

The Textile Mercury:

A Representative Weekly Journal for
Spinners, Manufacturers, Machinists, Bleachers, Colourists, and Merchants,
In all Branches of the Textile Industries.

Vol. III.—No. 68.

SATURDAY, AUGUST 9TH, 1890.

PRICE Annual Subscription, 12s Post free.
THREEPENCE. Six Months " 6s
Three " " 3s
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The Textile Mercury.

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NEW YORK (U.S.A.) OFFICE—95, DUANE STREET,
NEW YORK CITY:

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Current Topics.

THE LATE RIGHT HONOURABLES W. E. FORSTER
AND JOHN BRIGHT.

The late Right Honourable W. E. Forster was a statesman of whom not only the textile industries are justly proud, but the whole country. The fact that in London a tablet has been erected to his memory in Westminster Abbey, and a statue on the Thames Embankment, whilst Yorkshire has done him a like honour, is sufficient proof of this. On Friday week the statue on the Thames Embankment was unveiled by Lord Cranbrook, in the presence of a distinguished company, including Mr. Goschen, Mr. Childers, Lord Knutsford, Earl Granville, and Mr. Mundella. Lord Cranbrook dwelt upon the services rendered to the country by the deceased statesman, and to the deep interest he took in the Factory Acts, which had resulted in such an enormous advantage to women and children. His services to the cause of education were also fully recognised. Mr. Forster is well worthy to be associated with the late Mr. Bright as a distinguished benefactor of his country, whose private life, like Mr. Bright's, was honourable in all its aspects, and whose public career reflected honour upon the trade from which he sprang. It is rather a remarkable coincidence that on the following day (Saturday last) a bust of Mr. Bright was presented to the Corporation of Rochdale by the operatives working in his mills. An account of the ceremony will be found in another column.

THE "QUIMBOMBA" PLANT AGAIN.

A few more words about the "Quimbomba" plant, to which we referred last week, and which comes to us this week in the guise of the "Guimbobo," with *angu* as an alternative. We are further told that "It appears from experiments that have already been made that the *guimbobo* differs essentially from ramie, cotton, and hemp, as in the *guimbobo* the covering of the plant surrounds the fibre, and is not mixed up and interlaced with it; this constitutes a decided economy, added to great facility, in extraction and utilisation." The authority from which we are now quoting, the Belgian Legation of Mexico, ought not to have included cotton in this comparison for two reasons: First, strictly speaking, cotton is not a fibre at all; and second, it is never mixed up with the material or bark of the plant as in those named, and others that might be mentioned. "The structure of the plant permits of the operations of separating and removing the bark being performed by machinery, while in the other fibrous plants these operations must be effected by hand, a system at the same time very costly, and only possible in countries where there is a large number of hands avail-

able and cheap. It is stated by the American specialist that he could construct a machine, costing no more than the ordinary machines used for cotton, and which could be used in the same manner. By this machine the fibre could be extracted and sold by the pound in the same way as cotton. Persons cultivating this plant would benefit in addition by the sale of the fruit, which is much esteemed in the temperate and tropical countries of the South, where the *guimbobo* grows luxuriantly, and almost without any care. The fibre of the *guimbobo* has a lustre similar to that of silk, and is undoubtedly finer and stronger, with a creamy colour between white and straw colour."

REELING COCOONS WITH COLD WATER.

The attempt to find some chemical solution to do away with the heating of water in cocoon reeling hasins has already tried the patience of many inventors. If, however, we may believe the Italian journals this problem is on the point of being solved by M. Diego Damioli, of Pisogne, who is well known as the constructor of the electrical tramway in Rome from the gate Del Popolo to Ponte Molle. It is unnecessary to dwell at length on the importance of this discovery, which would at the same time diminish the amount of machinery required, lessen the cost of producing raw silk, and ameliorate the sanitary conditions under which silk-reelers work.

CHEVIOT WOOLS.

"Man never is, but always to be blest," says the poet, and it may be repeated in relation to the Cheviot sheep-farmer. Replying to the toast of "sheep and wool buyers" at one of the "orderlies" in connection with the Inverness Wool Fair the other day, Mr. Brown, Galashiels, said he was not able to say very much about the prospects of wool this year either of an encouraging or a discouraging kind. "The trade had certainly one encouraging feature, which was that the ladies had commenced to wear goods which were a good deal made from Cheviot wool. That, certainly, was an encouraging sign; but he did not know how long it would go on, as the fair sex were rather fickle—(laughter)—and if the buyers were to go in heavily for Cheviot wool, in the expectation that the ladies would continue to patronise that sort of manufacture, they might be grievously disappointed. However, there was no doubt that at present Cheviot wool was in considerably more demand; and were it not for that possible source of disturbance, merino wool, and that nasty cross-bred stuff grown in New Zealand and elsewhere, farmers in this country would really be getting a good price for their Cheviot wool. That colonial material was the great drawback." We are sure both Mr. Brown and his audience deeply regret that Nature in her

disposition of matters will persist in mingling that drop of bitter in the cup of pleasure, in growing the thorn upon the rose, merino wool in Australia, and that nasty cross-bred stuff in New Zealand. How happy they would be without these things!

RUSSIAN COMMERCIAL DEVELOPMENT.

Information has been transmitted from St. Petersburg during the week to the effect that the War Minister of the Empire is taking measures to increase the means of transport on the Transcaucasian Railway, the stations on which are much blocked by the rapid and considerable development of the cotton trade in Turkestan. A scheme, it is also stated, is being prepared by a syndicate of large Russian capitalists for the early establishment in China of a Russo-Asiatic Bank, intended to promote the development of Russo-Chinese commercial relations. The founders have recently addressed a memorial to the Russian Government soliciting diplomatic influence with the Chinese Government in order to obtain the necessary sanction. All this seems to point to a healthy development of the resources of the Russian Empire; but it is quite certain in spite of all that Russia is falling behind when her progress is contrasted with that of Germany or this country. A policy of free trade, or one much more liberal than the present one, with the increased activity of the commercial and industrial world outside, would lead to such demands being made upon her for raw materials that her development would be accelerated to threefold its present pace, and a far larger fund of employment would be available for her people.

THE OPENING UP OF PERSIA.

The enlightened policy of the present ruler of this ancient country is beginning to bear fruit. According to our Consul at Bushire, last year was a comparatively prosperous one for South Persia in its commercial aspect. Not only was there a marked increase of the volume of trade, but good profits were, on the whole, realised by those engaged in it. As one instance in proof of the increase referred to, it may be mentioned that the Bushire customs yielded a revenue of about 40 per cent. in excess of that of the preceding year. This, of course, may be regarded as highly encouraging, being one of the results of the increased trading privileges regarding the navigation of the River Karun conferred after the Shah's visit to this country, and the foundation of the Imperial Bank of Persia giving facilities of another character. As might naturally be expected, the attention so strongly directed to the country by the event of the Shah's tour through Europe has perhaps led to the over-supply of goods in relation to the rate of consumption, though the vivifying stimulus that has been given may be trusted to re-establish an equilibrium in a short time. There was a considerable increase in the import of cotton goods, chiefly of British (Manchester) manufacture; but, on the whole, results were not so satisfactory to merchants as in the year 1888. The classes of piecegoods imported were largely of the costlier descriptions, and towards the end of the year the markets were somewhat overstocked in more than one article of staple goods, and it was feared that a reaction might ensue in the cotton trade during the current year. However, the good harvests of 1890, and consequent increased prosperity among peasantry and nomads may avert that evil, in which case loss may be avoided. The prospects of the future are bright, as considerable progress has been made on the Karun, and the relations between the commercial

agents and Persian officials and people are much improved. A suitable river steamer is now on the upper river, and a company has been formed to construct roads for wheeled carriages from the Karun to Ispahan and the Teheran, and a British agency is being established at Yezd. The export trade of the country will be equally stimulated. Last year the quantity of wool exported was up to the average. Some shipments were made to Bombay, London, New York, and Marseilles, but most of the wool was sent to Busrah. The exporters paid high prices to the Persian sellers and farmers, but the transactions led to losses to the exporters. The cotton trade is on the increase in South Persia, and is chiefly in the hands of Persian merchants, who ship to Bombay, where the Persian cotton is bought for mixing with finer Indian qualities destined for Europe. The carpet trade receives more attention from European exporters than formerly, and the manufacture in certain districts is controlled by European supervision, with good results. Altogether it is fair to presume that Persia, which has hitherto been one of the most backward countries of Asia in its commercial and industrial development, is now about to take up a position more nearly in line with the countries around and about it.

CURIOUS MISTAKE OF A CONSUL.

It must often be a difficulty to persons who are not experts and upon whom devolves the duty of making official and other reports, to avoid mistakes in speaking of the goods upon which they write. The circuitous ways of commerce are not always as clear as the lines upon a map. That the origin of manufactures may then be erroneously attributed to wrong countries is clear, and is proved by a passage in the last report of our Consul at Bushire, to which reference has already been made. He says:—

My attention has been drawn by Messrs. Malcolm, of Bushire, to the remarks on Russian red chintzes, contained in my last trade report, which remarks require correction. For it appears that the so-called Russian chintzes are really of English manufacture, and acquired the name of Russian from having been originally introduced into Persia through Russia. In the same way there are chintzes known as Austrian, which are entirely of Manchester manufacture. The fact of the so-called Russian goods being imported through Bunder Abbas is accordingly, if anything, a favourable indication. I am informed by a leading English merchant that he recently observed Manchester goods in the bazaars of Teheran, which, bearing Indian marks, had undoubtedly reached that capital *via* Bombay. Indeed, there seems every reason to believe that a larger proportion of British goods make their way to Teheran from the south than in former times. With improved transit, the results must be still more satisfactory.

It is quite possible that mistakes of this kind may have been made elsewhere and have passed undiscovered. It has occasionally struck us as very remarkable that first one country and then another have been stated to be displacing English goods in lines in which we should have thought we were invincible. The goods may possibly have been our own.

BURNLEY HOLIDAYS.

It is to be regretted that amidst the recent negotiations between the employers and employed respecting the matter of holidays, those of the Burnley district have failed to come to any satisfactory agreement. Why not make them uniform throughout the trade? and if in districts outside Burnley the trade can see their way to make definite arrangements with their employes, we see no reason why the Burnley employers should not do the same. Certainly but little sympathy can be accorded them in the event of their workpeople proceeding to enforce compliance with their request, as has just been

threatened at a meeting of the "Holiday Committee," which is said to represent all the textile trades of the town. It was stated at this meeting that the average number of holidays in other towns amounted to ten, whilst in Burnley there are only seven allowed. In the general struggle now going on to bring order into the arrangements between the employers and employed, it will be impossible that this can be maintained, and the sooner the question is settled the better will it be for both parties.

WHISKEY FROM JUTE.

The revelations recently made before a Select Committee of the House of Commons as to the substances from which some of our modern distillers obtain their whiskey were astounding to many who had not previously heard that potatoes can be utilised for the production of that alcoholic drink. But hundreds of others knew all about it long before the Select Committee published the result of its inquiries. Thousands of barrels of beer brewed in this country are guiltless of hops. This also is a fact not unknown to the multitude. But who in the name of all that is wonderful would ever dream that whiskey can be produced from jute? Very few surely. And yet the statement is made in all seriousness by a reputable commercial journal published at Lille, that the intoxicating drink is obtained from this Eastern textile. The process is so repulsive that one shudders at the rascality of the unscrupulous rogues who do not hesitate to poison a whole community with their vile preparations in order to enrich themselves. The authority mentioned says that endeavours have been made to utilise the saccharine and other constituents of jute for the making of a kind of comestible glucose by the aid of sulphuric acid, or by fermentation, a jute whiskey (*whiskey de jute*) similar in taste to the *eau de vie de grains*. Temperance lecturers who wish to disgust their audiences with the brewing and distilling fraternity might with advantage refer to the process of producing *whiskey de jute*. The next thing we may possibly hear of will be beer from cotton or rum from flax, if this jute whiskey really exists.

THE PATENT LAWS OF SPAIN.

From an article that Mr. H. Wood Renton has contributed on this subject to a Glasgow contemporary, we gather that the Spanish patent system presents certain features of divergence from the ordinary Continental type which make it well worthy of consideration. (1.) The Spanish patent is granted not only for the Peninsula and adjacent islands, but also for the provinces beyond the seas, Cuba, Porto Rico, and the Philippine Islands. (2.) While the fallacy of "compulsory working" finds a place in the patent law of Spain, there is no provision for the part of "compulsory licences." (3.) Under article 53 of the law of 1875 it is enacted that civil and criminal actions concerning patents of invention shall be instituted before "industrial juries." (4.) The duration of the Spanish patent depends on the character of the patented invention. It is important to note that patents for inventions may be annulled when the owner does not pay the annual tax before the beginning of each year of the duration of the patent, or when the patent has not been worked in the Spanish dominions within two years from the commencement of the term. Patents are granted (1) for inventions, new and original both in the Spanish Empire and elsewhere, for periods of 20 years to the true and first inventors only; (2) for inventions not yet patented abroad for more than two years and

not yet publicly worked in Spain—here the patent term is ten years; (3) for inventions not yet worked in Spain, although known at the Conservatory of Arts—such patents are granted for five years to the person who first starts the manufacture in Spain; and (4) for additions or improvements on previously patented inventions. The applicant for a certificate of addition has to pay a single tax of 25 pesetas (about £1), and the certificate forms part of, and expires with, the original patent.

EGYPTIAN KNITTED STOCKINGS.

There is really nothing new under the sun. It has been thought that knitted stockings were a comparatively modern invention, but it would appear that this idea is a mistaken one, for although the Egyptians of the present day—both Copts and Arabs—run about barefoot, the old Egyptians, who are now only to be found as mummies in museums, could knit stockings very well, as is shown by the collection in the Louvre, if we may trust its genuineness. A pair of knitted stockings was discovered in the grave of a mummy, which supplied the astonishing proof that the ancient Egyptians not only used to knit short stockings which resemble our socks, but also had made great progress in the art of knitting. The stockings found were skilfully made of fine sheep's wool, which had probably been white, but is now brown through age. The needles used must have been rather thicker than those which we employ; the knitting is loose and elastic. The stocking begins exactly in the same way as the modern stocking, but in the simplest manner with a single thread, further on it exhibits a pattern. The edge, which prevents the unravelling of the work, is narrow, and consists of a series of knots; the well-formed heel, which differs little from that made according to our method, shews a dexterous hand. The apex of the stocking, however, is quite different from that of a modern sock. Whilst ours is round, the Egyptian stocking has two divisions of equal width, like the fingers of a glove. This peculiar form was caused by the sandals, which were fastened to the feet by strings passing over the stockings in front.

DISPUTES AMONGST THE OLDHAM CARD-ROOM OPERATIVES.

