American Cotton for Bombay

We have several times drawn attention to the fact that Bombay is as favorably situated as this country for supplementing its native staple, and the short-bladed cotton seed that are now and then better article grown in Egypt; and that, as a fact, experiments on a considerable scale are being made to try the fustians and manufacture jacquards and mulls, and use the finer classes of cloths, with cotton from this source. We have also called upon manufacturers to make a study of the fact that the Bombay trade had begun to draw supplies from the same source. But we have not until now had to report that the Bombay trade was coming to Liverpool for American descriptions. Yet this is the case. Writing on Saturday last, the Liverpool market reporter of the "Mercury" gives the following:—

One peculiar feature of to-day's market has been the sale of 100 bales American cotton for shipment to Bombay; and at a slightly further fall in value is said to have taken place during the past quarter. This gives some idea of the relative cheapness of American cotton compared with other growths. About 18 months ago 8,000 bales of East India cotton were shipped from this port to Bombay; now the operation is being reversed, and American cotton is shipped to India instead. This is a remarkable event, and a very suggestive one. It is also in the nature of things that persons who have purchased and are shipping this cotton can doubtless see their advantage in the transaction, or they would not do it. It means one of two things:—either that they can see their way to use it profitably on the yarns they are spinning or the goods they are engaged in, or they mean to experiment with it to see if they cannot make those upon which the Lancashire mills are mainly engaged. Whichever be the case, it is important to turn upon workers and operatives, and especially to the latter. They have ample means of knowing that the country cannot last for 20 years has been anything but profitable; and yet, with the full knowledge of that fact, they have conspired to place it upon the market. The obligations of the new law which has just come into force, and which is, as it was meant to be, most harassing. It is useless to reply that this law has been procured to defend themselves against fraud on the part of employers, for the Act contains many clauses that are simply aggressive and harassing; besides those that are protective, whilst they had and have ample powers in their hands for punishing employers who do not treat them justly. However, they have the consolation of knowing that they have imposed burdens upon their employers from which their rivals in India are free, and to that extent have incapacitated their employers from competing with English and other capital in India. The orders for this trade which most of them had expected will be the consequence will chiefly be their loss, as they will, at an early date, find out. The money paid in wages to these English workmen of this country will far transcend in amount the sales allocated to the employers for profit, wear and tear, and interest upon capital. If a policy of this kind be wise it is because it is based on the fact that far too much of the whole of mankind of the ordinary mortals.

CONGLOMERATE: A RETROSPECT.

Our Special Commissioner, who has written the numerous articles on various silk manufacturing towns that have appeared in intervals within these columns, sends us the following notes on Conglomerate. There is much that is pleasant, but a good deal more that is sad, to be seen in connection with the history of the small cluster of quaint old towns lying to the east of the Cheshire Midlands. Many of these I have already spoken, but a good deal remains to be said before the subject is regarded as thoroughly exhausted. As I write, the heavy tramp of a jaded hand-loom weaver returning from his day's work is heard at daylight, sounds two hours before midnight, in the narrow passage which leads from the front of a little cluster of cottages facing one of the numerous waterways, which eventually mingle with those of the Mersey. The tread of this toiler has served to awaken my mind to the words I carried me back to a period in the '70s, when the trade was flourishing in the valleys of the Bollin and the Dane. Old-fashioned Buglawon—the name is not a pretty one I grant—then bore a much more consequential air than it does now; whilst amongst the women of the district, and to no small extent amongst our Cheshire silk workers, a brute of a French author wrote not long ago, after traversing some of the silk districts in the south of Manchester, that 'la vieille Anglaise en un mari achetait leur femme.' His remarks are supposed to have been made because of the poverty which he noticed in certain towns, which shall not be named. They were due, in part, to the decedence of a trade unable longer to hold its own in the face of Lyons competition. The statements embodied in the quotation must be taken with the contents of a full salt-cellar; but the hint they are supposed to convey is obvious. Matters are not so bad in Cheshire as M. D'Avignon, who would care to speak, once once, of the 'handsome mansions of the opulent manufacturers, surrounded with shrubs, banks and ornamental gardens,' that 'the shrubbery and gardens enough, even yet; but somehow one does not hear of 'opulence' in the old place now. Old Ormord tells us that Conglomerate once had twenty-eight manufacturers of ribbons and other silks. Black silk, twenty years after the time of which Ormord wrote, was the principal feature of the trade of the town; while its output of 6,000 bobbins in 1843, exceeded that of Macclesfield, although the total turnover was then, as now, inferior. At its best the Conglomerate trade did not employ much more than 5,000 hands, a number far below that of Macclesfield in the prosperous days of 1840. The number now is much less, if any, above 1,000 operatives engaged in throwing and spinning, as well as in the manufacturing of ribbons, trimmings, crapes, bindings, parlours, and gauzes. Then, in addition, there were three towel manufactories, one of whom has about 60 looms; and at Buglawon, close by, the employers include a couple of towel brins, one thrower, and one trimming manufacturer. The Beeches of the district have disappeared entirely from the ranks of the trade, as far as we have been able to ascertain, and the Johnsons, Brook's and Hunters have also gone. Of names still known in connection with the silk trade of Conglomerate, the following is the list of those who half a century ago as manufacturers of ribbons:

<table>
<thead>
<tr>
<th>Name</th>
<th>Power Looms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mesier</td>
<td>100</td>
</tr>
<tr>
<td>Real</td>
<td>39</td>
</tr>
<tr>
<td>Burton</td>
<td>25</td>
</tr>
</tbody>
</table>

Just previous to the period of which I have spoken, the trade was in a depressed condition, speculation being at a standstill, and new looms not being erected with the usual frequency. There are something less than a dozen throwers in the district now, against forty previous to the 1840's. Buglawon can scarcely be said to exist, and there is no dying worthy of the name to be found in the town. Between 150 and 200
power looms are running on sarcones, trimmings, and other smallwares at the present time. A short line was thrown out by some of the large looms which was about the number of the broad silk looms remaining in those days, the trade having gone to Macclesfield. Bandannas and souvenirs of the trade were chiefly manufactured; and there were altogether about 200 hand-loom weavers to 250 power-loom operatives.

The abolition of the 24 per cent. duty on foreign ribbons proved disastrous to the Congleton ribbon trade, and the throwing trade, as has been shown, declined also more rapidly. A few firms now manufacture shaggy yarns, but the ribbon trade, once the great staple of the place, has fallen off to a very small extent. Mills which used to be in use as factories have in many cases been taken over for the purposes of the Florence trade but the business in the latter industry has again set the town back.

CONGLETON TO-DAY.

"There is really little to add in connection with the position of Congleton to-day as a manufacturing centre. The population of the town is not stationary for half a century—ever since the period, in fact, when its manufacturers were furiously at the plunder of their bales of silk, and when news from London failed. It is not intended to suggest that this plunder (which took place chiefly at Stoke-upon-Trent) had anything to do with the decline of the Congleton industry. The condition of the Congleton operatives has seldom been spoken of favourably in comparison with other centres. The operatives were formerly in the trade, until the decline of the Dublin industry, when the supply of skilled workers from across the St. George's Channel naturally fell off. Satirical critics like Mr. A. L. de R. S. W., once a supporter in the town, said that the men kept sober throughout the old days, because they had to work at 6 am. in order to effect a livelihood—a remark which might be applied to the workers in the mills to-day. Many of these workers in the earlier days took pride in the wasteful spending of their extra earnings, which they regarded as proof of their superiors. Strikes, which have taken place frequently, were now no more a rule resulted in favor of the employers. The condition of the operatives has perhaps altered slightly for the better. Instead of working for wages that altered, the improvement is extremely small. There seems to be no cohesion amongst either employers or employed, and a lamentable lack of public spirit characterizes the town. Congleton cannot now claim to attract notice because of the absence of uniforms amongst its policemen; for even the privilege of dispensing with these has lasted the past few years been taken away by the town.

