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MR. SPRINGER'S AMERICAN WOOL BILL.

A copy of Congressman Springer's Wool Bill
appears in our tariff news this week. The
measure is one of the most important brought
forward during recent years, but is not likely to
become law in 1893, as Mr. Springer proposes.
There are plenty, indeed, who will deny that
such a measure can ever be entered upon the
statute books of the United States, and these
persons include even manufacturers themselves
who would be benefited by free wool. Although
all of them would like to see such a proposal
become law, many recognise that in return for
their assistance in supporting the duties on
woollens, the wool growers of the Republic are
entitled to protection on their own products.
If Mr. Springer's Bill should pass, the growers
threaten to destroy the whole fabric of Pro-
tection, or at least some of the leading men
amongst them do. The wool and woollen
schedules must, they say, preserve their present
relations one to the other. There must be no
undue reduction in the one without a similar
reduction in the other. Mr. Springer proposes
to make wool entirely free, and, unless we are
much mistaken, the wool interest will insist on
free woollens if his proposals be pressed. How-
ever, the copy printed elsewhere is an interest-
ing document, which those interested in the
woollen trade will no doubt closely study.

THE LANCASHIRE UNIFORM WEAVING LIST.

This list, which seemed to have been dead
and buried and almost forgotten for a consider-
able time, has been disinterred and revived,
and will, we suppose, in due course be pre-
sented by its sponsors, the members of the Joint
Wages Committee, to the general body of em-
ployers and employed for adoption. The cere-
mony of disinterment took place at the close
of last week at the Mitre Hotel, in Manchester.
There were present, representing the employers,
Messrs. T. Thornber (Burnley), Taylor (Black-
burn), and Wilding (Preston); and the operatives
were represented by Messrs. Birdwistle, Wilkin-
son, Barker, and Park. They had before them
the new list as framed previously by the experts,
Messrs. Rawlinson and Birdwistle, and which
had been formerly partially adopted by the
operatives' representatives. A few of the dis-
puted points were considered, and ultimately
the conference agreed to a list, to be submitted
for confirmation to the associations they repre-
sented. The list agreed upon differs very
little from the list which the experts on both
sides accepted before as uniformly equitable
throughout the district. One rather important
change is that the allowances for throstle twist
are done away with in the new list. This is
obviously a very proper elision, as throstle
twist, on the one hand, has almost entirely dis-
appeared, unless we accept ring frame twist as
a substitute; on the other hand, mule yarn is so
vastly improved in quality since the beginning of
that discrimination that really its maintenance
is no longer justified. The list as revised also
makes large allowances for coarse weft, whilst
the difference between narrow and broad looms
is reduced a trifle. It will be news to the
weavers to know that by the new list wide
cloths are advanced on the Blackburn list, and
there is a slight reduction on the Burnley list.
In narrow cloths there is a reduction on the
Blackburn list, and a rise on the Burnley list,
and, as narrow cloths are made extensively at

Burnley, and broad cloths at Blackburn, the
change will be to the advantage of the weavers,
although no difference would have been made
if the goods were made equally at both places.
This will substantially constitute an advance of
wages to the weavers all round, if adopted. We
should hardly have thought the present a suit-
able time for a move in this direction, though
perhaps a slight sacrifice may be made for the
sake of uniformity. The list as revised and
recommended will give the employers an
opportunity of introducing on equal footing
with others either narrow or broad cloth with-
out being handicapped by each other in either
Blackburn, Burnley, or Preston. Let us hope
that this revision will meet with a more favour-
able reception than the draft previously agreed
upon. In our estimation the operatives were
not wise, even looking at the matter from the
narrow standpoint of their own interests, when
they rejected it on its previous presentation. It
is to their advantage that every possible
restraint, not directly injurious to them as a
body, should be removed from the enterprise of
their employers, whose success means more
employment, higher wages, and greater prosper-
ity for themselves and their families. The
truth of this fact they hardly yet appreciate.

THE RESOURCES OF EGYPT: FLAX AND THE ALOE FIBRE.

What good government will do in Egypt has
been exemplified to some extent since England
assumed sole control. But to get the full
measure of benefit will require that it shall be
continued. Egypt has natural capabilities and
resources, as yet little dreamt of, and it will re-
quire time to reveal and develop them. Why
should not its ancient flax industry be revived?
Egypt could never have got its grand reputation
for the production of fine linens, nor could its
ancient people have left behind them such
beautiful specimens of fabrics in this material,
had it not been able to produce flax. We leave
this point with the mere suggestion. Lieutenant
Colonel Stace, our Consul at Aden, reports upon
something substantially new as an article of
export from the Somali Coast Protectorate, in a
communication to Sir Evelyn Baring at Cairo.
This is the aloe fibre. The plant producing
this article flourishes in vast quantities in
Somali Land, but, says Mr. Stace:—"The
people themselves will do nothing towards
making a trade in the fibre; indeed, they have
not the means to work it profitably, though they
use it extensively themselves for ropes and other
articles. I have a specimen growing here (Aden)
over 7 feet in length, though I admit that this is
exceptional; still I am informed that the wild
plant might be materially improved. I have no
knowledge whatever myself on the subject. But
I have thought that if the existence of the plant
and value of the fibre be made known in England
through the Chambers of Commerce, it is pos-
sible that some persons with experience might
be induced to make the necessary enquiries re-
garding a profitable production of the fibre. In
November last a bale of the fibre was sent to
the Government of Bombay. This was
despatched to England, and the reports have
just been received. I must state here that the
fibre was prepared in the roughest and rudest
manner by ignorant Somalis, yet the price
obtained was, I think, a very fair one, and might
be considerably increased if the fibre were
properly prepared." The report of the Bombay
Company (Limited) on the fibre, sent by the
Government of Bombay, states that it was sold
at the rate of £16 10s. per ton. "Our London
brokers valued the parcel at about the same
price, and it is pretty evident that in larger
quantities this article would meet with a ready
sale." And again, "This fibre compares favour-

ably with the many new types we see from various countries, which are frequently too poor in colour, or too short, brittle, and full of pith. Yours is of good strength, very nice colour and length." The brokers further reported the fibre "all very nice colour, and good strength and clean. . . . This seems a very saleable article if once introduced." The small quantity sent was very much against a better price being obtained, and the sale was by auction of what was really but a sample. It is quite time that attention was directed on a larger scale to the productive capabilities of Egypt and the countries that are its semi-dependencies.

EGYPT'S FUTURE.

Every year renders it less probable that Egypt will pass under the care or guardianship of any other country than England, as our interests will be served and objects fully attained by its becoming a strong and prosperous country; and, backed by our friendship in such a manner as to shew that we shall permit no aggressions upon it from parties who would be disposed to make it the basis of operations inimical to the welfare of this country, it cannot fail to make rapid and peaceful progress. That this opinion is widely entertained is rendered evident by the views expressed by Sir Henry Roscoe the other day. With regard to the British occupation of Egypt, in the course of a lecture upon that country, he incidentally remarked that "he did not think anyone would accuse him of being a Jingo, yet he was dead against evacuating Egypt. While we had been in that country we had vastly improved the irrigation, on which the prosperity of the country so much depended; we had secured that the rich man should not take more than his fair share of the water; we had put the taxation on such a basis that it was not necessary to whip the fellaheen to get him to pay; and we had substituted free paid labour for the iniquities of the *corvée*. The cotton crop was important not only to the poor men who grew it but to the people of Manchester, and statistics which had been published shewed that the crop of cotton had steadily increased since we went there, and that in 1891 it amounted to 4,500,000 cantars." This is all very true, and to it may be added that we have driven off from the country the crowd of vampires that had fastened upon it, and were sucking its very life blood. They are still hovering over and about it, and their dissatisfaction at our presence, and their own desire to swoop down upon it again, are shewn by the intrigues they have originated, and the obstacles they have thrown in the way of every improvement it has been desired to effect. Sir Henry quoted with approval the following words, written by one of the band of Englishmen in the Khedive's service—just men, who are seeking to raise the Egyptian into a state of comfort, civilisation, and independence:—"Nor is Egyptian independence a less vital British interest than Egyptian prosperity. If we can give Egypt a sound, and therefore a stable, government, Great Britain is relieved for the first time from the chronic fear that an unfriendly or rival Power may establish itself on the flank of our greatest commercial highway and bar the direct road to our Empire in the East. And from a yet higher point of view than that of any material interest, will not the help that individual Britons may give towards raising up this down-trodden country entail a rich legacy of moral credit on Great Britain herself? If, indeed, it be our destiny—and present experience encourages us to cherish even so bold a hope—to bestow on this land of secular oppression the gift of orderly, honest, and humane government, to rescue one of the fairest regions of the earth from the canker of corruption, which has

blighted its immemorial fertility, and to endow Egypt, the cradle of civilisation, with the latest fruits of Western enlightenment and progress, there is no task on which our countrymen are engaged in any portion of the world that will more redound to our country's honour or her influence for good with all mankind. Let the work now well begun be but fearlessly finished, and the long and proud record of Briton's services to weaker and more backward races will contain no more striking or more illustrious page." This will yield us not only the satisfaction of having done a generous deed, but will redound to our commercial interest, as the prosperity of both individuals and nations is always enhanced by that of their neighbours.

SILVER AND COTTON.

We have hitherto made it a rule to avoid any reference in these columns to Bimetallism, or the dual standard question in our currency. In apparently stepping aside from this resolution for a moment we do so only to notice a most ingenious and humorous suggestion made by Mr. Frank Reddaway, belting manufacturer, of Manchester, to the Bimetallists, in a communication to a Manchester journal that has distinguished itself for several years past by its advocacy of the claims of silver to a position of honour alongside that of gold. The first part of Mr. Reddaway's letter is as follows:—

It appears to me that those of your correspondents who have persistently thrust forward their theory of bimetalism are missing a favourable opportunity of gaining supporters by not seizing the moment when (owing to the over-production of cotton goods) the manufacturers of Lancashire are unable to obtain a remunerative price, and by not adding to their programme that of a standard value for all cotton goods as against gold—say, for instance, two pieces of 8 lb. shirtings shall be the legal equivalent for £1 sterling! This would be splendid for Lancashire, and place the manufacturers in somewhat the same position as the silver-mine owners in America would be if we adopted the bimetalists' "craze."

Truly, "this would be a splendid thing for Lancashire." Just fancy how the manufacturers of Blackburn would rub their hands with glee if only they could get a State regulation that for every two pieces of 8½ lb. shirting they should be legally entitled to demand a good, full-weight, golden sovereign! As Mr. Reddaway includes all cotton goods, the Burnley men would come in with their "lumps," the Rossendale Valley with domestics, and Oldham with cotton velvets. Of course it would never do to exclude the spinners from such a piece of unparalleled good fortune, so we might anticipate a very considerable rush of claimants from Oldham making attenuated 32's, whilst Mossley 40's would be close behind, the rear being brought up by a crowd of candidates occupying front positions, amongst which would be representatives of the producers of the fine counts of Bolton and the still finer counts of Manchester. In fact, when the legitimate claims of all applicants had been satisfied, we should be happy all round, because there would be no valid reason why every other industry should not have the same privileges, and this would include paper makers, printers, and even newspaper writers. Such a condition would be the advent of the long-expected Millennium. But we are afraid there is no more prospect of this logical extension of the bimetalist claim being realised than of its more limited project. Leaving the banter of his first paragraph, Mr. Reddaway continues:—

In your issue to-day you give a very interesting extract from the *Speaker* on the subject of the fall in silver value, but there is no suggestion as to a remedy for this very serious loss to our people both here and in India, native and European. Let us boldly face it, and end it by declaring a gold standard for India exactly on a par with our home and Australian coinage, with the same limit as to the amount of silver which would be "legal tender," and issue notes in tenths of a pound sterling, to be called "gold rupee notes," which, I

venture to say, would be very quickly adopted by the natives in preference to the ever-changing rupee. The adoption of the gold standard would quickly place India in as sound a financial position as is this island of ours, whose £1 sterling is negotiable in every country—never at a discount, often at a premium—and make her as unconcerned at the continued discovery of unlimited silver in America as we are. Silver would then assume its natural value, which of course would be based on the amount produced.—Yours, &c., Manchester, April 2, 1892. FRANK REDDAWAY.

That Mr Reddaway here points out the only sensible and indeed practicable solution of this matter is our strong opinion, and we think it will be that of an overwhelming number of those who would be affected by the change. The only difficulty we see in the way is as to where the gold shall come from to back the paper issue.

HALIFAX AND THE CROSSLEYS.

Halifax has not always enjoyed a favourable reputation in Yorkshire, as is shewn by the "Thieves' Litany":—

From Hull, Hell, and Halifax,
Good Lord, deliver us.

This most graceless prayer originated because of the existence in the two towns named of the old-fashioned gibbet, which was really a form of guillotine. At the period when these modes of execution prevailed Halifax was not the important manufacturing town it is to-day. With the increase of its industrial standing, the unsavoury reputation of the place faded, and the prayer of the thieves and other wrong doers quoted above has almost been forgotten even in Yorkshire itself. The Crossleys have had a good deal to do with the building up of the town, the founder of the firm of John Crossley and Sons, the largest carpet manufacturers in the world, having done for the district what Sir Titus Salt and Lord Masham have effected in their own neighbourhoods. The original John Crossley was weaving carpets in the old-fashioned handlooms at the age of 16, his first employer being Mr. John Webster, of the Claypits; and his second, Mr. Currie, of Luddendenfoot, the latter gentleman having at the time the largest carpet factory in the county. In 1800, when he had attained the age of 28, Mr. John Crossley entered into partnership with Mr. Job Lees, and on the death of that gentleman the firm of Abbott, Crossley, and Co. was founded. At the end of the first year John Crossley's share of the profits was £70—a sum ridiculously small in comparison with the vast earnings of the present firm, whose paid-up capital is nearly two millions sterling. In 1802 John Crossley went into partnership with his brother Thomas, and Mr. James Travis, the Dean Clough Mill being taken on a 20 years' lease at an annual rental of £250. Shalloons and plain backs, in addition to carpets, were manufactured, and brace webs and body belts were sold to the Irish, who hawked them about the country. £1,400 was drawn out by each partner at the expiration of the lease. Exactly 62 years ago John Crossley purchased Messrs. Abbott's carpet business, which embraced over a score of handlooms. His death took place in 1837, and his three sons, John, Joseph, and Francis, were left in exclusive charge, 300 hands being employed by the concern, which turns out tapestry, velvet, Brussels, Tournay velvet, and Scotch or ingrain carpets, besides rugs, sofa carpets, table covers, and church mats. As far back as 20 years ago, Dean Clough works, which covered 25 acres of land, employed 5,000 persons. The works were visited by the Prince of Wales in 1863, and the next year the Crossley Orphan Home was opened. The building cost £56,000, and was endowed by the Crossleys with £3,000 a year. Halifax charities have been liberally contributed to by the family, which well deserves this reference. But now we are on the subject of Halifax other subjects call for a share of attention.

CHANGES IN THE WOOLLEN TRADE.

At the present time Halifax is preeminent as a carpet manufacturing centre; and it is also noted for its woollen trade. Mr. James Akroyd, a yeoman manufacturer, and the founder of the firm of James Akroyd and Son, Ltd., may be said to have occupied the same position in relation to the manufacture of woollen piece-goods as distinguished from carpets, as that of John Crossley in connection with the latter trade. Mr. Akroyd was born in the middle of last century, and in conjunction with his brother Jonathan, produced 18" lastings, calimancoes, and low wild bores, or "Little Joans," besides figured "Amens"—goods which derived their name from the French town of Amiens. The goods were woven by the aid of a draw-boy. The Akroyds early availed themselves of the advantages which Arkwright's spinning jenny gave in the production of worsted yarn, a spinning mill being erected in 1805. The water for the wheel was obtained by a side goyt half-a-mile long, carried by tunnel and aqueduct. It was soon found that the production of yarn was too great to enable it to be sold readily, and weaving was therefore added to the business. The manufacture of moreens for curtains, a Norwich trade, was introduced, and to Akroyds, and John Holland, of Slead House, Brighouse, belongs the honour of having brought this trade to the West Riding. Mr. James Akroyd, junior, who started an independent manufacturing concern in 1811, was a clever textile mechanic, and made many improvements. In 1822 he first introduced power-looms, and afterwards perfected the weaving by power of lastings, camlets, and other goods. About 1829 he introduced the jacquard engine for weaving damasks and other figured goods, and his was the first jacquard engine brought to Yorkshire, the machine being purchased from Mr. Sago, of Manchester, who imported them for the first time into England. The changes in the worsted trade are well illustrated by the history of the Akroyds. The following table is compiled from the firm's own books, and shews when certain articles were popular:—

- 1798. Calimancoes, plain and ribbed; lastings, prunelles.
 - 1803. Serge de Ferri, Shalloons, Russells, wild bores.
 - 1811. Moreens, Sags, Amoy.
 - 1813. Three-fourth Bombazettes or plain backs.
 - 1819. Bombazettes and Norwich crapes.
 - 1824. Damasks.
 - 1826-7. French merinoes and full twills.
 - 1829. Camlets, laborines, Russells, dobbies.
 - 1834. French figures.
 - 1836. Alpaca figures.
 - 1836-40. Figured Orleans.
- The latter had cotton warp. The French figures of 1826 were 6-4 damasks of single warp, and five merino wett.

THE BOARD OF TRADE RETURNS FOR MARCH.

The Board of Trade Returns for the past month are, as was to be expected, of an unfavourable character, although the past month contained 27 working days and was undisturbed by public holidays, while March, 1891, had only 24 working days on account of the Easter holidays falling in the month. The total imports were £36,704,177, an increase of £1,451,118, or about 4 per cent, and the British and Irish exports £19,665,382, a decrease of £1,997,996, or about 9½ per cent. The increase of the imports is mainly due to larger receipts of animals and articles of food and drink. The imports of sheep's and goats' wool were on a larger scale, but those of all other articles for textile manufactures were lower, jute in particular having fallen from 28,006 tons to 9,067 tons. Sheep's wool has arrived in much larger quantities from Australasia, the three months' receipts having reached 206,950,000 lb., compared with 133,292,000 lb. in the same period last year. The

prices of this article are also very low. As regards the British and Irish exports, all classes of articles, except living animals and clothing, are lower in value. In certain instances the exports are greater in quantity, but prices are so much reduced as to apparently leave but a very small margin, if any, of profit. This is especially so as regards cotton yarn and piece-goods. Of the former 1,975,100 lb. more than in March, 1891, were shipped, but the exporters declared value is £40,881 less. Again, as to piece-goods, more were exported by 19,953,300 yards, but the value is stated to be £193,792 less. It is to the East that, speaking generally, the increased exports have gone. Chili, too, took 12,370,000 yards, compared with 1,268,800 yards. The protective tariff of France has caused the exports of yarns and textile fabrics from the United Kingdom to that country to fall off very considerably. On the other hand, the shipments of similar articles to the United States are recovering, worsted tissues sent thither being 2,757,100 yards, compared with 2,226,000. The exports, too, of textiles to Argentina appear to be assuming larger proportions. Below we abstract particulars of the imports and exports of textiles, etc., for the month:—

I.—IMPORTS OF FOREIGN AND COLONIAL MERCHANDISE. Principal Articles.