The unhappy relations which for a few weeks past have existed in connection with the Oldham Card and Blowing-room Operatives' Association, reached their climax at the Oldham Police Court on Monday, when the late president and treasurer, along with four collectors, were summoned for unlawfully withholding certain property belonging to the Union, after being requested to deliver up the same. Fortunately, however, when one of the cases was part heard, and the magistrates had retired to consider legal points raised by the defence, negotiations for a settlement were instituted, which resulted in the prosecution withdrawing from the cases. A hitch in the arrangement, however, occurred, but the parties, who desired to "throw oil on the troubled waters," succeeded the same evening in coming to terms with the defendants, who handed over the property. A committee, consisting of Mr. John Fielding, Secretary of the Bolton Operative Spinners' Association; Mr. James Mawdsley, Secretary of the Amalgamated Association of Operative Cotton Spinners; Mr. James Riley, and Mr. William Cooney (Oldham), the fifth gentleman to be selected by the four gentleman named, was appointed to arbitrate upon the matters in dispute. The committee, we believe, have since met, and have agreed to a certain course of action, which they recommend

to the Council of the Card-room Operatives' Association. So far, the good offices of the arbitrators have been used to the purposes of healing the unpleasant relations which prevailed, and which, it is felt, would not have been improved had the cases before the Court been thoroughly investigated. On the contrary, it is feared that revelations would have been made which would not have reflected credit upon the Society or its leading officials. Briefly stated, the facts of the dispute are these:—The secretary, Mr. George Silk, under promise of receiving the position of manager of the Lion Mill Company, tendered his resignation as secretary; but not obtaining the appointment, asked that the matter should be allowed to stand over; the council, however, decided to submit it to the members, and district meetings were held for the purpose, and the majority of the decisions favoured the acceptance of the resignation. Then it was thought that they had been too precipitate in the matter, and that the members had not had sufficient time to thoroughly review the situation, and consider the seriousness of their position, and further meetings were held which reversed the previous conclusion arrived at. In the meantime, however, it is alleged that the president (Mr. Anderson) took action with the Employers' Committee, which brought him at cross purposes with Mr. R. Ascroft, the Society's solicitor, who had up to that time taken a leading part in the negotiations for the formulation of a list to regulate the wages of the card and blowing-room hands. This resulted in Mr. Anderson withdrawing from the presidency, and afterwards declining to give up possession of the keys of the safe, etc., which he held as treasurer of the Society, and also the collectors withholding the books. The whole proceedings constitute a remarkable circumstance in the history of the trades-unionism of the town, and it seems for the time to have completely disturbed the good all-round feeling which prevailed. For the Society it is a great misfortune. Its progress during the past few years has been considerable, and its organisation was nearly equal to that of the spinners. Looking at the matter disinterestedly, the whole affair cannot but be regarded as a blunder, for which the Society must suffer.

AMERICAN CONSULS.

There are consuls and consuls. Otherwise one might with reason give up in despair all hope of the American description of this article, if a recent paragraph in a contemporary were applicable generally. Here it is:—

American consuls are becoming more and more rigorous in their dealings with merchants who have to submit invoices to their inspection. All kinds of obstacles are thrown in the way for the purpose of hindering business. The consuls' demands are difficult to satisfy. No doubt they are justified in insisting that the documents presented to them be in order, but they go much further than this, and now demand proofs of the origin of merchandise. Thus, one consul wants to know whether goods have been manufactured in his district. The merchant who presents himself at the consular office has to submit to a veritable cross-examination, and must think himself lucky if he succeeds eventually in satisfying his interrogators. But even this is not enough. A certain consul has gone a step further, and now insists upon personally inspecting merchandise before he passes an invoice.

No doubt the consuls referred to are acting upon instructions from home, which means that they represent in Europe the manufacturers of the United States, and not the other citizens of the Republic. The American manufacturer naturally wishes to stop all foreign importations if he can, and in the attainment of this object his allies and partners, the members of the Harrison administration, are willing to

render every assistance. We do not blame the consuls for their exacting requirements, as they are merely following out the directions of their superiors. The average American consul is courteous enough when acting on his own responsibility, and no doubt to some of these gentlemen the latest addition to their tasks is extremely distasteful.

THE SILK INDUSTRY OF SMYRNA.

Although the white mulberry tree flourishes more vigorously in the vilayet of Aidin than in the plains of Lombardy, or the Valley of the Rhone, yet the rearing of silkworms in Smyrna is to a large extent neglected, owing to the fact that 35 years ago they were attacked by a formidable disease, and the peasants were consequently disgusted. For the last seven years, however, there have been signs of a possible revival, and, according to the *Bulletin des Soies*, the persevering efforts of Mr. John Griffith, a resident there, have been crowned with success. Thanks to the patient employment of the system recommended by M. Pasteur, he has succeeded not only in checking the ravages of the disease, but also in introducing two new races—the white race of Bagdad, and a race which is a cross between that and the yellow race of the district. Of the three kinds or races bred in the country, that of Bagdad, which originated on banks of the Euphrates, is certainly the finest. The first eggs imported were found to be so diseased that they did not seem fit to be reared. Mr. Griffith, however, resolved to make one attempt. From half an ounce he obtained 7,000 moths, of which only 42 were quite healthy, and it is from these 42 that the finest race existing at present in Asia Minor is descended. The season for rearing begins about March 15th when the eggs are distributed to the peasants. The method of rearing is the same as in France and Italy, only the incubation of the eggs is always effected by means of human heat, the women carrying them in their bosoms until they are hatched. So the peasants are beginning to recover from their depression, and it is quite possible that the spinners will soon resume work.

MR. BLAINE AND RECIPROCITY.

We feel it necessary to again revert to Mr. Blaine and his views on reciprocity. The "plumed knight," as he has been dubbed, is far and away the most prominent figure in American politics, and we may hear a good deal more of him as time proceeds. One of his most recent utterances from Bar Harbour, Maine has attracted a considerable share of attention. In it, Mr. Blaine informs Senator Frye that he has just received intelligence from the highest commercial authority in Havana that American flour, under the new duties imposed by Spain, cannot reach the Cuban market under a cost of \$11 46 cents per barrel, counting the shipping price in New York at \$4 80 cents per barrel. Spain, adds Mr. Blaine, holds the market for herself, and is able to send European flour at a price which totally excludes the American flour from the markets of Cuba and Porto Rico. Other articles of American growth are likewise taxed by Spain to the point of prohibition. This one-sided commerce will seriously injure the shipping routes that are still in American hands largely, if not universally. After this follow statistics shewing that the trade of the United States with the American republics as well as with the West Indies has for many years been in an unsatisfactory condition. The aggregate balance of trade, says the great politician, is heavily against them. A single illustration will suffice. Since the United

States repealed the duty on coffee in 1872 it has imported the products of Brazil to the extent of \$821,806,000, and has sold to her only \$156,135,000 of its own products. The difference—\$664,671,000—has been paid in gold or its equivalent, and Brazil has expended that vast sum in the markets of Europe. Mr. Blaine adds:—

"You can readily see how different the result would have been if in return for the free admission of Brazilian coffee in our markets we had exacted the free admission of certain products of the United States to the Brazilian market. To repeat this error with sugar to an amount three times as large as with coffee will close all opportunity to establish reciprocity of trade with Latin America. The charge against the Protective policy which has injured it most is that its benefits go wholly to the manufacturer and the capitalist, and not at all to the farmer. You and I well know that this is not at all true, but still it is the most plausible and, therefore, the most hurtful argument made by the free trader. Here is an opportunity where the farmer may be benefited—primarily and undeniably richly benefited. Here is an opportunity for a Republican Congress to open the market of forty millions of people to the products of American farms."

Mr. Blaine's efforts for the establishment of closer relations with the Latin Races to the south of the States will be worth watching. The repeal of the coffee and sugar duties are doubtless attractive baits to dangle before the eyes of Brazil and its neighbours.

A FRENCH EXHIBITION AT LYONS, AND A LINGUISTIC DITTO.

There is an old saying—we are afraid it is a trifle stale—which tells us that "the appetite grows by what it feeds upon." It would at least appear to be true in relation to the appetite of the French people for exhibitions. The public are informed that it is intended to hold a "National and Colonial Exhibition" at Lyons in 1892. M. Henri Martin, the Commissioner-General, has issued a circular in English inviting foreigners to send exhibits, and as this affords a specimen of "English as she is writ" in France, we reproduce it for our readers to draw their own inferences as to its meaning rather than to put forward any of our own construction:—

The project of a great National and Colonial Exhibition has just been adopted in France. It will take place in Lyons during the year 1892. Every French chamber of commerce, as well as the committee of all industries, have been informed of the question, and the political opinion, already enthusiastic, is quite disposed to assure the success of this great enterprise, as it did last year for the Paris Exhibition. This so important manifestation of the national work in France will borrow of the political and economical situation of this country, at the moment of its opening, a considerable significance which shall call the foreign attention. It shall certainly decide, in part, which commercial rule shall adopt France, and shall have a great influence upon the political regimen by the celebration of the anniversary of events which it will remember, especially the Valmy battle and the first proclamation of the French Republic; in consequence, it will keep up a favourable current for the actual government. For all these considerations, the foreign nations must be interested in that Exhibition. Two sections will be international: for silk and electricity. Finally a special section, out of competition (*hors concours*), will be very likely reserved for the foreign exhibitors. We hope that our countrymen will make their best in order to figure with the greatest honour in these sections especially consecrated to them. For all informations, to write to M. Henri Martin, general Commissary of the National and Colonial Exhibition, Rue de la République, 26, Lyon, France.

THE results of sericulture for the district of Adrianople shew an improvement of about one-tenth on those for last year, with a smaller quantity of eggs. Raisers of silk-worms are agreed that there is an improvement in the strength of the worm if, of course, disease is absent, and so the people are beginning to resume this long-neglected industry. The quality of the cocoons is really excellent.

Articles.

SHALL EMPLOYERS BE DEPRIVED OF THE RIGHT TO DISMISS A WORKMAN?

It may seem strange to some people at this time of the 19th century to ask a question like the above. Since the modern industrial system was founded and gradually took a clearly defined shape, after the wreck of the old institutions of feudalism, it has always been recognised that an employer had the right to dismiss any workman with whose services he was not satisfied; or that he was perfectly justified in dismissing him even if he did work properly, provided the employer had other reasons for dispensing with his services. It is easily conceivable that a workman might be a good workman and perform his work as well as could be desired, but might have several faults that would render it exceedingly undesirable that he should longer remain in the service of his employer, or mingle with his fellow employes. In such a case an employer would be perfectly justified in dismissing him, providing he observed the terms of the engagement, and gave him the stipulated notice, or paid him the equivalent in wages for his unexpired term of service. But the rights of the employer do not stop here. He may discharge a workman towards whom he feels no sentiment of affinity, and in whose conduct outside his capacity as a worker he has no confidence. This is the employer's side of the question, and we venture to affirm that no one will dispute the general accuracy of the principles laid down, nor its equity in application. This side, however, has its converse—that of the workman. He, too, has his rights in relation to his employer. He is perfectly free to offer or withhold the offer of his services to or from whomsoever he may please, and if, after accepting service with anyone, for any cause whatever he is dissatisfied, he may leave such service on fulfilling the terms of the engagement: that is, giving seven or 14 days' notice as the contract may demand. In thus acting, no one can say him nay, and were any force brought to bear to compel him to remain against his will he would think he was being subjected to the most unheard-of and unjustifiable cruelty, and the whole country would be made to ring with his outcries against such treatment. But such attempts are never made; at least during a considerable period of observation we cannot recall a single instance, not even in the days in which the working man was much less able to defend himself from aggression than he is now. But now, in modern times, armed with all the force of his highly organised trades-unions, he would simply laugh any such attempt to scorn were any employer idiotic enough to make it. These arrangements, leaving as they do absolute liberty on both sides, are perfectly equitable to each, and, indeed, constitute the only basis upon which the enormous industries of the country can properly be conducted. It will be clear, therefore, that either employers or operatives who, by arbitrary conduct, seek to upset this old-standing arrangement, are egregiously incapable of understanding their own, their employers', or their country's interests. Yet, unfortunately, such people are to be found, and in the place where one would least expect to discover them. Such an illustration Oldham affords us—Oldham, the seat of the most highly organised industry on the face of the earth. In taking note of cases of extraordinary arrogance amongst the trades-unionists

connected with the cotton trade, we have had in turn to criticise the doings, or perhaps it would be more accurate to say the misdoings, of the operatives' committees and their officials in nearly every leading centre of our staple industry: in say, Burnley, Todmorden, Blackburn, Preston, Bolton, and other places of less importance, and now comes the town of Oldham. The officials of the Spinners' Union of this town, we are inclined to think, are asserting a principle more destructive of industrial order and commercial welfare than any that has yet been put forward. In order to substantiate this statement we will give some details regarding a dispute and strike which commenced on Friday last.

Melrose Mill, Oldham, is a spinning and doubling mill, the proprietors of which are the executors of the late Mr. S. Jackson, a gentleman formerly well known in the town. It contains about 40,000 spindles, 25,000 of which are devoted to spinning, and 15,000 to doubling. Some time ago the management began to receive complaints from customers abroad regarding the quality of their doubled yarns, it being alleged to be "streaked" and damp, on account of which large allowances were demanded, and had to be allowed. Knowing that such results were against all intention and knowledge on their part, a strict investigation was instituted, when it was speedily discovered that the yarn from one pair of twining jennies was much damper than it ought to be. The particular operative in question was asked to explain, when he said his listing was no wetter than those of the other twiners. He was, however, cautioned against having it in such a condition as to yield the results complained of, but he refused to alter it. First thoughts were to pass the matter over with the rebuke and warning, but upon reflection over his refusal to amend his proceedings in the way desired, it was determined to dismiss him for insubordination. Every person having the slightest conception of what is due and necessary to the maintenance of discipline and to the welfare of an industrial establishment, will at once affirm that the management adopted the right course in dismissing the man. The man was given seven days' notice to leave the employment of the firm, which was in accordance with the rules. He seems immediately to have carried a complaint to the secretary of the Spinners' Union. What were the allegations made we know not, but it appears that they were sufficient to ensure the support of the Executive Council of the Spinners' Association, which directed all their members to tender the firm the seven days' notice necessary to enable them legally to leave their employ. This seems to have been done, and as a corresponding move the management of the firm gave a similar notice to all their other employes in the cardroom and other departments, whose services would not be needed when the spindles were stopped. All these various notices expired on the 31st ult., since which time the mill has been stopped. Thus the matter stands.

It might be concluded, on a superficial view of the case, that both sides have exercised their rights in these proceedings, and that if it pleases them no one else ought to be displeased. This would be the case if there was nothing more to be stated; but there is. In a letter from Mr. Thomas Ashton, the Secretary of the Operative Spinners' Association, dated July 25th, and addressed to Mr. Samuel Andrew, the Secretary of the Employers' Association, Mr. Ashton says: "The spinners and twiners [of Melrose Mill], together with our Council, desire

him [the discharged twiner] to be reinstated, and for this object they are taking the action you allude to." This action was the giving in of their notice, and stopping the mill. In making this statement they have gone beyond their rights, either moral or legal, because they have avowed their desire to coerce their employer to take back again a workman he does not wish to employ. To have been on sound ground they ought to have left without any ulterior object in relation to the employer whose services they were leaving, and have let him follow his own devices unmolested in obtaining a new staff of hands. As the case now stands, we are certain they are morally guilty of conspiracy, and we very strongly believe that a jury would hold them to be legally guilty of the same offence, and punish them accordingly for it. This kind of conduct is being carried to such extremes that it will be difficult much longer for employers to avoid making an appeal to the law upon the subject, and, if need be, getting a decision from one of the highest courts in the land. In the present case, as no overt and flagrant act of interference has been committed, for which it might not plausibly be contended a right existed, it will be perhaps best for the employer to set about getting a new staff of minders and twiners as soon as possible. At present both sides have had their way, and may therefore allow each other to go along peaceably. Mr. Ashton, the operatives' secretary, says in the course of the correspondence that has passed upon the matter, that "the spinners and twiners, and his Council, are not conspiring," as their late employer may spin as much cotton and double as much yarn as he desires, but to do so he must obtain fresh spinners and twiners, "and he has full liberty of action to obtain them if he can." If Mr. Ashton and his Council will adhere to a fair construction of these words, without any mental reservation, and will neither "picket" the mill, nor bully, threaten, or otherwise abuse or terrorise applicants for employment, no complaint can be brought against them. But if the opposite policy be followed, it will be grossly unjust, and those aggrieved thereby may find a way of defending their rights.