The Low Price of Cotton.

Considering the low range of sale now ruling for cotton, it may be worth while to put upon record for easy reference by those interested the result of investigations by a well-informed writer in the columns of the Manchester Guardian: "The low price of cotton has been the foundation of the industry of the Manchester cotton. The market must be naturally drawn attention to former occasions when quotations have been similarly depressed. Frequent references have been made upon the market since the year 1878, when American cotton was even cheaper than it is now. In that year the average price of middling upland in Liverpool was 19d. per lb. The lowest point, 3d. per lb., was touched in October, but the price remained there for only a fortnight. A reaction set in at the beginning of November, and at the close of the year 3d. per lb. was reached, but the recovery did not begin until the end of January, 1879, and on February 16 the quotation was 4½d. per lb. In April a rise to 4d. occurred on the outbreak of war between France and Teutonic powers. Shortly afterwards, however, there was a rally which carried the price to 5d. on August 10. Thereafter the rise was more or less continuous, and at the end of the year the quotation, after reaching 9d. in November, was 9½d. per lb. This high price lasted until the middle of January, the closing price being 7½d. per lb. For the latter two-thirds of the time, 9½d. per lb. was the ruling price. The causes of the great depression of that year were not excessive stocks at that period, but the outbreak of the French Revolution. The only other instance on record of a fall in the cotton market to the present low level occurred in 1843 and 1844. At the end of June in 1844 a fall of 4d. per lb. was made from 3d. per lb. To 9½d. per lb. A recovery began, however, in the third week of July, which carried the price to the end of the year 9d. and 3d. for the two qualities respectively. In 1845, however, a recovery, amounting in the fall of 1844, the prices being one, indeed, during that year to 9d. per lb. In 1851 the price was again 9d. In 1853, however, a partial advance occurred, middling American having reached 7d. per lb. At the close of December. The low prices of 1853 appear to have been mainly occasioned by large crops of American cotton and accumulations in Liverpool. The maximum prices of the year were 3½d. and 4½d. in 1854, 4½d. and 5½d. in 1854, 4½d. and 5½d. in 1854, 4½d. and 5½d. in 1854; and 4½d. and 5½d. in 1853.

CHANGES IN THE CARPET TRADE.

A short time ago the Kidderminster Shuttle referred to some remarks in Emily's Gazetteer, Daventry, and Worcestershire, of about 50 years ago, in which it was stated that there were at that date "twenty-five highly respectable houses" engaged in the manufacture of carpets in the town. The total number of hand-looms at their disposal was 1,075, of which number 1,075 were working looms, while 200 were employed in the manufacture of Scotti and forty of Venetian carpets. These afforded altogether employment for 3,025 men, women, and children. "The population of the town in 1881 was 6,810. In 1881 it was 10,709, and in the suburbs called the 'Foreign', 7,303; and in the chapel of Lower Mount, 2,499, making 15,256 in those parts of the parish. In 1831 the population of the town and parish was 8,869, and was estimated by the compiler of the present work at about 30,000 at the time the history was published. The 'twenty-five highly respectable carpet houses' were as follows:—

- Barber and Cole, Church Street;
- Bourne, Sough, and T. J. Pincham's;
- Brinton, Henry, Vicar Street;
- Butter, Wirth, and F. J. Gayton's;
- C. D. Dixon, Mill Street;
- John, Mill Street;
- Dobson and Sons, Church Street;
- Gough, J. and Sons, Church Street;
- Hines, Joseph, Mill Street;
- H. C. Thomas, Mill Street;
- H. W. Thwaites, Mill Street;
- H. E. T. Skull, Mill Street;
- M. G. and Co., Mill Street;
- Mill Street;
- Millicent and Co., Mill Street;
- Millet and Co., Mill Street;
- Milburn and Co., Mill Street;
- M. J. and J., Mill Street;
- T. J. and J. J. Pincham's, Mill Street;
- H. G. and Co., Mill Street;

COTTON SPECULATORS LOOK OUT.

There exists in the minds of many people a strong conviction that speculators, as they are known in our various markets, are an unmitigated evil, and there are persons who would be glad to see them suppressed. Senator Washburn, of Indiana, is evidently one of these. This gentleman has introduced into Congress a bill prohibiting dealings in "futures" in regard to agricultural products, which is interesting for its attempt to define "futures." This is a very good idea, but it is ultimately the purpose of the Act the word "futures" shall be understood to mean any contract or agreement for the purchase or sale of a large amount of goods. There is a party agreements to sell and deliver at a future time to another, any of the articles mentioned in section 3 of this Act, at the time of making such con-
tract or agreement the party so agreeing to make the delivery, or the party bound by such contract as agent, broker, or employer in making such contract or agreement, is not at the time of making the same the owner of the articles so contracted and agreed to be delivered, or unless the articles so contracted to be sold and delivered shall subsequently be actually delivered by the person to whom such contract or agreement is made with respect to any state, county, or municipality, or with the duly authorized officers or agents thereof, nor to the contracts or agreements made by farmers for the sale and delivery of any of the articles aforesaid, which are in actual course of production by such farmers at the time of making such contract or agreement." The other sections relate to penalty, interest, tax, etc., and practically prohibit dealing in "futures" of wheat, corn, oats, rye, barley, cotton, and all other farm products; also pork, lamb, and all other hog products. In the case of this may be estimated from the circumstance that the United States alone sell yearly to the amount of 35,400,000. It would, therefore, be a serious advantage for the German Empire if her manufacturers could get their cotton from the German Colonies. As already indicated in these columns, a few facts are given in this direction, and on some these Germans are beginning to build castles of hope. For several years, large quantities of cotton have been entering in ever increasing quantities, and of a quality which is highly esteemed by the dealers of Bremen. The first cargoes of cotton came from the island of New Guinea, who the cheapest cotton in that district is Topago, from the South Sea explorer, Kabel, has in hand the management of a cotton plantation. The side of these goods can be placed shipments from Topago and the Camerouns, which are very satisfactory. The principal station in the Camerouns is Tarobbo Station. In consequence, the Imperial Government has commissioned the gardener Gelling, who has been unclogged with cotton planting for many years, to also islands, to help the colonists in Topago and the Camerouns with his experience.

SEWING TEXTILE INDUSTRY

The experiments of Professor Hatz, of Munich, in the rearing of silk worms by other means than the leaf of the mulberry, have already been noted in these columns, but the subject is sufficiently curious and important to justify further reference. The Professor has recently published a pamphlet on the question, from which the following details are extracted. The plant employed is that called in German Schachtierzuch, or confectionery. The results of feeding with this plant for 1989 were as follows:—About 9,000 eggs had been obtained, which were hatched in the incubator at 25 C., and the 2,700 worms which in the first three days were taken for rearing purposes. Although cold and damp weather and want of food caused an almost entire annihilation of the young Hatz obtained, after an interval approximately to that usually observed when the worms had been fed by mulberry leaves (33 days), 753 cocoons, the third generation, which could be easily recognize, and which, in length and quality, were equal to those obtained by ordinary means in an average season. Thus, after four years of uninterrupted breeding, the success in acclimatizing the genuine silk-worm to the exclusive use of confectionery, so that the worm has increased therefrom as much as the cotton filament in a condition which equals that obtained when mulberry leaves are employed. The cocoons obtained in the fifth breeding year, 1899, in most instances left little to be desired as to magnitude and weight. The tallest weight 393 grammes, and the thread produced is almost of the same fineness, breaking with a weight of from five to six grams; all the slips of the silk fibres was exactly that of the normal thread yielded by worms fed on mulberry leaves. It has been stated, and for the present year, exhibits fresh progress. Professor Hatz reporting that 347 per cent. of the worms, which, as before, had been exclusively led with a confectionery leaves, yielded normal cocoons. While the heaviest for previous years weighed 393 grammes, those of the present year have a weight of 283 grammes, and their thread harmonizes completely as to gloss and tenacity with the usual product obtained by means of the use of mulberry leaves. The period of incubation amounted to from 39 to 42 days. These interesting results thus appear to promise very important results.