Principal Articles.	Quantities.		Value.	Increase or Decrease per cent. compared with March, 1891.
	1891.	1892.		
Cotton, raw	Cwt.	1,665,544	1,594,526	
Flax .. .. .	..	93,955	98,625	
Hemp .. .. .	..	179,539	141,789	
Jute	Tons	28,666	36,669	
Silk, raw	Lb.	210,469	197,417	
Wool, sheep and lambs' .. .. .	..	65,273,845	94,477,244	
Woolen stuffs	Yds.	7,838,357	6,651,972	

Principal Articles.	Quantities.		Value.	Increase or Decrease per cent. compared with March, 1891.
	1891.	1892.		
Cotton, raw	4,326,360	3,704,877	14.2	11.5
" Piece Goods	277,823	312,727	—	12.6
Flax	169,616	130,948	71.1	13.9
Hemp	301,485	182,040	121.1	79.0
Jute	318,954	171,584	167.6	74.2
Silk, raw	138,311	135,000	7.0	11.3
Wool, sheep and lambs'	2,594,875	3,108,130	40.0	33.0
Woolen stuffs	684,539	506,054	715.0	74.3

II.—EXPORTS OF BRITISH AND IRISH PRODUCE AND MANUFACTURES. Principal articles.

Principal articles.	Quantities.		Value.	Increase or Decrease per cent. compared with March, 1891.
	1891.	1892.		
Cotton Yarn and Twist	Lb.	20,708,700	27,623,800	
" Piece Goods	Yards	428,797,400	448,750,700	
Jute Yarn	Lb.	2,693,000	1,876,800	
" Piece Goods	Yards	31,203,200	49,857,900	
Linen Yarn	Lb.	1,415,400	1,695,000	
" Piece Goods	Yards	13,247,200	14,973,300	
Wool, sheep and lambs'	Lb.	1,375,400	1,007,800	
Woolen and Worsted Yarn .. .. .	..	3,789,200	3,299,600	
.. Tissues, heavy and	Yards	4,445,600	4,006,600	
.. light, broad and narrow .. .. .	..	13,333,200	10,979,800	
Woolen Carpets .. .. .	..	1,038,800	944,200	
.. Flannels, heavy .. .. .	..	913,100	593,800	
.. Blankets	Pairs	106,256	103,219	

Principal Articles.	Quantities.		Value.	Increase or Decrease per cent. compared with March, 1891.
	1891.	1892.		
Cotton Yarn and Twist	976,936	935,955	7.5	74.1
" Piece Goods	4,599,499	4,599,097	4.6	14.1
" Other Manufactures	621,703	526,033	—	70.6
Haberdashery	170,518	176,926	—	53.5
Jute Yarn	27,538	21,282	73.3	113.4
" Piece Goods	194,579	216,670	76.2	78.2
Linen Yarn	83,088	62,214	124.2	125.1
" Piece Goods	314,390	334,056	13.7	6.1
Machinery and Millwork	1,357,801	1,174,056	—	113.5
Silk Manufactures	145,692	141,799	—	12.7
Wool, sheep and lambs'	57,919	39,997	22.3	73.1
Woolen and Worsted Yarn	395,915	345,513	16.7	12.9
.. Tissues, heavy,	512,032	439,979	19.3	174.0
.. light, narrow, broad	282,005	688,022	117.6	122.0
Woolen Carpets	115,403	98,608	79.1	114.5
" Flannels	34,411	33,866	74.2	71.5
" Blankets	44,799	40,519	76.9	79.4

PROTECTION AND TRADE RINGS.

A certain class of capitalists regard it apparently as a very proper and natural arrangement that when their government has adopted a protectionist policy they should combine, and under the name of a syndicate or trust should secure complete control of producing or

manufacturing establishments. Of course the United States must be credited with these ingenious devices, as with many other things and inventions that have been widely adopted. It was quite natural that we should expect the operation of the same causes in Canada to bear the same class of fruit as it has done in the first instance, and therefore we are not surprised to find from late mail advices from Montreal that the Coloured Cotton Mills Company has obtained control of all the establishments in Canada producing cotton checks, flannelettes, and gingham, and that prices of these and similar goods are strong and advancing. The company has had this object in view for some time, and having thus secured the removal of all competition, it is only acting on its legitimate rights in demanding from the public of the Dominion such prices as it thinks it can compel them to pay. Evidently this prospect is not pleasing, and on Monday questions were asked in the Dominion House of Commons on the subject. It was stated in answer that if the price of cottons were raised the Government would abolish the duty on the manufactured article. This action on the part of the Government may be perfectly proper in its capacity of guardian of the public interests, but it may be asked wherein does the action of the syndicate differ from its own in "protecting" the so-called interests of labour by the imposition of a tariff. If labour has to be protected, why not capital? We are sure it will be impossible to allege a valid reason to the contrary, and a government that threatens to move in such a direction on account of any such intention of a body of capitalists will be acting most inconsistently. By so doing it will demonstrate most forcibly that in Canada at least there is one law for the rich and another for the poor: only the usual order will be inverted, as it will be the former who will be subjected to oppression. But recent revelations in Canadian public life shew that they have many ways that are peculiar, and perhaps the formation of oppressive syndicates, resulting in the abolition of Protection, may be their way of getting at Free Trade again. In due time the world will see.

DOES THE SICKNESS OF AN OPERATIVE BREAK AN ENGAGEMENT?

In such large industries as those of the textile trades, employing such a vast number of work-people, it is an event of constant occurrence that workpeople absent themselves from their employment owing to sickness. As everybody knows, this cannot be always warded off, neither can the degree of illness be controlled. Sickness may be so slight that, whilst it may disqualify a worker from following his employment at the moment, it might not be sufficiently severe to prevent him or her personally putting in an appearance at the mill and reporting the fact. Again, it may be so bad that this would be either imprudent or impossible, in which case it would only be courteous on the part of the worker to send some one to inform the employer of the cause of absence, so that the inconvenience might be reduced to a minimum. This we hold to be a moral duty on the part of the operative, and very few cases can possibly occur where, if the duty was appreciated, it could not be fulfilled. It is also, we believe, the general custom, and no one will deny that it is a well-founded one. But we might naturally expect that cases should arise in which it is disregarded, either through ignorance or wilfulness, and possibly, though this must be rare indeed, it may occur that the sick person cannot obtain a messenger. What, then, should be the order of procedure? The overlooker of the department in which the absentee is employed, in the absence of expla-

nation, is just as much at liberty to assume that the absentee has discharged him or herself as that sickness is the cause of their being away. Leaving of their employment, that is, terminating their engagement, without any legal notice or the slightest intimation to the overlooker, is the method most commonly in vogue amongst mill workers; and though not legal, or in any sense justifiable, it is accepted by the employer to avoid the annoyance of frequent prosecutions of offending parties. It is this bad habit of the workpeople that lies at the foundation of the common practice in mills of terminating the engagements of others who are absent through sickness, and of which they have given no intimation. On the whole the system works fairly well, though in occasional instances hardships may arise. But it is important to ascertain what is the legal aspect of the matter, and this we are enabled to do, so far as the decision of a County Court judge may be accepted as an authoritative exposition of the law, by a case just tried in the County Court at Bury. Our Bury correspondent writes:

An important decision was given on Monday last at the Bury County Court, by his Honour Judge Jones, in the case of Catherine O'Hara *versus* Messrs. W. and J. Hutchinson and Co., Limited, Daisyfield Cotton Mills, Elton. Plaintiff was a slubber, and claimed a week's wages, in lieu of notice, for wrongful dismissal. The question for decision was whether a master was entitled to discharge a servant who was absent from work through sickness in the event of such servant not sending word at once to the employer, or sending a person to take her place. From the circumstances as stated in the Court, it appeared that the plaintiff worked for the defendants, but on the 6th January was taken ill and stayed away from work. She lived in lodgings, and the only person in the house was the woman with whom she lived, and no one going into the house during the day, the plaintiff urged that she was unable to inform her employers. However, a girl named Taylor went to see her at night, and plaintiff thereupon sent her to explain the reason of her absence, and to take her place at the slubbing frame. Taylor went to the mill next morning, but was informed by the overlooker that the plaintiff had been discharged, and would not be allowed to start again. Plaintiff afterwards applied to be allowed to serve a week's notice, but her application was refused. There were no rules posted at the mill, and she now sought 14s., her week's wages, in lieu of notice. It was urged on her behalf that she took the first available opportunity to send notice and someone to fill her place until such time as she could resume work. For the defence it was contended that the whole relation between master and servant was that the one should be faithful to the other, and that it was part of the servant's duty to keep the master informed upon all things which for his protection it was necessary to know. In a cotton mill the work of one class of operatives depended very much upon that of another, and it was of importance that she should inform her employers within a reasonable time of her inability to attend to her work, and that at the end of 24 hours was not a reasonable time. She might have sent word by plenty of persons.—His Honour said he supposed it was defendant's contention that because the girl did not send notice the master could discharge her? His view of the law was that there was no duty cast upon a servant to give notice in case of sickness, although it might be very proper and ought to be done. But even if a servant did not give notice when sick, in his opinion it did not put an end to the service. The girl was entitled to her week's wages. It is understood that an appeal will be made, leave having been granted by his Honour.

We cannot come to any other conclusion than that the decision of his Honour Judge Jones is in this case a common-sense one, if the case be looked at freed from any complications arising from the practices of the operatives to which we have referred, and which we think ought to have been advanced for his consideration. In view of this decision, we should advise that employers should despatch a messenger to the residence of an operative who may be absent and have sent no explanation, before terminating the engagement.

THE CRISIS IN THE COTTON TRADE.

Lancashire is now almost face to face with such an industrial crisis as has not been seen for a decade of years. The last great dispute comparable with the one now threatening was that of 1878 in East Lancashire, which wrought such enormous mischief. The cause of that dispute was the unprofitable condition of trade, out of which sprang an attempt to reduce wages, which was resisted until bad blood was generated and rioting and arson followed. We have no desire to revive memories of this ancient event beyond what is necessary to indicate its lesson. The workpeople obtained a certain amount of public sympathy on that occasion, until by misconduct they alienated it. Their leaders blundered by their inflexibility in resisting a trifling reduction during a season of severe depression, and they themselves blundered more in giving way to their excited feelings and burning and destroying their employers' property. The disaster now pending is mainly located in the southern half of the county, and has a totally different origin, this being in the unbridled arrogance and meddlesomeness of the new school of trades-unionists who mainly have charge of the working men's organisations all over the country. The specimens of their handiwork may be seen any day by a glance over the industries of the country: the recent stoppage of the collieries by the miners, which inflicted enormous losses upon the trade and industry of the country and upon the general public; and the engineers' strike upon the East Coast districts—another outcome of the policy of this school of trades-unionists, which has now for months involved over 60,000 men, women, and children in poverty, wretchedness, and misery, and the communities that it directly affects in losses of hundreds of thousands of pounds—and all for what? Practically absolutely nothing. Two trades-unions—the engineers and the plumbers—could not agree as to which should do certain work, the masters having no interest in the matter at all provided they got it done. It was given to the plumbers, and the engineers struck; and out of this trifle, or rather out of the blind obstinacy and ignorance of the new school of unionists, this disastrous dispute has arisen and been maintained. The whole matter would have been covered by £10 per week in wages. The Durham miners' strike is another specimen. Trade has been slack in the iron department, coals have run into stock, and a slight reduction of wages has been called for by the employers. But no! The imperious autocrats to whom the workpeople have committed the charge of their interests say no such reduction shall be permitted; the high-water mark of any period of wages must be the low one for all future time. Thus the struggle is going on, and over 20,000 miners, banksmen, and others, are directly involved, whilst whole armies of men, women, and children are indirectly affected. To shew how wide-reaching are the effects of these insane contests we need only quote the following passage from the Newcastle correspondent of *The Times*, which appeared on Thursday. The writer says:—

One of the most pathetic documents published for some time is that which has been issued by the North Yorkshire and Cleveland Miners' Association. It states that for some months, owing to depression in the Cleveland iron trade, the displacement of men by the introduction of machinery into the mines and other causes, a large number of men were thrown out of employment, wholly or partially, before the Durham strike; but the result of the Durham strike has been to throw nearly the whole of the Cleveland ironstone miners, and the Weardale, Raisby Hill, Tuhill, Forcett, and Mickleton quarries, out of work. The circular then points out that, as the coal and coke formerly used for smelting purposes came exclusively from Durham, between 18,000 and 20,000 men, women, and children have, in that district alone, been

deprived of their usual means of obtaining either food or fire.

And so the tale might be extended, but these instances of maladroitness must suffice. It is the spirit which animates the senseless conductors of these disputes that is also responsible for the threatening aspect of matters in Lancashire.

And what is the dispute all about? Simply this: alleged 'bad work.' The story is simply and tersely told in a circular recently issued to their members by the Federation of Employers. From this we make the following extracts:—

The operatives gave notice on September 18th to leave work if 5 per cent. were not allowed on the minders' wages for four weeks, as payment for alleged bad work. The directors met on September 21st and agreed to place the case in the hands of the local association. The association met in the evening and suggested a meeting at the mill on Thursday, with Mr. Sidebottom (the operatives' secretary) and any of his friends. The suggested meeting was held on September 24th, and attended by Mr. Sidebottom, several representatives of the employers' association, and most of the directors. Mr. Sidebottom's statement of claim was taken in writing, read over to him, and approved. It states that the above claim for payment was made on account of bad work, "which causes them harder work but no loss of wages." He acknowledged that he had not examined the work, and as Mr. Mawdsley (whom he expected), had not come, he refused to do so; but ultimately promised to try and induce the men to work another week, that they might meet the Employers' Committee the following Monday or Wednesday, and make the suggested examination. He refused to fix any test for bad work, and when told that the yarn was good, wages were high, no complaints were received from customers, and crew laps were not excessive, he said "the minders were the best judges of bad work." He also stated that for him to examine the work would make no difference.

This statement suggests a few queries: Who made the report of bad work to the local Operatives' Association? Were the persons so doing authorised by any shop-meeting of the minders? Do either the local or the general associations of operatives possess any "standard" of what the quality of work should be to which they require employers to conform? Have they ever produced such a standard in their interviews with employers? If they have no such standard, how could they decide whether the work was bad or good? Especially how could Mr. Sidebottom judge of this when he had not examined the work, and refused to do so? Why did he make his examination dependent upon the presence of Mr. Mawdsley? Was Mr. Mawdsley the prompter of the dispute, as he appears in this, as in the Accrington one, to be the governor? It would seem so. If Mr. Sidebottom's examination would make no difference, whose examination would? We suppose Mr. Mawdsley's. If so, why did he not attend? He is the servant of the federated associations of the operatives, and an explanation, we should think, is due as to why he did not attend to this important piece of business, as also that at Accrington, which was neglected in a similar manner. We should have nothing to say about this were it not that the interests of the employers are also involved, as well as those of the workers. The outcome of all this gross mismanagement on the part of the Operatives' Union was that the minders, having refused to extend their notice, left work on September 25, and all other hands with them, the cardroom hands going out by virtue of the new alliance between the two parties. After eighteen weeks' play, entailing a loss in round figures of, say, £10,000, equally divided between the contending parties, and in which time several efforts were made to settle matters, work was recommenced on its being understood that two of each side should examine the work on the Wednesday following. Thus the leaders of the strike stood on their dignity for four and a half months, during which that heavy loss was incurred; and they refused to come down from that lofty pedestal

to examine the question as to whether there was really any ground or not for a dispute. What was the result? The examination was made on February 3, by Messrs. C. T. Bradbury and S. Smethurst, representing the Local Association, and Messrs. Sidebottom and Fielding, of Bolton, representing the minders. Messrs. Bradbury and Smethurst reported the twist as "very good," and the weft as "good." Messrs. Sidebottom and Fielding, according to a letter sent to the local press by Mr. J. T. Fielding, found that "512 ends broke on one side of a mule in ten draws." These mules have 990 spindles, and were spinning 36's twist. This he admitted "to be good" spinning. A similar test on the weft mules, 1,200 spindles long, spinning 42's weft, produced a "breakage of 71 ends." Of this Mr. Fielding says: "In my judgment the percentage of broken threads was excessive, and constituted bad spinning."

To this we venture to say that no practical man of any conscience would agree with Mr. Fielding. But why was Mr. Fielding imported into the matter at all? His experience is, we believe, confined to an entirely different class of both cotton and yarn, namely, Bolton counts, made from Egyptian cotton, and this could afford him no proper basis of experience to judge from. Where was Mr. Mawdsley? Had he got "better fish to fry?" A test made by the mill officials, and verified by each minder the following day, produced the following result:—Twist 325 ends, and weft 41 ends, in ten draws on half the mule—37 per cent. better than test by Messrs. Sidebottom and Fielding on the twist, and 43 per cent. better on the weft. This test was printed *in extenso* in the local press, and, although each mule was given separately by its number, no public contradiction has appeared. In confirmation of this better result it may be stated that the average wages during the last five weeks preceding the strike were £3 12s. 6d. on weft and £3 5s. on twist.

But nothing would convince the leaders that their policy was irrational, and nothing would induce the men to forego the chance of a long term of idleness, their maintenance being provided for by other people. There are, it is to be feared, a good many people in the world who would prefer play on those terms to honest self-sustaining labour.

The outcome of the indulgence of such a policy is that capital is now at bay, and means to fight—a thing it should have done long ago. There is hardly an important mill in Lancashire, either a private concern or joint-stock company, that is not frequently receiving communications from the meddling and muddling busybodies who have been allocated the posts of secretaries of the operatives' associations, demanding this, that, or the other modification of the internal arrangement or condition of the mills, the employment of more people, the dismissal of non-unionists, the provision of better material, the free gift of hot water for breakfast, and a thousand and one other things of like character. The result is that the trade has quietly and steadily organised itself for resistance, and being now prepared in such a manner as it never was in its history before, it demands the abandonment of this policy. Once and for all it is not merely the submission of the Stalybridge strikers that will satisfy it: this will only be taken as indicative of submission on a larger scale, and an abrogation of the policy of harassment and aggressiveness that the leaders of the workpeople have so long maintained towards the employers. Only this will save the operatives from the impending disaster and its impoverishing consequences, and it is to be trusted that the sensible portion of the workers will take control of their own interests and make peace on a common-sense basis before they are irretrievably committed to a disastrous contest.

Letters from our Readers.

UNIVERSAL SYSTEM OF TEXTILE CALCULATIONS.