Apart, however, from all these considerations, we notice this matter mainly for the purpose of drawing the attention of the working people of Oldham to the manner in which their interests can be, and in this instance are being, sacrificed by the injudicious and ignorant action of those to whom they have entrusted them. Not only are the funds which they have subscribed for a very different purpose, namely, the defence of their just rights and interests, being wasted in an unjust cause, but also large numbers of other people in their own ranks of life are thrown out of employment, and consequently out of earnings, thereby punishing their wives and children in order to maintain the right of a few twiners to damp their listings to such an extent as to damage the yarn entrusted to them, and so injure the reputation of their employer. In the opinion of all un-biased observers it is quite time some restraint was put upon the power of the executive councils of trades' unions to "strike" a mill without a reference to a general meeting of the members of the association, and a clear demonstration that the cause in which it is proposed to take action is a just one, a position which could not be established in this case.

A DESTRUCTIVE fire which raged at Crefeld, on July 26th, completely destroyed the cotton warehouse of W. G. Taaks, Junr.

THE ORIENTAL CARPET INDUSTRY.

Reference has occasionally been made in *The Textile Mercury* to the fact that a considerable increase has taken place of late years in the sale in Europe of Eastern carpets, and that such firms as the Bakers—who are practically speaking manufacturers, since they control their own labour at Oushak, Asia Minor, paying wages and serving out yarn and other material, besides employing their own designers to produce new or modify existing designs in accordance with the requirements of the market—have a very extensive business.

Some further information regarding the industry as at present carried on, will, doubtless, be of interest to our readers, and we have accordingly obtained the following at first hand.

It was at Oushak that the production of long-piled carpets was first commenced. The place is difficult of access. To reach it 100 miles or more have to be travelled by railway to Philadelphia, the seat, as students will remember, of one of the seven churches of Asia. From Philadelphia the route involves a journey of two or three days on horseback across the hills. There is no accommodation for wayfarers *en route*, and travellers sleep in the open, while numbers of the military escort squat round the camp fire during the hours of darkness. The Turkish women are principally engaged in the making of the long-pile carpets, the Greek women of the district having until a comparatively recent period been occupied in the weaving of the double-faced carpet known as *kelim*. With regard to the method of production it may be stated that a vertical frame carries on its upper and lower ends two horizontal beams, round which are wound the warps. By a simple leverage action one of the two beams is turned round and round until the warps become taut. The woman engaged on the carpet squats on the ground facing the warps, and taking the prepared and sorted threads of wool passes it quickly round one of the warps-locks it, and then with a sharp knife cuts the thread away, and so goes on till she has made enough tufts to clip with a pair of sheep shears. A weft of yarn is then passed in and out alternate warps alongside the tufted loops, and with a heavy and large comb she beats the tufts firmly down. The more vigorously the comb is used the firmer, closer, and better the carpet. As a rule six women would be engaged upon a carpet 12 feet wide. The old designs of the country such as "Zaprak" and "Sarpkelit" are known from memory, every line and figure having their special names. The children commence to learn at five and six years of age, when they are put to bind the carpets. Men, as a rule, have little to do with the actual manufacture. If they are not engaged in agricultural pursuits they are then the drones of a carpet weaving family. They will negotiate the price for making the carpet, collect the dyed yarns, superintend the operatives while the carpet is being produced, keep the women at the work, and finally deliver the carpet and receive any balance of money owing. A horrible system, even worse than sweating, exists, we are informed on high authority, in Oushak, amongst some of the families. To acquire the control of female labour a man will marry two women and in the event of sons being born, will marry the boys at the age of 12 years that he may increase the working strength of the family by the addition of daughters-in-law. Each worker generally has a special part of the pattern assigned to her. She knows from memory the number of threads that are to be used, but when

an entirely new design has to be executed an expert operative makes a pattern carpet, from which the others work. In England, only the styles familiar to the Turks of the last 40 or 50 years had been used until the revival within the last few years of the Euphrates Valley industry, so famous in the 16th and 17th century, and now removed from 400 to 600 miles west of its original source. A goodly proportion of the carpets turned out are reproductions of ancient fabrics modified to suit 19th century tastes. Some of these have been removed to the markets of Europe and America, and many of the Berlin carpets, which have of late attracted attention on account of their tasteful appearance and rich combinations of colour, are merely copies in inferior material of Oriental designs. Imitations of the large-patterned carpets of Teheran are also produced in the German capital, in addition to a whole series of Oriental patterns in the so-called Axminster style. It should not be forgotten, however, that it is to the East we are indebted for the production of the earliest and most valuable carpets, with a beautifully fine and almost imperishable wool, such as cannot be equalled by any of the imitations now offered. Everything used in the manufacture of Turkey carpets, with the exception of cochineal and indigo, belongs to the country and this is the great advantage possessed by Asia Minor. At Oushak carpets are made which have commonly a red ground with decorative patterns of pale green and blue woven on a longer wool on a thick weft. The colours employed are red, extracted from madder and cochineal, blue from indigo, and yellow from buckthorn berries. The dyes are mixed by the workpeople themselves, and chemical aid is rarely resorted to. The distance of the centres of the aniline colour trade from the seat of the carpet industry makes it impossible to prepare the proper shades, and the only chemical products employed are citric acid, tin, red tartar, vitriol, and alum.

Mr. Baker, who ought to know, affirms that the American demand has given the greatest impetus to the Turkey carpet industry. Prior to the inquiry for novelties for the States buyers here were running on old shades of reds, blues, and greens. The English and Continental markets are now absorbing larger quantities, and the trade is becoming so extensive that one may consider the supply small in comparison with the demand. The long and lustrous wool of which the carpets are composed possesses felting properties, and the longer the carpets are worn the closer and harder they become, dust thereby being prevented from getting in the fabric. This excellent characteristic, which is only one out of many, is duly appreciated by buyers capable of estimating the value of this really good carpet. As an illustration of the prices which some people are willing to pay, it may be stated that a short time ago we saw a small silk antique rug imported from the East and valued at £1,000, while smaller rugs have been previously sold for £50. The best Mohairs sell at as high a figure as 40s. a square yard, commencing at about 30s. An ordinary Turkey carpet from first hands cost about 10s., advancing to 16s., 20s., and upwards.

The average weekly production at Oushak is over 50 bales, representing about 2,500 square yards of carpet, which, at 12s. a square yard, gives a value of £1,500 per week, or £78,000 per annum, over one half of which may be set down for raw material, and the remainder for wages and other items of expenditure. In 1888 there were in Oushak 5,000 houses and 1,500 looms. The women work seven hours a day, and earn about 2s. 8d. per week. The rate seems small,

but it is said that the more money people make the less work can employers get out of them. They have no idea of thrift, and the habit of the Turk is never to think of the morrow. In 1886 the imports of Turkey carpets into the United Kingdom, according to the returns specially compiled from private sources of information by a firm of importers who have kindly furnished us with the particulars, must have amounted to 2,000 bales, averaging from 5 to 6 cwt. each, and to the United States 800. American bales are much more valuable than English owing to the high-class nature of their contents. The figures for each of the years 1887 and 1888 were probably 2,400 for the United Kingdom, those for the States being about the same as in 1886. In the half-year ending the 30th June, 1889, the United Kingdom imported about 1,500 bales, and the United States 350 to 400 bales. The average value of the American bale may be set down at £60 as against £45 for an English bale.

As a result of the careful studies of house furnishing that have been made by dealers, Turkey carpets can now be obtained for many purposes, and to suit tastes that formerly could not be satisfied. Ten years ago the dining-room and the library were the only portions of the house that could be furnished with these Eastern products. Now, however, commencing with a heavy carpet for the dining-room, every portion of the house can be provided with a suitable covering, including fine-made carpets of single thread for the drawing-room, Kelims for bedrooms, heavy and fine makes for stairs, corridors, and billiard saloons, and so on. For all of the developments that have taken place in the trade of late years, Europeans are entitled to the credit, inasmuch as they have supplied the sleepy and unenterprising Turk with ideas, and utilised their brains so as to provide him with designs of commercial value in the markets of the hated ginour.

A NEW power-loom shed is in course of erection on the land of the Councillor of Commerce, Herr Clad, at Ronneburg.

The cloth factory of Adolph Weinberger, in Brünn, has been burnt down. The damage amounts to 50,000—60,000 florins.

An interesting ceremony was recently performed at Nawaghud, in the territories of H. H. the Nawab Sahab of Joonagad, India. It has been the desire for some time past of the Joonagad Durbar to improve and people the city of Nowaghur, situated about three miles from Setpur. With this view the Durbar has been assisting people in every way possible to commence business and settle themselves there. A ginning factory has been working there for the last three or four years, and now an arrangement has been made with Messrs. N. Fatehally and Co., of Bombay, to build a cotton spinning mill on a site selected by Mr. N. B. Stokes, of Bombay, and towards this object the State has made very favourable and liberal concessions. The foundation-stone of this mill has just been laid in the presence of a large number of people and the above-named gentlemen by Mia Sahab Mukbulmis, the commissioner in charge of the town of Nowanagar. The outlook of this industry in the district seems very favourably owing to the abundant and cheap supply of cotton and fuel and the large consumption on yarn.

white, 6 red, 2 white, 2 red, 2 white, 2 red, 2 white, 2 red, 10 white, 20 light brown, 10 white, 2 red, 2 white, 2 red, 2 white, 2 red, 2 white, 6 red, 4 white, 6 red, 4 white, 6 red, 10 white, 12 dark green, 6 white, 60 dark green, 10 red, 16 dark green, 12 white, 16 dark green, 10 red, 60 dark green; total, 356 ends, or nearly four-and-a-half inches. At the present time, when very large checks are the fashion, the reproduction of this splendid Hindoo pattern ought to be very acceptable by way of a change from the neutral greys and faded-out shades which enter so much into the composition of the ordinary dress material. The weft pattern in this is the same as the warp. One peculiar feature is observable: the 20 of light brown which is the centre is drawn in reverse from the rest of the warp end so that the twill on this part goes in a contrary direction from the other portion; the same occurs in the checking where the light brown weft is reversed from all the other colours. Of course this feature may be omitted, but if entertained the loom would require a very extensive checking arrangement.

No. 2.—Same details as the preceding, but blue for dark green, yellow for white. Plain cloth.

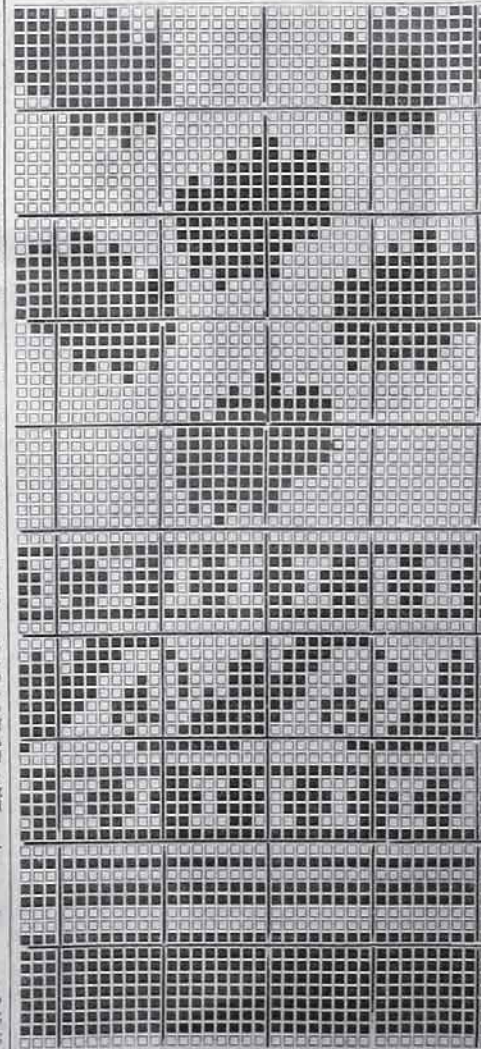
No. 3.—Plain cloth; 72 ends per inch; 72 picks; 30's weft and warp. Pattern: 40 dark green, 80 red, 4 white, 4 brown, 4 white, 80 red, 40 dark green, 14 white, 60 royal blue, 14 white, 60 royal blue, 14 white; total, 414 ends, or

nearly 6 inches in extent. Weft pattern the same.

It would not be out of place for gingham manufacturers to take a note of these patterns.

FIGURED DRESS FABRIC.

Design 172 is a species of design which will be found useful to apply in various forms to dress goods. The ground is the 2 and 2 twill, this being selected to work well with the effect developed in crosses and circles. This latter portion gives the characteristic appearance to the cloth approaching in effect what are termed imitation lenox. In this portion of the design two threads and two picks out of every eight are allowed to flush for about six threads and picks, while the interior portion interweaves plain, thus producing a flat effect, standing out from which are the flushing threads, producing a kind of indented check, which even in fine yarns shews very effectively on the twill ground. This effect, combined with the 2 and 2 twill, should be tried in various stripes, checks, etc., either with or without additional embellishments. In the design under consideration, we have inserted a small figure, as sometimes such a figure will add considerably to the effect at comparatively little expense. The figure here given would necessitate the introduction of a silk pick between nearly every ground pick, but if simply a spot be introduced in the place of



INDIAN SILK OR COTTON COUNTERPANE.

This is the second example of a silk Indian counterpane from the Punjab. The lengths and breadths of these cloths vary, and this pattern is woven in all sizes. The light type or ground all through is cream-coloured silk; the dark type of centre and borders a very rich purple; the dark bands of the borders a light yellow green; both weft and warp a soft, rich, glossy, silk. This design would be very effective if used for cotton coverlets or rugs and stair carpets.

Designing.

NEW DESIGNS.

INDIAN GINGHAM PATTERN.

No. 1.—Woven in Woozoor, Madras. Length, 6 yards; width, 32 inches; weight, 14 ounces; 80 ends per inch; 80 picks; 40's weft and warp; four-end twill; pattern of warp: 6 white, 12 dark green, 10 white, 6 red, 4 white, 6 red, 4

INDIAN SILK COUNTERPANE.

(Lines 2, 3, 4, are continued and turn the corner same as Line 1.)

this figure, then a great saving of extra warp or weft will result.

With regard to the setting of this design, the 2 and 2 twill should be taken as a basis to work from. Various sizes of yarn, etc., may of course be used, according to the weight required; the following, however, will prove effective for light fabrics:—

<p><i>Warp.</i> About 2/80's or 40's. 80—90 threads per inch.</p>	<p><i>Weft.</i> All 40's. 80—90 picks per inch.</p>
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If slightly thicker weft than warp be used and fewer picks than threads introduced, an elongated effect will result. If the extra figure be inserted about 2/80's silk should be used.

TWEEDS, ETC.