SERVIAN CARPETS

The principal seat of the Servian carpet industry is Pirot, well-known from the Servian-Bulgarian war. In the time of the Turkish rule, almost the whole female population of the city, which numbered about 10,000 souls, was occupied with the manufacture of carpets. Now, however, as the well-to-do nobility and the Mohammedans, who were the chief customers, have left the place, and Customs arrangements have shut off the land from Bulgaria and Turkey, there are only four or five trade business are engaged in this branch of industry. An interesting circumstance in the preparation of the Servian carpets is the fact that there exists a certain code of patterns, a traditional nomenclature of design, which is transmitted orally from the mother to the daughter and the grand-daughter. Usually five females workers have to work hard at a carpet of moderate size for 18 to 20 days; and on the average each worker earns 40 to 60 cents per day. These low wages are only explicable by the great tediumness of the Servians, who live mainly on bread and cheese. The mother of the present king founded the first carpet industry, about six years ago—this industry which has proved very beneficial to the country.

THE WOOD PRODUCTION OF THE WORLD AND ITS CONSUMPTION

It is fair to infer from obvious facts that the world is better clothed to-day than ever it was in its history before. When we consider the two great raw materials of clothing, cotton and wool, and the amount produced of each of these, even if we leave out of the reckoning the remaining fibres, hair, and down, vegetable and animal, that are used for this purpose, the fact becomes incontestable. In cotton alone the enumerated and unenumerated growths cannot possibly be less than 65,000,000 in any year than the equivalent of 15,000,000 bales per annum, which, in the shape, mostly, of clothing, are mostly divided between the warm and the temperate regions of the world. But the increase in the production of wool demonstrates our statement perhaps more powerfully still, and the main interest is consumed for clothing purposes in the temperate and colder countries of the earth. A recent report by the French Chamber of Commerce at Constantinople states that the wool production of the world amounted in 1890 to 188,570,000 kilogrammes (kilo. = 2.204 lbs.), of which 64,524,000 kilogrammes were produced by England, 24,190,000 kilogrammes by the European continent, 46,188,000 kilogrammes by North America, and 46,916,000 kilogrammes by Australia, the Cape, and La Plata. The world's wool production was greater in 1899 than in 1890, the amount for the former year being 926,000,000 kilogrammes. In thirty years, from 1850 to 1890, the Australian production rose from 27,000,000 to 252,000,000 kilogrammes; that of the Cape from 3,000,000 to 47,000,000; and of La Plata and Uruguay from 5,000,000 to 25,000,000. France, in 1890, consumed about 64,000,000 kilogrammes, of Australian wool, representing 345 bales—that is to say, more than a quarter of the total production of Australia and New Zealand. The United Kingdom alone consumes a larger quantity of these wool. In 1890 the total production of Australia and Uruguay was estimated at 193,000,000 kilogrammes, not including the wool and skins of slaughtered sheep. Of these 132,000,000 ounces, or 22,500,000 bales, the latter a quantity of 205,000,000 bales. France, therefore, imported in 1890 165,000,000 kilogrammes of wool in the greasy or washed, of which 44,000,000 kilogrammes were Australian and 52,000,000 kilogrammes La Plata wool. The remainder, 82,000,000 kilogrammes, represents wool of European origin and common wool from Africa and Asia Minor. These 168,000,000 kilogrammes, with an approximate value of £4,100,000 sterling, do not, however, represent the whole amount consumed in the country, as no account has been taken of the artificial French clip and the wool of imported shears. Taking these into consideration, it may be stated that France consumed in 1890 for her industries over 240,000,000 kilogrammes of wool—more than a quarter of the entire wool production of the world. With this evidence of her competence to hold her own against all competition, surely our neighbours might have got along fairly well without their hot appeal to their political rulers to protect their home market from the aggressions of their neighbours.
THE TEXTILE MERCURY.

THE TEXTILE INDUSTRIES OF SPAIN.

When we consider the reputation that Spain anciently attained for her textile manufactures during the time that the Moors ruled the country, the name of Spain becomes a synonym for luxury and magnificence. It is also remembered that the Moors introduced into Spain the art of weaving, and that they paid for it by the importation of raw materials from the East. The result was the establishment of a flourishing industry, which has been continued to the present day.

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Lord Salisbury and our foreign commercial interests.

Lord Salisbury has not attained his present distinguished position in the world of politics without having shown equal commercial ability. As Lord Robert Cecil he attracted attention in the House of Commons, when sitting for the borough of Southwark, to the extent of which his political career has been a triumph.

In his capacity as Secretary of State for India, as the colleague of Mr. Disraeli at the Berlin Congress, and as one of the chief opponents of the late war, he has shown great ability, and in his capacity as Secretary of State for India, as the colleague of Mr. Disraeli at the Berlin Congress, and as one of the chief opponents of the late war, he has shown great ability.

In conclusion, it may be said that Lord Salisbury is a man of high ability, and that his position in the government is one of great importance.

An instance illustrating the latter statement is the case of the Liverpool Chamber of Commerce, which has been conducted with great success. It is a case of interest, and one which has attracted the attention of the public. The chamber has been conducted with great success, and has been conducted with great success.

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Gallieni and the Aloue Senouf on March 21, 1887, pass to the French a second control of the Senouf, and are among the French possessions in West Africa. These possessions have not yet been ceded to France, but their acquisition is being discussed at the present time.

The textile industry has been one of the principal interests of the French government. The establishment of the cotton industry in the Senouf has been a remarkable success, and the production of cotton has increased greatly in recent years. The French government has taken steps to promote the development of the textile industry in the Senouf, and has established cotton gins and mills in the region.

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THE TEXTILE MERCURY.

NEW DESIGNS.

COTTON STRIPES, PLAIDS, ETC.

Design A is arranged for fancy stripes, suitable as shirtings, dress goods, or linings. The warp is cotton, 3 in a dent, 90 picks per inch, 40 picks per inch, 100 yards of 30's cotton with those particulars will give a dress fabric. For linings, 100 cotton warp, 5 in a dent, 72 picks per inch, 100 yards of 24's cotton, 96 picks per inch. For shirtings, 25's cotton warp, 5 in a dent, 28 picks per inch; 50 yards of 26's cotton, 48 picks per inch.

Pattern No. 1: Warp, 24 dark blue on 5. 1. 4. 5. 6. 1 shafts; 24 very light blue on 5. 1. 4. 5. 6. 1 shafts; 3 light blue on 5. 6. 3. 1 shafts; 3 light brown on 5. 6. 3. 3 shafts; 3 light brown on 5. 6. 3. 3 shafts; 3 light brown on 5. 6. 3. 3 shafts; and repeat from 24 dark blue; well all dark blue. Pattern No. 2: Warp, 24 dark blue on 1. 2. 4. 5. 6. 1 shafts; 2 light blue on 5. 6. 3. 1 shafts; 24 dark blue on 1. 2. 4. 5. 6. 3. 1 shafts; 3 white in one head on 1 shaft; 3 white in one head on 1 shaft; 3 white in one head on 1 shaft; 3 red in one head on 1 shaft; 3 red, 2 deep blue, 3 red, 3 deep blue, 3 red, 2 deep blue, 3 red, 2 deep blue, 3 red, 2 deep blue, 3 red, 2 deep blue, 3 red, 2 deep blue, 3 red, 2 deep blue, 3 red, 2 deep blue, 3 red, 2 deep blue, 3 red. This completes the pattern, which is repeated from the "22 dark blue". Well all dark blue. From these two patterns, with the draft clearly indicated, it will be obvious that any number of stripes can be formed with ease, while colour arrangements may be formed to suit the different classes of goods required.

