not be stopped till it got down the hill to Notre name strect. where it was saved, after damage to the extent of \$200 had been done. The incipient Anarchist made good his escape.

A large quantity of fax is moving toward the mill at itwool. Ont., and it is estimated that about 200 tons more will be manufac. tured this jear than last.

A recent number of the Canala Gazefl, contains the promution of W. D. MeLaren, of the J \& C McLaren Belting Co., Monteral. from the rank of quartermaster to that ot captain in the eth lusiliers.

Granby. Que., rubber factory had to close down for a few days last month owing to the breaking down o. at large engine, at a time when, owing to the drought, sufficient water-power was not avallable.

John Taylor, who put in the first colored cotton looms in the Canada Cotton Mills, Cornwall, and who was uccupied as a loom finer in Cornwall for several years, died last month at the age of be: years.

The Northey Co. (Letd). Toronto, have put in at the Miontmorency, Que., Cotton Co.'s mil!, an underwriter pump with a capacity of 1.000 gals. per minute, and a triplex power pump for boiler feed.
H. H. Spencer, said to be the first importer of Somhdown sheep in Canada. died in Brooklin. Ont. recently, ayed 63 He was born in Dorsetshire. England, and came to Canada with his parents in $1 S_{3}$.

Craig's hat factory at Truro was destroyed by fire the other day The loss is heavy, and several hands are thrown out of employment. Eleven years ago this factory was burned There is an insurance of $\$ 5,250$.
J. Ironside Thompson, Toronto. agent for several well known Eutupean firms, was on a top to Muntreal and vicimit! this munth. and gave our office a call. He reports busness slow, but with a tendency to imprave.
N. E. Brais, shirt and collar manufacturer, Lemone street, Muntreal, has assigaed to hent \& Iurcutte, wath habihues of about $\$ 24,000$. The promoter of the factory was formerly a partner of the firm of Gluver $\$$ Brais, whulesale mens furmahngs.

A few days ago, the Muntreal cution en. s Club. Vallepaciu. held a picnic at Bisson Point. The picnickers drove out to the Phint in the afternosn, an 1 after dancin:, wisus and refresiaments had been indulged in, seturned highly pleased with thers trip abrest $90^{\circ} \mathrm{clock}$

The Canada Colored Cotion Co's mills at Hamal.on, which have been closed down for some weehs, re upened un the culis ans About 350 hands are employed full time, but on a 10 pere-nt reduction of wages. At tirst trouble was anticipated with the weavers. but they thought better of it and went to work

A disastrous fire occurrad on Sunday morning, the gth inst..
 The fire originated near the engine house and was first disco: cred about six o'clock. The alarm uas given, but it wias soon seen that the building was doomed. Had there been any wind blowing the adjoining saw mill, owned by John McDonalid, would have lexen in great danger. As it was, the fire was confined to she woolen mill. which was complc. uly gutted, and only the front wat! is now standing. All the machinery was destroyed, and the loss will be a sorious one buth to the enterforsing owners and the communut, a targe part of the business done by the mill being custom carding and fulling. The loss is cetimated at $\$ 18,000$. insurance abrous $\$ 10,000$. The electric linht, which illuminates a number of the store. was run by the mill engine. The stores were in semi-iarknes:, and the fiec cast a gloom over the community in more ways than one. It has been suggested, says a correspondent, that as an inducemrnt to the firm torebaild the town council should offer them exemption from taxation for a few years. Ansigonish should certainly encoarage an industry which is such a benefit to the whole com. munity in every way possible

Tue assets of A. Tanguay, dry goods merchant, guekec, who failod a shor sime since, have been found to be $\$$ Ex,ma, composed of $\$ 14,000$ value of stock and $\mathbf{S}^{\prime} .000$ burk delins The liabilities are somewhat large.

# Barney Ventilating Fan Co. <br> Ventilating Engineers and Experts in Textile Manufactories manefacturers of baRhey's compound vehtilating wheel <br> Prompt Delivery, and no Customs Duties. <br> Manefacturek's Acknts ror the Manville Wool-Felt Sectional Steam-Pipe Covering 54 Oliver St., BOSTON, Mass., U.S.A. 

 Fast-running Dofling Comb

## Barker's Patent Double Apron Rubbing Motions for Condenser Cards

Are in successfut operation on all gradles of stoci, being gencrally adopted because they change carding and spinning

## rooms for the better. <br> Jamos Barizer,

 Second and Somerset Streets, Philadelphia, Pa.
## PARIS EASHIONS

The npening of teptember is bringing forth a great many dresumen.flain imazonerloth The skirt a sodit as a litile wider t.undt the fuifom than thme of last season, and quite guves the ap parance of a crinoline being worn underneath it is to be huped that this innowation will not be more suecessful than last year. There is. however, very little chance of the l'arisians adopung the crinoline: they have too much good taste.