Of the various types of colouring adapted for tweeds, perhaps none yield more pleasing results than what may be termed delicate effects. These may be dark or light, for summer or winter wear, but in any case the effect is essen-

tially delicate, the beauty of the cloth depending wholly on the proper utilisation of neutral tints and shades of yarn. The following colouring will serve as an illustration:—

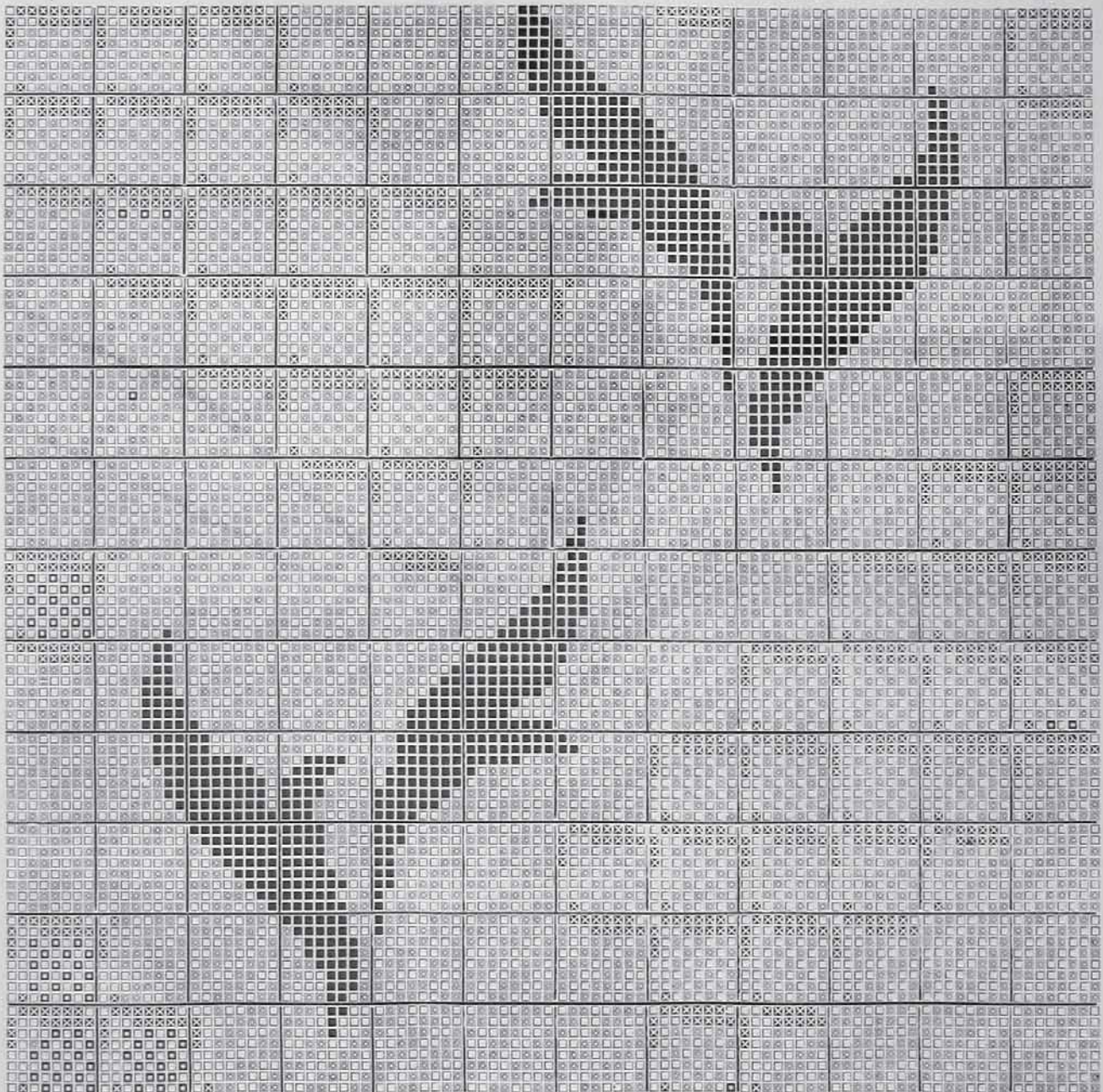
<i>Warp.</i>	
16 threads of lavender and white mixture,	
2 " " dark grey mixture,	
4 " " blue and white mixture,	
2 " " dark grey mixture.	
<i>Weft.</i>	
32 threads dark grey mixture,	
2 " light " "	
8 " dark " "	
2 " light " "	

This system of colouring gives, of course, an elongated check indistinctly developed, but providing the white be clear and bright, the lavender mixture gives such a tone to the pattern that all idea of dinginess is removed. So far the colourings for this type of pattern have not been very elaborate, and there is ample room for the adoption of more aesthetic colourings of the non-descript nature, which are admirably adapted in

their neutral tones for use in this class of goods. As a rule the best effect will be obtained by using one colour shaded for the ground, and the tinted complementary for the check either one way or both ways. Care should also be taken to preserve a sufficient variation in luminosity between the warp and weft to shew the twill distinctly. The best weave to employ for these is the 2 and 2 twill set as follows:

<p><i>Warp.</i> All 20 sk. woollen. 10's reed 4's</p>	<p><i>Weft.</i> All 30 sk. woollen. 36—40 picks per inch.</p>
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Finer yarns and closer set may be used, but the above is an average set. Saxony yarns should be used and the fabric should be raised more or less according to requirements. Care should be exercised in the scouring, milling, etc., of these cloths, since softness of handle is an essential feature, so that all scours such as soda ash, etc., that have a tendency to impart harshness should be avoided or used very sparingly. We need scarcely say that it is of the utmost importance that the yarns should be dyed to stand milling.



DESIGN 172.

Bleaching, Dyeing, Printing, etc.

ALPHA- AND BETA-NAPHTHOL.

These two bodies are of great importance in the production of colours direct on the fibre, either for Read Holliday's vacanceine reds, or in the ingrain reds produced from Brooke, Simpson, and Spiller's primuline and similar colouring matters. As the shades yielded by these two isomeric bodies are so different, (beta-naphthol giving bright reds, while alpha-naphthol gives brownish reds,) it becomes a matter of some importance to be able to discriminate between the two.

The following description of a few characteristic reactions will therefore be found useful: 10 c.c. of an aqueous solution of beta-naphthol containing 0.2 gram per litre, when mixed with 2 c.c. of 90 per cent. alcohol, 2 c.c. of nitric acid and 10 drops of mercuric nitrate solution, gives an intense orange-red colour, unaltered on boiling, which imparts a rose-red tint to gun-cotton. Sulphurous acid does not destroy the colour, or but slowly; the mixture passes to rose colour, becomes turbid, and at length gives a yellow or black deposit of mercuric oxide. Chloroform takes up the original colouring matter, and becomes intense ruby-red, turning greenish-yellow after some time. Under the same conditions ether becomes yellow. If, instead of the mercuric nitrate and nitric acid, three drops of a saturated solution of potassium nitrate, and ten drops of sulphuric acid be added, an intense violet-red colouration results, which is destroyed by sulphurous acid, the colour turning to a greenish-yellow. Chloroform becomes greenish-yellow, and ether yellow. Gun-cotton takes up the colour, assuming a wine-red tint.

Alpha-naphthol gives with the mercuric nitrate mixture an orange-yellow colour, not changed on heating. Chloroform takes on an orange-yellow colour, while ether is coloured a greenish-yellow. Sulphurous acid very soon produces a brick-red precipitate, which rapidly settles, leaving a slightly yellow liquid; gun-cotton is tinted yellow.

With the potassium nitrate mixture alpha-naphthol gives a reddish-brown colour, changing to a red on boiling. Chloroform takes up from this a greenish-brown colour, and ether becomes slightly greenish-yellow, while the aqueous solution takes a rose tint. The colouration is rapidly destroyed by sulphurous acid, passing to a dirty green, while gun-cotton is dyed a dirty yellow.

DYE-WOOD EXTRACTS.

The manufacture of dye-wood extracts consists essentially of three operations: first, the chipping or rasping of the raw material; second, the extraction of the colouring matter; and third, the evaporation of the decoction obtained in the second operation.

Chipping or rasping is essentially a mechanical process, and it is not necessary to pursue it further.

In most manufactories a so-called ageing process is carried out before extraction, especially with logwood, and the most unimaginable chemicals are used for this purpose—carbonate and chloride of ammonia, stale urine, chalk, soda, saltpetre, gine, etc., being the chief. The chipped wood is placed in heaps and wetted with solutions of these bodies, and these heaps are kept and turned over from time to time. This process is based entirely on imaginary suppositions and not on absolute facts.

The industry of extract making sprang up at the beginning of the present century, and was introduced by a ship captain named Meissonier, who conceived the idea of making both a liquid and a solid extract of the colouring matter of his cargo of dye-wood. He used porcelain vessels in his operations. He was not a professional chemist, nor were his successors, and no improvement in a chemical sense was made. The improvements in the machinery which took place merely followed those made in the manufacture of sugar, and

diffusion batteries and vacuum apparatus are in use to-day.

Extract factories were first established in France, and later in England and America, but only within the last few years in Germany. In all places the relation of extract making to chemistry has remained the same. The managers of the large works are at the best technical engineers who attribute little or no value to the chemical part of the process and have little or no knowledge of chemistry. A chemist may be employed, not to supervise the process, but as a tester to compare the relative value of the firm's own extract with that of their competitors. In some works the managers are men who have mostly a knowledge of the working of the extraction apparatus and the machinery.

The extraction of the dye-woods may be carried out by two different methods; (1) by maceration in open extractors—diffusion processes. This is also known as the French method, from having been first employed in France. (2) Extraction with the help of steam pressure and high temperature in closed vessels; first applied by Sanford in America, and known generally as the American method. Each of these processes has its advantages and disadvantages. For special purposes, in printing, etc., an extract obtained by the French method is decidedly to be preferred. It is higher in price, but this is counterbalanced by its superiority. The case is different in logwood extracts to be used in dyeing cotton, etc., where the purity of the tone is not so much an object as the intensity of the colour and the cheapness of the product. When logwood is extracted in open vessels about 16½ per cent. of solid extract is obtained, while the American method yields 20—21 per cent.; on this difference the existence of the works often depends, and those works which use the open extractors cannot compete with those which use closed extractors, and therefore they are induced to adulterate their products with molasses, glucose, dextrin, tannin, etc. In the cheaper French extract these adulterations often exceed 50 per cent.

The manufacturer of American-process extracts generally sends out his products in the pure state. In the United States admixtures were never made which could be called adulterants. Extracts of logwood were mixed with those of quercitron and hemlock, but these mixed extracts were sold as "black extracts," "logwood substitute," and so on.

Logwood extracts prepared by the American method generally contain fragments of wood, which is a defect which can be remedied. The manufacture, owing to the scarcity of logwood, has undergone some change. Roots are being largely used, and inferior qualities are also much used, and the result is that the extracts now made are not as good as formerly. It is probable that this industry will decline, and that the growing antine colour trade will put an end to it.—Soxhlet in *Chem. Zeit.*

RECIPES FOR DYERS.

The following are mostly translations from foreign sources. We do not guarantee the results from these recipes, but give them for the purpose of showing our readers what their foreign competitors are doing:—

DARK BROWN ON COTTON.

For 100 lb. cotton. Mordant at the boil with
10 lb. catechu,
2 lb. logwood extract,
¼ lb. magenta,

for three hours, then darken in a new bath with
3 lb. bichromate of potash,
2 lb. soda.

DARK FAWN ON WOOL.

For 100 lb. wool. Work in a bath with
3½ lb. tartar,
5½ lb. sumac,
13 lb. fustic,
10 lb. Brazil wood,

for 1½ hours at the boil. Sadden with
1 lb. copperas.

Boil 1 hour longer, then add

5 lb. Brazil wood,
1 lb. Sanders' wood,

and boil ¼ hour longer.

DARK BROWN ON WOOL.

For 100 lb. Mordant by boiling for 1½ hours with
3 lb. bichromate of potash,
1½ lb. tartar.

Dye with

50 lb. fustic,
5 lb. logwood,
17 lb. Sanders' wood,

for 1½ hours at the boil. Sadden by adding

5 lb. copperas,
2½ lb. bluestone.

Work for five minutes at the boil, allow to stand for ten minutes, lift and dry.

DARK OLIVE BROWN ON WOOL.

For 100 lb. wool. Dye in a bath at the boil for 1½ hours with

55 lb. fustic,
10 oz. logwood,
1½ lb. sumac,
6 oz. cloth red B,
½ lb. fast brown G,
1 oz. fast yellow.

Darken in a bath of

4 lb. bluestone,
2½ lb. copperas.

for ten minutes, wash and dry.

CHEAP BLACK ON MIXED COTTON AND WOOL CLOTH.

Boil in a bath of

25 per cent. logwood extract,
4 " fustic extract,
13 " soda,
8 " bluestone.

Work at 120° F. for some minutes, then raise to boiling, until a good black is got, after which enter in a new bath containing

4 per cent. bichromate of potash.

THERE are at present two indamine blues on the market, one of which is sold in the form of a powder, and the other in paste. Both are derivatives of induline, and both are basic colours, although there are certain minor points of difference between them. It is unfortunate to have the same name for different products.

A NEW method of making bleaching powder and caustic soda is the subject of an American patent. In this process salt is first treated in a heated still with nitric acid, whereby nitrate of soda and the gases nitrosyl chloride and chlorine are formed. These gases are passed through a vessel containing nitric acid and manganese oxide, when nitrate of manganese and chlorine are obtained. The latter is converted into bleaching powder in the usual way. The nitrate of manganese is heated, when it splits up into nitric acid and manganese, both of which can be used again. The nitrate of soda formed in the first stage is furnace with oxide of iron, when nitric acid and caustic soda are formed.

PALATINE RED is a new dyestuff sent out in the form of a brown powder, easily soluble in water to a red solution, which is not altered by dilute sulphuric acid, but is turned red brown by caustic soda; stannous chloride forms a crimson precipitate which is dissolved and decolorised on boiling; and it dissolves in strong sulphuric acid to a blue solution. Palatine red dyes wool in an acid bath, which is completely exhausted. The shades obtained incline to crimson, that do not bleed into the white, although they lose colour on soaping. The dyed fibre is turned blue by strong sulphuric acid, is not altered by hydrochloric acid, and is turned brown by caustic soda.

THE alizarine, or so-called alizarine colours, are generally regarded as being fast to light. This idea, however, has been dispelled by some experiments made by O. Muller, who finds that four months' exposure to light destroys galloflavine, galleine, alizarine blue SR, anthracene brown, alizarine maroon, and alizarine indigo blue, when dyed on a basic chromium chloride mordant; alizarine blue F, alizarine brown, and gallein, when dyed on a chrome alum mordant; and gallein when dyed on aluminium mordant. The only fast alizarine colours are alizarine orange and alizarine. Anthracene brown, coeruleine S, alizarine blue DN, alizarine blue R, are slightly affected. The resistance of these colours to acids and alkalis is satisfactory.

Foreign Correspondence.

TEXTILE MATTERS IN INDIA.

(FROM OUR OWN CORRESPONDENT.)

BOMBAY, 18th July, 1890.

With the probability of a steady exchange owing to the President's approval of the Silver Bill, business has become less fluctuating than it has been for some time past. This, however, does not mean that it has improved, or that producers are finding it easier to dispose of stocks, for any change that has taken place has been for the worse rather than the better. With the uncertainty of the past few weeks some manufacturers would enter into a large contract at lower rates, while others would book small orders at a slight advance, and in this way no real standard could be worked upon. Now, however, trade has become uniform in its characteristics all round, and buyers find it easier to place orders at reduced rates, while producers find it difficult to make sales at cost prices. The China yarn trade has gone from bad to worse, and as agents in India continue to ship yarn, regardless of the demand, the stocks there are largely on the increase, while the prospects of sales get even more distant. China is determined to supply its own yarn, or even if it buys from outsiders it must be at a lower rate than what the Flowery Land can produce it at. The Celestial Government has shewn itself in this (as it does in everything else) determined to foster protection, so that, while benefiting the few, it does more hurt to the many. Of course the cotton growers and manufacturers of China are anxious that their Government should increase the duty on the imported products of this class to an almost prohibitive extent, and they have gone the right way about getting their object accomplished. In the latest petition which they have forwarded to headquarters, they have promised to subscribe a sum of 150,000 dols. per annum if the duties on cotton and cotton yarns are increased respectively to five mace and seven and a half mace per hundred catties. The petitioners undertake to collect and pay the self-imposed tax, and to forward at once the first quarter's instalment. They urge that the price of cotton yarn will not be much greater, but that the supplies will, and that, therefore, the merchants will be able to make a little profit, while the farmers will again be induced to grow cotton. This petition has been granted without much loss of time, and another obstacle to the development of the Indo-China trade has therefore been raised.