For PLAIDS, the warp 24's cotton, in 59 picks per inch, three in a dent; well, 90 picks per inch of 24's cotton, the pegging plan of 4 to be used with a straight-over-draft all through on the 6 shafts.

Red Pattern: Warp and weft crossings alike; 24 very light blue, 12 dark maroon, 24 white, 12 light blue, 24 blue, 12 cardinal, and repeat from light green. This arrangement will give a very handsome plaid pattern, well worthy of attention. The red and warp must be good, both in materials, such as cotton, and in colours.

Second Pattern: 36 dark fawn, 6 black, 6 fawn, 6 black, 6 fawn, 6 black, 6 fawn, 6 black, 6 fawn, 6 black, 6 fawn, 6 black, 6 fawn, 6 black, 6 fawn, 6 black, 6 fawn, 6 black, 6 fawn, 6 black, 6 fawn, 6 black, 6 fawn, 6 black, 6 fawn, 6 black, 6 fawn, 6 black, 6 fawn. Repeat from the first "36 dark fawn." Well pattern the same. One of the two fawns is a shade lighter. A variation of this plaid pattern divides the 22 dark fawn into 24 dark fawn, 2 scarlet, 24 dark fawn, but the scarlet is not used in the web pattern.

A RUG MAKING PLAN.

A new wool-silk spinning mill was opened in Yokohama last month. The company has been formed with a capital of $120,000 deutschemark to improve wool-silk spinning in Japan.

REMARKS AND THE CHICAGO EXHIBIT.—Lifters are being made to induce Bobbin manufacturers to exhibit at the World’s Fair. In many quarters there is a decided inclination to do so. It is urged with some force that to spend money and trouble in sending goods to a country which has established a prohibitive tariff is little thrown away. On the other side, an appeal is made to French firms by the suggestion that the safest way of getting the duties reduced or abolished is to let the Americans see what valuable things they lose by the present policy. Probably Bobbin manufacturers are too shyed to swallow such a bill.

THE AUSTRALIAN WOOL RACE.—On Tuesday the Associated Shipping Press reported that the Cunarder, Captain Fenwick, an iron ship of 1,417 tons, owned by Messrs. A. Nicoll and Co., of Aberdeen, has arrived off Cremorne, bringing the first consignment of the season of the Australian wool clip to the Thames. The steamer Sydney on October 24th with 3,469 bales of New South Wales wool, and she had made the passage in fifty-two days. The steamer Carysfort, Captain Phillips, an iron ship of 1,079 tons, owned by Messrs. George Thompson and Co., of London and Aberdeen, which left Melbourne in October, was signalled at the Isle of Wight at 5 a.m. on Monday. She brings 5,935 bales of wool, and has made the passage in thirty-three days. There has been a good deal of speculation as to the arrival of the first consignment of wool — as much as was expected with respect to the arrivals of the first cargoes of the season of the new China teas — and some heavy sums of money in wages charged hands on Monday.
although if it is convenient it would add to the beauty of the checking.

Third Pattern: 22 of dark green, 6 red, 71 dark green, 12 white; weft pattern the same.

Fourth Pattern: 244 dark purple, 12 red, 244 dark purple, 12 white, 76 dark purple, 12 white, and repeat from the first "244 dark purple." Weft pattern the same. A yellow might be used for the weft.

Fifth Pattern: 96 light cream, 12 marine blue, 96 light cream, 12 shrimp or coral. Weft pattern the same.

Sixth Pattern: 36 light silver, 6 drab, 6 light silver, 6 drab, 6 light silver, 6 drab, 6 light silver, 6 drab, 6 light silver, 12 rose, and repeat from first "36 light silver." Weft pattern the same.

Seventh Pattern: 96 dark blue, 6 white, 96 dark blue, 6 white, 96 dark blue, 6 orange, 96 dark blue, 6 orange, 96 dark blue, 6 green, 96 dark blue, 6 green, and repeat from first "96 dark blue." The weft pattern the same.

These seven plaid patterns on six shafts will give some idea of the particular class of crossings which will be favourably received by the public for spring fabrics in cotton. All would require a good clear beetle finish, and may be made 45 inches wide out of the loom, or after the finishing process.

FIGURED DRESS FABRIC.

Figure 1 is a suggestion for figuring a worsted or silk dress fabric. One method of development is shown in Design 7, which to the following particulars will yield a very effective cloth:

Warp.
All 2/30's worsted; 20's reed 4.

Welt.
All 30's mohair; 20-25 yields per inch.

It should be noted that in the design the double plain weave is used in which the solid black broad leaves. If it be desirable to introduce two columns in the weft we should advise a closer sett, say, 120 to 130 ends per inch of a finer cotton or silk yarn, and an extension of the design to double the number of ends and picks, that is for a 600 instead of a 300 machine, for which Design 7 is worked out. There will be no need for an extra sett under these circumstances, while we should advise as one of the wefts a tussel yarn to form the fixed dot and check effect which forms the groundwork upon which the flowers and leaves are thrown. An additional value will be added to the design by foreshortening some of the flowers, since the flat view here presented indicates too clearly the limitations of application.
THE ENGINES OF THE ASH SPINNING COMPANY, LIMITED.


One of the corner stones of success in all our mechanical industries, and especially in the textile trades, where competition is keen and the margin of profit small, is the equipment of a mill with the most perfect motor that science and skill can produce. Excellence of material, a perfect adjustment of every part to its fellow, and the observance of correct proportions in magnitude, strength, and weight in the working parts, having regard to the duty they have to perform, are all conducive to economical working, freedom from breakdowns, and durability. These things assured in a mill engine, the management will be relieved of an onerous contingency that often resolves itself into a burdensome tax. It is satisfactory to think that our engineers, during the past ten or fifteen years, have kept pace in the march of improvement in which all other branches of machinery makers have joined, and that now we rarely hear of the disastrous breakdowns that used to be so common.

We have pleasure in placing before our readers an illustration of a fine pair of tandem compound engines, furnished to the Ash Spinning Company, Limited, by the eminent engineering firm of Messrs. John Mosgrave and Sons, Limited, Bolton. These engines may be regarded as a type of the manner in which our joint-stock spinning companies equip their mills. The cylinders of these engines are 24 in. and 46 in. diameter, with a piston stroke of 6 ft., the working speed being 52 revolutions per minute. There are two air pumps, each 35 in. diameter and 30 in. stroke. These are placed below the floor, and are actuated by means of rods and levers from the crosshead of each engine. The drum is 32 feet diameter, weighs complete 684 tons, and is grooved to receive 33 ropes of 14 in. diameter. The crank-shaft webs or journals are 16 in. diameter, and 32 in. long. The crank pins are 8 in. diameter, and 103 in. long. The high-pressure cylinder is furnished with Corlies valves, and the trip mechanism of the admission valves is connected with the governor, the arrangement admitting of a variation in the point of the cut-off from nothing to ½ stroke. The low-pressure cylinder is also fitted with Corlies valves, but in this case the trip motion is arranged for adjustment by hand in varying the point of cut-off. A water catcher has been provided and arranged on the steam pipe close to the engine, and to this a steam trap is connected by which it is kept constantly drained.

The results obtained in the working of these engines show an average indicated horse-power of 1,900 on a total consumption of coal for all purposes, including mill warming, of 76 tons per week, of which it is estimated the engines take 71 tons. The quality of coal used is about 91. per ton. The ordinary boiler pressure is 150 lb., and the coal consumed per indicated horse-power per hour is 2.02 lb. These items are sufficient to indicate the quality of the work being performed.