(TO THE EDITOR OF *The Textile Mercury*.)

SIR,—In your issue of March 19th I noticed a letter on the above subject from Mr. A. F. Barker, of the Technical Schools, Shipley. His observations are extremely pertinent to this vexed and muddled question, the condition of which reflects anything but credit upon those who are engaged in the textile industries. That the gentleman's suggestions are well deserving of attention admits of no doubt whatever. The main point is, who will venture to advance a reasonable system in face of the fact that he would probably produce a very undesirable amount of abuse from all sides from competent and incompetent judges? Thus what would be of advantage all round would be snuffed out for lack of a courageous front and determined effort on the part of those who believe in the advantage of a change. Men are very much prone to conserve even indifferent things that have once been useful. What is wanted is a single system by which all counts can be worked by the relation of weights to yards; of course, a factor would be required. The fundamental basis of a system, plain, comprehensive, practical, and easy of calculation, would be one consisting of length of warp and weft yards without regard to ends or picks; weight would determine the counts, and would cover any and all calculations for construction of every kind of fabric. A very simple system obtains in some parts of Yorkshire, which anyone can understand: that is, the number of yards per ounce avoirdupois, in measure, and length; any counts, fine, coarse, or heavy are convertible without decimals or fractions, for in an ordinary case it is not necessary to go into the fractions of a yard. This is the mere fringe I have had of this system. I have not at the present time the hardihood to touch upon reeds, healds, etc.; these may come up in due course for discussion if I am not wiped out for over-much daring and presumption in the present case. In any event, I would rather Mr. Barker would give us the benefit of his experience. Perhaps he is more able to weather a storm than yours, J.H.R.

Bleaching, Dyeing, Printing, etc.

METHODS OF SILK DYEING: THEIR PRINCIPLES AND PRACTICE.—I.

Silk is a fibre that differs very much from both cotton, which may be taken as the type of vegetable fibres, and wool, which is the type of the animal fibres. The former are fibres that have very little affinity for dye-stuffs, and before they can be dyed the great majority have to undergo the process of mordanting. On the other hand, the animal fibres and silk have a great affinity for colouring matters; moreover, their behaviour with chemical bodies is different. Cotton, linen, and other vegetable fibres resist the action of alkalis very strongly, but are readily disintegrated by acids; while wool and most animal fibres are destroyed by alkalis, but resist acids,—so much so that mixtures of wool and cotton can be treated with acids and acid bodies for the purpose of separating the wool from the cotton. Silk is attacked very strongly by alkalis, and although it is capable of resisting the action of dilute acids, yet it is disintegrated by strong acids. Then with regard to metallic salts, silk has properties somewhat different from both cotton and wool; as a rule, cotton has very little action on metallic salts, such as sulphates of iron, alumina, and chrome, chloride of tin, etc. In a few cases these are decomposed, and a deposit of the oxide of the metal is found in the interior of the cotton fibre, which oxide can then act as a mordant. Wool does not readily decompose metallic salts, but silk is capable of doing so readily. Still there is one point of difference that must be borne in mind: and that is, while cotton and wool can resist immersion in fairly strong solutions of such bodies as zinc chloride, tin chloride, etc., silk cannot; it is almost completely disintegrated thereby, so that when it is necessary to mordant or weight silk with such bodies, the use of dilute solutions is absolutely necessary. Silk is dyed either when in the raw, the half-boiled-off, or the boiled-off condition, in-

dependently of the fact of its being in the form of yarn or pieces; in the raw condition, however, it is rarely dyed, the presence of the gum considerably retarding the operation, and increasing the difficulty of obtaining a level dyeing. On fully boiled-off silk there is scarcely any trouble in obtaining full, deep, bright, and level colours, as the gum having been removed leaves the silk fibre in a proper condition to take the dye. With half-boiled-off silks there is some difficulty: the dye-baths shew a tendency to remove the gum that is still left in the fibre, and the dyer wants to avoid this as much as possible, otherwise he would return less weight of dyed yarn than of the undyed yarn supplied to him, which would probably result in his being made liable to a claim for damages. A few words will be said on this point when describing the methods in detail. The dyeings are also liable to be uneven, as the gum may be removed in an uneven manner from the silk, and thus the fibroin in those parts, having a greater affinity for the dye-stuff, will take the latter up more strongly than those portions of the fibre on which the gum is still left.

If the silk has been weighted with sugar, tin, or lead before dyeing, the difficulties of the dyer are much increased, and unless considerable care has been taken in the weighting process, there is a great liability to uneven dyeing. This liability is less with silk that has been weighted after boiling-off than is the case with silk weighted in the gum; in the latter case the dyer is troubled with the gum; the weighting agent, and the impurities naturally present in the silk; all of which tend to lead to uneven dyeing.

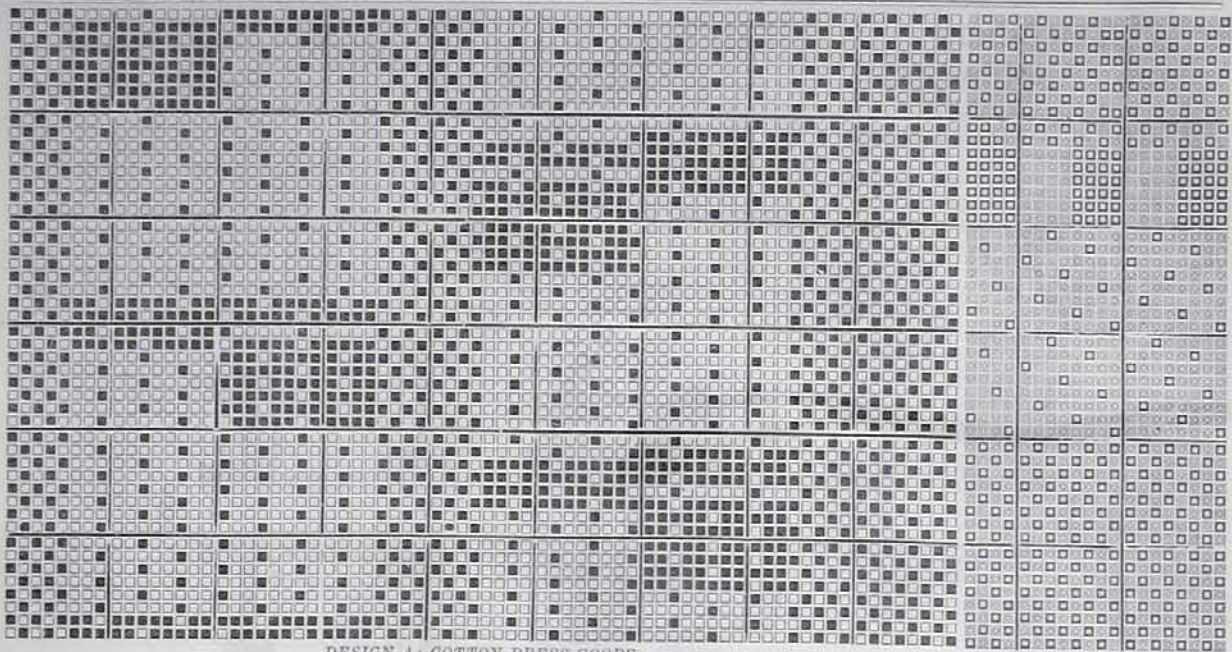
Although a little digression from the subject, yet a few words may be written on the principles which underlie the process of the boiling-off of silk. The object of this process is essentially the removal of the gum or sericin which is found coating the silk fibre proper. This gum is soluble to a small extent in water, and very readily in alkaline solutions, such as those of soda and potash carbonates, caustic soda or potash, borax or soap. The caustic alkalis cannot be used, as they exert too strong an action on the silk fibre, tending to dissolve it; and while the action of the alkaline carbonates is less, still even they have rather too strong an action, and it is not advisable to use them for boiling-off silk. Borax is too costly, otherwise it might be used with advantage. Soap is practically the only alkaline substance that can be used with safety for the process of boiling-off of silk. The method usually adopted is to provide a hot soap liquor made from a good olive-oil soap, using of soap from 15 to 20 % of the weight of the silk, and boiling in this for about half-an-hour. Often a second boil is given, using a smaller quantity of soap; in fact it is desirable that in all cases two boils should be given, using from 10 to 15 % of soap in each case; (the soap liquor used in the second boil of one batch of silk can be used for the first boil of a succeeding batch, whereby two advantages are secured: one is a saving in soap, and the other is that the work is done if anything rather better, which are advantages not to be despised).

The waste soap liquor, known generally as "boiled-off," is used in some processes of dyeing silk, as will be shewn further on. A good deal finds its way into the nearest water-course. But it contains soap which is valuable and worth recovering. This can be effected, and not only can the valuable ingredient of the soap be recovered, but the pollution of the rivers is thus prevented—a matter likely to become important in the future.

Many attempts have been made to find other methods of boiling-off silk, but without much success, and so the soap method remains the universal one in practical use.

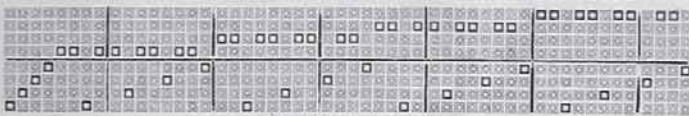
There is one point which is important in boiling-off—namely, the quality of the soap which is used. It should be a good oil soap, as neutral and free from excess of alkali as possible, and it should also be free from colour. An oil soap is better than a tallow soap, because the former is much more soluble in water, so that stronger liquor can be used without so much fear of setting when cooled.

Wild silks, such as Tussah, are boiled-off much in the same way as ordinary silk, but such silks

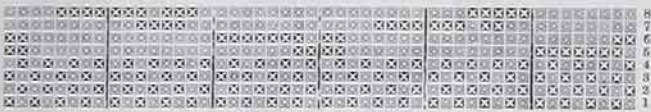


DESIGN A.

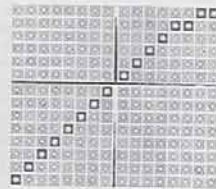
DESIGN A: COTTON DRESS GOODS.



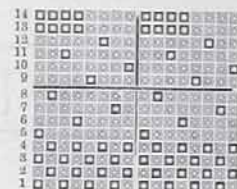
DESIGN A: DRAFT.



DESIGN A: PEGGING PLAN.



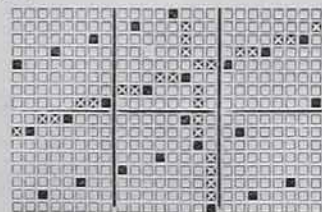
B DRAFT.



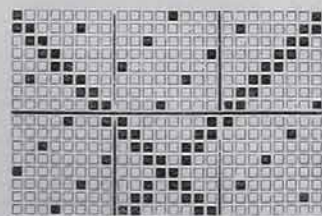
B PEGGING PLAN.

the 8-end sateen in all over the 64 threads by 64 picks, and producing the design by adding to the sateen dots. If ordinary twill is being dealt with, the sateen selected must be one which lends itself to the production of an ordinary twill in either direction. Such, for example, is the 12-end sateen, as shown in Design D.

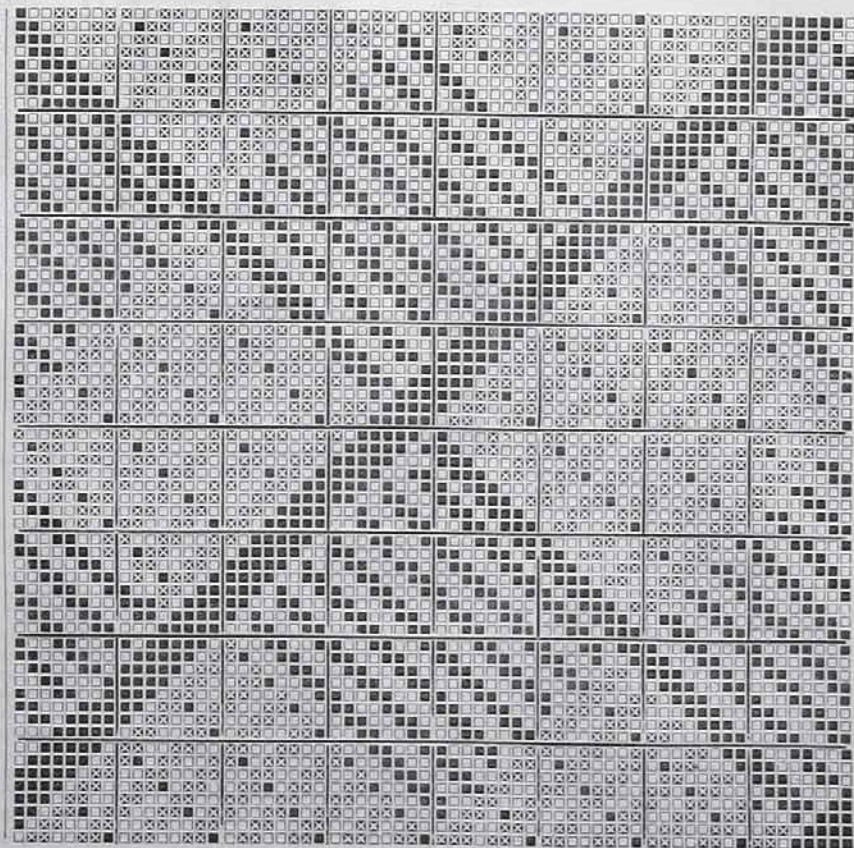
Should an upright twill combination be required, then a sateen yielding such a twill in both directions, must be made the basis of the effect, as shown in Design E, which is based upon the 16-end sateen, counting five. We should recommend that all the sateens be worked out and kept for reference in such cases as this.



DESIGN E.



DESIGN D.



DESIGN C.

Machinery and Appliances.

IMPROVED DIFFERENTIAL MOTION.

MAKERS: MESSRS. DOBSON AND BARLOW,
LIMITED, KAY-STREET WORKS, BOLTON.

There appears, at the present time, to be an earnest desire springing up amongst cotton machinists to further improve, if possible, the long-used differential motion of slubbing, roving, and jack frames. With perhaps one

in diameter with every layer of rove wound, this ratio of speed must be correspondingly varied every layer: hence the necessity of the cone drum driving arrangement. The rotation of the spindles, of course, remains constant during this variation.

We desire in this article to bring before the notice of our readers an improved differential motion, which Messrs. Dobson and Barlow, of Bolton, have applied to their frames. It is a Blackburn invention, and has been successfully worked for some time in a mill in that neighbourhood. The inventors, in devising this motion, have succeeded in producing a very simple and compact arrange-

flyer. A is the main driving shaft, and the motion is mounted thereon in the usual manner. Upon this shaft is keyed or secured with a set screw a bevel wheel B, having 30 teeth, gearing into and driving a plate wheel C, with 33 teeth, mounted on a spherical bearing D, the latter having an elongated boss upon which the bobbin-driving wheel is keyed. The wheel C is caused to rotate with the spherical bearing D by means of the forks Cr, shewn in dotted lines in Fig. 1, which are free to oscillate in grooves formed in the bearing mentioned, the forks being driven into the wheel C at intervals. These parts combined form a loose shell, and rotate together at a varying speed to be deter-

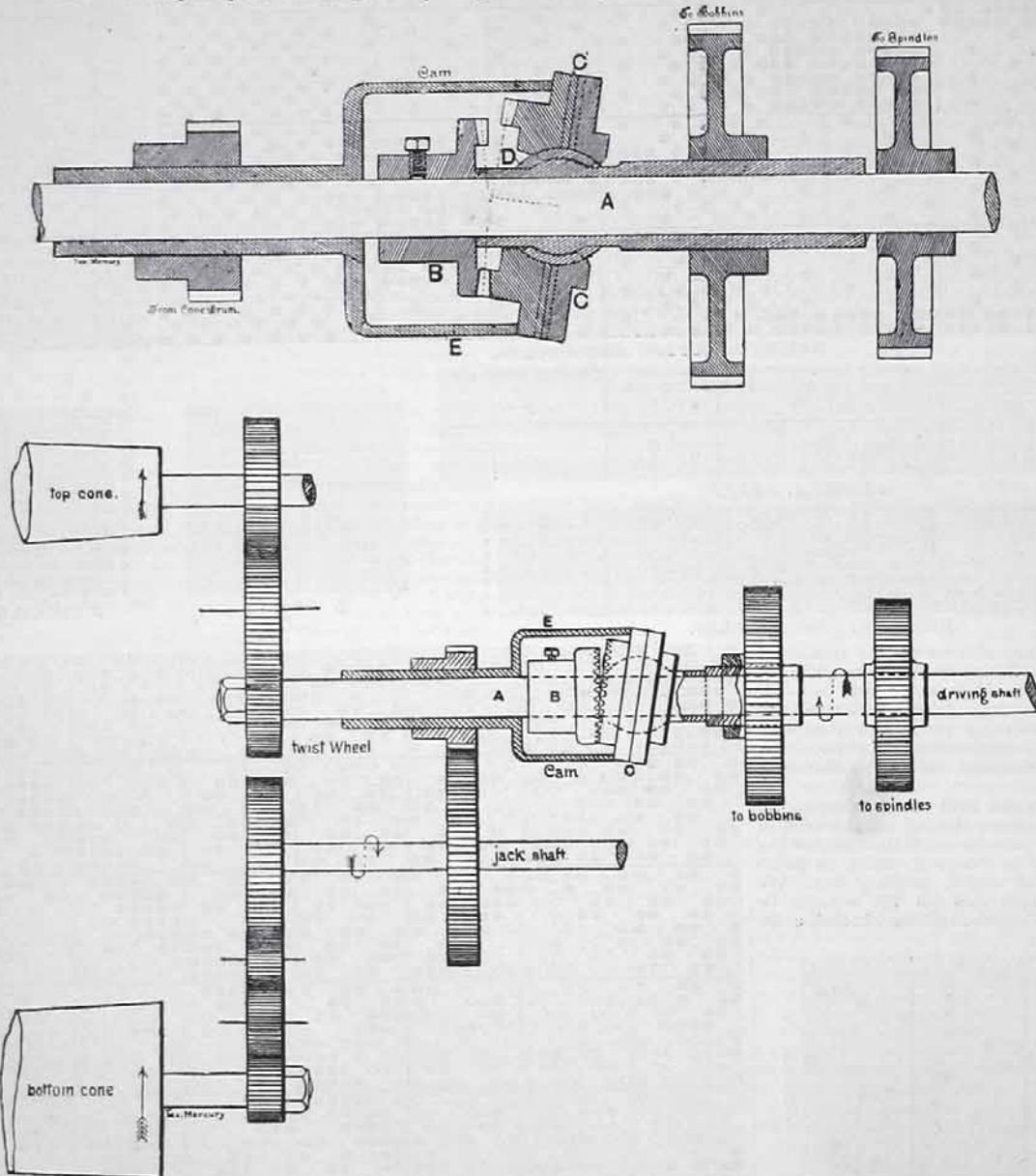


FIG. 2.