Cloth. then, is de riswier for the fresent, and nothing is more kecoming or more elegant. Here is a model in violet-real wood violet. because it is the color of the seacon, though later on we shall see the new green shade, lavender. grey, mauve and darkest ruse. The skirt is quite plain, and reund the bettom, one inch from the erlpe, is a narrow hand of black axtrachan. The bodice enters the skirt. and is tipht fitting. It has an canfoccoment of thick black silk gupure at the bust. tack and front dour the front a band of anirachan. rount the waist a narrow hand of black satin mbben is fantened with a mall dons bow in the centre: collar in cloth. fastened on the sile with a small black chase tow: hat in black felt, a kint of horis. thened up all round with violet felt. This is cm. hrondered with black baids in a Grech pattern. It the back to the sidn is a plume of hlack cock's feathers.

I hase win 3 wrat many cloths, sestaches meires iredics, and it is sind that these will te much worn. There are shades in bluc. green. Iussia marine, and every shade in brewn from dark to light. in short. whether tie matenal te silk, cotton. or woolen, the shades I have already spown of in thew columns always predominate. The sifte of make is tailos fanhon, the tedices resembing short jackes. The gramd die is to te the dasajuc, or Loms divl jacket. furni:kel with del jewelled buttons. For dreas; wear this jacke: will te in relesers, fraftr. with plain silk shirt, the velvet being in
old Pompadour desirns For day wear we have the beautiful staped chine velvets. These have the most exquisite little vests in the shade of one of the lightest stripes. Other corsages have one large pleat back and front. with a necklet and ccinture in gros grain.

This tashiun, huwever, is adeptedmote o serges Many of the autumn tissues have a rugged appearance and are plushy." The making up of these materials will also be simple That is to say. the corsages are pleated at the back and the front, and draped to the side. the pleats being fastensd down with a buckle This style is very bewming to slim people

In millinery, the nev flatcasx shapes, in two colors. are becoming very popular. There are few, if any, black or wrey felt hats seen. The majority are in moidore dore, or golden brewn, and some have a black brim. Green and brown seem to be the two colors to put tozctiner. or to "marry." as they say in France. Bows are assuming enormous dimensions, and sometimes form the sole trimming I saw a large brown relvet hat, with a fly bow of green gros grain, with frayed-out plush of a darker shade down the centre of each loop. This bow had about seven long wide loops, which spread over the hat like an enormous insect. imengst the latest novelies in hat ornaments ase plumes of black and brown and dari blue cock's feathers. They are exhibited on all the new hats. In fact, all serts of faney plamage take the phace of ostrich plumes It remains to be seen whether this tendency will continue, or whether it is only an autumn fad. Agrettes, although more fashionable than ever, have taken a totall: different form They are as high as formeriy, but very full, and curled gracefully under - sometimes in two, sometimes in three rows. The eftect is very graceful. and looks well agrinst the veluel plush and felt.

Ax I have said before, brown is the color in hats, and will be much worn throughout the autumn in wolen costumes for every-

## Have you seen this!


day wear. The look.out for the furriers is excellent. It is evident even at this early date that furs will be in oreat request. Milliners are already making good use of it round bonnets in knot bows or twisted loops.

Collars with two or three capes have already put in their appearance. They are nearly all in covert cloth, mastic color or beige.

The attempt made to introduce the double skirt does not seem to take ; in sholt, no one will wear them. The nearest approach to them was a skirt I saw yesterday in dark rose-colored cloth, on which two bands of cloth in light rose color placed close together passed round the bottom, and went up one side, thus forming or giving the appearance of a double skirt. The corsage of this dress was a casaquc, in dark color, the revers, pockets, etc., being in a light shade. The only graceful model in double skirts which seems likely to succeed is draped up on one side only, towards the front, with chou bow over another skirt, very like the dress worn by Marguerite in "Faust." It is not new, of course, but it is pretty and graceful, and therefore likely to take.

The season for white gloves is over. They are replaced by demi trintes, greys, browns, pale reds, and later on the brick-red Russian glove will be fashionable.

Some pretty.new underskirts are being shown at the Bon Marché. Some are in plain black silk, and others in checks. The novelty is in the shape, which is exactly like a bell, the fulness beink $_{k}$ round the bottom. The effect is in the cut, as they have neither steels nor thick stiff linings.

Lastly, skirts are al! short, and we are to have no strings to our bonnets.

## NEW ANIEINE COLORS.

Direct Decp Black T, and Direct Blue-Black B.-Both these colors dye cotton a good black in one bath. The former dyes a coal black shade, and the latter a blue-black. Both products are of great fastness to acid, alkali, ironing and rubbing, also fairly fast to perspiration. The shades dyed are even, and resist the light better than logwood blacks. These new blacks will no doubt before long replace logwood, also other aniline blacks, in the market, that have to be diazotizzd. Mixed goods cant also be dyed with these new blacks.