The Ash Mill, it will be known to many of our readers, is one of the most recent of our Lancashire mills, and is a fine specimen of mill architecture. It contains 40,000 spindles and preparation, furnished by Messrs. Platt, Bros., and Company, Limited, Oldham. An extension is now being made in the form of a shed. The order for furnishing the required machinery has been placed with Messrs. Asa Lees and Co., Limited.

The firm of Schütz, Oehmichen, and Co. are erecting a factory in Letch for the manufacture of fine silk brocades.

RECENT IMPROVEMENTS IN TEXTILE MACHINERY, ETC.

In connection with the Weaving and Designing Department of the Huddersfield Technical School, Mr. Edward Armitage, the teacher of the department, delivered a lecture on Saturday on "Recent Improvements in the Textile Trades." The attendance was not large. Mr. W. H. Wallen-holme presided, in the absence of Alderman J. J. Bigg, who wrote stating that he was indisposed.

CONDITIONING WOOL.

The first improvement noticed was the establishment of a conditioning-house in Bradford, with the object of providing official tests of the condition of wool, tops, clips, and yarn, and it was expected that, as the system grew, every buyer of wool or other fibre in various forms would demand an official certificate furnished by the conditioning-house as to the selling weight of any particular lot. In other words,
the method of its manufacture. The lecturer, with the aid of diagrams, then entered into a lucid exposition of the process, and concluded that part of his subject said the invention unquestionably opened up a very promising field of enterprise. There would probably be difficulties, as in every new departure, but there was nothing intrinsically defective in the substance, and the prospects of double-sided pile fabrics. This was the first machine made to produce such cloth, and the inventors were to be congratulated on the simplicity of the machine. By a double pile woven cloth could be produced. Whether or not that cloth would be taken up and be successful was a matter which must be left to the merchants and the public.

Mr. William Netherwood and Messrs. Lockwood, Wood and Keighley, the well-known woolen manufacturers, had recently brought to perfection a fastin and cotton cord cutting machine. In the Manchester Exhibition there was a machine having the same object exhibited, but it did not succeed in supplementing manual labour, because it was too sensitive. It was long supposed that fastin cutting could only be done by hand, but it was found that this machine could do it as well as the hand. Its chief feature was its extreme sensitiveness and impossibility to cut at any fault or failure to act. In fact, the machine was bound to do its work correctly or stop. The lecturer concluded with several improvements in textile machinery. The proceedings closed with a vote of thanks to the lecturer and the cotton, which was adopted on the motion of Mr. Bentley, seconded by Mr. Dyson.

BLEACHING, DYING, PRINTING, ETC.

VALUATION OF ALBUMEN

Albumen is prepared from the white of eggs or milk, and essentially by a process of drying, so as to obtain the albumen in a dry condition. On the care with which this drying is done, the value of albumen is very largely in the value of the albumen when it is used in calico printing. It should be completely soluble in cold water, but if the temperature is too low, and the temperature too high a temperature, then some, if not all, of the albumen will not into the soluble variety, and according to the amount of this which is condensed, so the value of the albumen is decreased, in perhaps much more than direct ratio to the amount which is actually present.

The high-priced albumen also tends to induce adulteration with such bodies as dextrine, gum arabic, gum tragacanth, or glue. The best albumen is in the form of large, colourless, transparent flakes or leaves, which have a high gloss or lustre.

The fixing quality of the albumen may be also greatly improved, which is carried out in the following manner: A small quantity of albumen is weighed off and dissolved in water, and the albumen is printed with this mixture. One of these steamed and washed in the usual manner, while the other is dried. Both are dried and the shades compared; the less the difference, the greater the fixing quality of the albumen. The above experiment is repeated, and if a comparison trial be made with a sample of known quality a very fair idea of the relative value of the qualities of the albumen will be obtained.

Cochrane's method consists in taking 2 to 3 grammes of albumen, and dissolving in 80 to 120 c.c.'s of water, which are then filtered, and its quantity is ascertainment in

the usual way. This insoluble matter may consist of changed albumen, starch, gum tragacanth, and dirt. Then 15 grammes of the filtered saline solution, and pour the heated water into the tube until it is clear, and at 75 °C. it ought to be completely dissolved. The mass is now filtered off, and the solution examined for the addition of a tannic acid, or for gum by adding hydrochloric acid.

The proper valuation of albumen is a matter of some difficulty, as it is thoroughly satisfactory process has yet been devised. One of the best is Monitor's, which is based on the formation of a combination of albumen, copper, and potash, which is stated to have a constant composition, and to contain 256 parts of copper for every 376 parts of albumen. This process is carried out as follows: 4 to 5 grammes of the albumen are dissolved in 100 c.c. of water, after standing for 24 hours the solution is filtered through a weighed and dry filter, and the residue upon the filter is washed, dried, and weighed. Its composition may be ascertained by a few tests: 20 c.c.'s of the filtrate are now made alkaline with solution of caustic potash, and a solution of sulphuric acid is added until the precipitate which forms ceases to be re-dissolved. If it is best to add a little more, and to filter off from any precipitate of copper hydroxide which forms. To the filtrate sulphuric acid is added, and the solution is boiled, which is liberated is estimated by means of sodium hyposulphite. The albumen may contain bodies which affect the solubility of the copper, and so a second sample of the albumen is taken; the albumen is digested, and the sample is now treated in the same way as the first sample was treated.

The sample is now treated in the same process as before. If it be pure then the addition of copper sulphate will cause the solution produced to precipitate at once a permanent precipitate, if it contains any substances which will dissolve oxide of copper it will give a permanent precipitate until all these bodies have been acted on. The amount of dissolved oxide of copper is determined as before, and this, subtracted from that obtained in the first sample, represents the amount which is combined with the albumen, and from the amount of the quantity of albumen can be calculated.

"DRY" PROCESS OF DYEING SILK

The so-called "dry" process of cleaning silk is only consists of the goods with benzoine, which removes the grease and dirt very much better than water, and we have also the further advantage of not causing and deterioration of the colours of dyed fabrics, and of the inherent quality of the fibre, and the removal of the impurities of oil and of wine. There has been recently devised a process of so-called "dry" dyeing, which consists in applying the dye in the form of solution in alcohol or benzine.

As is well known, silk tissues shrinks when treated with water, and the better the quality of the silk the more it shrinks. To avoid this shrinking, which causes a loss of lustre, many controversies have been devised, which usually depend on the stupendous and insoluble, the mixture being stretched until they are dry. To attain the same end, experiments have been more or less successful—have been tried in the direction of dyeing with solutions of dye-stuffs made with other means, instead of water, for instance, alcohol, the alcohol-tar colours, which are alone available for this dry method of dyeing; but alcohol is too volatile, and its use adds much to the cost of the dyeing. The shades obtained with it are not very satisfactory.

The only solvent practically available is benzine, which, however, suffers from the fact that it does not affect the dye itself, but it is capable of dissolving the composition of the benzine solution, and solutions so made may be used for dyeing silk.

The solutions are made in the following manner, and are dissolved in soap, using one part of dye-stuff to four parts of good soap; when the solution has been made hydrochloric acid is gradually added, whereupon the soap is decomposed, and the acid becomes necessary for the solution of the dyestuff, carrying with it the colouring matter. The mass is allowed to cool and is skimmed off, and the dyeing process is carried out with the dyestuff and the parts of the solvent. In this solution the silk may be dyed in the usual way, after which it is drained and washed and bleached.

This process is applicable only to the basic dyes, such as magenta, violet, green and alicante, but it cannot be used with the aniline and aniline dye-stuffs. The colours obtained are rather faster.

The dye-baths are not exhausted, and may be kept for further use. The manipulation is the same as in the ordinary process of dyeing. It is scarcely necessary to point out that owing to the use of the dyebath no great care is needed to prevent any risk of fire.