With the closing of doors to the trade of India in one direction, agents are energetically looking for the opening of others. Many a firm here is looking longingly towards Egypt, Persia, and Africa as probable sources of immense trade and prosperity. With the opening up of every station or district to commercial enterprises, the representatives of Indian manufacturers will not be absent, and in those three markets they will hold no mean positions.

The yield of cotton for the season ending 1889-90 has been the largest in India, being about 25 per cent. greater than that of last year. The quality of the crop was also fully up to the average, and that of several districts shewed considerable improvement in the picking and ginning. Prices, however, were lower, partly due to the excessive supply, but chiefly owing to the depressed state of the yarn market. When the prospects of a large crop became evident last year, spinners hesitated before speculating in futures, and only bought for immediate wants; and as the increased shipments abroad were not of sufficient importance to compensate for the local neglect, rates were forced to decline. This result, although of benefit to the consumers, will not seriously affect the producers, as the yield per acre is larger than usual.

Mill building has almost come to a standstill in India, small investors being conspicuous by their absence, while promoters and speculators would find it difficult to dispose of their interests at par. The existing companies are,

no doubt, just managing to work on and pay dividends of 5 or 6 per cent., but this is not sufficiently tempting to attract floating capital.

The woollen trade, which was in a very depressed condition a short time ago, is looking brighter again, and the few concerns engaged in the manufacture are getting more fully employed. The chief difficulty experienced is in the spinning of cloths of a finer texture than rugs or blankets, and in the bleaching and finishing. Could the wool be manipulated to produce even heavy coatings a large trade could be done, and it is towards the accomplishment of this end that the local mills are striving. They are undoubtedly greatly handicapped by the want of experienced employes, the operatives having been taken from cotton mills. The overlookers even are generally, or rather have been, cotton mill jobbers, as the trade is not sufficiently good and the capital and the mills not large enough to pay for the services of English managers. The only European whom the woollen mills cannot do without is the finisher and dyer.

TEXTILE MATTERS IN THE UNITED STATES.

NEW YORK, JULY 26TH.

Retailers have been purchasing so slowly and in such small quantities during the season that stocks towards the end of June tended to accumulate. The demand for European goods varies. Black *faulle française* meets with inquiry. Dress goods are rather quiet.

The Pacific prints have been introduced in an entirely new finish and fold, the tickets bearing the name "3-4 Mouselines." The soft finish adopted by the firm producing these goods has been a success, and other printers have hastened to imitate the example set them. For several years the old broad fold and hard finish have given way to narrow folds and soft finishes. Pacific Mouselines are quoted at 6½ cents. Lord and Taylor's stock of foreign dress goods this season is a good one. Mogroz, Portier, Magny, and Co. have a rare collection of brocades. Sweetser, Pembroke, and Co. have a large range of novelties in European dress goods, their black and coloured Majestic Henriettas being prominent.

Print cloths are dull. The stock on hand is the largest known since 1885. 3½c. less ¼ per cent. for 64 by 64's and 3c. for 56 by 60's are the quotations.

The shipments of domestic cottons from New York to foreign ports for the week ending July 24th, 1890, were as follows:—

DOMESTICS OTHER THAN DUCK.		
	Pkgs.	Value Dols.
Aden.....	150	5,450
British West Indies.....	10	786
China.....	3,635	160,963
Central America.....	2	167
Liverpool.....	102	5,205
Santa Domingo.....	18	1,076
Total.....	3,917	168,617
DUCK.		
	Pkgs.	Value Dols.
British Australia.....	8	175
Liverpool.....	187	6,899
New Zealand.....	4	160
Santa Domingo.....	5	46
Total.....	199	7,280

It is scarcely worth while giving these returns every week, but an occasional reproduction will serve to keep the matter in the minds of your readers. The overwhelming preponderance of the Chinese demand in the above returns will be apparent to the most careless observer.

The Silk Association of America has issued its annual statement for the fiscal year ending June 30th, 1890, as compared with the two previous years. The total value of silk manufactures imported for the year at the port of New York was 36,766,090 dols., against 34,057,170 dols. in 1888-89; 31,455,215 dols. in 1887-88; 29,366,924 dols. in 1886-87; 26,147,635 dols. in 1885-86; 26,108,190 dols. in 1884-85; and 34,039,697 dols. in 1883-84. Of these imports, piece goods

accounted for 13,589,311 last year, being the greatest value under that head since 1883-84, when they touched 18,432,599 dols. Silk and cotton ranks next, with 7,908,892 dols.; the value of this mixed fabric having grown steadily from 3,207,943 dols. in 1883-84 to the present dimensions. The imports of raw silk have increased in both weight and value, the total imports of New York and the Pacific coast for the past year being 43,776 bales, value 24,645,961 dols., against 37,583 bales, value 20,096,172 dols. in 1888-9; 36,108 bales, value 22,433,942 dols. in 1887-8; 31,970 bales, value 22,126,890 dols. in 1886-7; 32,997 bales, value 19,682,990 dols. in 1885-6; and 23,914 bales, value 13,931,122 dols. in 1884-5.

The imports of silks in all details into the port of New York in fiscal years ending June 30th were:—

Articles.	1890. Dols.	1889. Dols.	1888. Dols.
Silk piece goods..	13,589,311	10,648,570	11,465,076
Satins.....	486,268	535,414	568,281
Grapes.....	126,452	160,472	230,689
Pongees.....	11,217	49,761	87,234
Plushes.....	2,774,708	4,110,385	3,576,248
Velvets.....	2,482,401	1,883,403	2,746,729
Ribbons.....	1,692,611	1,617,401	1,194,458
Laces.....	2,902,665	3,320,131	2,361,735
Shawls.....	172,804	180,215	193,669
Gloves.....	899,425	345,950	379,064
Cravats.....	87,144	98,840	88,989
Handkerchiefs..	99,227	146,297	281,015
Hose.....	395,096	292,500	317,897
Threads and Yarns	461,311	308,797	162,506
Braids & Bindings	1,707,154	2,396,703	1,559,456
Silk and Worsted.	1,478,252	1,877,522	969,998
Silk and Cotton..	7,808,892	9,080,914	5,334,961
Silk and Linen..	20,892	3,945	2,210
Totals.....	36,766,090	34,057,170	31,455,215

The *Manufacturers' Gazette* gave utterance recently to some significant remarks. "Some of our free trade theorists," says your contemporary, "are shedding unnecessary tears over the hardships experienced by the Washburn and Moen Company at Worcester, because of the inability of this great monopoly to secure a revision of the tariff for the reduction of duties on steel, coal, etc. It is reported that this corporation will establish a branch concern in Chicago, and that a great New England industry is in danger. Did it ever occur to the free traders that the protection of the United States Patent Office has made millionaires of Washburn and Moen? Do they bear in mind that every farmer who buys a foot of barbed wire pays tribute to this monopoly? Washburn and Moen are not objects of charity. Their business is enormously profitable. They command the trade, they grind the farmer, they pile up millions in profits. Free steel, free iron, free coal would not make wire any cheaper. They would only make Washburn and Moen richer. Does this rich corporation want the earth? Why should the people assist in swelling their profits, now already out of proportion to their deserts? Our free trade theorists had better spend a little sympathy on the farmers who buy patented barbed wire for fencing at extortionate cost, rather than add millions of dollars to fortunes already numbered by millions. Washburn and Moen can take care of themselves as they are, and they must laugh in their sleeves at the idea of their being in pressing need of cheaper steel or cheaper coal to sustain their big and profitable monopoly."

A concern that "grinds the farmer," "piles up profits," "commands the trade," and so on is a type of hundreds in the States, whose power over the citizens of the Republic is due to protection. I don't suppose that the writer in the *Manufacturers' Gazette* knew at the time he penned the above note that he was furnishing opponents of protection with a good argument. The protection of the United States, he admits, makes millionaires of individuals. In the case of Washburn and Moen "every farmer who buys a foot of barbed wire pays tribute to the monopoly." Charming! And all this is admitted by a protectionist journal.

The *American Wool Reporter* says that Uruguay and Buenos Ayres produce vast quantities of very fine wools, and the finest of these are now greatly desired in the United States. The free importation of these finest wools from South America would be a great blessing to the

Manchester.

Mr. A. R. Gallé, of 29, Dale-street, in this city, has been appointed consul for Belgium, in succession to the late Mr. J. F. Hutton.

The first bale of the new American cotton crop has arrived at the offices of Messrs. Kaltenbach and Bounphrey, 5, Cross-street, city, and can be inspected on application.

Mr. Joseph Cheshire, of St. Petersburg, one of the most well-known Anglo-Russians, has arrived here this week for a brief visit, mainly with the object of seeking to reinvigorate his health.

At a meeting held last evening at the New High-street warehouse of Messrs. Rylands and Sons, Limited, Mr. Carnelly, the chairman of the company, accepted a presentation by the staff in commemoration of the celebration of his jubilee in the service of the firm.

At a meeting of the directors of the Manchester Royal Exchange, on Thursday, Mr. Jardine presiding, from amongst a number of very eligible candidates, Mr. J. G. C. Parsons, clerk to the Salford School Board, was elected secretary and master of the Manchester Royal Exchange, in succession to the Mr. Edwin Simpson.

The late Mr. Daniel Adamson was chief promoter of the Newton Moor Spinning Company, Limited, and from its formation in 1861 to his death was chairman of the board of directors. The shareholders have just had prepared an address to Mrs. Adamson, which refers to her late husband in terms of high appreciation.

The well-known firm of Messrs. John Hetherington and Sons, engineers and cotton machinists, Vulcan Works, Pollard-street, Ancoats, in this city, was registered as a limited company on the 1st inst. The directorate has not yet been fully decided upon, but amongst the number will be found the following names:—Mr. John Hetherington, Mr. John McQueen, Mr. C. E. Haworth, and Mr. J. Nasmith, all of whom are well known in connection with this important concern.

The Technical Education Committee of the Salford Corporation have decided that the building in Great George-street, offered by the trustees of the Salford Working Men's College as a site for a technical school, is unsuitable for that purpose, and they recommend the Public Trust Committee to agree to the conveyance of the building to the Corporation, on condition only that power of sale be given to the Corporation, the proceeds to be applied for purposes of technical education within the borough. The Public Trusts Committee have concurred in this suggestion, and the matter now awaits the decision of the trustees.

Mr. J. W. Ritchie, of West View, Heaton Moor, of the firm of Ritchie and Eason, cotton goods manufacturers, Spring Gardens, Manchester, was drowned on Thursday week while boating off the Aberdeenshire coast. The body was recovered on Saturday. The funeral took place on Monday. Mr. Ritchie's father and a lad named Stott were also drowned in the accident but neither of their bodies has been recovered. They had gone out in a small yacht, and were running before the wind, when the boat suddenly sank. It appeared to have run into a wave and been immediately overwhelmed.

Nelson.

On Wednesday morning about 500 workpeople were thrown out of employment for probably two months by the breakage of a fly wheel, weighing 35 tons, at Messrs. Landless Bros., Nelson. The pieces flew in all directions, but fortunately no one was injured. The engine supplied power for three other firms.

Oldham.

Messrs. Hetherington, of Manchester, have obtained the order of the machinery for the Elm Mill Company, Shaw.

Newton Mills, Shaw, have been closed during the week owing to the execution of repairs in connection with the steam engines. Work is expected to be resumed next week.

The Lees Union Mill Company is about to put in new boilers. It is expected that advantage will be taken of the Wakes holidays, when the mills will be closed for seven days, to carry out the necessary alterations.

The work in connection with the erection of new offices and making additions to works of Messrs. Buckley and Taylor, engineers, is being pushed on with. This firm is extremely well engaged, both with home and foreign orders.

Messrs. Asa Lees and Co. are making further extensions to their premises. The business of this firm has of late years increased at a very rapid rate, so much so that it has been taxed to its fullest capacity to adequately compete with the demands made upon it.

Mr. Samuel Ogden Andrew (son of the secretary of the Oldham Master Cotton Spinners' Association), has passed with great distinction in the final examination at Oriol College. He has obtained what is described as the blue riband of English education (*littere humaniores*), being the highest honour Oxford can bestow on its pupils. It is, perhaps, the first honour of its kind which has ever come to Oldham.

We have previously intimated that steps were being taken for the formation of a limited company to erect a mill near Brook-lane. We now learn that the project is going forward and will be successfully launched. It is intended there shall be two mills, to hold jointly 120,000 spindles; one being for the spinning of fine numbers, and the other for spinning low counts. As we have already intimated, it will be known as the Pearl.

At the Werneth Spinning Company's meeting on Tuesday, two resolutions are being brought forward expressing "indignation that its directors should have permitted their representatives, or any of its principal servants, to take a prominent part in the promotion of rival companies," and also condemning the action of two of the directors for assisting in floating, and requesting that they send in their resignations at once. Similar resolutions were passed at the North Moor Spinning Company's meeting a short time ago, when three of the directors had to resign, and the two gentlemen in question were connected with the North Moor Board. The battle at the Werneth will not be so easily won as it is stated. A number of fagot votes have been created, and also an active canvass has been going forward against the resolutions.

Preparations are being made by the Wakes Savings' Clubs, for which this district is celebrated, to distribute their funds at the annual holidays, which begin on the last Saturday in August. Those engaged in the cotton industry will this year have a longer holiday than they have been privileged to enjoy at any previous period. As per agreement, the mills will close on the Friday evening prior to the last Saturday in this month, and will not reopen until the Monday but one following, giving seven working days' holiday, besides two Sundays, or a continuous holiday of nine days. Oldhamers think a great deal of this pastime, and enjoy it in a right hearty fashion. Formerly their holiday was spent at home in feasting and merry-making. But this has all changed—at least, in the majority of instances. Now they betake themselves to places far and near to recuperate their energies, and also to enlarge their knowledge of men and things. This mode of spending the holiday is ennobling compared with the practice formerly, although some of the townspeople, when away from home, perhaps don't make the best use of their time, or consider their own interests, or look after their body and soul as much as they might.

Reddish.

Messrs. Thomas Houldsworth and Co. have just entrusted Messrs. Fox and Williams, Manchester, with the task of repairing and consolidating their massive steam engine foundations at their Reddish mills, with their patent fusible mineral cement. The work has been most successfully performed during the week, and under the personal superintendence of Mr. Williams. Mr. Williams was highly complimented upon the result.

Rochdale.

A wide-spread feeling of regret has been occasioned at the news of the death of Mr. Thomas Taylor, who had been suffering for some time from bronchitis, and passed away at the age of 65, after an absence from his duties of only a week's duration. Mr. Taylor was well known in the Bacup district, having been long connected with the cotton trade. Amongst the ventures in which he was interested was that of the New Bacup and Wardle Company. For the last 15 years, deceased was the manager for Messrs. J. and G. Walker, Limited, Larkfield Mill, ring and throstle yarn spinners, Rochdale. The firm had great confidence in him, as he had a thorough knowledge of cotton spinning and machinery, besides being a very practical carter. Mr. Taylor was held in great esteem in Rochdale and in Rosendale Valley. He was a director of the Rochdale Spinning Company.