Brilliant Croceine 3/B.-This is a ncw and very bright scarlet, suitable for wool, cotton, or paper.

Fast Red N/S. -This color is for wool only, and dyes a bluish full shade, specially suited for piece goods, as the color takes on very level.

Orarge T/A.-This is a new color, specially suited for half woolen goods or half silk, and dyes in one bath with common salt.

Chicago Bluc B and R. -These blues are suited for cotton only. and dye in one bath with common salt.

The above colors are manufactured by the Farbenfabriken Vorm Frieder Bayer Company, Elberfeld, and are handled by the Dominion Dyewood and Chemical Company, Toronto.

Robert \& Jodons, dry goods, Montreal, have assigned. Liabilities $\$ 20,000$.

Rolinnd Freres, furniture manufacturets, Montreal, have entered a suit for damages against the G.T.R. and the Shedden Co., general forwarders, for $\$ 15.000$ each. The plaintiffs claim that the latter, by permission of the G.T.R., posted a notice to the effect.that certain high rateș were to be charged them, and that this injored their business.

A meeting of the creditors of James Eaton \& Co., the Toronto dry goods merchants, who became insolvent a short time ago, was held on the $24^{\text {th }}$ inst. A representative of the firm, who had been in England endeavoring to make arrangements with the creditors there, stated te had been unsuccessfol in his efforts, and that he could not therefore make any offer. It was consequently decided to dispose of the entire stock and good will of the business by tender. The stock was valued at about $\$ 33.528$; the shop furniture, etc., at $\$ 3.927$; horses, wagons, etc., $\$ 1,504$; total about $\$ 38.960$, which was sold to Chas. S. Botsford at 67 cents on the dollar.

Another dry goods assignment is that of J. B. Graham. Trenton, Ont. Liabilities, $\$ 12,000$.
J. J. Crar \& Co. have just established a laundry in Montreal, to be known as the Victoria Laundry. They have put in a wellequipped plant.

Augusti Labelle, dry goods, St. Henri, Montreal, has assigned to C. Desmarteau. He has failed twice before, once in 1885 with liabilities of $\$ 19,000$, and again in 189 x with liabilities of $\$ 11,000$.

## TORONTO MARKETS.

## Toronto, Sept. 25, 1894.

Wool.-Some small lots of fleece have exchanged hands this week at 17 to 18 c . for select combing, and 19 to $20 c$. for clothing. In pulled wools there is little or no movement. The mills are not taking stock from merchants, and no buyers have been on the street for the last several days. We hear of some shipments of pulled wools now on their way to Toronto from Cleveland, Ohio. During the week the warehouse of one large Toronto merchant has received large quantities of Manitoba fleece wool.

## CHEMICALS AND DYESTUFFS.

Several of the mills having started to run full time, the demand for chemicals and dyestuffs has improved. Sicily sumac is somewhat firmer. Cocoanut oil is higher and likely to be dearer. Castor oil is better and quotations from Calcutta are higher.

| B | $\infty$ |  | \$ 210 |
| :---: | :---: | :---: | :---: |
| Bicarb soda | 225 | - | 235 |
| Sal soda | 070 | $\cdots$ | 075 |
| Carbolic acid, I lb. bottles | - 25 | " | 030 |
| Caustic soda, $60{ }^{\circ}$ | 230 | " | 250 |
| Caustic soda, $70^{\circ}$ | 260 | . | 275 |
| Chlorate oi potash | 018 | " | 020 |
| Alum | 140 | " | 1 50 |
| Copperas | - 70 | * | - 75 |
| Sulphar flour | 175 | " | 200 |
| Sulphur roll. | 200 | " | 210 |
| Sulphate of copper | 400 | " | 500 |
| White sugar of lead | - $071 / 2$ | " | $0081 / 2$ |
| Bich. potash | 0 10 | . | 012 |
| Sumac. Sicily, per ton | 7000 | * | 7500 |
| Soda ash, $4^{8}{ }^{\circ}$ to $58^{\circ}$ | 125 | " | 150 |
| Chip logwood | 200 | " | 210 |
| Castor oil. | - 061/2 | " | 007 |
| Cocoanut oil | - 06\% | 。 | 007 |

## A. KLIPSTEIN \& COMPY

122 PEARL STREET, NEW YORK Chemicals and Dyestuffs
anlline colors of every kind

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## WRIGHT \& DALLYN, Agents : - HAMILTON, Ont.