METHODS OF WOOL-DYEING: THEIR PRINCIPLES AND PRACTICE.—I.

The various methods which are used in dyeing wool, and, of course, underlying them certain principles on which it is necessary to be familiar, are based on the observation of which much of the success or failure of the process depends. Sometimes these principles are overlaid by dyers, with the result that they do not get good results from their work. It must be obvious to any person with any technical knowledge that all processes of dyeing, either wool, or silk, or cotton, or any other material, must take into consideration the properties of the fibre on the one hand and the dyes which is being used on the other.

Wool can be treated directly by a process of dyeing which gives good results with the latter fibre would lead to nothing but disastrous effects on the wool itself; and on the other hand processes are used in the dyeing of wool which could not possibly be used for cotton on account of the very different properties of the fibres. Of cotton-dyeing has been said in former issue of this journal at present the treatment of wool will be dealt with.

A few words as to the properties of wool, so far as they relate to the methods of dyeing, may be of use, and will form a fitting introduction to the subject. Wool is claimed to have the property of resisting the action of acids in a great degree, so that it may be treated with them without injury. On the other hand, alkalis and alkaline solutions have strong action on it: the caustic alkalies rapidly dissolve wool, and their use must be avoided in all cases of dyeing this fibre; the carbonates have not so strong an action, and therefore may be used in moderation; nevertheless, too strong solutions of these should not be used. Soap has no detaining action on wool, and soap solutions may be used whenever necessary for cleansing or dyeing wool. Ammonia has an action on wool, it may be used in place of soap if desired. There is one feature of wool which must be left to the dyers, and that is its following property. When wool is boiled with water and is handled a good deal, the fibres become thinner, and have a slight luster.

This should be obviated as much as possible, and when wool is cleansed and dyed in the course of the process, it must be kept as dry as possible before treatment. This condition is much influenced by the temperature and the condition of the bath in which it is being treated; too high a temperature or too prolonged a treatment tends to increase the felling; too low, and the wool may be treated at the boil must be avoided.

A feature of the process of dyeing the bath has made some influence on this point: it is found that an alkaline bath tends considerably increase the felling, and the dyers account invariably avoid the use of both
the castic and the carbonated alkaloids. Strong
soap liquors also have some influence in the
direction of increasing the felting; therefore
such soap should not be used. It is advisable to
do this with care. Ammonia has no effect
so strong a felt. Ammonia in the dyeing of wool,
as an acid condensation of the bath is necessary
for dying by far the great majority of colouring
matters. The alkaline salts, such as Glauber's salt
and common salt, exert little or no influence at
all, and can be added to dye-baths with impunity,
and in many cases with good effect, so far as the
quality of the dyeing is concerned.

So far as the properties of the wool are con-
cerned, it is seen that an acid condition of the
dye-bath will work better than an alkaline con-
dition, and wherever it is possible to use acids
such should be added.

What has been said in regard to wool is
equally true of all fibres derived from animals
in the same way as wool, as horse hair, fur of
rabbits, hairs, and other animals; although,
of course, there are some minor differences
between the fibres and their resistance to the
action of acids and alkalis. There is no doubt
however, that the type of dyeing that the different
processes for the application of dye to wool shall we enter in the next article.

(To be continued.)

ALIZARINE BORDEAUX AND ALIZARINE CYANINE.

When auricupinone is acted on by strongly
forming sulphuric acid, which is sulphuric acid
containing a large quantity of sulphur trioxide
in solution, it is changed and forms a new
class of dye-stuffs known as the "Alizarine
Bordeaux," which dye the chrome-yellow wool
fibres of Bordeaux red shades. Its chemical
composition shows it to be tetrahydroxyaniline
quinone, which is the simplest derivative of
and the nature of the dye-stuff, at least, may be
inferred from it. The chemical action is as fol-

ENGLAND.

Bradford.

The annual conference of the Bradford Chamber
of Commerce was held on Monday night at the
Technical College. The President, Mr. G. Hoffman,
reviewed the course of local trade in 1894, and
made a practical appeal to the McKean-Taylor
fraternity, 9500 better for every square mile.

The annual meeting of the shareholders of Lister
& Co., Limited, was held on Wednesday at the
Mechanics' Institute. The company reported a
profit of £5,585, or £12 per share.

The annual meeting of the Chamber of Commerce
was held on Monday, and the president, Mr. G. Hoffman,
The attendance at the meeting was not
notable, and the chairman, Mr. E. P. Arnold, presided.

The business of the meeting was chiefly in
organisation, and the chairman gave prizes for

The Textile Mercury.

January 7th, 1895.

Leigh.

The death is announced of Mr. R. N. Holbert, the
treasurer of the clearing-house of the Liverpool
Cotton Association. Mr. Holbert was a director of
Change, and his genial qualities endeared him to all his
friends. He was a man of great business acumen, and
from a complication of malarial. Mr. Holbert took
what was a most interesting and important
business of his life, and he will be long

Liversedge.

On Thursday the meeting of Mr. R. H. Goldthorpe,
from the letter of the 17th December 1894, states that Mr. W. B. Gordon, Mr. J. M. McLaren,
and Mr. H. Moll.

A meeting of the Chamber of Commerce was held
on Wednesday, Mr. B. H. Goldthorpe presiding.
The following gentlemen were present at the
meeting, was read from the Foreign Office:

Mr. R. A. Arroling, Mr. F. B. Behrens, Mr. V. Edstein,
Mr. E. B. Arnold-Foster, Mr. W. B. Gordon, Mr. J. M. McLaren,
and Mr. H. Moll.

The meeting was opened by the chairman, who
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and Mr. H. Moll.
The textile mercury.

Dundee.

It is of interest to note in the view of the partial famine in jute that the stock in the Dundee warehouses is extremely low, and in fact, the trade will be unable to meet the demand, while it is computed that the jute yet remaining to be shipped on the 30th December will total about 30,000 bales, while 300,000 bales will be required to meet the demand.

The many friends of Mr. Oliver Graham Miller, so long a leading shipping figure in Dundee, and one of the most prominent men in the jute trade, have learned from Mr. G. R. Shearer, of 134, North Park, Dundee, that he is not expected to live more than a few days.

The first cargo of jute from that country has arrived at the firm of H. R. Scott, of 122, North Street, Dundee, and is expected to arrive at the end of the month.

The following table gives the value and depletion of the exports of cotton and linen goods from the Clyde for last week, and also the totals of the previous week.

The sale of cotton and linen goods has been steady during the past week, and the trade is now in a healthy state.

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The sale of cotton and linen goods has been steady during the past week, and the trade is now in a healthy state.
Mississippi.

CONCERNING VELVETEE.

(Extracted from "The Diary and Bourse's Cable" for 1897, issued by Messrs. Henry Bauder and Sons, London, Manchester, by kind permission.)

When one cloth has passed through the hands of the cutter it has to go into those of the dresser and dyer. One of the earliest attentions devoted to it will be that of examining it for the purpose of discovering and repairing any damage it may have sustained in the operation of cutting. Those who perform this work are known as "Enders and Menders," and, if you watch one of them, you will see, when she has discovered a torn place, how deftly she can not only insert bits of warp thread, but raise a pile upon them, the latter process being accomplished by looping warp threads over a needle, binding them to the warp, and then cutting the loops by means of scissors, and finally clipping the divided threads until they blend with the rest of the pile. Upon the treatment it receives in the hands of the dresser and dyer the value of our cloth to the wearer will very largely depend, and how much is comprised within those terms, dressing and dyeing, we shall presently see. Now, every purchaser of what is known as the "County" Velvetee is informed, as a guarantee of its excellence, that it has been dressed and dyed by Messrs. J. and J. M. Worrall, a firm whose reputation, built up on the experience of a century, is of the highest, and whose fame is worldwide in extent. Some idea of the magnitude of the operations conducted by this firm may be gathered from the fact that it employs as many as two thousand persons. These cannot be accommodated within one area, but are spread out according to the various processes through which the fabric has to pass; so that we find it most practical to go out of the city to see the cloth scored and otherwise treated in a preliminary way, to another to see it sewed and bleached, and so on to a third for the dressing and finishing operations.