On Friday, the 1st inst., a meeting of subscribers of the proposed technical school at Rochdale was held. Mr. Alderman Heap presided. At the previous meeting the plot of land offered by the Ecclesiastical Commissioners upon which to build the school was accepted, but the question arose as to whether it should be conveyed to the Rochdale Corporation or an independent body of governors, and this subject was referred to the Committee. The Chairman explained that the Committee recommended that the land should be conveyed to

the Rochdale Corporation, and that provisions should be made in the school for theoretical and practical chemistry.—Mr. James Duckworth moved that the Rochdale Town Council be requested to accept the offered site and to take the conveyance of land to the Corporation.—Mr. W. Shaw seconded this resolution, which was carried unanimously. The Dean-designate of Manchester, in answer to an inquiry, stated that the gift of the land was for 999 years.—The Chairman next moved that in the new building about to be erected provision be made for dyeing and theoretical and practical chemistry, under the rules of the Department of Science and Art.—Mr. Ogden seconded the resolution, and the subscribers passed it unanimously.

Stockport.

The fitting up of the machinery in the Palmer Spinning Co.'s new mill is being proceeded with as rapidly as possible by Messrs. Asa Lees and Co., of Oldham. There will be 35 pairs of mules, of which 13 pairs are fitted up, and four or five pairs have been got to work.

SCOTLAND.

Anderston.

The 153rd anniversary meeting of the Weavers' Society of Anderston was held in the Anderston U.P. Church Hall. Mr. John Wallace, presser occupied the chair.

Dundee.

The Dundee summer holidays, which began on Monday week, closed last Saturday, and work was generally resumed on Monday morning. On the whole the weather has been good, and notwithstanding the large exodus the city has been in a state of bustle and animation by reason of the large influx of visitors in connection with the Highland and Agricultural Society's Show.

Glasgow.

Woolen and cotton merchants are still quiet, this being between seasons. However, repeats have been coming to hand, although not in average quantities. The opinion is that better prices will yet be obtained for cotton.

Hawick.

The half-yearly meeting of the South of Scotland Chamber of Commerce was held on the 31st ult., Mr. Sanderson, Galashiels, president, in the chair. Councillor Wilson, Hawick, drew attention to the unsatisfactory state of mill insurances, pointing out that when a fire occurred insurance offices sent out a valuator, and very often the insurer did not get the full value. He gave a case in which Messrs. Dicksons and Laings, Hawick, only got £11,000 on a mill being burned down which was insured at £14,000. When ships were lost at sea, the total sum for which they were insured was paid, and the same principle should apply to mills destroyed by fire. Mr. J. T. Laing having spoken to the same effect, the Secretary was instructed to make a representation in the proper quarter, for the purpose of having the matter rectified.

Paisley.

The firm of Messrs. J. and P. Coats (Limited), Ferguslie Thread Works, Paisley, which we recently announced would probably be converted into a limited company, has been incorporated with a share capital of £3,750,000, besides Four-and-a-Half per cent. Debenture stock for £2,000,000. The share capital is divided into 200,000 Six per Cent. Preference shares (cumulative) of £10 each, and 175,000 Ordinary £10 shares. One-third of each class of security, being the largest proportion allowed by the rules of the London Stock Exchange, will be taken by the vendors in part payment of the purchase consideration. The Debenture stock will be secured by mortgage in favour of the trustees for the Debenture stockholders, viz.—the Debenture Corporation (Limited). The Debenture stock will be issued as perpetual stock, but the company reserves the right to pay off the whole issue at £110 per cent. at any time after January 1, 1901, and to pay off any part of the issue at any time after the same date at the same rate by drawings. The Preference shares will be entitled, from and after January 1, 1891, to a cumulative dividend of 6 per cent. per annum, but until December 31, 1890, both Preference and Ordinary shares will only be entitled to interest at 5 per cent. per annum, payable out of the profits and calculated from the dates of allotment and of the payments of the instalments, but from and after January 1, 1891, they will rank for dividend in the usual way. It is stated that none of the capital offered has been underwritten or guaranteed, but all is offered unreservedly to the public. The company has been formed for the purpose of acquiring the cotton thread business of Messrs. J. and P. Coats, at Paisley in Scotland, at Fawtucket, Rhode Island, in the United States of America, and elsewhere, as a going

concern. The business was originally founded at Paisley in 1830, and in America in 1842, and was carried on as a private firm till 1884, when it was converted into a private unlimited company, the whole of the shares belonging to the Messrs. Coats.

IRELAND.

Belfast.

On Sunday, at midnight, Sir John Preston, J.P. for many years one of the leading merchants of Belfast, died at his residence Dunmore, Belfast. He was for a lengthened period head of the well-known linen house of Messrs. John Preston and Sons. He was 74 years of age, was Mayor of Belfast in 1877 and 1878, and in the latter year was knighted by the Lord-Lieutenant of Ireland. He was a member of all the leading boards in the city, and a very prominent citizen in political, social, and religious questions. He had been ailing a considerable time.

Technical Education.

THE RESULTS OF THE CITY AND GUILDS EXAMINATIONS.

(Continued from page 76.)

The additional following results of the recent examinations held by the City and Guilds of London Institute for the promotion of technical education are to hand:—

BELFAST.

Belfast Technical School pass list:—

Flax Culture and Flax Spinning.—(Teacher, Mr. Geo. R. Bogley.) Honours Grade, 1st Class: D. R. Moffatt (1st prize); Henry Hamilton (2nd prize), Alfred E. Adams and R. McCann. Ordinary Grade, 1st Class: S. J. Heaney (1st prize); C. B. McNeill (2nd prize); J. M. Cochrane (3rd prize); J. Donaghy (3rd prize); John Taylor and James Wilson. Ditto, 2nd Class: Thomas Fietcher and J. Rice.

Linen Weaving.—(Teacher, Mr. G. R. Bogley.) Honours Grade, 1st Class: R. J. McKeown. Ditto, 2nd Class: Joseph Skillen. Ordinary Grade, 1st Class: E. T. Addy (1st prize); A. S. Cleaver (2nd prize); A. S. Robertson (3rd prize); Hugh Brown, Thos. E. Culbert, William Ferguson, R. Forbes, A. H. McBride, B. Nelson, and W. E. Pedlow. Ditto, 2nd Class: A. Bunting, W. H. Collins, F. M. Hamilton, Robert Hall, John Hetherington, Edward A. Jeffers, Hugh Liggitt, J. E. Pim, D. Patterson, T. Somerset, and A. T. Watson.

Dyeing.—(Teacher, Mr. John Stalker.) Ordinary Grade, 2nd Class: George Beck, James McCullough, and R. C. Ross.

Blanching.—Ordinary Grade, 1st Class: T. B. Anderson and Anthony Cowdy. Ditto, 2nd Class: J. S. Curry.

GUISELEY.

Weaving and Designing examination results:— Ordinary Grade: George H. Brook (first class); Fred Hobson, John A. Rhodes, and Egbert S. Slater (second class). Honours Grade: Jesse Barret and John F. Jackson (second class). Teacher, Mr. Joseph L. Jackson.

HUDDERSFIELD.

Results in cloth weaving amongst the students of the Huddersfield Technical School:—

HONOURS GRADE.

1st Class.

Benjamin Armitage, 1st prize, £3 and silver medal
Roy Brier Thos. Senior
Frank Rowbottom Aaron W. Sykes

2nd Class.

Jas. Blamires Henry Kaye
Eli S. Bray Geo. F. Lockwood
Julian Buckler Alexander Milnes
Beaumont Crowther Fredk. L. Moorhouse
Hedley Dalton Henry Pontefract
Fred Dyson Ernest Rhodes
John Dyson John E. Riley
Albert Goldthorpe John W. Tate
Abel Jackson

ORDINARY GRADE.

1st Class.

John E. Lodge, 1st prize, £2 and silver medal.
Rowland Mitchell, 2nd prize, £3 and bronze medal.
Harry Mellor, 3rd prize, £1 and bronze medal.
William H. Barden Edw. C. Lockwood
Hiram Barrow Robert M. Metcalfe
James Battys Beaumont Morton
Pearson Blackburn Fred Netherwood
Herbert Bottomley Thos. H. Oldfield
Allen Brook Chas. T. Pendle

Fred N. Crabtree
Thos. A. Cuthbert
Richard Douglas
Herbert Halstead
Edgar Hobson
Arthur Kaye

2nd Class.

Jas. H. Ardron
Hbt. Armitage (Delph)
Wm. Barnicot
Edgar Bentley
Jas. A. Broadbent
Dean Brook
James W. Brook
Willie Brooke (Crosland Moor)
Newton Butterworth
Hinchliffe Crawshaw
Geo. Dearnley
Alfred Dyson
Edgar W. Dyson
John Earnshaw
Joe Hampshire
Sam Hardcastle
Robert W. Harries
Herbert Healey
Edgar S. Hill
Jas. A. Holroyd
Squire Jackson
Jno. W. Lister
Titus Lockwood

Joe P. Pontefract
Thos. L. Ramsden
Fred Stephenson
Ernest A. Sykes
Harold Sykes
Lister Sykes

John A. Mellor
Henry Mercer
Ernest Moseley
Ned Peel
Frank A. Prentiss
Fred Quarby
Frank Rhodes
Ernest Robinson
W. E. Royston
Tom Schofield
Geo. E. Scholes
Fred Shaw
Geo. Shaw
Tom H. Singleton
Frederick W. Sykes
Norman Sykes
Arthur Taylor
Geo. Robert Taylor
Jas. Wm. Taylor
Harry Thornton
Geo. Walker
Hugh Walker
Fred Whiteley

MOSSLEY.

Mr. J. Waterhouse, secretary of Mossley Mechanics' Institution, reports the following as the result in Cotton Spinning:—Honours 2nd class: Robert Slater; Ordinary 1st class: Giles Andrew, William Buckley, and Edwin Dukinfield; Ordinary 2nd class: Herbert Leach, John T. Good, William Lawton, and Walter Thomasson. (Teacher, Mr. W. I. Hannan.)

OSSETT.

Results of examinations in Wool and Worsted Weaving:—First Class Honours: A. Scott (last year's medallist and money prize-man). First Class Ordinary: F. Pickles and J. W. Dewa. Second Class Ordinary: N. Danner and H. Fothergill. Teacher, Mr. J. W. Wilby.

PRESTON.

Results of the examinations of the Harris Institute Classes:—

Cotton Spinning: Harry Bourne has been awarded the Clothworkers' Company prize of £2 and the City and Guilds of London bronze medal 2nd prize open to United Kingdom; 1st class honours: John Ridley; Honours, 2nd class: James Baxendale, Thos. F. Welch, Thomas Barton. Ordinary 1st class: Robert Nightingale, William Pearson; Ordinary 2nd: M. Deasey, R. Mills, T. Halsall, J. W. Stirrup, B. Welch, T. E. Crosswaite, H. Almond, Z. Mawdsley, C. R. Garstang. (Teacher, Mr. W. I. Hannan.)

Cotton Weaving: Honours 1st class: J. B. Garner, James Turner; Honours 2nd: J. Yates, W. Mellor, Z. Mawdsley; ordinary 1st: T. Johnson, H. H. Pilkington, W. Southworth, T. Mitchell, J. E. Adamson, S. Ratcliffe, S. Bamber, J. Nelson; Ordinary 2nd: J. Rogerson, J. Gildert, J. Lever, J. W. Kenyon, E. Woods, T. W. Whalley, T. Nelson, C. Taylor, J. Langton, J. Crewe, J. Adamson, A. Ogden, W. Gregory, W. H. Raynor, T. Blackwall, S. Blinkhorn, M. Sutton, B. Cottam, C. R. Garstang, T. C. Duckworth.

RIPPODEN.

Results in the Ripponden Cotton Spinning Class: First Class Honours: Joe Lawton; Second Class Honours: Andrew Greenwood; First Class Ordinary: Harry Bottomley, Harry Crawshaw, Wright Moores, C. Wadsworth, Whiteley Webster, Wm. Sbow, and Ernest Lawton. Second Class Ordinary: J. B. Walker, Joe Foster, and Friend Foster.

This is the first year a class has been held here. The teacher is Mr. John Bewick, Junr., Sowerby Bridge, and the class is in connection with the Working Men's Club and Institute.

(To be continued.)

THE death has occurred at Vienna of Herr Leopold Abeles, head of the Vienna firm of Leopold Abeles and Sons, joint proprietor of the cotton factories at Erlau, in Lower Austria, and Rothmolets, in Bohemia. His factories furnish employment to 4,000 persons.

The cotton spinners of Japan are likely to increase their number of spindles from 152,000 to 545,000. Great activity prevails in these factories. Sixteen out of the twenty-six which were in operation last autumn were working continuously with the aid of the electric light, and two sets of operatives. Others worked for 23 hours per diem, and only a few of the smaller establishments for 10 or 12 hours.—*Roman's Journal.*

Miscellaneous.

THE WOOLLEN EXPORT TRADE: ITS PAST, PRESENT, AND FUTURE.*

By W. W. WHITEHEAD.

It is impossible, in the limits of a short paper, to do more than touch the outskirts of such a subject as the export woollen trade, and I shall have to deal with the three divisions, past, present, and future, in a very brief manner. The field is so vast and the matter so varied, that I am afraid it would require much more time than is allotted to me, to go into the subject so fully as I could have wished.

The export trade in its past aspect I only propose to touch upon in such a manner as to lead up to the present, and for this purpose I do not propose to go back farther than to the two or three years preceding 1870.

In 1866 the whole world was open to our goods, as, in spite of high hostile tariffs, and the absence of commercial treaties, English woollens were amongst the necessities of life.

Foreign competition was only a question of hearsay. We never felt its effects. The South American markets, China, and Japan, were comparatively unknown. It is true that even in those days a large business was done with China, but the country was surrounded by trade restrictions, want of means of conveyance, and other difficulties, which placed what trade was done in very few hands, and in comparison with the present the whole business was relatively small, though probably very profitable.

The South American Republics were infants in their demands as compared to their wants in these days. The Suez Canal was not open, telegrams to Transatlantic or Transpacific ports were unknown, and navigation was a very tedious matter as it appears to us now. Manufacturing was also a very different affair—the fancy age had not come in. Worsted coatings had not even been thought of. Yeadon and Guiseley produced the Tweeds and thin Meltons which were shipped to France, Germany, and other European countries, as well as to Transatlantic markets. The presidents, naps, velvets, and pilots of Batley and Dewsbury were shipped to all parts of the world. Even Germany itself could take nearly the whole production of this district. The union cloths of Morley found a ready sale everywhere. The beavers of Ossett and Leeds were sold as fast as they could be produced, and the looms of the ever historic Pudsey were producing Meltons to clothe the peasant girls of France and Italy. Austria and Germany were two of our principal customers, and the quantity of goods they took was fabulous. The United States gave us an open market, and, in fact, we had only to produce goods to find ready buyers.

Manufacturing in Germany was in a very crude state, and they looked to us for their supplies. Profits were then good, and the fortunes we hear of were built up then rather than in these latter years. Coming down to 1870, when the map of Europe was once more made or redrawn, we found the makers of France and Germany, as many as there were, completely paralysed, and to a great extent the whole world looked to England for its supplies.

In the years following 1870 our production became enormous, the small maker with 20 looms increased them to 40, and the man with 200 almost doubled his quantity. It seemed as if the production could never overtake the demand. Goods were sold before they were made at a great increase of price, and happy was the man who possessed some stock. But in the meantime neither the Germans nor the French were idle. Mills were built and fitted with the most improved machinery known to date, and gradually the reaction came, and so far as these two countries were concerned, the demand for our goods diminished.

* A paper read before the Textile Society of the Yorkshire College, Leeds.

Then came the dark years from 1876 to 1880, when the production overtook the demand, and even surpassed it, and the profits made previously, slowly but surely vanished. The fearful cost of the Franco-German War made both nations look all ways for revenue, and the burdens of the people had to be levied in other ways than by direct taxation.

Then came, in 1878, the almost prohibitive duties levied by the Germans, and instead of an *ad valorem* duty of 5 per cent., we had a specific duty amounting to nearly 75 per cent. of the value.