ENGLISHMAN, now residing in United States, thoroughly practical in the manufacture of Marseilles crochess, Mitcheline quilts and Turkey red table covers, is desirous of mecing capitalists who are willing to put capital arainst experience, or wonld superintend new place in a stoek company, if compensation is sazisfaciory. No objection to any location, and is willing to leam ine xperienced help and suarantec betler jesulis shan any oith
tured fabres. Address 5.0. Box 267 , Beverly, New Jerscy, U.S.A.

WaNTRD-By a Naritime Province mill $\rightarrow$ n picee scwer and mender. dress Box r, Jourwiz or Farrics, Fraser Duilding, Montreal.
J. Makraosr's clothing store in Victoria, B.C. has been damaged by fite, the cause of which is unknown. Loss, $\$ 16,000$. Insured for $\$ 10,000$
A. H. Lesage, dry goods, Montreal, has assigned on demand of W Agnew \& Co. Liabilities, $\$ 38.500$. Principal crediters: Daine Lesage, $\$ 22,000$. Thibaudeau Bros $\mathbb{N}$ Co, $\$ 2,280$, Masson Estate, $\$ 3.59^{6}$; Le Credit Foncier, $\$ 1,54^{6}$; L. Elanger, $\$ 1,500$; and Mills $\&$ Galt, $\$ 1,0$ wh

UNe of the curiositues of Paris at present is an evposition of " sand carpets." by means of which the works and designs of painters and others are reproduced The "sand carpet" specialist is a Flemish woman, Mme. Van Denys, who executes ber work in public. In the hall in which she works, and enclosed by a light railing. are a series of enormous "carpets" in line, some of which represent M. Carnot, the late president of the republic; the " Angelus," by Millet : a chaste Susanna bathing in a pond near a modern village, looked upon by the two elders, and a portrait of the Emperor of Kussia. Though marvelously like carpets, the compositions are entirely of sand. The Flemish "carpet" manufacturer secured her idea from the sand strewn by her daily upon the noor of her father's tavern. The idea came to her that it would improve the appearance of the foor if colored sands were used in the formation of flowers and other designs. Successful at this. she copied the works of the old masters from engravings. and in six years' time, unaided by any teacher, she became able to execute the carpets now exhibited by her. Standing at a table, with $t$ er colored sands within easy reach, Mme Van Denys executes he most difficult work with desterity. The colored sands, sixty in number, are on graded shelves. A coat of black sand is first placed on the table, and then a little green sand is allowed to filter from the hand of the "weaver." and in less time than it takes to write it the contour of a bouquet of tield flowers is designed. Then the empty space is filled with green or gold sand to represent the stalks The handfuls of sand, red or white, blue or rose, succeed each other, and presently poppies, daisies, buttercups, corn flowers, \& 2 , are seen amid the leaves. Those dealers who devote time and work to their windoiv displays may find a profitaple suggestion in the foregoing. There is no doubt that such displays would attract much attention. - Carpet and U'p hoditery Trades Re sicu.

## DYEWOOD EXTRACTS

Waited-Thorsuzhly experienced Reprecentative for Canada. Apply:Tue manager,

THE WEST INDIES CHEMICAL WORKS. LTD Spanill Town,

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 Machinery,Fulling Mills,

Cloth Washers, Wool and Waste . Duseers, Drum Sporl Winders, Reek, Sposling and Doubinan - Machines, Ring. Tulsters, Card Creels, Rag- Dusters. Dead Spundle Spoler (For Wirp or Diesses Sprols), I'as. Double, Aeting Gise, cte., cic.


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attentlon.


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Winding Machlnery, Improved Self-icthy Mule, Suspented Stean Driven Centrifugal Blydro-Extractor, Tentering and Drying Machines, Datent Wool and Cotton Dryer, Patent Wool Scouring Machine, Cross Raising Machiue, Pateat Crabling and Winding-on Mrachine, Wary Sizing, Cool Alr Drylng and Beaming Machinc, and other Woolen Machiners.

## GATALOGUE ON APPLICATION

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Head Office: MONTREAL
This is a strong and prosperous Cainadian Institution, with well-invested Asscts

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DOMESTIG AND FOREIGN WOOLS, Sumnc, Japonica, \&c.
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Afanufacturers and Dealors in all Lincs of Wool Stools, Shodales, de., Graded Woolen Itage, Carboniang and Neutrallzing.

L-3est priver pald for Wool Pickings. Woolen and Coton lisks, Mitaly, sc. Hard Waste, Ac. purchased or wotked up and returned.
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## Manufacturers of

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ROBT. S. FRASER Wools, Cottons, Noils, Yarns English Pich Lambs and Douns

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CARD CLOTHING
LӨӨM REEDS

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## MONTREAL.