IMPROVED DIFFERENTIAL MOTION.—MESSRS. DOBSON AND BARLOW, LIMITED, BOLTON.

or two exceptions, this ingenious motion has retained, up to now, the original form it first possessed when invented by Holdsworth more than half a century ago. Modifications have certainly been made from time to time, with the object of simplifying the working parts and reducing the friction, but in principle its action remains unaltered. Briefly, the function of this complex piece of mechanism is to impart to the bobbins a rate of velocity different and variable from that of the spindles and flyers, in order that the necessary amount of winding shall take place without stretching or in any way attenuating the rove. As the bobbin increases

ment of mechanism, which fully meets the requirements above set forth. Moreover, it possesses several advantages over the old arrangement, which have induced Messrs. Dobson and Barlow to adopt it, and which, we are of opinion, will be appreciated by the trade.

The principal parts of this novel invention are clearly shewn in section in Fig. 1. Fig. 2 illustrates its connection with the cone driving and the two spur wheels, through which motion is imparted to the bobbins and spindles, the arrows indicating the direction in which it rotates when at work, and when a loosing motion is required and the bobbin leads the

mined by the cone driving. A circular box E also has an elongated boss, upon which is secured the pinion F. This box rotates loosely on the main shaft and in the same direction. It is also formed at the extremity nearest the bevel gearing with an inclined surface, which serves as a cam to keep wheel C into gear with B, and to determine the ratio of speed between the spindles and the bobbins. As the wheel C rotates it also oscillates on the spherical D, and at the same time drives the loose boss by means of the forks mentioned. When commencing to fill an empty bobbin the ratio of speed between the driver B and the wheel C is

as 30 to 33, or a loss of 1 revolution in 11. The cam E and the wheel C at this period of working rotate almost at equal speeds. As the bobbin fills and thus increases in diameter the speed of the cam is reduced, and through it the wheel C, which in its turn slows the bobbin-driving wheel, and the rotation of the bobbin is thereby retarded. When a gaining instead of a losing motion is required the parts are reversed, and the driver becomes the driven, and *vice versa*.

The fact should not be overlooked in investigating the merits of this invention, that, by being able to run the cam E and loose wheel C at almost the same speed, when the bobbin is nearly empty, the work on the cone drum is very slight, whilst the contrary is the case with the old motion. Therefore the slipping of the cone strap, which so frequently takes place at this period with the latter, and is the cause of stretching the rove, besides being detrimental to the production of a perfect bobbin, is, by this invention, entirely overcome.

As we have before observed, this motion is very compact. It consists of very few parts, and the tooth gearing is not exposed or liable to get out of order. It is well balanced, and works very steadily, besides being readily taken to pieces or adjusted.

Messrs. Dobson and Barlow invite a personal inspection of this ingenious invention, and will afford interested parties further information if communicated with at their works.

AUTOMATIC SMOKE PREVENTION: TESTS IN MANCHESTER.

A large number of representatives of the press were invited on Tuesday by the Automatic Smoke Prevention Syndicate, Limited, to witness a series of smoke prevention tests, under the separate as well as under the combined systems of Mr. A. R. Sennett and Mr. W. McG. Greaves. The principle underlying the latter of these inventions has already been described at length in these columns, and we trust very shortly to treat the former in a similar manner. The results of Tuesday's tests appeared to be generally regarded as satisfactory by those present at the demonstration, which took place at the *depot* of the Company in River Street, Hulme. The locality is one of the most smoke-plagued portions of the city, and is a fair specimen of the districts which will be chiefly benefited by the adoption of the systems referred to. Previous to the tests in River Street the working of the apparatus at the Longford Works of Messrs. Rylands & Sons, Limited, was inspected. The stoker was caught unawares in the act of supplying the furnace with a quantity of fresh fuel, but beyond the brief emission of a small quantity of light brown smoke immediately after the coal had been thrown on the fire, the atmosphere in the neighbourhood of the summit of the stack was as pure as it generally is in Manchester. After a few seconds no smoke whatever issued from the chimney, and this was also the case at River Street, where tests were made for over an hour with three furnaces, one of which was fitted with Mr. Greaves's appliance, another with the combined Greaves and Sennett systems, while a third was constructed on the ordinary principle. Mr. Greaves introduces into the back of the furnace one or more arches of special construction and material, possessing highly incandescent properties. The heat given out from these is so great that the combustible particles in the smoke which pass over them on its way to the chimney are entirely consumed, and atmospheric pollution is thus prevented. By the use of Sennett's patent a current of hot air is forced downwards into the heated mass. The gases from the fuel are thus prevented from rising, and combustion is ensured, as they are pushed back forcibly into the midst of the incandescent matter, and smoke really is not allowed to form at all. The system provides a sufficient supply of air for the combustion of the fuel and the gases generated, as well as a high temperature, without which there cannot be perfect combustion. The furnaces to which the Greaves and Sennett systems were applied emitted no smoke, and a film of light vapour was noticeable for a few seconds after throwing on fresh fuel into the furnace fitted with Greaves's patent alone. The testimonials which have been received from all parts of the country show that the working of the patents is as satisfactory during a lengthy period as for a short time only.—Mr. Charles Lancaster, after the completion of the tests, explained the theory of the Greaves appliances, and supplied technical facts bearing upon the question,

his remarks being supplemented by the observations of Messrs. Greaves and Constantine.—A steam launch fitted with the Automatic Smoke Prevention Syndicate's appliance is to be run on the Thames upon the occasion of the boat race to-day.

ACCORDING to a German contemporary, the Saxon steel wire heald factory of G. Hentschel & Co., have invented an improved jacquard weight. In the old weight the opening through which the heald is drawn is made by means of a chisel. It has sharp edges and a certain sharpness inside. Besides, the heald lies to the right and left to the outer side of the weight the result is that it is partly soon worn out in the eye, and rubbed to pieces by the weights going up and down beside it. These two admitted evils are obviated in the new invention by a jacquard heald with an eye of wire soldered in. This eye is formed of round wire, consequently is quite smooth all round; it is also thinner than the bar itself, so that the two main causes of injury to the heald are quite excluded.

IMPORTANT ORDERS FOR A MANCHESTER FIRM OF MACHINISTS.—Notwithstanding the high tariff imposed upon all kinds of foreign productions, it appears that the manufacturing industries yet find it to their advantage to continue their reliance upon the machine makers of the old country when they want machines of the best quality and finish, and replete with the latest improvements. We learn that Messrs. J. Hetherington and Sons, Ltd., Manchester, have just had placed with them the order for furnishing all the machinery for the new mill of the Rotch Mill Corporation, New Bedford, which is to be specially arranged for combed yarns of coarse counts. This is the fifth mill built by this Corporation, which is identical with the New Bedford and Howland Mills Corporation, the machinery for all having been supplied by the above-named firm of machinists. The Berkshire Cotton Mills Co., Adams, Mass., having decided to renew a portion of their machinery, have placed the order, which comprises the following machines, with Messrs. J. Hetherington and Sons, Ltd.: 21 combers, six heads each; 3 lap machines, 30 self-acting mules, 820 spindles, 14 in. G., The Grant Yarn Co., Fitchburg, Mass., have also decided upon making some extensions, and have placed the order for all the machinery with the firm of J. Hetherington and Sons, Ltd. This is, we understand, merely a preliminary stage of the business, as it is intended to enlarge as soon as possible, after getting the machinery now on order to work.

Foreign Correspondence.

TEXTILE MATTERS IN THE UNITED STATES.

BOSTON, March 24th.

CURTALMENT OF SOUTHERN TRADE.

The orders to hand from the Southern States of late have fallen off considerably, and merchants have suffered great loss and inconvenience in consequence. An authority says that there have been few losses to the trade attributed directly, or indirectly, to failures in the South, but that is no reason why one should throw off all caution and be willing to extend an old-time credit. There are buyers enough in the South to-day, but the thing is to get those to buy who have the money with which to pay. It does not take a very extensive capital to take care of a full line of spring goods, therefore, under very depressed circumstances a man can tide over this season of the year, but when it comes to fall and winter stock, matters are quite the opposite. Money in no limited quantity, or a very brisk trade is necessary, else extensions or failure.

The question of credits is paramount with clothiers who have dealings in the South, and unless there is a decided change for the better in that quarter, the sample offerings from this market will be somewhat limited.

LINEN FOR VESTINGS.

Marseilles and linen ducks are the favourites in vestings this season. Light, cool, and pretty, they have filled the want most acceptably. Marseilles are shewn with fancy grounds, the effects being in self, while a figure

is put in a contrasting colour. On an even footing for popular favour with Marseilles are the fancy weaves in linen ducks. These ducks have white figured grounds in various treatments; the effects are in different colours and shew small, widely-spaced spots and conventional units of design. Calendered linen effects on duck grounds come next in favour. These ducks have closely woven grounds and basket-weave grounds. The effects are in self and colours combined, being of linen, shot or woven on the ground-work of duck. Linen brocades are also in good demand, and share the popularity of the leading vestings. They give freer treatment than that usually found in linen-bodied fabrics. The grounds are in matté weave; the stripes and other effects are in raised work, and are cleverly relieved by interwoven lines of colour.

THE COTTON CROP.

Messrs. Hubbard, Price, and Company have received a letter from a valued correspondent in Alabama respecting the subject of acreage and fertilizers, from which we take the following:—"We are no better able to say now what the acreage will be than we were in the middle of January. The condition of finances, the lack of confidence and the uncertainty in prices combine to frustrate all calculations. The planter does not know his own mind, and cannot say whether it is corn or cotton land that he is preparing. We find that the larger farmers have sown considerable land in gram, some to the extent of 30 or 40 per cent. of their farms. Again we find the smaller farmers, principally those that buy on time and are already in debt, declaring that they will plant as much, and in some cases even more, cotton than last year. We have closely watched the movement of artificial fertilizers, and find that up to March 12 the following per cent. as compared with last year has been received: Opelika, 66 per cent.; Lafayette, 72; Roanoke, 69; Auburn, 61; Tuskegee, 64; Dadeville, 59; Alexander, 63; Goodwater, 76; Sylvauga, 73; West Point, 65; La Grange, 62; average, 66."

WORSTED WARP DRESSING.

The method of warp dressing in this country is generally different to that adopted in Bradford, Yorkshire. The *Wool Reporter* is informed that Farwell and Company, Kensington, Pa.; J. and J. Dobson, Philadelphia, Pa., also one other firm in that city, adhere to this old method of dressing their warps; at least they formerly did. "All these parties are Englishmen and stick to their old-country ways."

CUSTOMS APPRAISALS.

The following amongst other decisions have been reported recently by the Treasury Department:—

Cotton embroidery, from M. L. Reichenbach and Company, St. Gall—Advanced by disallowance of deduction of 3 per cent. commission, deducted on entry.

Cotton embroidery, from D. G. Vourviller, St. Gall—Advanced by disallowance of deduction of 3 per cent. commission on goods of own make, deducted on entry.

Coloured cottons, from A. Mitchell, Jr., and Sons, Glasgow—32", 5,014, zephyr shirtings under 200 threads, entered at 5½d., advanced to 6½d. per yard. Add ¼d. per yard for making up. Cash discount, 3 per cent. Add case oil cloth.

Manufactures silk and cotton, from Stunzi Solme, Horgen—Serge, 304, 24½", entered at 2'60, advanced to 2'80 francs per aune. Discount, 10 per cent. Cases included.

Manufactures silk, from Noyer, Durand and Cotton, Lyons—Pongee, 63 C—M., entered at 1'12½, advanced to 1'22½ francs per aune. Other similar advances. Don, 2½ per cent. Discount 16 per cent. and 2 per cent. Add cases and packing.

Manufactures of silk, from Noyer, Durand and Cotton, Lyons—All-silk crepe de Chine, 45 C—M., entered at 1'12, advanced to 1'15 francs per aune. Don 2½ per cent. Discounts, 16 per cent. and 2 per cent. Add cases and packing.

Manufactures of silk and cotton, from Abr. and Gebr. Frowein, Elberfeld—Ribbons, cotton and silk, Pon, 216, 9 m. No. 5-10", Bonus, etc., entered at '59, advanced to '62 mark per piece.

Many other similar advances. Case and packing included.

Worsted dress goods, from Moret, Poekes, and Baunlin, Paris—194, wool and silk, 120 C—m., Dugré, entered at 4.75, advanced to 5.20 francs per metre. Many other similar advances. Discount, 6 per cent. Add packing.

Worsted dress goods, from E. Longuet, Rheims. Serge entered at 1.27 advanced to 1.35 francs per metre.

The *New York World*, the leading organ of the Democratic party, is making a fight for the postponement of the Silver Bill until the next session of Congress on the ground that if the measure is pressed now it will imperil Democratic prospects at the presidential election.

The following machinery is wanted:—

Cotton machinery by the Dana Warp Mills Co., Portland, Me., for new mill.

Cotton machinery by W. H. Baldwin, Jr., and Co., Savage, Md.; an addition.

Spinning machinery by the Kerr Thread Co., Fall River, Mass., for an addition.

Woollen machinery by the Dana Warp Mills Co., Portland, Me., for new mills.

The now famous Mr. Nelson Dingley is a typical Maine man, small, kindly, with a strong nasal accent, acute, honest, logical, and very strongly prejudiced in favour of New England theories and Protection. He regards a free-thinker as on a par with a rum-drinker, and as only a trifle better than a free-trader.

Mr. J. J. Regan is putting in two of Howard and Bullough's electric drawing frames, six deliveries each. Mr. Regan is fitting up the old mills which he bought of the Whit. Mfg. Co., with the best of machinery.

The ship *Great Admiral* arrived in this port March 18th from Melbourne, after a passage of 94 days. She brought 5,840 bales of wool, said to be the largest cargo of wool ever landed at the port of Boston from a sailing vessel. The ship *Exporter* now on her way, has 5,839 bales.

News in Brief.

ENGLAND.

Bacup.

Messrs. J. Maden & Sons are taking out their old frames and are renewing them with the make of Messrs. John Hetherington and Sons, Limited, Manchester.

Blackburn.

The strike at Messrs. Birtwistle and Thompson's Nova Scotia Mill, Blackburn, which started on Monday week owing to a grievance with regard to the management, was settled at a meeting of the weavers' representatives and the employers on Monday last. The workpeople have returned to work.

On Saturday, Dr. Bowman, F.R.S., of Halifax, distributed the prizes to the successful students of the Blackburn Technical School. The chair was occupied by Mr. Eli Heyworth, J.P., who said the school which they established some four years ago had grown into a fairly large undertaking, and from the encouragement they were receiving by the number of students attending the classes, he thought their expectations in establishing the Technical School would be realised to the full.—Dr. Bowman gave an address on technical education, which was listened to with much appreciation by the audience.

Bradford.

The dyeworks of Messrs. George Armitage and Son, Bradford, have been temporarily closed, owing to the strike of about 600 men employed in them. The men have made certain demands which Messrs. Armitage say they cannot grant, and the strike has resulted. The Bradford and District Staff-dyers' Association unanimously resolved on Tuesday evening that if Messrs. Armitage's men were called out they would give one week's notice to their workmen and close the whole of their works, as the present condition of the dyeing trade did not warrant the advance asked for by the men.

A large gathering assembled in St. George's Hall on Thursday night, it having been announced that Lord Masham would deliver an address on "Fair Trade." Alderman E. W. Hammond presided, and there were many well-known faces on the platform and a considerable number of persons genuinely interested in the subject in the stalls and area, but it was evident from the outset that the majority of the numerous occupants of the side and west galleries had come with the intention of upsetting the meeting, and they preserved throughout such a disorderly de-

meanour that the proceedings were practically a dumb show, and the only persons who heard Lord Masham's address were the reporters and a few gentlemen at his side.—*Bradford Observer*.

Bolton.

On Monday, at Mr. Merton's bleachworks, Hill Mill, a boiler burst, wrecking the boiler and engine houses and doing much damage to the main part of the mill, a four-storey building. The fireman had a marvellous escape.

A short time ago we announced that certain local cotton spinners were concerned in forming a syndicate to erect and work spinning mills at Lille, in France. The movement has now taken definite shape, and the contracts for the machinery have been let, Messrs. Dobson and Barlow, Limited, of Bolton, having secured the order for the spinning machinery. It is intended that the mills shall produce Bolton counts.

The Bolton and district cotton trade is in such an unsatisfactory condition at present that the leading employers have resolved to curtail production either by short time or by closing the mills. Messrs. George Knowles and Son, one of the largest firms, gave notice on Saturday that they intended to close their three mills, and other masters are likely to follow the same course. A number are at present running short time.

On Wednesday a fire broke out in the scutching room of Messrs. Wolfenden and Sons, Columbia Mill, Chorley Ness-road. The Grinnell sprinklers, with which the mill is fitted, quickly operated, and the fire was extinguished before any appreciable damage had been done. The sprinklers were put in about five years ago by Messrs. Dowson, Taylor, and Co., of Manchester and London.

On Saturday afternoon a number of the workpeople employed at the Robin Hood Mills presented Mr. P. Crook, one of the employers, in commemoration of his recent marriage, with a brass dining-room clock and ornaments to match, suitably inscribed. Mrs. Crook was presented with a silver card case, with engraved monogram. Mr. John Wigham, the oldest worker at the mill, made the presentation, which Mr. Crook suitably acknowledged.

Burnley.

The weavers at Mount Pleasant Mill resumed work on Monday morning, on the same terms as before, the employers refusing to make any advance in wages for alleged bad work.

Bury.

The secretary of the Bury Weavers' Association has paid £5 3s. 8d. to members temporarily thrown out of employment through the removal of looms at Messrs. W. Rämney and Co.'s and Messrs. W. and G. Openshaw's.

The committees and officials of the Weavers, Spinners, and Cardroom Associations held their first annual gathering at the Hand and Shears Hotel on Saturday. Mr. A. Buckley presided over a very enjoyable meeting, the programme including the honouring of various toasts, songs, and recitations.

The secretary of the Masters' Association and the secretary of the Cardroom Association, are engaged in re-arranging the prices paid to female operatives in the cardroom at Messrs. J. A. Openshaw, Son, and Co.'s Mill, Bury. The frames have been "speeded," and the firm have agreed to pay the same prices as paid at other mills in the town.

The quarterly balance sheet of the Bury and District Cardroom Association, just issued, gives the income for the quarter ending March 21st as £413 4s. 9d.; paid to members for stoppages for bad trade, £22 18s. 5d.; breakdowns, £56 9s. 7d.; accidents, £10; levies, £95; miscellaneous expenditure, £31 17s.; grants, £2 10s. 2d.; salaries, £54 13s. 7d.; total expenditure, £273 11s. 3d.; gain on quarter's working, £105 8s. 3d.; number of members, 1,644; increase, 242.