One great outlet was thus closed, and the effect was felt most severely in Batley and Yeadon districts, in the latter especially. Even worse followed, for France, in 1880, departed from her almost free trade, and placed a very heavy duty upon almost every article she imported.

Austria rearranged her duties, of course, against this country; other nations also revised, or as they were pleased to call it, *equalized* their duties. Russia even made her tariffs prohibitory, but this was of less importance, as so many of her merchants had a convenient way of not paying for what they got, so their lost trade was no great loss.

For a long series of years we had pretty nearly our own way, and, it is safe to say, we were the manufacturers for the world. It was from, say, 1874 we began to find the pinch of the shoe, and what with tariffs and foreign competition, and as I think a want of enterprise amongst our makers, and a disinclination to go with the times, we found ourselves in these last ten years the subjects of a competition which waxed fierce, and made it very difficult for us to hold our own, even in neutral countries, where we met the foreigner with his intelligence and taste in the putting together of colourings, and the general appearance of woollen goods.

You will understand, of course, I am speaking generally, and not forgetting the exceptions which there were to the rule, and I would mention especially the makers of Yeadon and Guiseley, who were constantly producing novelties.

The worst combing business was introduced, and in this we can safely hold our own against all comers.

Silk, seals, plushes, were all an exception, and as you know these were a fabulous success.

This want of taste, how to understand the combining of colours, these defects are rapidly being remedied, thanks to your predecessors in this College, and I look forward to the time when you, the members of this Textile Society, will do your share to remedy the defects, which, from want of education, the use of ancient machinery, and still more ancient modes of doing business, were characteristic of the bulk of the goods then manufactured.

From this much too rapid glance at the export trade in its past aspects, we turn to the trade as it presents itself in these days.

I do not wish to trouble you with many figures, but I think it will be useful to us now to give you a few statistics, for which I am indebted to the *Leeds Mercury*, the proprietors of which placed their rule books and all other sources of information at my disposal.

In the following figures I give only round numbers, and I find we exported in—

1853. . .	27 million yards,	3 million pounds.
1860. . .	24 million yards,	3 million pounds.
1870. . .	32½ million yards,	4½ million pounds.
1880. . .	50 million yards,	6½ million pounds.
1889. . .	69,187,000 yards,	6 million pounds.

Although in 1889 we exported about 19,000,000 yards more than in 1880, yet the value was three-quarter million pounds less. This can be probably accounted for in many ways. It seems to me, however, that apart from the cheapening of raw material, and the increased knowledge of putting it together better, the probability is that we exported more of the lower grades of goods, and, of course, the less profitable.

The number of workpeople employed in woollen factories were in—

1870	125,180
1885	159,316

Notwithstanding this increase in our exports, the competition with the foreign makers has become stronger than ever, and we are now probably only just holding our own. I will just take a rapid glance through our principal customers, beginning near home with France, where we find the trade very difficult to do. The largest trade is done in low goods, heavily taxed. Our principal exports from this district are Meltons, Huron cloths, and the productions of Batley and Dewsbury, and to a smaller extent the coatings of Huddersfield.

The Roubaix makers commenced the manufacturing of Meltons, but the States trade opening out they went back to their specialities, hence the reason of our large exports again to this neighbouring country.

BELGIUM, a brave little country, with her 10 per cent. *ad valorem* duty, and counting a very good customer for this district; but here we find the makers of Courtrai and Verviers running us very close.

HOLLAND, also a good customer, with her 5 per cent. *ad valorem* duty; but with a population of only 4,000,000, she cannot be expected to be a large customer. Holland and Belgium are the only two countries in Europe which treat us fairly in the matter of duties.

GERMANY, with the iron ring of protection around her, takes only fine goods, with the exception of a few Hamburg houses, who push the North European trade. Her makers, with their exquisite taste, run us close everywhere, and how they study the taste of each particular market is a matter of notoriety. I met the principal of one of the largest Berlin makers, who shewed me, when in Amsterdam, his collection of patterns made specially for the Dutch market, nice quiet designs and colourings. He invited me to call upon him in Brussels, and there shewed me quite another range of patterns, suitable for lively Belgium. This shews what hard-headed intelligent competition we have to meet. There is no doubt that if the Germans worked the same hours as our people do, and were paid as well, much of the superiority of the German goods would vanish so far as regards cheapness.

I now come to Austria, formerly a large consumer, but in consequence of the efficient competition of the Brünn makers rapidly becoming a diminishing quantity.

ITALY, still a fairly good customer, but already becoming a manufacturing nation, and only a short time ago I saw coatings from Biella in one of the largest clothing houses in Leeds.

RUSSIA is almost nil as far as woollens are concerned.

SWITZERLAND, a good little customer still, but, of course, her wants are limited.

TURKEY is a good customer and would be a very much larger consumer, were it not for her shady ideas of commercial morality: a good buyer, but a poor payer.

You will naturally say, where then do all our exports go? My answer must be to India, China, Japan, United States, Canada, Australia, and to those countries of our own flesh and blood. These are the markets to which, if you only look at the Board of Trade returns, you will find the bulk of our exports go, and these markets must, in course of nature, become much larger.

(To be continued.)

THE CHINA-CLAY UNION.

(From the *Financial News*.)

After more than usually prolonged pangs of partition, and at least one premature alarm, the China-Clay Union has at last been brought forth. It remains to be seen what amount of vitality there is in this precious product of ingenious promotion, and what sort of a reception it will meet with at the hands of the investing public. It seems to us, however, that the investing public will be like clay—even like china-clay—in the hands of the promoting potter if they are rash enough to take the £520,000 of shares which are now offered for subscription out of a total share and debenture capital of £1,300,000. So far as we can discover the position of the syndicate responsible for the company is not a whit better than when the

enterprise was first announced, with a great flourish of trumpets, in April last, only, however, to be precipitately and immediately withdrawn directly afterwards. The big firms which stood aloof then are standing aloof now. According to the notice advertised three or four months ago, the vendors stipulated that one-third of the purchase-money was to be paid in cash and two-thirds in shares; and practically the same arrangement obtains in the new, or, more correctly speaking, the revived, scheme. The Union, which is ostensibly formed to consolidate the trade in china-clay in the counties of Cornwall and Devon, still comprises a number of very small and unprofitable concerns, and, unless we are very much mistaken, the total output which it will be able to control does not exceed 100,000 tons per annum out of a total, as estimated in the prospectus, of 450,000 tons.

The only sufficient ground for the establishment of such a Union, and the only condition that would tempt prudent people to put their money into it, would be its comprehensiveness. A "corner" in china-clay might be a profitable venture enough if the monopoly of the trade could be absolutely secured. But we look through the schedule of the Union in vain to find the names of some of the very largest producers in Cornwall. Where, for instance, are the Messrs. Martin, who own extensive works at St. Austell, Lee Moor, Treviscoe, Gombarrow, and Virginia, besides other sets, and whose output is probably not less than 70,000 tons a year? Where, again, is the West of England China-clay Company, whose sets in one parish alone cover 6,000 acres; who have, in addition, large works at St. Austell, St. Mewan, St. Denis, and Roche, and who employ 600 hands out of the 2,000 or 3,000 engaged in the various clay works in the two counties? Their output, with that of another large firm which is standing outside the ring, amounts to about 150,000 tons a year, and this, added to Messrs. Martin's, gives a total of at least 220,000, or one-half of the entire production of the two counties. A good deal of space is devoted in the prospectus to Government returns shewing the growth of the trade in china-clay and china-stone in Devon and Cornwall. No doubt there has been a considerable growth. The twelve years from 1876 to 1888 shew an increase from 139,775 tons to 412,000 tons; but when the directors of the company, taking this fact as a basis, go on to say that, "judging from the rate of progress for the last ten years, it is very probable that within the next ten years the annual production from the properties of the Union will be 1,000,000 tons per annum," they indulge in a purely fanciful calculation, the absurdity of which must be obvious to the most superficial observer. Supposing that the same remarkable ratio of increase were maintained—which is wildly improbable—it would only result in a production of 600,000 tons per annum from the properties of the Union, even if we allow that they are now producing 200,000 tons.

For the purpose of estimating dividend, however, the prospects of ten years hence are altogether too remote. The directors feel this; but they have, nevertheless, made a sufficiently bold assumption. They say that the works acquired have an estimated productive "capacity" of 300,000 tons per annum, and that an average of 8s. per ton profit can be made, giving an annual profit of £120,000. Do they really mean to assert that the forty-eight works which they have secured, many of which are insignificant and obscure, and some of which are barely remunerative, are turning out at the present time, or have ever turned out, 300,000 tons a year? If they are, then the total production of the two counties must be vastly in excess of the latest Government return; if they are not, then the estimate is deliberately misleading, and is only calculated to raise expectations in the minds of shareholders which are utterly impossible of fulfilment. The profit of 8s. per ton, too, is altogether extravagant. The cost of production is put down at 13s. 9d. a ton, and the average "selling quotation" at 21s. 9d.; but can the Union find a market at the prices they name? Can they guarantee an average of 21s. 9d. a ton for the whole of their clay, no matter whether it is 60,000 or 100,000 or 200,000 tons a year? How much best clay are they capable of turning out? What about the competition of the outside firms who have refused to be swept into the syndicate's net, and who represent over one-half of the entire trade of the two counties? Is that a matter to be ignored? It would be to their interest, of course, to supply the market on the most reasonable terms, whereas the Union, having to struggle to pay dividends on an enormous capital, would have to command high prices. What would be the natural result of such a position? The promised 13 per cent. dividend on the Ordinary shares is based upon two highly problematical conditions—a minimum production of 300,000 tons a year and an average profit of 8s. per ton. It is

sheer nonsense. "Highly problematical" is altogether too favourable and considerate a term.

The purchase money and promotion charges are artfully lumped together, and they come to the respectable total of £1,230,000—namely, £440,000 in cash, £500,000 in debentures, £200,000 in founders' shares, and £260,000 in Preferential and Ordinary shares. The capital, including the debentures, is £1,300,000, of which the public are asked to subscribe for £520,000 in Preference and Ordinary shares. There is, therefore, a first charge of £25,000 to go to the vendors in the shape of interest on debentures. They get £440,000 in cash, and then have a lion on the properties to the tune of a half a million more! In this connection it is important to observe that not a single valuation is given, nor are any particulars furnished of the amount of business done by the various firms acquired, or what is to be paid for them. We are informed, on what we believe to be good authority, that the sum to be paid in cash would in several cases more than cover the value of the properties brought into the "ring." Some of the smaller owners, it is said, have obtained for their sets prices greatly in excess of the real market value; and possibly this is one reason why the directors omit to give any details, but prefer to lump up costs of goodwill, stocks, law charges, registration fees, advertising costs, underwriting fees, brokerage, etc., etc., in one delightfully comprehensive total. The public will be more than usually rash if they put their money into an undertaking respecting which so little is known, and the future prospects of which are based on such miserably insufficient data. We have it on the authority of a local newspaper that of the 48 properties enumerated in the schedule only one can be said to be producing best clay, that "some of the works are almost entirely unknown to the china-clay market, and the bulk of the others produce common clays, with just a few exceptions, where second qualities are produced at, probably, a small profit." Yet for these inferior concerns, the aggregate output of which probably does not exceed 100,000 tons a year, the promoters have the conscience to ask no less than £1,220,000. A more audacious application has not been made to investors for a very long time, and if they are foolish enough to respond to it they will deserve the loss which must inevitably befall them.

MESSRS. J. AND P. COATS, "LIMITED."

The famous Paisley thread-manufacturing concern of Messrs. J. and P. Coats is the latest of the private firms which have recently converted themselves into joint-stock limited liability companies. The change suggests many interesting associations, and calls up some curious, old-world memories. Tourists, for the Highlands bound, who journey by rail from Glasgow to the Firth of Clyde, cannot fail to notice the magnificent pile of buildings at the west end of the busy town of Paisley, which constitute the celebrated Ferguslie thread works. They resemble the noted Salsaire Works in more than one respect. Although established and carried on by private enterprise, they are in a very real sense an important public institution. The 6,000 work-people who find employment there form a very material element in the population of the Scotch manufacturing town which gave to the world such men as the poets Motherwell and Tannahill, such warriors as Lord Clyde and Sir John Moore, and that most genial of litterateurs—"Christopher North." When the fashion of wearing Paisley shawls went out, that famous place of weavers must have sunk to the position of Totnes and other decayed old West of England towns that once flourished by the manufacture of broadcloth, if the Coats family had not pushed the thread manufacture into the place left vacant by the many-coloured shawls, and developed an industry which had been originally introduced into the district by that extraordinary girl, Christian Shaw, of Bargarran, whose denunciation of so-called witches led to the burning of seven poor wretches at Paisley in the year 1699. Happily for the district, the ingenuity of the Bargarran yeoman farmer's "wee lassie" took other forms besides the simulation of diabolical possession, and the imagining of strange visions in the night. There seems to be no reason for doubting that she really invented an improved method of spinning thread, the secret of which was for more than a century a small mine of money to its possessors. Her implements must have been of the simplest kind. It is recorded that she bleached her first spool of thread by exposing it on a piece of slate on one of the window-sills of her father's farmhouse. The excellence of her manufacture was first brought into public notice by Lady Blantyre—whose park gates adjoined Bar-

garran, on the occasion of the lady taking a packet of the thread with her on a visit to Bath. Lovers of poetic justice will prefer to believe that the happy life which Christian Shaw afterwards spent as the wife of a prosperous gentleman was the reward of the discovery by which she benefited a whole district, rather than a proof of the meritoriousness of her "witch-finding," though it is only fair to note that, according to many authorities, the girl imposed on herself, and really believed her extraordinary tales, as much as she imposed upon others. Anyhow, her story is a very remarkable one to be associated, as it undoubtedly is, with the very latest development of manufacturing enterprise. But it has a notable sequel as well. Mr. Andrew Carnegie must have derived the idea of his "Gospel of Wealth" from the Ferguslie Thread Works. For the wealth made there has flown all round, in, and through the good town founded by St. Mirrin. Not to speak of the fine school and beautiful recreation grounds maintained in connection with the works, Paisley owes its handsome new town hall and the splendid art gallery and museum which the Queen opened a few years ago, to the munificence of the late Sir Peter Coats, and the same liberal hand supplied the money for the erection of two new Churches in the stateliest style of Gothic architecture. These are some of the results of industry directed by individual enterprise, upon the basis supplied by the Bargarran "lassie's" ingenuity two hundred years ago. Would they have come into existence if the gold that Paisley spins out of its thread had always been manipulated by a joint-stock limited liability company? That is a serious question for Paisley, and some other places as well.—*Manchester Examiner.*

ROCHDALE AND THE LATE MR. BRIGHT.

On Saturday afternoon a meeting of the work-people of Messrs. John Bright and Brothers, Rochdale, was held in the Town Hall of that place, for the purpose of presenting to the Mayor and Corporation a marble bust of the late Mr. John Bright, who was the head of the firm. It was intended that the bust, which has been executed by Mr. Bruce Joy, should be placed in the Town Hall, and about 2,000 of the work-people were present to witness the ceremony. Unfortunately, however, the bust, through some accident or negligence on the railway, miscarried, and in spite of inquiries by telegraph could not be recovered in time for the ceremony. It was, however, decided to hold a meeting in spite of the absence of the bust, and the Mayor of Rochdale presided, being supported by the Marquis of Ripon, Mr. J. A. Bright, M.P., and other gentlemen.