## LITERARY NOTES.

We have to thank Geo. C. Huttemeyer. Montreal, for a copy of his "Business Directory for 1894.95 ." It is published annually, price, $\$ 3$. The most striking feature, and one which renders this directory particularly valuable to business men in all parts of Ca nada, is that it contans the addresses of business firius not only in Montreal, but in Toronto, Quebec, and Ottawa also, and they are properly classified in both French and English. In addition to the directory proper, there is a complete table of the new tariff as issued by the Customs' Department last July, together with other interestung information. The book is well and strongly bound, and, altogether, is one well worth obtaining by business men

The new edition of the Bell Telephone Company list of subscribers for Montreal and vicinity is the product of the Sharcholder printing office, and is quite an improvement on all previous directories. Though paper-bound as usual, the cover is reinforced with a linen back which will give it much greater durability. The advertisements are tastefully set and the printing is a credit to the ShareHolder office.

The "Statistical Year Book of Canada." issued from the Department of Agriculture in Ottawa, has now been placed in the hands of Geo Johnson, Dominion Statisucian. As might be expected, Mr. Johnson has made a number of changes and introduced some new features which will greatly add to the value of this publication. Among the interesting new features is a very full summary of the results of the late census. There are also extracts from the reports of the leading Boards of Trade, and the publication is now swelted to 995 pages.

The Canadian Manufacturer in its current number gives an entire reproduction of both the Canadaan and American tariffs. Both lists have been carefully revised; the Canadian tariff, which was ratified July 23rd, 1894, having been obtained by our enterprising contemporary from the Dominion Minister of Finance, and the American tanfi, which came into torce on August $28 \mathrm{th}, 1894$. from the U.S. Treasury Department. Merchants and manufacturers of all classes will find this novel feature a very useful one for reference.

The seventh annual edition of the "Blue Book" Textile Directory. published by the Davison Publishing Co., New York, is just to hand. It is published in two forms, the price of the office edition being $\$ 3$, and that of the pociet edition $\$ 2.50$, and comprises a complete hist of names of all the cotton, woolen, silk, jute, flax and hinen manufacturers, dyers, bleachers and print works, dry goods commission merchants, city offices and salesrooms of manufacturing companies, etc, in the United Stares. These, contrary to the practice of the compilers heretofore, are divided under their respective classes, an innovation which no doubt will be appreciated.

A prominent feature of the September Centary is a continuation of the unpublished correspondence of Edgar Allan Poc, edited by George E Woodberry, and dealing this month particularly with the Philadelphia period of Poe's life. This series contains three portraits of the romancer, and four striking drawings by Sterner, typify ing well-known stories and poems. The present instalment contains a portrait from a daguerreotype owned by Mr Thomas J. Mckee, which, however it may challenge criticism as a likeness, is nevertheless well authenticated There is also a portrait of $\mathrm{N} P$. Willis, and the writers besides Poe himself are Washington Irving, Charles Dickens, Willis, and others The inglorious end of Poe's aspirations for a government appointment are related with much particularity Mrs M O. W Oliphant, whose biographical work is not less attractive than her novels, contributes a paper on "Addison, the Humorist," this being the last of her papers in the magazine on the characters of the reign of Qucen Anne, which are to be published in book form by the Century Company during the autumn. A striking portrait of Addison, and one of the Earl of Godolphin, accompany the paper. There is also the first of two papers of "Recollections of Aubrey De Vere," the English, or rather the Irish, poet, the present paper bcing devoted to his childhood and boyhood.
and the second to his youth. This paper contains, among other material, some humorous stories of life in Ireland a generation ago, with anecdotes of Danicl OConnell, of whom an engraving is given. A portrait of Mr. De Vere will appear in the second part. "A Jaunt into Corsica" in this number is an interestung forerunner of the "Life of Napoleon," which will begin in the November number of the Contury.

## IN NEW YORK RETAIL STORES.

## Homespun plaids in dark colors

Self wlored brocades in drapery silks
Boucld effests in tiny crosswise stripes
Moiré coats made up with velvet sleeves.
Imported gowns trimmed with fancy buckles
Many golf capes in plaid and mixed woolens.
Velvet and velvet plush capes for dressy wear.
New fur capes of various lengths, but all very wide.
Black satin trimmings on colored woolen dresses.
White bordered veils and colored ditto for the fall.
New cravats in bluet and black or white figures.
Ladies' cloth suits trimmed with moiré and jet bands.
Sealskin jackets having a full skirt and ammense sleeves.
Separate collars of silk crope, chiffon, gauze, velvet and morre.
Jetted laces in bands of net tringed and bordered with beads.
Silk and wool moire for vests and accessortes on woolen gowns. Baby carriage and crib blankets of bordered eiderdown flannel.
Satin and moirb striped black silks, for skirts and entire costumes.

Sulk gowns trimmed with applqqué designs of jet trimmings or lace.