The weavers on strike at the Daisyfield Mill, Elton, have prevailed upon the winders and reeders to follow their example and tender their notices to cease employment next Wednesday. They cite as a precedent for this line of conduct, the locking out of the whole of a mill at Pinhole some 12 months ago, when a winders' dispute was on, and they say they are only adopting a policy of retaliation. The secretary of the Power-loom Overlookers' Association has written the secretary of the Weavers' Association disclaiming any responsibility in regard to the weight of the cloth, and absolutely refusing to allow their men to have the work put upon them by the weavers, and pointing out that it is not a principle of trades-unionism to put work which is not theirs on fellow-workmen, and threatening to take action if the weavers persist in their demand. At a meeting of the weavers, held on Tuesday night, the weavers' secretary replied to this communication, and defied the overlookers to do their worst, and so the *venue* of the battle-ground has been removed from the sphere of the employers, and will apparently be fought out between the two sections of trades-unionists themselves. It will be interesting to note the result of this new element in the dispute.

Cleckheaton.

It is stated that legal proceedings are being taken on behalf of the persons injured and the representatives of those who were killed by the recent accident at Marsh Mills.

The fatalities resulting from the fall of a mill chimney at Cleckheaton, six weeks ago, have now received another addition. Lizzie Wood, weaver, a single woman, who was badly injured by the fall of the chimney, succumbed on Tuesday, making the fifteenth victim.

Clitheroe.

Hope Mill has been closed by the Perseverance Mill Co., all the material left in the looms at the time of the fire two months ago having been woven. Some 200 people are thus out of work.

Darwen.

Messrs. Holden and Martin, of Hindle-street Mill, are adding 40 more looms to their present machinery.

The weaving class in connection with the Darwen Technical School paid a visit to the weaving department of the Manchester Technical School on Saturday last, accompanied by their teacher, Mr. William Myers, and the secretary, Mr. Hotherhall. The various looms and other machines in this extensive school were examined and explained by the teacher, along with one of the officials of the school. A profitable afternoon was spent, and the students were well pleased with their visit.

Heywood.

The threatened lock-out in the cotton spinning trade is causing great commotion in Heywood and district. The local association of masters has decided to fall in with the Federation of Master Cotton Spinners' Associations and close the mills. In accordance with this decision notices were on Wednesday posted in 17 mills, 10 of which are owned by limited liability companies and seven private firms, intimating to the operatives that the mills would cease work in a week. This will mean the stoppage of over 450,000 spindles, and the throwing out of employment of 2,500 operatives.

Huddersfield.

A disastrous fire occurred on Monday evening at the woollen mills belonging to Messrs. Joseph Hoyle and Sons, owing to the friction in a scribbler. In less than fifteen minutes the three upper floors were ablaze. The workpeople, 150 in number, escaped. The water supply at first was deficient, and in a short time the buildings were completely gutted. The falling floors smashed a two-storeyed building alongside, where spinning was carried on, and also the boiler house, bursting the boiler. The Liberal Club and the caretaker's house were subsequently demolished in a similar way. The mill was rebuilt after a fire which occurred eight years ago. The damage is estimated at £20,000.

Manchester.

Mr. John Slyman, merchant, has been elected a member of the Streiford Local Board.

Mr. S. Tong, silk manufacturer, has been re-elected a member of the Failsworth Local Board.

Mr. John Marsden, printworks manager, has been elected a member of the Levenshulme Local Board.

It has been announced that Mr. John Thompson has retired from the firm of Messrs. Curtis, Sons, & Co. the dissolution dating from the 31st ult. The business of the firm will be carried on under the same style, and we believe Mr. Thompson remains as principal manager.

We regret to announce the death of Mr. John Nasmith, of the firm of Messrs. John Hetherington and Sons, Limited, machinists, Vulcan Works, in this city. The deceased gentleman was born in Dumfriesshire in the year 1822, and was apprenticed as a mechanic, serving his time in the mill of Messrs. Cowan, Carlisle. In those early days machine-making establishments had hardly a separate existence, nearly all mills making their own machinery. In 1845 he removed to Manchester, and obtained an engagement in Messrs. Fairbairn's establishment. Subsequently, in 1850, he accepted an engagement with the late Mr. John Hetherington, whose works were then situated in Store-street. This was an important appointment to him, and has been maintained through the lengthened interval from that time to the present. As the internal manager he has had an important share in the great and successful development of this firm, displaying the most acute judgment and tact in dealing with the workmen, and great ability as an organiser. In the midst of the labour which this necessarily involved, Mr. Nasmith could always spare time for a little external work of a benevolent character. From 1850 to 1856 he was teacher of the classes in mechanical drawing at the Mechanics' Institute, Cooper-street, and for a long time was an active member of the Manchester Association of Engineers, of which he was president in the year 1863. He also took a very active part in the conduct and management of the Holt Town Ragged Schools, winning the affection and esteem of the waifs and strays brought into that

institution by the constant regard he manifested for the promotion of their welfare. The deceased gentleman leaves two sons, one of whom represents Messrs. Hetherington upon the Continent, and the other, Mr. Joseph Nasmith, is well known in Manchester commercial circles, and as the present editor of the *Textile Recorder*. The deceased gentleman passed away on Tuesday evening last, and will be interred at the Southern Cemetery to-day.

Nelson.

The quarterly report of the Nelson Weavers' Association shows that, notwithstanding the payment of over £1,500 in consequence of the recent strike, and of £160 for fires and breakdowns, there is only a loss of £30 on the quarter's working. "The element of non-unionists in our midst," says the report, "is the one great drawback to progress in our endeavours to improve the conditions under which we labour. Yet we feel that the time is not far distant when we shall be able to treat these non-unionists in a way they will not appreciate." Hitherto when strikes have occurred in the district the non-unionists have received what has been described as "loom pay" from the collections made at the mills and workshops. Notice is given on the agenda of the next quarterly meeting of members of the Association that a motion will be submitted proposing that after June 30th next no loom pay or other support be given to non-unionists during a strike. Another notice of motion is:—"That in the event of the manufacturers who are members of the Nelson Town Council, and have supported Messrs. Evans and Berry during the late strike, coming up for re-election in November, they be opposed by labour candidates."

Oldham.

The Clough Mill, at Shaw, which was a short time ago destroyed by fire, is being re-built, and operations have now been commenced.

The Honeywell Spinning Co. have placed their order for a new driving wheel with steel rim and pinion with Messrs. Saxon, the engineers.

The depressed state of trade seems to have knocked the projects of further mill building out of joint. Nothing is scarcely heard of them now except that they are "off."

The new mill of the Royal Spinning Co. is being roofed, and with favourable weather it will not be long before it is completely covered in and ready for machinery.

The Greenacres Spinning Co. have decided to renew a number of frames, and have placed the order for them with Messrs. John Hetherington and Sons, Ltd., Manchester.

Work at the Pearl new mill is being pushed on with, and the chimney is progressing for such a rate that it seems practically to be growing. The mill proper is also being got into ship-shape as quickly as possible.

Mr. William Wild, of Roundthorn, has been appointed mule overlooker for the New Earth Spinning Co., in place of Mr. William Whittaker, who has accepted a similar appointment under the Towley Spinning Co., Middleton.

The directors of the West End Mills Co. in their quarterly report, state that since the issue of their last report the steam engine driving Nos. 1 and 2 mills has been changed to the triple-expansion principle, and is now working very satisfactorily.

We understand that of late the Oldham Master Cotton Spinners' Association has been gaining in membership, and that there is every likelihood of the present agitation against the operatives' unions bringing more adherents to the cause.

Preston.

A number of cotton mills are already stopped in Preston, and more are preparing to adopt that course in the town and district. It is a long time since trade was so bad.

The Preston Cotton Spinning and Manufacturing Co. has made a profit during the last three months sufficient to enable them to pay a dividend of 1s. 6d. per share and, after depreciating, to place £300 to the reserve fund.

Radcliffe.

The members of the local Weavers' Association out of employment through the closing of the New-road Mills, received £5 5s. 4d. from the funds at the end of last week, whilst nearly £15 was paid to members at 11 other mills in the town for stoppages of various kinds.

On Thursday evening a meeting of weavers employed in the coloured goods trade in Radcliffe and Pilkington was held in the Co-operative Hall, Radcliffe, under the auspices of the Bury and Radcliffe Weavers' Association, for the purpose of adopting or otherwise the new list of prices recently arrived at by a joint committee of representatives of the masters and operatives. The chair was occupied by Mr. David Holmes, president of the North Counties Amalgamation, who was supported by Mr. F. Buttwale, J.P. (of Accrington), Mr. A. Buckley (Oldham), Mr. W. H. Wilkinson (Haslingden), Mr. J.

Mills (Bury), and others. The negotiations which had taken place were explained at length by the various speakers, the list being spoken of as an advance of 12 per cent on the Colne list. It being calculated upon the decimal principle regulated by the wheel, and no thoroughly reliable particulars having been obtainable from the weavers, the list had not been printed as in the case of the previous lists submitted, and after some division of opinion as to its acceptability, and some feeling on the part of some of the members present, the matter was put to the vote, but the voting was so evenly balanced that the Chairman said they could not take the responsibility of deciding which side of the question the meeting favoured, and that consequently they would leave the operatives to do the best they could. They had done their best, and he was certain the operatives would never get a better. The meeting then broke up, and the matter still remains in uncertainty.

Ramsbottom.

On Monday morning last Mr. S. Harrison, of Water-side Mills, Ramsbottom, purchased the New York Cotton Mills, Holcombe Brook, with the machinery and everything as it stands. The mill was formerly worked by Mr. Sidney Hutchinson.

On Monday about fifty of the labourers employed at Messrs. W. Rumney and Co's. Stubbins Printworks came out on strike, after serving their notice, for an advance in their wages. The strike has caused a stoppage of a considerable portion of the works.

Rochdale.

The death is announced of Mr. James Heap, of Milnrow, chairman for 15 years of the three ring spinning companies in that town.

Stalybridge.

A vacancy having occurred in the representation of Lancashire Ward, in the Stalybridge Town Council, the Spinners' and Minders' Association unanimously decided to nominate their secretary (Mr. Samuel Sidebottom) as a labour candidate. The two political associations in the town having previously decided not to resist the claims of the men to direct representation, Mr. Sidebottom has been returned unopposed.

At a meeting of the Town Council on Monday the Chairman of the Watch Committee contradicted some statements with respect to the cost of the extra police employed in connection with the strike, and said that the total sum expended up to 30th March was about £100. This, however, did not include the cost of horse hire for the mounted police. It would perhaps be well to ask Mr. S. Sidebottom, the new member of the Council, to procure a grant from his association to recoup the borough the sum it has been compelled to expend through the riotous conduct of its members.

The directors of the Stalybridge Cotton Spinners' Co., Ltd., in their report for the past quarter say:—"The dispute with the old workpeople still continues, and the Ashton and District Employers' Association have voted the sum of £1,880 as payment for this quarter. This large sum is voted in fulfilment of a promise made by them to meet all losses caused by the attempt to work the mill. The amount standing to the credit of profit and loss account is £1,366 9s. 6d., from which we recommend a dividend of 6d. per share, or five per cent. per annum. This will require £375, leaving a balance of £991 9s. 6d. to be carried forward. The share capital is £30,000 and the loan £51,556. The fixed stock is valued at £63,661, and there are 39,420 twist and 36,000 weft spindles."

Stockport.

It has been agreed upon in the Stockport district to act upon the recommendation of the Cotton Spinners' Federation. Accordingly a week's notice was given on Wednesday (the making up day) of a general stoppage, pending the settlement of the Stalybridge dispute. The statement in a Manchester daily paper that Stockport would not be concerned in the lock-out was incorrect.

At the monthly meeting of the Town Council on Wednesday, a vote of condolence was passed with the family of the late Colonel McClure (cotton manufacturer), chairman of the Finance and General Purposes Committee, Mr. Alderman Joseph Leigh remarking that he did not think the town would be satisfied unless there was something more substantial as a memorial of one of the best men that Stockport ever had.—On the nomination of the Cheshire County Council, Mr. C. H. Nevill, of Bramhall Hall; Mr. James Leigh, of Manor House, Brinnington; Mr. T. H. Sykes, of Cringle House, Cheadle; and Mr. T. E. Tatton, of Wythenshawe, were appointed members of the Committee of the Stockport Technical School; also Mr. T. T. Shann, representing the Heaton Norris Local Board.

Todmorden.

The School Board for this district has instituted a weaving class, and for that purpose has taken premises in Dale-street.

SCOTLAND.

Dundee.

This week the great firm of Baxter Bros. and Co. announce that they have become a Limited Company.

For all practical purposes there is no change. The works have not been sold to outsiders nor have any valuations of any interest to the trade been made. The arrangement has been carried through in the most simple fashion so that the facilities afforded by the change may enable the partners to take advantage of all the conditions which limited liability confers.

Mull.

A Mull correspondent writes: "Russia and the Ross of Mull are two names which have been strangely associated for almost the last sixty years. This may not be surprising to those who know the romantic story of Catherine M'Kinnon, the Ross of Mull girl who by a curious stroke of good luck found her way as nurse into the Imperial Family of Russia. The Highland nurse seems to have instilled the mind of the young prince (the late Czar), whom she nursed, with ideas of the 'wild traditional' country to which she owed her birth, and the present representative of the Czar seems to retain pleasant memories of Catherine's fatherland, for his Imperial Highness desired and obtained a suit of Mull-spun tweed, woven within a few miles of the now ruined cot where Catherine spent her childhood. The order was received by a Mull gentleman through the Duke of Edinburgh, and has been executed by James Lamont, weaver, Arlton, near Banessan. The cloth is of the usual Highland kind—a homely-looking tartan, in which the prevailing colours are lichen and indigo. The old weaver, a good specimen of the modern Highlander, does not seem to take the least pride in the Royal patronage."

Miscellaneous.

THE RATING OF MACHINERY BILL

DEPUTATIONS TO MR. RITCHIE.

On Tuesday afternoon a deputation in opposition to the Rating of Machinery Bill waited on Mr. Ritchie in the Conference room of the House of Commons. The deputation, which was introduced by Sir E. Grey, M.P., consisted of representatives of the Central and Associated Chambers of Agriculture, the London Farmers' Club, the United Property Owners' Association, the National Amalgamated Sailors' and Firemen's Rating Union, and the Birmingham and District Joint Committee.

Sir E. GREY said the deputation took the position that an attempt was being made to shift the incidence of rating from one section of the community to other sections of the community, and that such a change ought to be undertaken by the Government and not on the initiative of a private member. (Hear, hear.)

Sir E. BIRKBECK, M.P., informed the president of the Local Government Board that the representatives of the agricultural interest had had this subject under consideration for several years, and they had done their utmost to prevent the proposal of the present bill becoming law. On former occasions when the proposal had been submitted to the House of Commons the members of the Government had gone into different lobbies, voting as they thought fit, and as the interest of England's trade was at stake the deputation urged the Government to consider whether they would not deal with the question themselves by carrying out the recommendation of the Select Committee of 1877, and introducing a bill dealing with the whole question of rating and the assessment. (Hear, hear.) The Local Taxation Committee, which he represented, were of the opinion that the effect of the bill would be to throw further charges on land, houses, and other property, and to relieve manufacturers of a part of their present liability to rates—a proposal on the face of it manifestly unfair. (Hear, hear.) It was, in fact, not hard on the manufacturers to describe this as a Manufacturers' Relief Bill. The tenant farmers throughout England felt aggrieved that in their present time of adversity, and at a time when the Government had under consideration a bill for giving small occupiers an opportunity of acquiring some amount of land, an attempt should be made to throw on their shoulders a burden which ought properly to be borne by manufacturers. A number of petitions had been presented in opposition to the bill, and the deputation, on behalf of the agricultural interest, asked the Government to state on the second reading on Wednesday that they would introduce a measure dealing with the question as he had indicated. The agricultural interest would be sorely disappointed if the Government did not give them support in this matter by opposing the bill. (Hear, hear.)

Mr. RITCHIE, in reply, assured the deputation that there was no class in the community on whom the present Government would be more unwilling to impose increased burdens than on those engaged in agriculture. The Government knew the great difficulties they had had to contend against, and they had in some degree shewn by their acts that they desired to alleviate some of those burdens. It would therefore be very much against his wish and the wishes of his colleagues to do anything which would affect the

agricultural interest for the worse, either in this or in any other respect. (Hear, hear.) But the Government must take care, in their anxiety to be just to one class, that they did not overlook the claims of other classes of the community. The manufacturing classes said they had great reason to complain of some recent decisions with regard to the rating of machinery, decisions which had gone contrary to what were the accepted principles of assessment and contrary to what was always understood to be the practice of Assessment Committees throughout the country. They also asserted that there was great divergence in the views which were taken by those responsible for assessing various properties—that, whereas in one town machinery of a certain class was rated, in another town machinery of precisely the same class was not rated; and they were supported in these assertions by the fact that the Select Committee on the subject unanimously came to the conclusion that the rating of machinery ought to be put on a more distinct and uniform basis. The manufacturers were also supported in their proposition to amend the law so as more clearly to define it by the two decisions of the House of Commons on the subject. The year before last a division was taken on a bill somewhat analogous to the present bill, and the supporters of the measure were largely in a majority; while last year a bill on similar lines was read a second time in the House of Commons without a division. The Government had not adopted either one bill or the other, but had left the House to deal with the question as seemed best, reserving to themselves the power of presenting such amendments as they considered necessary in order not to depart in any large degree at least from the existing law, but more clearly to define the existing law so as to do away with the conflicting practice of Assessment Committees. He did not imagine that the Government had gone any further than that in assenting to the second reading of the bill. The present deputation urged that if legislation took place in regard to the matter it ought to assume very much larger dimensions. He had very great sympathy with gentlemen who urged that the incidence of taxation ought to be enlarged, and he agreed that they should bring in, for the purpose of rates, property which was not now rateable at all. (Hear, hear.) That, however, was a very large question, and while admitting the justice of the appeal that the Government should prevent a private member dealing with a small and limited part of this question, he must remind the deputation that many extremely useful reforms had been effected in bills of private members dealing with only very small parts of a subject. He refused therefore to acknowledge that because the Government could not find time to deal comprehensively with this question they should prevent private members from attempting to deal with some particular part of the question which was felt to be a grievance, and perhaps in some cases an admitted grievance. He would be very sorry, however, if the outcome of this bill was to cause an unjust shifting of rates, and if the Government saw that was likely to be the result it would undoubtedly be their duty to oppose the bill. (Hear, hear.) In all the circumstances he did not think the Government would be justified in departing from the neutral attitude which they had hitherto assumed on the subject, on the clear understanding that in Committee they would propose such amendments as would remove the appearance of injustice. He did not hesitate to say there were provisions in the bill which were quite unsatisfactory, and if the bill were read a second time it would be the duty of the Government to endeavour to remedy anything wrong or unjust. Farther than that the deputation would not expect him to go. If the bill passed he hoped there would be no reason to complain that it had done substantial injustice to any class of the community.