Following our cloth to the first of these works we find it stored in a receiving room, and in the condition in which it came from the cutter. Manufacturer's marks are painted out on each piece by which it may be traced from its source to its ultimate destination. It will be

A COUNTRY DYE WORKS.—Messrs. Worrall's, part of the propositions in the circular round by the Linen Lappers' Union on the 27th October. This month has been communicated to the Linen Lappers' representatives, and Messrs. Millar and Taylor have expressed thanks for the manner in which they have been received, the depopulation withdrawn.

Among the latest instances of new in the circular round by the Linen Lappers' Union on the 27th October. This month has been communicated to the Linen Lappers' representatives, and Messrs. Millar and Taylor have expressed thanks for the manner in which they have been received, the depopulation withdrawn.

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remembered that our cloth both in the weaver's and the cutter's hands had received a certain amount of stiffening matter. These temporarily introduced substances will have to be removed so that the fabric shall be rendered as pure and soft as possible. To accomplish this it will first have to be soaked, and to see it so.

Among these machines, we are introduced first, and are told that it contains boiling water only, to which, as we see, the cloth is introduced and made to pass under and over rollers until it has become thoroughly saturated or soaked, after which it is dropped into a tub of cold water to get cooled, and is thence delivered in only dimly perceptible. Nothing has been added to the hot water in this operation, and when the cloth has gone through it, it is effectively washed. It has now to be taken to have the moisture extracted from it, and following it as it is taken away on the barrow we are introduced to what is technically called a

Treated we are introduced to a large open shed lighted from the top, filled with a humid steamy atmosphere, and with surroundings that are decidedly sloppy. All about us on the wet stone floor of this great wash-house, with its interlacement of steam pipes among the whitened rafters overhead, there are mysterious chambers of wood and iron in which heated water is being supplied and dashed about in a vigorous and turbulent fashion. To the soaker, a folded form. From the soaker, in its softened condition, it is taken to the washing machine or wash stand close by, a long chambers like structure with sliding panels or shutters in it. When one of these shutters is opened and the steaming interior is exposed, you get a confused impression of dripping cloths, working along over a fly winch, and are told that it is being helped on its way by a “ruffler” arrangement, the nature and movement of which are hydro-extractor, but which among the workmen is familiarly known as a “whizzer.” It should here be remarked that in all these washing and dressing operations the cloth is in a sense handled tenderly, great care being exercised to prevent the pile being crushed. Squeezing the cloth to get rid of the moisture would be out of the question, so we find that in the “whizzer” a turning process is adopted like that used to take water out of a mop. This “whizzer” is
A hooded machine, and when the hood is raised we see a drum round which the wet cloth is wound. When this winding has been done, and the cloth fastened by bands so as to retain its position, the hood is drawn over it, and the drum rises behind it. The result is that by centrifugal force the water is thrown out, and by the time the drum is raised the cloth is quite dry. The improvement in this is that if the hood of the machine is lifted, the effect is like that of a shower of rain. Care has been taken to throw the water removed in such a way that it will not drip upon us from our view, but we see it delivered into the interior, and know that it is dried by passing over steam-heated cylinders. We next get sight of it in the room above, where it is seen rising from the drying machine and being delivered to plaited folders upon the floor. Here the cloth is weighed and marked. It has now to go to a press, and to this end we see it travelling through a machine where the pile is brought into contact with a series of brushes fixed upon the cylinders. The effect of this brushing is to remove loose filaments, take any defects, and make the pile uniform. This is followed by a series of knives placed in a diagonal fashion on a roll, by which the pile is clipped so as to come in line with the pile of the fabric. This is now taken to a knife which is to remove the pile from the fabric, and in this process it is seen passed through a series of rollers and finally there are rollers which remove the pile from the fabric. This is then passed to a machine which removes the pile from the fabric, and the end result is a fabric which has the pile removed from it.

Our cloth being now ready for dying we must next consider the different processes involved in the sphere of operations. At the famous dye-works at Orleans we find ourselves in a labyrinth of dye-works, each of which may serve the purpose of the cloth. The fabric is then carried to a series of rollers which are used to carry it through the different processes involved in the dyeing of the fabric. In connection with this machine there is a ventilator worked by a fan, which removes all noxious gases from the air. The dye is then carried to the vats where the fabric is immersed in the dye, and finally coated with the required color. The fabric is then taken to the finishing machines where it is subjected to various processes involved in the finishing of the fabric. The fabric is then passed through a series of rollers which remove the dye from the fabric, and finally, the fabric is passed through a series of rollers which remove the excess dye from the fabric. The fabric is then passed through a series of rollers which remove the excess dye from the fabric, and finally, the fabric is passed through a series of rollers which remove the excess dye from the fabric. The fabric is then passed through a series of rollers which remove the excess dye from the fabric, and finally, the fabric is passed through a series of rollers which remove the excess dye from the fabric.
operation is to give lustre to the pile, but to carry no flattening result of the cloth as is afterwards brushed again. Finally, in these finished articles, the same characteristic shows how our piece of velvet is subject to hand treatment. In another room, set apart for this purpose on the ground floor of the stone tables, there to have the "hand peg" and the brush applied to it, and the last touches given in the true hand-woven beauty of the pile. Afterwards it will be put through the pressing and folding machine, and then it will have the proper finish, the proper care, and the careful scrutiny of one of the principals of the firm. Our cloth then presents the appearance shown in the illustration.

Before, however, it is ready to be placed upon the counter of the draper, it will elsewhere be measured and made up into graceful and attractive folds; a sitting receptacle in the form of a box will be provided for it; and, as a last delicate attention, there will be laid on it a distinguishing trade ticket, a work of art in its way, the reproduction, it may be, of some well-known picture or representation of female beauty, such as you find displayed in the libraries of which the "County" velvet is identified.

We have now come to the conclusion of our subject, may we claim to having been a "fairy tale of science," it may perhaps not be found entirely devoid of interest. We have described in the development of this special form of textile fabric, from the yarn of which it is composed to the embellishment of it by the aid of the beautiful arts. In watching all these processes the observer cannot fail to recognize the infinite care that is taken to produce good and honest results. At no stage could he say that effort was not being made to give practically the effect to a maxim which the present writer saw freely displayed in the workshops of a firm of manufacturers, among other things, that is to construct the looms upon which velvets are made, a maxim which conveyed to the workmen the natural truth that "Whatever is worth doing is worth doing well."

CARPET AND MAT-MAKING IN THE FOUNJAH.

The Calcutta Englishman gives the following summary of a monograph on fabrics manufactured in that city which has been written by Mr. H. W. Gee, of the Indian Civil Service.