Immense lead pencils to the up with a ribbon over a writing desk.

Black stlk gowns made up with cherry-colored velvet and jet trimmings.

Long impurted cloaks of bluet cluth trimmed with Persian lamb fur.

Fancy striped winter petticuats finished with a crocheted silk edging.

Tweeds in small checks and also silk doted for --ilor made gowns.

Tailor-made snits having strapped seams of diagonals, cloth, serge, etc

Plaid silks showing but two squares to the width for lining cloth capes

Small collets or capes of nacre - mother-of-pearl fïured-black moire.

Japanese satin lambrequins and cushions embroidered in silk and gold.

London-made gowns with interlined skirts that hang without a break.

Waists of the șilk and wool moirt, also of the highly finished Liberty satin.

More and more of natural-colored winter underwear in the pure wool grades

Black surah waists for general wear, for young, middle-aged and elderly ladies.

New shades in soft glossy Liberty satin, fit waists, vests, yokes, teagown fronts, etc.

Scotch tweeds of remarkably fine weave for suits, to be trim. med with velvet, moire or satin.

All kinds of mixed dress goods, with odd combinations of color toned down by black effects.

Small jet crowns like a star, three-leaf clover, oval, round, diamond and dome in shape.

Cloth capes trimmed with an applique scroll border of the material stitched with raw edges

Silk-warp crêpons in evening colors in small crinkled stripes on a ground of a larger crinkle.

Curious birds, consisting of wings, tail and head only, in black, touched up with cherry or bluet.-Dry Goods Economist.

## REGENT CANADIAN PATENTS.

Henrietta \& Geo. A Horn, Newark, N. J., have patented an appliance ior wafting garments by means of adjustable patterns.

John Dilley, Jr. Muir. Mich, has patented a washing ma chine, in which the suds box. near the upper end, has transverse bars at each end The removable rubbing board consists of a series of transverse bars provided with apertures through which paws nexible metallic rods secured to the erad bars, with coiled springs interposed between the latter and the bars adjoining.
J. J. Nelson, Toronto, Ont., has patented a clothes' cleaner. consisting of a cylinder, a plunger working within the cylinder, and a planger rod conneted to the plunger and extending above the top of the cylinder. The cylinder has a removable top, and a grating connected with its lower end. The rod is encircled with a spring bearing on the cover of the cylinder and against a removable collar secured to the plunger rod.
D. Kops, New York, has patented a corset in which there are short overlapping superposed bone sections upon the sides of the corset, connected upon the fabric body, at acute angles to the horizontal waist line, and located centrally over the upper portion of the hip.

Emile Maratens, Providence, R.I., has patented an apparatus for treating colored tops or slivers from combed animal fibres. consisting in winding a combed and twisted sliver upon a suitable holder, then chemically treating it, drying it, and then untwisting it.
W. H. Holloway, Brazil, Ind., has patented a cloth-measuring machine, containing a reel consisting of two rectangular frames of unequal size, the larger enclosing the smaller, and both mounted on a common shaft and placed at different angles with each other, the large frame having a cloth attachia $y_{g}$ device and means for rotating the frames.
A. Park and A. Thornton, Sherbrooke, Que, have patented a harness rail for loom heddle-frames. On its lower edge there is a lungitudinal grovere adapted to receive the upper heddle rodi, and also the twisted upper ends of wire heddles.

Geo. M. Ireat, Hamitton, Ont., has patented a dress plaquet fastener, consisting of two stiffening blades pivotally connected together at one end and having the opposite end free, and so arranged as to be readily stitched or otherwise fastened to the sides of the plaquet hole.
R. E. Johnson, Detroit, Mich., has patented an umbrella, in which there are ribs formed of two parts shd:agly secured together, a supporting brace connecting the inner end of the outermost of these two sliding parts, and a runner and a ring sectred to the outer end of the invermost part of the ribs and embracing the brace. A spring is provided between the staff and the ribs, so adapted as to give them an initial opening movement.
F. Linneborn, Hagen, Germany, has patented a variety of hygienic underclothing in which the inner threads are of linen, and the outer threads of wool.

John Keats, Bagnall Hall, England, has patented some machincry for winding thread upon star-shaped disc holders, in which, together with the rotating holder drawing upon the thread, there is a thread supply and an intermediate tension device, comprising a pair of friction rollers through which the thread passes, one mounted in a fixed bearing and the other in a movable one. An adjustable yielding pressure connection is provided.