Sir E. GREY thanked the right hon. gentleman for the reception accorded to the deputation.

Subsequently, in the same room, Mr. Ritchie received a larger deputation which, representing many of the assessment committees throughout the country and a considerable number of trade societies, attended to support the bill. Sir W. H. Houldsworth, M.P., introduced the gentlemen delegated by the assessment committees, and Mr. Broadhurst, M.P., those coming from the trade societies. Among other members of the House of Commons present were Mr. Jacob Bright, Mr. Howorth, Mr. Maclure, Mr. Summers, Mr. Isaac Wilson, Mr. Mowbray, and Mr. Jacoby. Mr. W. T. Smith, Mr. J. D. Milne, Mr. George Milner, and Mr. W. M. Mollison were present on behalf of the Overseers of Manchester, and Mr. George Rooke represented the Manchester Board of Guardians.

Sir W. HOULDSWORTH said that as Mr. Ritchie was the first member to introduce this question into the House of Commons some time ago he was well acquainted with the object of the deputation. About 18 assessment committees were directly represented that day, and their views on the subject were shared by the members of many committees which were not represented. Returns obtained shewed that

out of 65 assessment committees 54 were acting upon the principle laid down in the bill, while only 11 had made unsatisfactory compromises with regard to litigation. The committees were perfectly bewildered in the exercise of their duties, and most of them felt that if they were to advance at all in the direction which certain decisions of the courts of law had indicated they would be doing gross injustice. The bill presented this year had been altered so as to meet some of the objections previously taken. The opponents of the bill did not say that machinery was not rateable, and what had to be discussed was how far any kind of machinery should be taken into consideration when hereditaments or premises containing that machinery were being assessed. They had gone on the principle that the gross annual value of the premises when let to a tenant should be the basis of assessment, and they had included as fair subjects for rating, engines, boilers, shafting, gas and water pipes, because, as a matter of practice, these would all be included in premises let to a tenant who was going to put machinery in for a manufacturing process. They went further and said that in assessing manufacturing premises machines which were of a character that they could not be removed without removing some part of the hereditament should be considered as part of the hereditament and included in the assessment, and gentlemen present were prepared to say that the Assessment Committees would have no difficulty whatever in carrying that principle out in practice. The bill had been drawn not with the object of benefiting one class more than another, but with an earnest desire to do justice to all concerned, and not to make any change in what they believed was the statute law. He desired to read an extract from a letter he had received from Mr. Thomas Lings, the comptroller of poor rates for Manchester, who was an undoubted authority on the subject. (Hear, hear.) Mr. Lings said:—"I am able to say from personal experience as the comptroller of poor rates for the township of Manchester, that there is absolutely no foundation for the statement that the bill to amend the law as to the rating of machinery will in any way affect the existing poor rate for the city of Manchester, or render a revaluation necessary. From my experience I am also able to say that the bill practically embodies the principle which has always been adopted in the manufacturing districts of Lancashire, Cheshire, the West Riding of Yorkshire, and, I believe, throughout the midland counties also. I therefore think it is equally without foundation to say that the bill, if passed, will render new valuations necessary in any of those districts. In support of this view I may point out to you the evidence given before the Select Committee of 1887, when the value for the parish of Birmingham stated that the custom there was to rate the whole of the machinery in a factory at £2 per nominal horse power of the motive power. I am inclined to think that where a principle of this kind has been adopted the bill would rather tend to increase the rateable value of factories than otherwise. Revaluations would only be required in those few unions where the authorities have disregarded the recommendation of the Select Committee of 1887 and have attempted, with more or less success, to put the new theory of rating of machinery into force. I may, however, point out that even in these places this attempt has generally led to litigation which has ended in a compromise, as in the notorious Chard case, where the authorities gave up half the increased value they contended for rather than continue the fight."

Mr. BROADHURST read a resolution which had been adopted by 55 trade societies, expressing the view that the rating of machinery is a mischievous tax on labour, an indirect fetter on the industry and commerce of the country, and highly injurious to the national interests, and hoping that the Bill would be supported by all who wished well to our great manufacturing interests. The hon. member said that among the working classes there was an almost if not quite unanimous opinion that whatever else they neglected this session, the Government should, at all events, see that the Rating of Machinery Bill was passed into law. (Laughter, and hear, hear.)

Dr. Rhodes, of Chorlton; Mr. A. H. Bonser, representing the Midland Counties Federation of Hand Framework Knitters; Mr. Eli Bloor, Glassworkers' Association, Birmingham; and Mr. T. Wright, Nottingham Operative Lacemakers, having spoken in favour of the equitable proposal of the Bill,

Mr. T. MAWDSLEY, on behalf of the Amalgamated Association of Operative Cotton Spinners, assured the President of the Local Government Board that the result of a calculation shewed that if machinery was rated the whole of the present profits in the cotton industry would not be sufficient to pay the rates, and if the whole of the employers' profits were in that way absorbed, the employed might possibly suffer a large proportion of the losses. They did not like to contemplate such a calamity, and they therefore hoped the Government would assist in passing the Bill. (Hear, hear.)

Sir W. HOULDSWORTH said that consideration for the right hon. gentleman alone prevented him calling upon gentlemen present to shew that the views put

forward came not merely from the assessment committees of Lancashire and Yorkshire, but from every other part of the country.

Sir H. JAMES urged the necessity of making the law certain with respect to rating. At the present moment, in consequence of the Chard decision, it was almost impossible for laymen to know how they were to read the law or how to administer it. In committee there might be differences of opinion with respect to the exact definitions to be employed, but it must be agreed that the definition ought to be certain. (Hear, hear.)

Mr. RITCHIE, who at both deputations was accompanied by the Attorney-General, said the great importance of the question was illustrated by the large numbers of the deputation, and by the variety of bodies from which that deputation came; but that there were two sides to the question was evident. An hour ago he received a deputation almost as large and as important, coming from various industries, one of them the greatest industry in the country—agriculture,—which put before him a totally different set of views to those advocated by the present deputation. While, on the one hand, this deputation threatened the Government with disaster at the general election if they did not support and carry this bill, they were, in perhaps not such strong language, threatened by the other deputation with equal disaster if they supported the bill—(laughter)—and while there were gentlemen present representing the working classes who asserted that it was in the interests of the working classes that the bill should be passed, an hour ago he heard representative men belonging to the working classes urging that it would be absolute ruin to them if the bill were passed. (Laughter.) Sir H. James said very truly that the great difficulty in connection with the question of the rating of machinery lay in the want of a clear definition of the law, but to arrive at that clear definition was one of the most difficult tasks which could be set the Government. He did not understand that the deputation came there with the view of pressing upon the Government the duty of endeavouring materially to alter what had always been understood to be the existing law with regard to machinery, but rather that the law and the practice previous to the Chard decision should be put in plain language in an Act of Parliament, so that there might be uniformity in the arrangements which were made by assessment committees. (Hear, hear.) The Government would be very glad if they could get this vexed question settled, but when they came to the question of how to define the existing law great difficulty arose. The Government proposed to-day to adopt the attitude which they had previously taken in regard to the question, viz., the attitude of neutrality. Under these circumstances he imagined that the bill would be read a second time, and the deputation might therefore rest satisfied with the course which would be taken. (Hear, hear.)

The deputation thanked the right hon. gentleman for the interview.

The following account of the discussion in the House of Commons on the second reading of the Bill is by the Parliamentary correspondent of the *Manchester Guardian*:—

The appearance of the House of Commons during several hours of the afternoon did not indicate the existence of any such keen interest in the Rating of Machinery Bill as was manifested in the measure of last year. It was understood that forty or fifty members were desirous of speaking on the subject, yet few were present within the Chamber during the greater part of the day, and many of the speeches that were delivered were of unusual length and little attractiveness. Only by resort to the expedient of a count could a quorum be obtained at half-past twelve o'clock, and then it consisted in the main of Lancashire representatives. Mr. Gerald Balfour took up an hour and ten minutes in moving the second reading, and enlarged in a rather depressing manner on the confusion in the operation of the law which had been caused by the decisions in the Leigh and Chard cases. He pointed out that the House had already on two occasions affirmed the principle that machines, tools, or appliances which are not fixed or only so fixed that they can be removed from their place without necessitating the removal of any part of the hereditament should not be taken into account as enhancing the value for the purposes of rating, and he directed attention to certain modifications made in the proposal with the view of disarming criticism, the most important being the proviso that the gross annual value of any hereditament should be estimated at not less than the sum at which it might reasonably be expected to let for the purposes for which it was used on a tenancy from year to year, void of the machines, tools, and appliances to be supplied by the tenant. While Mr. Gerald Balfour discoursed the front Opposition Bench remained entirely empty. Mr. Ritchie was in sole possession of the Treasury bench for a time, but almost as soon as Mr. A. J. Balfour arrived to listen to his brother the President of the Local Government Board withdrew, leaving the First Lord of the Treasury as the one representative of the

Ministry. Afterwards, when Mr Gerald Balfour had finished, and the Leader of the House had disappeared, Mr. Ritchie returned, and was again for a considerable time the one personage visible on the front Government bench. About the same time Mr. Herbert Gladstone sat at one end of the front Opposition bench and Sir Henry James at the other. Mr. Roby, Mr. Mather, Mr. S. Smith, and Mr. C. Wright being behind them. The debate proceeded at such a deliberate pace as to preclude all hope of the next order of the day being reached—the Scotch Local Veto Bill, to watch over which measure many visitors had come down to the lobby. Sir E. Birkbeck opposed the Rating of Machinery Bill, professing in the interests of agriculture, and condemning it as a mischievous attempt at piecemeal legislation, proposed the rejection of the measure. It was also opposed by Mr. Joicey, who feared that it would cause a reduction of workmen's wages and be disastrous to the rate-payers generally. No more striking illustration of the difference of opinion prevailing on the matter could have been found than was afforded by the fact that Mr. Elton approved of the bill as being likely to benefit the agricultural classes. Mr. J. Kelly, having frittered away many precious moments in denouncing the bill, Mr. Mather gave it powerful advocacy. He took precautions to guard himself against expected attack from Mr. Storey with his "sledge-hammer eloquence," and he made a capital hit by describing Mr. Graham as "the picturesque champion of the working classes." When Mr. Storey's opportunity arrived he did not spare the cotton and woollen manufacturers, who, in his opinion, sought to obtain inequitable relief from rates. Subsequently Sir W. Houldsworth, Mr. Winterbotham, and Sir Henry James spoke in favour of the Bill, and then, as the hour was late, Mr. Ritchie broke the silence which had so long been preserved on the part of the Government. They would not, he said, resist the second reading or abandon their position of neutrality on this question, and for his own part he cordially approved of the Bill. Sir H. Davey agreed in the opinion that the law on this subject, which was now artificial, uncertain, incomprehensible, and unequal, ought to be made clear, and finally Mr. Graham appealed, with abundance of gesticulation, to the House not to sanction the Bill. A strong muster was made for the division, which produced a scene of great animation. The cross-voting was almost bewildering. Amongst those who voted for the second reading were Sir William Harcourt, Sir Charles Russell, Sir Henry James, Mr. Fowler, Mr. Stansfeld, Mr. Mundella, Mr. A. Morley, Mr. Mather, Mr. Roby, Mr. Summers, Mr. Potter, Mr. Lockwood, Mr. Asquith, Mr. Courtney, Mr. Gibbs, Mr. Johnston, Sir William Houldsworth, Mr. Tomlinson, Mr. Hanbury, Mr. Madden, the Irish Attorney-General, Lord Cranborne, the Lord Advocate, Baron H. de Worms, and the president of the Local Government Board—Mr. John Morley, Lord A. Hill, Mr. J. Chamberlain and his brother and son, Mr. Justin McCarthy, Mr. Storey, and Mr. Conybeare recorded their votes against the Bill. The second reading was carried by the large majority of 232 against 122, and the business of the day practically came to an end.

AMERICAN VERSUS ENGLISH METHODS OF CARDING.

A pretty little quarrel is going on in the columns of *Wade's* over the above-named subject. Without expressing any opinion one way or the other, it may perhaps be admissible to describe the nature of the dispute, which is due to some recent remarks of a correspondent signing himself *Capron*. *Capron* had the temerity to speak disparagingly of American work and workmen in certain respects when compared with those of England. He referred also to the inability of American manufacturers to export woollens. Some of the correspondents who have replied, after levelling a good deal of abuse at the writer, say that American manufacturers do not require to export their woollens to England, as they have a market in their own country for them. "I can cite you a number of mills in the New England and Middle States," says one correspondent, "the finished product of which cannot be excelled even in good old England." And then follows a piece of Yankee exaggeration in the shape of a statement that "the best looms in the world are made in Worcester and Philadelphia." Mr. C. A. Cobbett is also responsible for the assertions embodied in the following extract:—"The object of carding is to straighten out the fibres and lay them parallel with each other, and when any carding machine has accomplished that, it is all it is capable of doing, or that it is necessary to do. The quality of all shoddies depends altogether on the quality of the stock that was used to make the cloth that the rags were clipped from. Shoddy

made from rags that were clipped from cloth made from Australian wools has the same fineness of fibre as ever, but slightly defective and shortened by former manipulation; but if handled a right second time it can be made into first-class looking cloth. There are just as many different grades of shoddy as there are different grades of rags, and one mill may be working shoddy and another one all wool, and still, the one using the shoddy may be working the best stock; and when a writer speaks of a mill working shoddies, in order that a reader may fully understand him, he should designate the qualities of stock correctly. The statement that American manufacturers, in order to compete with the English manufacturers, would have to use cotton rags, is misleading. I will make this statement, that neither can Mr. *Capron*, nor any one else in this country, nor in England, nor on the Continent of Europe, neither is there a machine (*sic*) made that can convert cotton rags, the cloth of which was made from hard twisted yarns and woven on a cotton loom, into shoddy. The twist is there to stay; the teeth of the pickers and the wire of the carding machine cannot penetrate the hard twisted cotton thread any more than a cannon ball will the rock of Gibraltar; but cotton rags composed of soft or medium twisted yarn, and classed as so's, can be, and are at this present time, by American manufacturers, picked and carded into shoddy, and not a trace of the thread visible. But man cannot make something out of nothing; the finished fabric will be, in quality, in accordance with the stock used. The difference in looks and in the feeling of the finished goods lies almost wholly in the skill and ability of the finisher and the machinery he has to work with. I have for the last twenty years had constant experience in carding and picking stock, and I know something about it; not a theoretical knowledge, but practical. One carding machine is not superior to another in its carding capacity only to the extent that one exceeds the other in surface. I have not said anything detrimental to the English card or English carder; in fact, ever since the first time I ran the one-doffer card I have favoured that system, but I favour the Bollette condenser. The construction of the first machine was crude, but the principle is correct, to my mind. I favour narrow rings, or the sliver divided into many strands. This method is beneficial to the manufacturer of yarns using short stock, as it gives him an increased production and better thread."

There have been several replies to Mr. Cobbett's assertions, the more sensible of the writers, who disapprove of "patriotic outbursts," approving of the policy of listening carefully to criticism, while others ferociously attack *Capron*, and say in effect that American methods are the "best on earth." Mr. G. W. Wilcox, of Middlefield, Mass., says:—

"That a mill or two here and there up and down this country cannot be picked out whose goods compare favourably with similar English products, I do not say, but this exception only proves the general rule. The reason for English supremacy is just as susceptible of proof as the fact of it. The making of a piece of cloth begins with selection of material, and the making continues until it is ready for the trade. With us selection is often guess work or experiment in part, for we are largely imitators, and our Yankee propensity to make something out of nothing often leads us into error and disappointment, for with experiment at the beginning, it is possibly the same to the end. With them selection is a matter of adaptability and known quantity; thus success is comparatively insured at the beginning, final success being determined (barring accidents) by following this line in detail through different operations. Among all the causes of a bad ending none are more frequent and sure than a wrong beginning. If we in this country were less in a hurry, paid more attention to detail and condition, cause and effect, we might in a little time *begin* to talk of our ability to compete with the English manufacturer in making good yarn out of poor stock, but to-day the less we brag the better we will feel when the truth is known. The fact is we are away behind in system, in this most essential department in working low stock, and all the argument in the world will not down it either. Conditions equal, American labour learns none in the world. No Englishman can come here and *show* us how to operate *our* carding machines to get the best results, but they can show us a system of carding on the other side which it would be profitable for our manufacturers to adopt if they expect to be in the van of competition either in cloth or yarn."

Speaking of English yarns, *Capron* says in a further communication:—"There is a peculiar look to English carded yarns that I do not and have never seen on our own. I do not know that I can express this difference that I clearly see, and it is usually given in the terms 'even,' 'round,' 'full,' etc.; but none nor all of these terms express the difference that I desire to make plain in words. To be sure, the general appearance is readily noted, but it does not arise from fullness, evenness, or roundness alone, although without these elements it could not be brought about. Any one knowing the difference between yarn spun from roving made on a tube condenser, and that made from rub-

roll roving, will come nearer to understanding the full meaning of the difference which I fail to find words to express as I desire. It appears to me largely in the lie of the fibres and the twist. Over these a peculiar twist effect is given to the yarn, no matter what the stock, that is not fully reached here, so far as I have seen. It is smooth and free from the shagginess prevailing with us, and the twist, or effect of twist, makes another and distinct part of the difference between English and American yarns. I have often heard it stated that tube-roving yarn makes the best felting thread. I will not enter into any contention as to that, but no shaggy thread, whatever the condensing mechanism, possesses these peculiarities of the English yarns which give them their fine appearance. Of course it is understood that I speak of carded, as distinct from combed yarns. It is further noticeable that there is less average twist in English than in ours. If only their methods of carding and using twist will produce this effect, either we do not understand their methods, or fail to profit by them if known to us. We do not produce this effect, and it is better than our own. The only way that I can be convinced to the contrary is by the yarn itself, carded and spun on this our "native heath," and by American operatives. I am not basing my contention upon the Crowther samples, nor upon any particular class of yarns, but yarns generally, whatever the qualities of stock entering into their composition. One other way of expressing this difference is, that the American thread is a jumble of fibres as to position, whilst in that of English make the fibres and spiralling forms given them by the thing called "twist," are plainly to be seen.

A destructive fire has occurred at the Seebore Jute Mills, Calcutta.

The directors of the Bowreah Cotton Mills, Calcutta, are again to the fore with a reconstruction scheme, one feature of which is the addition of 20,000 spindles.

On Sunday, at New Orleans, five cotton presses were destroyed by fire with their contents of 80,000 bales of cotton. The loss is estimated at \$4,000,000.