The Marquis of Ripon, who delivered an address, said the fact that the bust was to be presented to the town by the work-people of the firm, added to the interest of the gathering. It was an evidence of the just, legitimate, and honourable pride which they felt in the political work and in the fame of the employer with whom they had been associated. Public men might be divided into those who initiated great movements of reform, and those who, as it were, afterwards set their seal upon them at the last. There was no doubt to which of those classes Mr. Bright belonged. He was one of the pioneers of righteous causes, and he was prepared to fight whatever odds might be brought to bear against any cause that he believed to be right and just. Those who only knew the later years of his life might be apt to forget the stiff contests and the fierce battles that he had to fight in earlier days, when he and Mr. Cobden went forth to destroy the Corn Laws. They were met with a storm of insult and invective, they had to fight most powerful classes and great interests. They fought unhesitatingly and unflinchingly, and won their battle. Mr. Bright had also fought the battle of education, and of the extension of the franchise, and among many other noble causes, that of peace. He himself had not always agreed with Mr. Bright's views on, for instance, the Crimean War, but he felt that all would recognise how great had been Mr. Bright's influence in that enormous modification of public opinion on the question which had taken place. His force of character, his constraining eloquence, his powerful logic, his earnestness of purpose—these things were the great instruments which equipped him for the accomplishment of the tasks in which he engaged; but even above these qualities he himself was inclined to place his honesty of purpose and his simplicity of life. He believed the statement recently made—that politicians generally regarded politics as a game—to be a most unjust calumny upon public men, and, although there might be in the democracy of England, as there had been in the Courts of

absolute monarchs, men who looked upon politics as a personal game, there had always been signal examples that it was not those men who secured the confidence of the English people. If ever there was a man whose whole life was a continued protest against that calumny it was John Bright, and he himself never had a colleague who was less self-seeking, more loyal, more helpful, and more utterly free from any desire for his own advancement to the detriment of his associates. It was by his sterling moral qualities, even more than by the magic of his eloquence or the force of his reasoning, that he obtained so strong a hold upon the hearts of his countrymen, and had left behind him so brilliant an example for the instruction and imitation of generations to come. (Cheers.)

The Mayor of Rochdale formally accepted the bust on behalf of the town.

Mr. J. A. BARNET, M.P., referred to his father's interest in Lord Ripon's work in India, and said the family of Mr. Bright were deeply touched by the memorial which the work-people of the town were raising.

A letter of apology was read from Mr. C. P. Villiers, M.P., regretting that the state of his health prevented his attendance. The bust has since been placed in the Town Hall.

THE MERCHANDISE MARKS ACT.

REPORT OF THE SELECT COMMITTEE.

The Select Committee on Merchandise Marks met last week to consider their report, Baron Henry de Worms, chairman, presiding. The draft report submitted by the chairman states that as a result of the careful examination of witnesses there seems to be a consensus of opinion that the Merchandise Marks Act of 1887 has generally been most beneficial to the manufacturing interests of the country, and has greatly diminished the importation of fraudulently marked goods or of goods bearing a false indication of origin. The Committee also find that the Act has been administered without unnecessary harshness. They cannot recommend the abolition of the examination of goods in transit, as they are of opinion that such abolition would facilitate the importation into this country for transhipment to America and elsewhere of large quantities of goods bearing false indications of origin, or otherwise falsely marked, to the great detriment of the British manufacturers and workmen. Since the Act came into force, it is added, there has been no great diminution in the importation of foreign-manufactured goods, but the diminution, such as it has been, is attributable, the Committee think, to the dock strike and the subsidies given by foreign Powers to their mercantile marine. The Committee, further, cannot recommend the substitution of the words "made abroad" for the actual indication of the country, as this would nullify the principles of the Conferences at Rome and Madrid. The Committee are also unable to recommend the compulsory marking of all goods with the indication of origin. To do so would, in their opinion, seriously restrict trade and virtually destroy the business of warehousemen, commission agents, and small masters. The eighth clause of the report says: "The evidence given before your Committee has, in their opinion, conclusively proved that goods, notably articles of consumption, come into this country in large quantities in an adulterated form, but cannot, according to the evidence given by the Customs authorities, be detained under section 3 (d) of the Merchandise Marks Act, because in most instances they bear no trade description. A considerable amount of rum is imported into this country from Germany, composed mainly of potato spirit flavoured with rum. The Customs are well aware of this, but are unable to detain the goods because neither the casks nor the bottles in which it is sent bear the word 'rum.' They therefore propose that the Act should be amended by making the Customs entry, which must bear a description of the goods imported, a 'trade description' within the meaning of the Act. This would, in the opinion of the Committee, enable the Customs to detain goods the trade description of which is false as to the material of which they are composed." Finally, the Committee recommend that power be given to the solicitor to the Board of Trade or the Customs to prosecute in cases "affecting the general interests of the country." On the motion of Mr. Mundells, a clause was inserted recommending an international conference on the model of the Rome and Madrid meetings to enforce honest marking in all countries. Mr. Howard Vincent submitted a minority report in favour of the compulsory marking of the place of origin, but this was rejected, the Chairman's report being adopted.

The firm of Ubel Brothers, of Neusschkan, is building large premises for spinning and weaving in Adorf.

ACCORDING to Montreal advices, the failure of the attempt to form an English syndicate to buy up and work the Canadian cotton mills has resulted in a serious collapse in the prices of the shares. The *Trade Bulletin* of that city observes that Canada Cotton Mill stock, which some time ago was held at 55, is now offered at 45, and Montreal cotton, which was held at 100, is now offered at 80. Stormont, which sold at 45 has since been offered at 40. The last sale of Hochelaga was at 126, whilst Dundas has been offered at as low as 20. "The opinion is," says the quoted journal, "that many of our cotton magnates thought all the mills in the country were going to be taken over by the English Syndicate at par, wholly independent of their dividend and non-dividend paying records; and now that the syndicate scheme has fallen through, at least for an indefinite period, the stockholders of those mills that never paid a dividend are suffering from quite a spell of nausea."

THE WORLD'S SILK PRODUCTION IN 1889.—The *Bulletin des Soies et des Soieries* contains statistics compiled by the Lyons syndicate of silk merchants respecting the production of silk in the world last year. The figures are, of course, merely approximate, for the results of the harvest in the interior of China, Japan, India, Persia, and the Caucasus cannot be absolutely estimated. If it were possible to get the exact figures of the production in these comparatively unknown regions, it is not an exaggeration to say that the general silk production of the world would be found to be double what the figures shew it to be now. The syndicate has no interest in securing definite information concerning these remote districts. It is sufficient for commercial purposes to obtain the returns of the European harvests, and those districts of the far East which supply European and American manufacturers. The syndicate estimates the general production of silk in 1889 at 11,706,000 kilos. For the previous four years the figures were as follows:—1888, 11,548,000 kilos.; 1887, 11,888,060 kilos.; 1886, 10,554,000; and 1885, 9,002,000 kilos. The average of the four years, 1885 to 1888, being 10,748,000 kilos, it will be seen that the production of 1889 considerably exceeds the average. This result has been obtained notwithstanding the deficiency in the European harvests, owing to the improvement in the Levant district, notably Syria, and especially in the larger Asiatic arrivals.

Textile Markets.

COTTON.

MANCHESTER, FRIDAY.

The holidays have caused an important interruption to business during the past week. Liverpool suspended its labours on Friday last until Wednesday morning, and practically Manchester did the same thing, as on Tuesday when a start was nominally made the attendance on 'Change was considerably below the average, and with those who were there the subject of conversation was often something other than business. Generally speaking, the Manchester warehouses closed to the full extent, as did many of the industrial establishments in and about the city. In the outside districts the holiday was not so generally taken notice of, the new arrangements in many cases having superseded it. To-day the market is gradually resuming its ordinary appearance.

COTTON.—On Friday last it was very evident that spinners had made all the preparation they thought they needed in the way of buying cotton. Consequently there was a very small demand, and business closed early in order to allow the cotton dealing fraternity an opportunity of making the most of their period of relaxation. On resuming on Wednesday, it was found that in the interval futures at New York had made the substantial advance of 8 points for August and 3 to 5 for other positions. The result was that though there was no great demand in the market, sellers put up futures in most positions 1 to 2 points, and for August 2½. Taking the week together the changes in futures shew an advance of 1 to 2½ points for near positions, and ½ to 1½ for the more distant ones. For spot cottons, during the time the market has been open, there has only been an indifferent demand. Prices have, however, recovered in some degree from the weakness felt when business was suspended. Sellers are accordingly holding for full rates, which, as a rule, are being paid on the business passing. If spinners don't desire to see cotton go higher still during the next few weeks it will be necessary on their part to use up all their reserves and purchase as sparingly as possible, as the stock that is now held for the fulfilment of contracts is in very strong hands. Other varieties than American are practically unchanged.

The following particulars of the business of the week are from the official report issued by the Liverpool Cotton Association:—

	Import.	Forw'ded.	Sales.	Stock.	Actual Exports
American ..	5,970	28,256	16,820	367,920	2,415
Brazilian ..	—	2,026	810	38,820	—
Egyptian ..	1,013	2,800	1,470	42,170	226
W. Indian ..	1,756	231	410	9,680	528
E. Indian ..	6,616	7,125	3,280	254,870	1,910

Total .. 15,355 40,438 22,790 713,460 5,079

The following are the official quotations:—

	G.O.	L.M.	Md.	G.M.M.F.
American ..	6½	6½	6½	6½
				M.F. Fair. G.F.
Pernam ..	6½	6½	6½	6½
Ceara ..	6½	6½	6½	6½
Paraiba ..	6½	6½	6½	6½
Maranham ..	6½	6½	6½	6½

	Fr.	F.F.	G.F.	F.G.F.	Gd.	F.G.	Fine
Egyptian ..	7	7	7	7	7	7	7
Ditto, white ..	7	7	7	7	7	7	7

	Fr.	F.F.	G.F.	F.G.F.	Gd.	F.G.	Fine
M.G. Broach ..	—	—	—	—	58	58	58
Dhollerah ..	4	4½	4½	4½	48	47	50
Oomra ..	4½	4½	4½	4½	44½	51	50
Bengal ..	—	3½	3½	3½	44	44	44
Tinnivelly ..	4½	—	5½	5½	—	—	—

YARNS.—Yarns for all markets have been in comparatively slow request. Manufacturers, finding a slow trade for cloth, have not been disposed to add to yarn contracts at the present level of prices. The conviction is gaining ground that present rates are inflated, and that a period of contraction is within a measurable distance, so those who can adopt a policy of comparative abstinence are very likely to do so. The same may be said of shippers. Hence it is probable that the sales of the week have fallen far below the production, though that has been reduced owing to the annual holidays having occurred in some considerable spinning centres. Prices all round may be called steady.

CLOTH.—The demand for cloth has been of very small dimensions. For India and China it is said that some few lines of fair magnitude have been placed for forward delivery, but this has not been at all general. Prices are firm. Printed cloths have been in limited request, especially the lower kinds, but are very steady in price. The aggregate of the week's transactions in cloth is a very small one.

WOOLLENS AND WORSTEDS.

BRADFORD.

The wool market is quiet. Staplers are not buying much owing to the firmness of country prices, and the low rates here. Mohair is firm, and alpaca has again advanced. In yarns the feeling is one of quietness. Pieces have been chiefly bought for home trade consumption.

HUDDERSFIELD.

There has not been such a brisk movement this week. Manufacturers, in fact, prefer to hold off as long as merchants continue to offer present rates, which are considered insufficient. It is probable that sellers will have the best of it eventually. Low woollens are well contracted for, and machinery is fully employed. Winter orders have not been of such satisfactory extent as was anticipated. The heavy stocks of summer stuffs which have been left over owing to the bad season, create an unpleasant feeling, and hinder the efforts of manufacturers to raise prices.

HALIFAX.

Wools are much firmer, and the demand has strengthened. Although yarns have advanced, the demand both for home and shipment improves. Deep grown staples are the only exception. Piece goods are quiet.

LEEDS.

Although business is slow, manufacturers are in a cheerful mood, and they will probably be pressing for advances shortly. Buyers this week have had the best of it, but this is chiefly owing to the holidays. Merchants had almost the whole of the market to themselves as far as sales were concerned. Often they were able to get their own terms for what was remaining of serges of the lighter sorts, and also for some tweeds and chevots which are now going out of season. The makers of the finer descriptions of worsteds are as sanguine as they have been for a fortnight past that there is a good season before them, and that better rates will be obtainable before long. For the Continent novelties in mantle and costume cloths are in large demand. Flashes move freely.

GLASGOW.

Messrs. Ramsay and Co., in their report dated 5th August, say:—

WOOL.—There is no change to note in the Scotch Wool Market. A moderate business only doing during the past week, without change in prices, which continue firm at current rates. The clip is now coming forward very freely, and new wools are in large supply.

SHEEP SKINS.—The quantities are fully maintained, and prices continue firm. Keen competition was got for several lots of prime quality.

FLAX AND JUTE.

DUNDEE TRADE REPORT.

WEDNESDAY.

The market opens after the holidays flat and rather easier. Jute has fallen quite 10s. a ton on the week, and firsts are done at £13. This of course has tended to depress the market here. Jute yarns were easier to buy, and it is difficult to get more than 1s. 4½d. for 8lb. cop and 1s. 7d. for good 8lb. warps. Jute cloth is also the turn in favour of buyers, but as makers are well engaged there is no great disposition to quote lower prices. Flax is not lower. While there is no great disposition to buy, holders are not now so pressing, and at the low prices now current they prefer to keep their flax rather than take less money. Flax yarns while very cheap are not lower, and indeed bleachers seem wishful to get into stock of them. Tow yarns are still quiet, but there is now a growing feeling that the bottom has been reached. Linens are moving slowly, and there is eager competition, especially for home trade orders. Fifeshire continues exceptionally busy. Arbroath looms are all engaged, and the trade of that district is hopeful. There has been a large trade done in reaping twines this year, and Dundee continues very busy in this important new branch of the jute trade.

MANCHESTER.

Trade is very dull and prices are extremely low. Buyers here appear of late to have been very shy indeed. If they are holding off in the anticipation that they can purchase on better terms than those now offered, the probabilities are that they will find themselves mistaken, as current rates are as low as can be accepted, and the tendency now is an upward one. Downlases have been spoken of as being in better demand here, but it is difficult to trace any improvement in affairs, which have been dull for some time.

HOSIERY AND LACE.

NOTTINGHAM.

Supplies of lace goods are, unfortunately, still exceedingly large, and this circumstance, coupled with the fact that the demand is wretchedly poor, causes affairs to be in a very unsatisfactory condition. There is practically nothing to add to our previous report. Silk Chantillies and Guipures move slowly. In Swiss embroidery trimmings a few new styles have sold fairly well. Lace curtains still sell freely. In hosiery the fast laces continue popular.

LEICESTER.

There is a healthier feeling in the wool market, purchases being more numerous. Spinners, however, are not badly off for stocks, but where inducements are offered they buy freely, as the firmness of prices has alarmed many,—24s. to 25s. per tod for good half hog and new descriptions. The yarn market improves rather slowly, but with a firmer tendency in quotations a more regular and healthy business is being transacted. Spinners are demanding higher rates for new contracts, the margin of profit being unduly small. Lambs-wool yarns sell more freely at firm prices, while cashmere yarns are not nearly so depressed. The hosiery trade revives gradually, and large orders are being placed for underclothing in natural wool.

SILK.

LONDON.

THURSDAY.—London Produce Clearing House quotations of best 4½ Tatiles: August 13s. 1d., September 13s. 2d.; 5½ Tatiles: August 11s. 3d., September 11s. 10d., October 11s. 11d., November 12s., December, 12s. 1d., January, 12s. 1d., February 12s. 2d., March 12s. 3d. per lb. Sales registered, nil.

DRY GOODS.

MANCHESTER.

Business in the wholesale is quiet, chiefly on account of the broken character of the week arising from the holidays, which seem to be more general