The scope of the enquiry has been confined chiefly to classes of fibres which are actually utilized in local manufactures, and local attempts have been made in the district reports to deal with those classes of products which are most valuable or used among the people. A description of fibres, their localities and uses, is the introduction to the more serious part of the work, but even this portion has been minutely treated, and the results show that Mr. Gee has spared no pains in getting up his subject. The chief imports of manufactured articles into the Founjah consist of taffy and gauze haps from Bengal and Karach, and paper from Calcutta. The mung fibre is used largely, and from it is made the mung som so much sought after on account of its capital wearing qualities. Carpets and mats are made from the mung in Founjah after a peculiar fashion, which Mr. Gee describes. To use his own words: "The stems of beaten-up fibre (dhaubhia) are stretched out two rods in length, worked up with red and then a pad is laid over them at the end. A lachinna is wound on to the teri, and this is crossed and re-crossed between the parallel sets of warp, and when these parallel sets of strings are crossed behind each strand of the wool (dhal bhoona). This is done by means of two bambus, which are hung horizontally over the web on a frame; from each of these bambus a number of strings are stretched, which are fastened to the upper and lower layers of the web respectively. By elevating and depressing these bambus alternately, the upper and lower strings of the warp are made to cross after each stroke of the woof has been inserted. The strings of the woof, which are then made compact by means of a comb with a metal frame, are passed over a square yard of mat in a day. The Delhi Jali is famous for these carpets, and they have also been made in the Founjah and the Lohoree Jali. They are exported from there to England, and the trade could be made a profitable one if more labour was employed in the fabrication of these borders, a binding to a loom, and the fitters are easily dyed. Munj and sanke fibre can also be made into mats of any variety of size, and supplied to manufacturers to order. When sanke is employed in place of munj, the matter is known as a mats, and matting is made annually, and sold at five annas per square yard. San and sankaola are also employed, and in fact, any texture being made up of the frame in such a way that the brush has to be moved further on. The sides are finished by collecting the long ends into bunches and turning them over the other to form a sort of plant work, the ends of the mats are secured by sewing them with long stitches of double munj string. The matting is firm, durable, and elastic, but is not equal to that made in the Founjah, in tussah, or any other place."

The Tèxtile Mèrcury is a bi-weekly publication, which deals at length with the textile industry. It is a valuable and informative source for anyone interested in the textile manufacturing sector. The issue under consideration is dated January 12, 1910, and contains articles on various topics including carpet and mat-making in the Founjah, and discussions on the Indian mill industries.

**Mr. Holt Hallett, Dr. Bahadurji, and Indian Mill Operators**

MR. HOLT HALLETT, DR. BAHADURJI, AND INDIAN MILL OPERATIVES.

The following article, copied from the 'Don Jumla', a native newspaper published in Bombay, and "devoted to the interests of the working classes," is in continuation of articles on the above subject which appeared in previous numbers of that journal, and were reprinted in 'The Textile Mercury' of November 25th, 1910, and January 16th, 1912:

The London Times of the 14th ultimo has taken a very judicious and deliberate view of the subject, and has acquired itself very admirably, as an act certainly to be praised. It is said, by the "Hindustani" factory operatives of Bombay, whether male, female, or children, engaged in an easy and healthy occupation in which the long hours of work are divided among members of a family or similar groups that no woman is likely to be able to work outside the home. We are not a loss to know what light we are to interpret what is the true meaning of the shifts of work by the shifts of work being so divided among members of a family or similar groups, etc., yet, as far as we see, the men of a family or similar groups have to do with shifts of work; because we do not much very much the existence of this in any of our Bombay mills. As far as we know very few mills in the Bombay city have been and are working in presence of work with regard to children, but we are sure that there is none that provides such ways of working with respect to male and female children, in the same instances the poor operatives do not get more, however important employers and business, whenever they produce their subsistence, and in some cases they are fully relieved subsistence at all. We should like very much to know what is the exact state of work, all the mills of work are in vogue in our little Island, and until we know such facts we cannot be sceptic about Dr. Bahadurji's above statement.

Fortunately for Dr. Bahadurji and his supporter Mr. Hallet is not yet in possession of the par

Textile Markets.

COTTON.

MUMBAI, FRIDAY.

The market has exhibited a changed aspect from that of last week. The heavy depression of prices and the losses this was inflicting upon the holders of cotton and the fact so unendurable that a general and determined rally was made in the middle of the week, to start prices upward. The market closed upon our last week's report.

Many people began to waver in their convictions that cotton was not for some time to be any material article, and the fact that the cotton countries and other countries also led the most cautious and those of more strength of mind, to stand firm in supporting the movement that on Friday it was evidently collapsing. Half of the advance was lost, and on the following day nearly all the remainder disappeared. These successive break-downsought to reach the trade, the fully of leading these attempts the slightest support, because in the present condition of the facts relating to the supply of the raw material, the prospects of securing any considerable permanent advance had to be obvious to everybody.

In fact, there is absolutely no necessity for making provision for the future by purchasing supplies in advance of requirements. On Friday morning Messrs. Neill and Chadwick, Ltd., a report increasing their estimate of the ultimate out-turn very largely, giving their "mint" of 200,000 bales, and probably more, and possibly much more. Practically, therefore, these, the best statistical information, the trade, are closely approaching the figure laid down weeks ago in this report as the probable total of this crop. It does not appear that the recent rise in the price of cotton is the result of any strikes or any other cause. All the estimates made regarding the crop are probably in error, and the results are small. It is strange, therefore, that the trade does not adequately appreciate these predictions in action, and yet we find that there has been received from the cotton stations showing that there is not the slightest possibility of any strike in the present place in the receipts at the ports is owing to unfavourable weather, and the cotton is likely to be full of bolls. But presuming that they do not again swell, let careful note be made of what is being required for the cotton trade, and what the market is likely to be.
THE TEXTILE MERCURY. 

![Image of the page from the textile mercury]

M. G. Brouse & Co., 1907-1908

YARN—A little spurt was felt in the yarn market when prices in London, as a result of the troubles in Egypt, which resulted in a few transactions; but, on the whole, the market for all grades was low and weak. Prices were generally steady.

BRADFORD.—The worsted trade continued quiet, although prices remained fairly firm. Consumption of worsted goods was not very large, although prices did not seem to be unduly high. The trade was still characterized by low prices and a considerable amount of slack trade. The situation was not expected to improve in the immediate future.

HULL & WOLVES.—The cotton trade continued quiet, with little activity. Prices remained steady, and there was a general feeling of pessimism among traders. The situation was not expected to improve in the near future.

NOTTINGHAM.—The cotton trade continued to be quiet, with little activity. Prices remained steady, and there was a general feeling of pessimism among traders. The situation was not expected to improve in the near future.

HOSIERY AND LACE.—The situation remained quiet, with little activity. Prices remained steady, and there was a general feeling of pessimism among traders. The situation was not expected to improve in the near future.

DRY GOODS.—The situation remained quiet, with little activity. Prices remained steady, and there was a general feeling of pessimism among traders. The situation was not expected to improve in the near future.

NEW COMPANIES.

JAMES JOHNSON, HODGKINSON AND PEARSON, Ltd.
Capital, £160,000, divided into 16,000 shares (100/6 each). Object, to acquire all or any of the businesses at present carried on by J. Johnson and Co., at the Moore Mills, Holton, and at the New Spinney, Chandlers Ford, near Southampton.

E. & C. Webster, Pudsey, top makers and wool merchants.

Montimer and Greenwood, worsted-spinning manufacturers.

Albert Robinson, Merchant Taylors, and Robinson and Smith, yarn spinners and merchants, Bradford.

Granger, Smith, and Walker, woollen merchants, Cnr. Lane, Birmingham; as regards Joseph Walter.

R. and J. and C. Webster, Pudsey, top makers and wool merchants.

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ABSTRACTS OF SPECIFICATIONS.


TEXILE MACHINERY, APPLIANCES, &C.—DIRECTORY OF MAKERS.

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Ayrton, We., & Co., Manchester.
Bee & Co., &c., London.
Bennett, James, Manchester.
Boswell, R., & Co., Manchester.
Capp, John, &c., Manchester.
Crosby, J. H., &c., Manchester.
Daly, Thos., & Co., Manchester.
Denny, J. B., &c., Agricultural, London.
Diacon, Thos., & Co., Manchester.
Dunlop, W. & Co., London.
Edwards, J., &c., Manchester.
Firth, J. H., &c., Manchester.
George, James, & Co., Manchester.
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