John F. Palmer, Riverside, Ill., has patented a fabric made of rubber or similar material, consisting of two or more plies of rubber, each being imbedided by parallel fibrousthreads not in intimate contact with each other, the threads in one ply presenting an angle to the threads in the other.
E. H. Schoficld and O. Dunham, Ludıngton, Mich., bave patented a cloth painting machine, in which, connected with the paint applying devices, there are cndless travelling belts between which the cloth is passed, and brushes secured to each belt at intervals, the brushes on one belt being opposite the spaces between the brushes
on the other belt. The brushes, one pair, are caused to move in opposite directions to one another transversely across the cloth, and the other pair to travel longitudinally acrass the cloth in the same direction. The panted cloth is passid between a pair of squeeze rolls. Scrapers are so adjusted as to be brought into the path of the brushes There is a benzae tank with valved pupe connection, with chambers attached to the cases contanme the brushes, and provided with a depression in which the immersing roller works.
E. II. Schofield and O. Dunham, Ludington, Mich., have patented an apparatus for reeling fabrics, which consists of a reel, an automatic cloth guide with a pair of transverse shafts, a loose and a fixed guide roller on each of these shafts, a gear on the end of each connected together by an intermediate gear, a pair of screw shafts with a worm connection with the end ot one of the transverse shafts, and provided at their opposite ends with right and left hand screw heads respectivaly, screw threaded sleeves working thereon, levers pivotally connected with these sleeves, and a rod connecting each of the levers with the shaft of the reel.
E. H. Schofield and O. Dunham, Ludington, Mich., have patented a cloth Jrying, tentering and trimming machine.
H. Johnston, Ypsilanti, Mich., has patented a garment stay in which the resilient blade has, surrounding it, an adhesive coating and guard tips, consisting of a folded rubber strip having its ends secured to the blade by the adhesive coating, two covering strips of textile material extended beyond the ends and edges of the blade, and tips having their entire faces coated with the adhesive material. The covering strips are thus adherent to each other and to the enclosed blade and tips.

Carl C. F. H. Von Clawson-Kaas, Dresden, and E. E. Von Fisher, Charlottenburg. Germany, have patented a shirt in which the cuffs are detachable, each forming apparently one piece with the sleeve and being adapted to hide the wristband, the connection between the sleeve and cuff being effected by the doubling of the cuff to form a pocket in which the wristband is secured
F. W. Warner, Rochester, N.Y., has patented a body garment with an arm opening and a pocket formed in the garment direculy below the arm opening, with its mouth in close proximity to it, whereby one side of a dress shield may be inserted in the pocket and the shield held immediately beneath the wearer's arm.
E. Heaffely, Barmen, Germany, has patented an improved process of turkey red dyeing, by which an excess of color in the outer portion of the hanks over that in the inner portion is prevented. The process consists in thoroughly saturating the mordanted hanks with a solution of alizarine much stronger than that required to combine with the mordant, whereby the solution, by the time it has penetrated to the centre of the hank, is still strong enough to saturate all the mordant in that portion.

Wm. McCrossan and John Paul, Paisley. Scotland, have patented a lathe for making spools and bobbins. The boring mechanism comprises a horizontally movable spindle with drills, in connection with the turning or shaping mechanism, which consists of carrying spindles, adjustable slides and cutting tools with self-acting appliances in the form of a rotary carrier, guides, yield. ing pressure devices and actuating means for moving the blanks into position for being bored and for transferring them to the shaping mechanism.
R. U. Irwin and H. Dixon, Shelburne, Ont., have patented a cloth-measuring and stretching machine in which there is a slidable block-holder adapted to move sideways to take up any unevenness of the ends after passing through the measuring apparatus.

Wm. Hebdon, Buston, Mass., has patented an improved method of finishing cloth, consisting in first sponging and heating the cloth in open width, and then cold-rolling it while hot and under tension in a pressing sheet. He has also patented a machine for this purpose, comprising a cylinder on which the cloth is wound, tensionrollers supported by pivotally-mounted heads, a supporing frame having a stud to engage in with a perforated hub on one of the heads, and provided with a depression to register with the perforations in the bub, and the pin to engage two perforations and the depression in the stud.
L. Grondahl, Red Wing, Minn., has patented a washing machine having vertically operated pounders, the tank having a semicylindrical bottom, being placed under the pounders.
H.S. Cawthorn, New York, has patented a button-hole attachment for shirts and other garments. It consists of two hinged metallic plates, one with projecting spurs, and the other having an aperture in its end. Means are provided for causing the spurs to engage with the fabric of the garment.
P. Neukirchen, Chicago, has patented a washing machine. From the upper end of an upright outer vessel a pair of parallel braces rise, to which braces is pivoted, and guided by them, a lever. There is a movable plunger connected with the lever.
H. C. Fellowes, W. R. Crozier, London, Eng., and H. Ferguson, Leytonstone, Eng., have patented a process for treating fibrous vegetables for spinning. It consists in boiling them, whilst in a tightly-packed condition, in an aqueous alkaline solution until all impurities and extrancous matter are loosened, subjecting them to the action of warm water until those impure and extraneous matters are all removed, and then immersing them for a short time in a cold composition of vegetable oils, alkalies and water, then removing the finished fibre and drying it.