A BIG "RING" IN CANADA.—Questions were asked in the Dominion House of Commons on Monday on the subject of a syndicate which, it is stated, has recently obtained the control of all the cotton mills in Canada. It was stated that if the price of cotton were raised the Government would abolish the duty on the manufactured article.

ADVICES from Singapore state that the foreign trade of China during the past year reached a value of 234,000,000 taels, an increase of 20,000,000 taels on the preceding twelvemonth. In raw cotton there has been a large decrease. The exports of silk show a large increase—102,000 piculs of raw and 60,000 of waste. The amount of tea exported has only slightly increased. The Customs yielded a revenue of 23,500,000 taels, showing an increase of 1,500,000 taels.

Textile Markets.

COTTON.

MANCHESTER, FRIDAY.

The crisis to which the trade has for a considerable time been steadily tending is now beginning to definitely outline itself upon the horizon of the near future. The long and persistent decline in the value of the raw material has made the conduct of business exceedingly difficult, and has reduced profits, taken on an average, to *nil*. When to this is added the harassing conduct of the trades-union officials in the cotton trade, to which we have made frequent references in the past, the results of pursuing the trade really offer no compensation for the worry it involves. Two of the largest and finest mills in Lancashire, at which the very highest wages have been earned by the operatives, are now at a standstill. The first of these is the mill of the Stalybridge Spinning Co., which was struck six months ago, and the second is that of the Accrington Spinning Co., which was struck three months ago, and both upon the flimsiest and most baseless allegations as to laddness of materials—allegations which were completely disproved before the strikes took place. In each case it is sought to establish a purely arbitrary standard of what constitutes good and bad spinning, but even under this allegation there was no justification for either strike, as in neither case did the breakages of threads come up to the number sought to be laid down as a basis. The real purpose of both strikes has been to demonstrate the power of the trades-union leaders to harass the employers, and keep them in due subjection by that means. It is this tyranny that the federated employers are now determined to repel, and on Friday last they resolved that all their members

should close their mills for an indefinite period not later than the 16th inst. The firms in union own 17½ million spindles, and to these must be added a considerable number belonging to other spinners who have coalesced with them, which will bring up the number of spindles represented in the movement to fully 20 millions. The weekly wages paid in these establishments will aggregate £60,000, and from this may be inferred the enormous importance of the movement. There is far more cohesion in the trade now than ever before, and absolute unanimity in the desirability of this action. From this it will be gathered that the outlook for business at the present moment is anything but pleasant.

One of the most incomprehensible features of the Liverpool market is the manner in which trivial events, and others having absolutely no relationship to current matters, are seized upon as pretexts for advancing prices. The past week has afforded several such illustrations. On Saturday it was found that the week's receipts at the ports were about 25,000 bales behind those of last year; therefore prices must be put up, and put up they were. It took all the force of the impending stoppage in the spinning trade to neutralise this. On Sunday a fire occurred at New Orleans, which was alleged to have destroyed 50,000 to 80,000 bales of cotton; up must go prices in spots and futures ½d. per lb. In the meantime, confirmation of its destructiveness is needed. On Wednesday the U.S. Statistical Department made public a bit of ancient statistical history in the shape of the fact that the land under cotton cultivation for the season 1839-90, was 19,566,000 acres, against somebody's estimates of 19,327,000 and 20,309,000 for the same season. On these figures becoming known we are told that there was a quick rise of 2 to 2½ points. Will anybody explain what greater influence this fact will or can exert upon the present or future condition of the trade than that of the execution of King Charles or the death of Queen Anne? But anything is regarded amongst operators in cotton as a sufficient justification for attempting to raise prices: the slightest ripple upon the surface of the Atlantic, or the shadow of a sea bird skimming its glossy surface, are occurrences justifying an advance of ½d. or ¾d. per lb.! What a pity the trade should be led away by such delusions.

COTTON.—On Saturday last the market opened showing some excitement, owing to a recurrence of small crop movements to the ports, and a deficiency in the stock in Liverpool of 68,000 bales. Operators became excited and prices went up, but through the threatened action of the trade and the increasing adoption of short time in several spinning districts the improvement was lost, futures closing ½ a point lower than the previous night. In spots, all growths were quiet and unchanged. On Monday there was again an increase of strength in the future department, owing to a fire at New Orleans, said to have destroyed 80,000 bales of cotton. Futures grew excited and advanced 4 to 5 points, of which only about ½ a point had been lost up to the close. Though there was very little demand for spots, quotations were advanced ¼d. Other growths were dull and unchanged. On Tuesday the market again relaxed, and futures dropped 3 to 3½ points, but subsequently recovered 1 point before the close. Spots eased off fully ¾d., but the official rates were not altered. Other sorts were dull and irregular, but owing to special scarcity Tinnivelly was put up ¼d. On Wednesday the market opened quietly, but on some old crop-acreage figures coming to hand a spurt was made and prices ran up 2 to 2½ points, which were maintained. On the spot there was a very small demand by the trade, but this was increased by speculators; prices were unchanged. Egyptian was very slow and irregular. East Indian was also in limited request, but Tinnivelly was again advanced ¼d. on account of scarcity. Yesterday brought the usual slight fluctuations in futures, which left at the close of the day an unchanged record, save a partial advance of ½ a point. Spots were steady. Brazilian was dull, and was reduced ¼d. Egyptian, fair to fully good fair, was brought down a like figure. For East Indian there was little enquiry.

The following are the official quotations of the Liverpool Cotton Association:—

	G.O.	L.M.	Md.	G.M.	M.F.
American.....	3¼	3⅜	3⅝	3⅞	4⅛
			M.F. Fair.	G.F.	
Pernam.....	3⅜	4	4½	4¾	5
Ceara.....	3⅜	4	4½	4¾	5
Paraiba.....	3⅜	4	4½	4¾	5
Maranhã.....	3⅜	4	4½	4¾	5
	Fr. G.F. F. G. F. G. d.				
Egyptian.....	4⅛	4⅜	4⅝	4⅞	5
Ditto white.....	4⅛	4⅜	4⅝	4⅞	5
	Fr. F.F.G.F. F.G.F. Gd. F.G. Fine.				
M.G. Broach.....	—	—	3⅜	3¾	3⅝
Dhollerah.....	2⅝	2¾	3	3¼	3⅜
Oomra.....	2⅝	2¾	3	3¼	3⅜
Bengal.....	—	—	2⅝	3	3¼
Tinnivelly.....	3⅝	—	3⅞	4	—

* Nominal.

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

	Import.	Forward.	Sales.	Stock.	Actual Export.
American	49,874	42,425	33,800	1,440,010	5,025
Brazilian	1,557	205	180	51,510	—
Egyptian	3,804	3,993	2,830	117,580	642
West Indian	71	562	960	29,030	137
East Indian	3,664	1,910	940	35,300	424

Total .. 59,030 .. 49,095 .. 38,710 .. 1,673,430 .. 6,228

The following are the values of futures at mid-day on each day of the week—American deliveries—any port; bases of middling: low middling clause; (the fractions are in 64ths of a penny):—

PRICES OF FUTURES AT 1.30 P.M. EACH DAY.

	Satur-day.	Mon-day.	Tues-day.	Wednes-day.	Thurs-day.	Friday
April.....	3-34 35	3-37 38	3-35 s	3-38 s	3-38 b	3-40 41
April-May	3-34 35	3-37 38	3-35 s	3-38 s	3-38 b	3-40 41
May-June	3-37 s	3-39 b	3-36 37	3-39 40	3-39 40	3-42 s
June-July	3-40 s	3-42 b	3-39 v	3-42 b	3-42 b	3-44 45
July-Aug.	3-42 43	3-45 s	3-42 s	3-45 v	3-45 b	3-47 1
Aug.-Sept.	3-45 46	—	3-45 s	3-48 s	3-48 b	3-50 b
September	3-48 v	3-48 s	3-47 48	3-50 51	3-50 51	3-52 53
Sept.-Oct.	3-48 v	3-50 51	3-47 48	3-50 51	3-50 51	3-52 53
Oct.-Nov.	3-50 51	3-50 51	3-50 s	3-53 s	3-53 s	3-55 s
Nov.-Dec.	3-53 s	3-53 s	3-52 b	3-55 b	3-55 b	3-57 58
Dec.-Jan.	—	3-55 s	—	—	—	—
Feb.-Mar.	—	3-57	—	—	—	—

Price of Mid-American.	3-9-16	3½	3½	3½	3½	3½
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Estimated Sales including Spec. and Export.	5,000	7,000	6,000	8,000	8,000	6,000
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YARN.—Yarns opened on Saturday with a slightly steadier aspect on the part of sellers, but apparently with little change in the disposition of buyers. A very slight increase of enquiry was reported in some quarters, and as a result the recording of an additional transaction or two. There was no change in prices. On Monday there was perhaps a slight increase of enquiry in the various departments, but it was not sufficiently strong to induce any change in the attitude of spinners, who were quite willing to take late rates for prompt delivery; for more distant engagements they were more difficult to arrange with. On Tuesday this feeling continued, and perhaps slightly increased in strength. Taken all round, however, the demand was only indifferent, and the aspect of the market only exhibited varying degrees of dullness. On Wednesday this feeling had made more progress, and sellers felt a distinct improvement both in the volume of enquiry and in actual transactions, as stock lots of average qualities were often picked up at old prices. Generally, however, spinners asked advances, but in such cases did not meet with ready purchasers. The conviction that a stoppage of spindles is sure to take place continues to influence the yarn market, and prices are distinctly dearer. Manufacturers have been the chief operators, as they had depleted their working stocks as far as possible, and have been replenishing to provide for contingencies. This, of course, cannot be called a healthy demand, as it does not originate in any increase of enquiry for cloth, and its effect is simply to transfer stock lots into other hands.

CLOTH.—There was, as usual, very slight enquiry for cloth on Saturday. On Monday the demand was most meagre and disappointing, that from India and China being less in amount, whilst the improvement in the disposition of South American importers, so far as the Argentina is concerned, has been checked by the outbreak of political troubles. No improvement was discernible on Tuesday from these sources, whilst the advices from other quarters, though of varying character, were in no way exhilarating. On Wednesday there was no improvement, and manufacturers are in many cases beginning to find orders running somewhat low. Yesterday there was no improvement in the demand for cloth, but rather the reverse. Manufacturers are getting very bare of orders, and would gladly welcome a change.

In its general features the market remains unchanged from yesterday. Perhaps the salient features of the yarn section are a little stronger.

WOOLLENS AND WORSTEDS.

BRADFORD.—The London sales have not appreciably influenced the local trade, and the purchases made are merely for current wants. Cross-breeds are slow and unchanged. English wools keep steady. Alpaca has been rather brisker, but mohair is dull. Yarns are quiet, foreign buyers only purchasing small quantities at the rates asked. Two fold worsteds are dull. Low mohair yarns are asked for, but spinners' prices are considered too high. Pieces are quiet.

Huddersfield.—There has been rather a better attendance of buyers in the market through the week. The home trade is certainly feeling the benefit which the long-expected change in the weather is bringing. In the warehouses there has been a fairly good enquiry for the lighter makes of better-class fancy worsteds. The goods mostly being made here are still the better kinds of worsteds and woollen, the finer qualities of serge, and medium and lower-priced tweeds. Though the demand for the latter had somewhat given way, the trade is still a large one, and finds employment for a very considerable number of people in the Colne Valley. A fairly good business has been done with Canada, and that with the Continent has been satisfactory.

LONDON.—Messrs. Charles Balme and Co., in their circular, say: "A revival of confidence and a distinctly stronger tone in competition have marked the past two or three auctions, due mainly to the initiative of the Continental trade and for a large range of greasy merino produce (and especially the medium classes). February rates have been substantially recovered. In scoured staple, though perhaps a harder tendency is here and there noticeable, we cannot record a similar advance, and these descriptions remain still on a rather lower level than prevailed during the first series." Messrs. Jacomb, Son, and Co. remark: "Under the influence of an unexpected boom in Continental competition, especially from France, the pessimistic spirit before ruling has disappeared, and prices have recovered on an average for all descriptions of merinos to well up to the currency of our February auctions, with here and there, noticeably in the medium and better Queensland and New South Wales greasies, a slight improvement thereon."

GLASGOW.—Messrs. Ramsey and Co. in their report dated 5th April, 1892, say:—"Wool: There is no material change in the wool market this week. Business is exceedingly quiet, and prices weak. A few lots of blackfaced continue to be taken for export."

ROCHDALE.—Merchants continue to visit the district to make their season's arrangements, and they are now proceeding in the usual course. A very fair number of orders have already been placed, and by Easter the bulk of the business will probably have been arranged for. There are always some who drive their arrangements later, but, taking the trade generally, the work has been completed earlier than is usual. Prices are almost entirely without change, merchants being quite content if they can get on at last year's rates.

SILK.

LONDON.—Messrs. Durant and Co., in their circular dated 1st April, say:—"The past month has again been dull and disappointing. The few sales that have been made show but little change in prices. Our deliveries continue on a reduced scale, but owing to the smallness of arrivals the total stocks show a diminution of about 400 bales."

Arrivals in March.

Bengal.....	219	Bales.
China.....	673	"
Japan.....	10	"
Canton.....	83	"
Tussah.....	10	"

Messrs. Hogg, Walker & Co., in their April circular, say that there are no indications of improvement. Deliveries of silk during March were only moderate, but imports having fallen off meanwhile, the stock shows a decrease of 400 bales during the month. As will be seen from the following figures, however, the total on March 31st was ahead of the total on the corresponding date last year:—

	31st March, 1892.	31st March, 1891.
	Bales.	Bales.
Bengal.....	913	461
China.....	15,411	14,598
Tussah.....	310	530
Canton.....	2,870	2,995
Japan.....	1,277	807
Total.....	20,781	19,391

The new crop will soon begin to engage attention, and as prices are at a lower level than has hitherto been known, "there is room for an important rise should unfavourable reports be received."

FLAX AND JUTE.

DUNDEE, WEDNESDAY.—The crisis in the Dundee jute trade continues. Jute remains at from £21 to £21 10s. for best firsts. Confident in the short crop, the holders refuse to give way, expecting long before new jute can reach Scotland that they will get their price. They are assured also by the fact that some of the Calcutta mills are eager buyers of new jute at very high prices. They anticipate that Calcutta spinners being bare of stock will intercept the earliest jute, and

so raise the price here. For these reasons the Dundee spinner who must buy jute to keep his mill going has to-day to pay a price far above that he can afford. As yet yarns do not respond to the enhanced value of the fibre, and spinning, to all who must now buy jute, shews a serious loss. Yarns are, of course, firmly held, but it is very difficult to secure any rise whatever. For the common kinds of cop in 8 lb. 1s. 8d. to 1s. 5½d. is the price; for common warps 1s. 9½d. to 1s. 10d. is all they will fetch. It is needless to remind buyers at a distance that these quotations do not represent the yarns of the largest and the best makers, although they are useful for comparison of one week with another. The jute 8 lb. warp is sold easily to-day at 3d. per lb. or 2s. for 8 lb. cop or bundles. So with Hessians, while 2½d. is the quotation for 10½ oz. 40 in. Dundee goods, 2½d. is paid for the best goods, which, indeed, are more easily sold than the common. Flax comes in very mixed and ill-assorted. Spinners say it is a whole mark or £3 a ton in many cases down in quality. This makes first-rate fine warps firm. Tow yarn is without change; the lighter sizes of wefts are again easier to buy. For linens for export there is fortunately a good demand; but these coal strikes and labour troubles in England interfere sadly with the home demand for linens. Little do the workmen know how sharply their fellow-workers in other and distant industries feel the miseries of these wretched trade battles. Arbroath continues very dull, and is running short time in all the heavier linen goods. The Dundee jute fancy trade is still very far from satisfactory; only the best makers are fully engaged. Twines and cords are still in excellent demand.

DRY GOODS.

MANCHESTER.—The effect of the brighter weather has been satisfactory, buyers having operated much more freely in the home trade. Fancy goods have chiefly benefited from the change. Laces, for instance, have done well. The goods are used in almost every description of ladies' garments, and the consumption is sufficiently large to give great satisfaction to heads of departments. Fancy cloths for mantles and other garments keep to the front, the consumption here being an increasing one. The carpet departments are more fully engaged, and a vast improvement can be noted in comparison with the condition of affairs a short time ago. Cords also, for the trimmings of ladies' garments, continue to sell, and velveteens still meet with favour in the American market.

HOSIERY AND LACE.

LEICESTER.—The yarn market is stronger; deliveries are larger, and prices are well maintained. Lambs' wool, cashmere, and fancy yarns sell freely, but cottons are flat. With the exception of the plain branches there is more activity in the hosiery trade; deliveries are being rapidly pushed forward, and the spring trade promises to be much larger than expected. Elastic web fabrics are in fair demand, and a good business is doing in cords, braids, and specialities.

NOTTINGHAM.—There are still good orders on hand for special kinds of fancy cotton laces, the American demand being large, and some descriptions of silk fancy goods are also selling with a little more freedom. There is scarcely so much doing in the embroidered edelweiss lace as was the case some time ago. Additional shipping orders have come to hand for some descriptions of torchon laces and tallings, and a moderate enquiry prevails for Irish trimmings and crochet laces. Silk Mechlin nets and other fine tulle are slow of sale. The bobbin net trade shews very little alteration, and prices are abnormally low. There is a little more doing in stiff-dressed foundation nets. The demand for curtains is steady, but production is large and competition severe. Hosiery manufacturers are indifferently employed. Home merchants are not purchasing largely at present, and the shipping demand is quiet. A steady business is being done in merino, cashmere, and pure woollen goods, but the supply is ample. Cotton hosiery is still dull of sale.

Tariff News.

UNITED STATES.

THE SPRINGER BILL.