## trademarks.

Mchougal, Barrett \& Co., Montreal, have taken out a trademark for cloths.

The Woodberry Manufacturing Co., Baltimore, Md., have taken out trademarks for cotton duck and twines.

The Mechanical Fabric Co., Providence, R.I., have taken out a trademark for mechanical fabrics (card cloths).

The Crompton Corset 'Company, Toronto, have taken out a trademark for corsets.
H. H. Jowitl, Stanley, N.J., has taken out a trademark for papers, felts, etc., and more particularly for waterproofed carbonized felts and papers.

P Dutoict \& Co, Brussels, Belgium, have taken out a trademark for corsets.
T. Kingsford \& Son, Oswego, N.Y., have taken out a trademark for laundry starch.

Thos. Carlyle, Aston, Birmingham, Eng, has taken out a trademark for buttons buckles, clasps, hooks and eyes, and dress fasten. ers of all kinds.

Emil Pewny \& Co., Montreal, have taken out a trademark for kid gloves.

## SOUTHERN COTTON CULTURE.

D. A. Tompkins, of Raleigh. N.C., one of the most experienced cotton manufacturers in the South, has the following to say with reference to the cultivation of cotton in the Southern States:-
"The idea, which we often hear expressed in the South, of curtailing the cotton crop down here in order to increase the price of that staple, will never work The South will bave to fight to hold the cotton monopoly of the past, which really is no longer a monopoly. The South must make cotton cheaper, handle it better, gin it better, and put it on the market in betfer shape. It will never do to fall into the idea that prices can be controlled by curtailing production. It is simply a question whether the United States will beat the rest of the world in competition and continue to furnish the cotton which the markets require, or whether Russia, Egypt. India and South America will do it. The production of cotton in Russia is attracting attention, and it is asserted that in five years Russia will be exporting cotton instead of buying it from America.
"Ten years ago there was no Egyptian cotion imported into the United States. Within ten ycars its importation has increased from nothing to 40,000 bales, or about $28,000,000$ pounds, valued at about $\$ 3,000,000$. These are the figures given by the United States consul at Cairo. Egyptian cotton first came into use here in the manufacture of balbriggan hosiery. It is this cotton which gives the peculiar brown color and silky lustre to some knit goods. The popular color of much of the best knit underwear is due to the

Egyptian cotton from which they are made. All efforts to imitate this by dyeing the American cotton have been unsuccessful. The price of Egyptian cotton is only from one to two cents more than American cotton. Some people have been expecting that the South would demand protection against Egyptian cotton. Whilo it is far cheaper than our sea-island cotton, it is better than our ordinary. upland, and has a better color and lustre than our best grade of improved upland.
"It is said that the improvement in the production of cottun in Egypt is greatly due to the confederate officers who were en. gaged in this country by the Khedive to reorganize his army. These officers in many cases gave attention to other things besides military affairs. Among these things was the importation from the United States of quantities of sea-island cotton sced, which were used in the valley of the Nile. The good quality of cotton now brought to this country from Egypt is said to be the outcome of the work done in improving cotton culture in Egypt by these ex-confederates.
"The Egyptian cotton has almost entirely taken the place of American cotton abroad for the production of lisle-thread goods The extent of its introduction in this country would be enough to show that it must be making even greater headway abroad. Outside the United States it is now largely used where American seaisland cotton was useci formerly.
"Since the civil war in the United States the tendency down here has been to gin the cotton immediately after it as picked. It is a well-known fact that better cotton was made before the war, when the seed cotton was stored as it was picked, and then ginned at leisure. It is believed that storing before ginning gave time for the fibre to absorb just a little oil from the seed, which gave it some of that brown color and silky lustre peculiar now to the Egyptian cotton. Prior to the war, too, cotton was ginned by mule power, a much slower process than that now in use, so that the fibre was less cut than it is now by the steam gins.
"The color and lustre gained by the fibre from the oil in the seed while in storage are not the only advantages gained. The dry and cut cotton, as it is now ginned, easily generates electricity, thus charging each fibre so that it tends to stand c. 2 end. This th dency in some cotton has been found to be so great as to almost prevent its use for spinning. The Egyptian cotton is said to be better in this respect, and it is thought a great improvement could be made in the American staple by holaing the seed cotton in storage from one to three months and then ginning it carefully. It is probable that by these means our improved upland staples can be made to
' serve all purposes as well as the Egyptian cotton, and thus the South may get back some valuable trade lost in the markets both of this country and abroad. Certainly, if the South desires to con. tinue to hold the markets, as, of course, she does, we must mine better and cheaper cotton and put it on the market in the best possible shape."

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