The following table shews the duty proposed to be levied by Congressman Springer. Wool is to be free:—

Equivalent ad valorem rate under existing law.	391. On woollen and worsted yarns made wholly or in part of wool, worsted, the hair of the camel, goat, alpaca, or other animals, valued at not more than 30 cents per pound, the duty shall be 35 per cent. <i>ad val.</i>
176/65.	392. On blankets, hats of wool, and flannels for underwear composed wholly or in part of wool, the hair of the camel, goat, alpaca, or other animals, valued at not more than 30 cents per pound, the duty shall be 25 per cent. <i>ad val.</i>
31/74.	393. On blankets, hats of wool, and flannels for underwear composed wholly or in part of wool, the hair of the camel, goat, alpaca, or other animals, valued at not more than 30 cents per pound, the duty shall be 35 per cent. <i>ad val.</i>
91/72.	394. On women's and children's dress goods, coat linings, Italian cloths, and goods of similar character or description of which the warp consists wholly of cotton or other vegetable material, with the remainder of the fabric composed wholly or in part of wool, worsted, the hair of the camel, goat, alpaca, or other animals, valued at not exceeding 15 cents per square yard, 35 per cent. <i>ad val.</i>
88/37.	395. On women's and children's dress goods, coat lining, Italian cloth, bunting, and goods of similar description or character composed wholly or in part of wool, worsted, the hair of the camel, goat, alpaca, or other animals, and not specially provided for in this Act, the duty shall be 40 per cent. <i>ad val.</i>
97/75.	396. On clothing, ready made, and articles of wearing apparel of every description, made up or manufactured wholly or in part, not specially provided for in this Act, felts not woven and not specially provided for in this Act, and plushes and other pile fabrics; all the foregoing, composed wholly or in part of wool, worsted, the hair of the camel, goat, alpaca, or other animals, the duty shall be 45 per cent. <i>ad val.</i>
84/79.	397. On cloaks, dolmans, jackets, talmas, ulsters, or other outside garments for ladies' and children's apparel and goods of similar description, or used for like purposes, composed wholly or in part of wool, worsted, the hair of the camel, goat, alpaca, or other animals, made up or manufactured wholly or in part, the duty shall be 45 per cent. <i>ad val.</i>
87/11.	398. On webbings, corings, suspenders, braces, beltings, bindings, braids, galloons, fringes, gimps, cords, corals and tassels, dress trimmings, laces and embroideries, head nets, buttons, or barrel buttons, or buttons of other forms, for tassels or ornaments wrought by hand or braided by machinery, any of the foregoing which are

Valued at more than 30 cents and not more than 40 cents per pound, the duty shall be 35 per cent. *ad val.*
Valued at more than 40 cents per pound, the duty shall be 35 per cent. *ad val.*

392. On woollen or worsted cloths, shawls, knit fabrics, and all fabrics made on knitting machines or frames, and all manufactures of every description made wholly or in part of wool, worsted, the hair of the camel, goat, alpaca, or other animals, not specially provided for in this Act, valued at not more than 30 cents per pound, the duty shall be 40 per cent. *ad val.*

Valued at more than 30 and not more than 40 cents per pound, the duty shall be 40 per cent. *ad val.*

Valued at above 40 cents per pound, the duty shall be 40 per cent. *ad val.* (a)

393. On blankets, hats of wool, and flannels for underwear composed wholly or in part of wool, the hair of the camel, goat, alpaca, or other animals, valued at not more than 30 cents per pound, the duty shall be 25 per cent. *ad val.*

Valued at more than 30 and not more than 40 cents per pound; valued at more than 40 cents and not more than 50 cents per pound; upon all the above-named articles, the duty shall be 30 per cent. *ad val.* (b)

On blankets and hats of wool composed wholly or in part of wool, the hair of the camel, goat, alpaca, or other animal, valued at more than 50 cents per pound, the duty shall be 35 per cent. *ad val.*

Flannels composed wholly or in part of wool, the hair of the camel, goat, alpaca, or other animals, valued at above 50 cents per pound shall be classified and pay the same duty as women's and children's dress goods, coat linings, Italian cloths, and goods of similar character and description provided by this Act. [That is, 35 and 40 per cent. *ad val.*, according to quality.]

394. On women's and children's dress goods, coat linings, Italian cloths, and goods of similar character or description of which the warp consists wholly of cotton or other vegetable material, with the remainder of the fabric composed wholly or in part of wool, worsted, the hair of the camel, goat, alpaca, or other animals, valued at not exceeding 15 cents per square yard, 35 per cent. *ad val.*

Valued at above 15 cents per square yard, 35 per cent. *ad val.*
Provided, That on all such goods weighing over four ounces per square yard, the duty shall be 35 per cent. *ad val.*

395. On women's and children's dress goods, coat lining, Italian cloth, bunting, and goods of similar description or character composed wholly or in part of wool, worsted, the hair of the camel, goat, alpaca, or other animals, and not specially provided for in this Act, the duty shall be 40 per cent. *ad val.*

Provided, That on all such goods weighing over four ounces per square yard, the duty shall be 40 per cent. *ad val.*

396. On clothing, ready made, and articles of wearing apparel of every description, made up or manufactured wholly or in part, not specially provided for in this Act, felts not woven and not specially provided for in this Act, and plushes and other pile fabrics; all the foregoing, composed wholly or in part of wool, worsted, the hair of the camel, goat, alpaca, or other animals, the duty shall be 45 per cent. *ad val.*

397. On cloaks, dolmans, jackets, talmas, ulsters, or other outside garments for ladies' and children's apparel and goods of similar description, or used for like purposes, composed wholly or in part of wool, worsted, the hair of the camel, goat, alpaca, or other animals, made up or manufactured wholly or in part, the duty shall be 45 per cent. *ad val.*

398. On webbings, corings, suspenders, braces, beltings, bindings, braids, galloons, fringes, gimps, cords, corals and tassels, dress trimmings, laces and embroideries, head nets, buttons, or barrel buttons, or buttons of other forms, for tassels or ornaments wrought by hand or braided by machinery, any of the foregoing which are

elastic or nonelastic, made of wool, worsted, the hair of the camel, goat, alpaca, or other animals, or of which wool, worsted, the hair of the camel, goat, alpaca, or other animals is a component material, the duty shall be 40 per cent. *ad val.*

399. Aubusson, Axminster, Moquette, and Chenille carpets, figured or plain, carpets woven whole for rooms, and all carpets or carpeting of like character or description, and Oriental, Berlin, and other similar rugs, the duty shall be 30 per cent. *ad val.*

400. Saxony, Wilton, and Tournay velvet carpets, figured or plain, and all carpets or carpeting of like character or description, 30 per cent. *ad val.*

401. Brussels carpets, figured or plain, and all carpets or carpeting of like character or description, 30 per cent. *ad val.*

402. Velvet and tapestry velvet carpets, figured or plain, printed on the warp or otherwise, and all carpets or carpeting of like character or description, 30 per cent. *ad val.*

403. Tapestry Brussels carpets, figured or plain, and all carpets or carpeting of like character or description, printed on the warp or otherwise, 30 per cent. *ad val.*

404. Treble ingrain, three-ply and all chain Venetian carpets, 30 per cent. *ad val.*

405. Wool Dutch and two-ply ingrain carpets, 30 per cent. *ad val.*

406. Druggets and bookings, printed, coloured, or otherwise, 30 per cent. *ad val.*

Felt carpeting, figured or plain, 30 per cent. *ad val.*

407. Carpets and carpeting of wool, flax, or cotton, or composed in part of either, not specially provided for in this Act, 30 per cent. *ad val.*

408. Mats, rugs, screens, covers, hassocks, bed sides, art squares, and other portions of carpets or carpeting made wholly or in part of wool, and not specially provided for in this Act, shall be subjected to the rate of duty herein imposed on carpets or carpetings of like character or description. [That is, 30 per cent. *ad val.*]

Joint Stock and Financial News.

NEW COMPANIES.

EDMUND POTTER AND COMPANY, LIMITED.
Capital, £120,000 in £10 shares. Object, to carry into effect an agreement made between H. E. Dowson and R. D. Darbshire, Sir H. E. Roscoe, M.P., LL.D., and E. G. McConnel, and this company, for the acquisition of the undertaking of calico-printers, hitherto carried on by Edmund Potter and Company, and generally to carry on business as bleachers, finishers, dyers, and printers of cotton, linen, woollen, silk, and other goods. Subscribers:—
E. G. McConnel, 10, Charlotte-st., Manchester 1
J. Barr, Dinting, Derby..... 1
W. J. Shimwell, 10, Charlotte-st., Manchester 1
F. Evans, 10, Charlotte-st., Manchester..... 1
Rev. H. E. Dowson, Gee Cross, Cheshire, and R. D. Darbshire, Manchester..... 1
J. C. Owen, 10, Charlotte-st., Manchester.... 1
R. D. Darbshire, Manchester..... 1
W. Pilkington, Dinting, Derby..... 1
First directors are the first four signatories to the memorandum of association. Qualification, £2,000. Remuneration to be determined.

HICK, HARGREAVES AND CO., LTD., BOLTON.
Capital, £240,000, in £10 shares. Object, the acquisition of the undertaking of engineers, iron-founders, boiler-makers, and millwrights, hitherto carried on by the vendors at Soho Iron Works and Phoenix Boiler Works, Bolton, under the style of Hick, Hargreaves and Co. Subscribers:—
J. H. Hargreaves, Sharples, Bolton..... 1
F. Hargreaves, Broom House, Eccles..... 1
P. Hargreaves, Over Hutton, near Bolton.... 1
J. G. Hudson, Bromley-cross, Bolton..... 1
K. Harwood, Vale Bank, Radcliffe-road, Bolton 1
H. A. Richardson, 171, Park-road, Bolton... 1
C. S. P. Robson, Woodlands, Atherton..... 1
The first directors are the first five subscribers to the memorandum of association. Qualification, £1,000. Remuneration to be fixed by the company.

POLLIT AND WIGZELL, LIMITED.

Capital, £40,000, in £10 shares. Object, the acquisition of the undertaking of ironfounders and engineers now carried on at Bank Foundry, Sowerby Bridge, and to carry on and extend the said business. First directors are J. Pollit (chairman), E. Wigzell (managing director), E. E. Pollit, and W. S. Milligan. Qualification, 10 shares. Remuneration not specified.

Gazette News.

PARTNERSHIP'S DISSOLVED.

J. H. Wilkinson and W. Wilkinson and H. Wilkinson, Manchester, Scotch, silk, and general warehousemen; transferred to a company under the style of Wilkinson and Kiddell, Ltd.

C. T. Harris and John Hull, hosiery manufacturers. T. P. Petrocokino, J. Cooper, M. A. Copehili, H. W. Shaw, and G. S. Frangopulo, general merchants; as regards H. W. Shaw.

W. H. Richardson, J. Thompson, and J. Naylor, dyers and finishers.

E. P. J. G., and S. S. Gaunt, Healey-in-Batley, rag and mungo merchants; as regards J. G. and S. S. Gaunt.

R. Curtis and J. Thompson, Phoenix Works, Chapel-street, Ancoats, Manchester, engineers and machinists; as regards J. Thompson.

J. Graham and J. Walmsley, Padiham, cotton cloth manufacturers; as regards J. Walmsley.

B. Searf, J. O. Helliwell, and J. D. Denison, trading as M'Kean, Searf, and Co., stuff merchants; as regards J. D. Denison.

Patents.

NOTICE OF REMOVAL AND CHANGE OF FIRM.

E. K. DUTTON & CO.

(Late DUTTON & FULTON).

CHARTERED PATENT AGENTS,

Removed from 1, ST. JAMES'S SQUARE, to QUEEN'S CHAMBERS, 51, John Dalton St., MANCHESTER.

SPECIFICATIONS PUBLISHED.

Each of the following Specifications may be purchased at the Sale Branch, 38, Curstler-street, London, for the price of 8d., or may be ordered on the Postal Request, price 8d., which is now on sale at all the principal Post Offices in the United Kingdom.

1891.

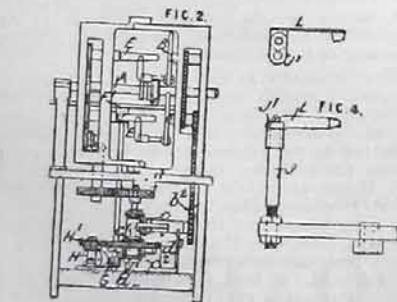
- 6,376 BROOKE, SIMPSON, and SPILLER, Ltd., and GREEN. Colouring matters.
- 6,698 SMITH (Doller). Waterproofing textiles.
- 7,062 WILSON. Carding machines.
- 7,963 IMRAY (Farbwerke vorm. Meister Lucius and Brüning.) Nitro and amidomethylphenylpyrazolon.
- 7,964 IMRAY (Farbwerke vorm. Meister Lucius and Brüning.) Blue colouring matters.
- 7,986 HOLT. Loom pickers.
- 8,006 MARTIN. Caustic soda and potash.
- 8,268 WILSON. Spinning and twisting frames.
- 20,341 HALSTENBRACH. Covers, curtains, shawls, etc.

1892.

- 870 LORIMER. Drying yarn, wool, etc.
- 1,006 SPENCER. Carriage curtains.
- 2,806 BURGON, C. and H. Sheep-shearing machines.

ABSTRACTS OF SPECIFICATIONS.

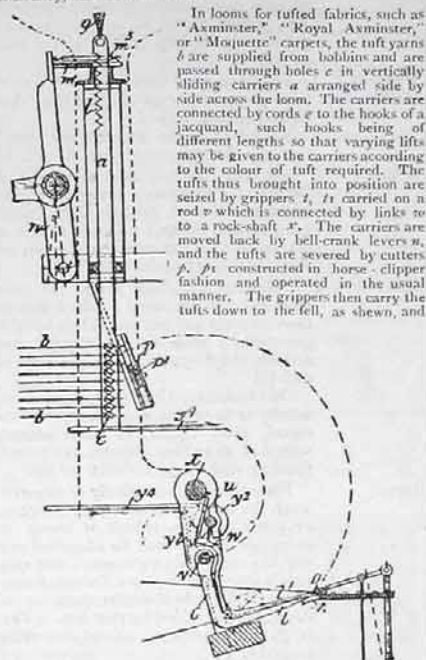
15,811. Oct. 7, 1890. **Balling twine.** W. G. BRYANTER, Sweet-street Foundry, and T. B. BEASLAND, 20, Carlton Mount, both in Leeds.



The special features are the use of chain driving gear for the flyers, of epicyclic gear to vary the relative speeds of the flyers and spindles, and a guide in combination with the flyers. The main shaft is seen at A which drives the flyers B by chain gear as

shown. The spindles E are driven by spur and bevel gear from the wheel C, which receives its motion from the chain wheel B coupled to the lower flyer B. The speed of the spindles is however modified by the intervention of an epicyclic train C₁, D₁, E₁, D₂. The wheel D₁ is fast upon the spindle D₁ and drives it. The mitre wheels C₂ are carried by the wheel D₂, which receives its motion through the gear H, H₁ from the worm C mounted upon a spindle carrying at its upper end the friction plate F₁ of a disc and roller apparatus. The roller is moved by a lever or screw, which forms part of an ordinary balling machine. A flyer is shown in Fig. 1, where J is the leg, J₁ the eye, and L a guide terminating in an eye and carried by a socket mounted loosely upon J.

15,680 Oct. 3, 1890. **Looms.** J. BRINTON and Co., Limited, Kidderminster, and T. GREENWOOD, The Shrubbery, Wolverley, near Kidderminster.



In looms for tufted fabrics, such as "Axminster," "Royal Axminster," or "Mosquito" carpets, the tuft yarns are supplied from bobbins and are passed through holes c in vertically sliding carriers arranged side by side across the loom. The carriers are connected by cords e to the hooks of a jacquard, such hooks being of different lengths so that varying lifts may be given to the carriers according to the colour of tuft required. The tufts thus brought into position are seized by grippers g, h carried on a rod r which is connected by links w to a rock-shaft s. The carriers are moved back by bell-crank levers n, and the tufts are severed by cutters p, q constructed in horse-clipper fashion and operated in the usual manner. The grippers then carry the tufts down to the fell, as shown, and

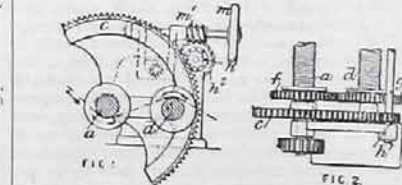
form a race for the shuttle, which is picked to insert weft, such weft being beaten up to bind in the tufts. The grippers then release the tufts and rise and lift their ends, and return to the carriers for the next set of tufts, more weft picks being then inserted. The tufts are laid on a comb A, their ends being raised to a vertical position by a specially operated comb D. The reeds C are made double, the warp threads passing on opposite sides of back and front dents. The grippers are opened and closed by a spring u and by the action of suitably operated rods y₁, y₂ upon a tappet disc z and spring lever v₁, the latter being adapted to engage at times in a notch in the disc. A plate w operated by a spring w₁ engages in notches l in the carriers to ensure their correct "register." Each hole c in the carriers is provided with a spring check to act as a brake on the tuft yarns.

16,058. Oct. 9, 1890. **Floorcloth, leather, etc.** A. FRAMPTON, 69, Basinghall-street, London.

The invention is applicable to oilcloth, linoleum, corticine, or like floorcloth, and to American leather-cloth and leather for seats of chairs, sofas, and like upholstery purposes, etc. A layer of felt, feltine, wool, hair, cotton, paper, india-rubber, cork or similar soft or elastic material is applied as a backing, or as an insertion between two layers of the said materials. The backing may be corrugated.

16,137. Oct. 11, 1890. **Bleaching, etc.** J. BUTTERWORTH, Huddersfield road, Micklehurst, Mossley, near Manchester, and G. F. BUTTERWORTH, Barlow School, Stalybridge.

Relates to apparatus to be applied to bleaching, dyeing, printing, finishing, and similar machines, for straightening and expanding the cloth under treatment. The apparatus is to be placed close to the pressing or calendering rollers or the drying



cylinders. It consists in two rollers a, d, threaded in opposite directions from the middle, oppositely also to each other, and geared together by spur wheels f, g, so as to be rotated in opposite directions. The roller d is mounted in bosses on sectors c centered on the roller a, and under the operation of a hand-wheel m, worm m₁, worm-wheel A₁, and pinion A₂, so that the roller d may be raised or lowered, and the surface of contact between the rollers and the cloth may be increased or diminished as required by the nature of the material.

16,144. Oct. 13, 1890. **Spinning.** R. HAMILTON, Trinity Lodge, Trinity, Mid-Lothian, and J. C. HAMILTON, Kingscavil, Lillithgow, N.B.

Lubricating fibres.—The fibres are treated with sulphonic acids or sodium or potassium salts thereof, either alone or in combination with mineral or fatty oils. The material is preferably used in a neutral condition, and is named "Tergoline."

16,150. Oct. 11, 1890. **Knitting.** NOTTINGHAM MANUFACTURING CO., LTD., Station-street, Nottingham; J. GROVES, 4, Burton-street, and J. WHATNALL, 27, School-street, both in Loughborough.

Straight-bar machines.—Stockings and other articles of hosiery are made entirely on one machine by providing pattern surfaces which control the narrowing and widening mechanism and the filling-up instruments. By the addition of a ratchet wheel or equivalent parts, various lengths of foot and heel may be effected without interfering with the chain or pattern surfaces operating the narrowing and widening parts. Details are given. *Drawings.*

16,259. Oct. 13, 1890. **Lace-making.** H. S. CROPPER, Great Alfred-street, Nottingham.

Twist lace machines.—Hollow-brimmed triangular bobbin carriages of the type described in Specification No. 29,230, A.D. 1889, are made of the same thickness throughout to enable them to take larger bobbins; or, with a given size of bobbin, to be made of shorter radius to enable them to take up gimps, thick threads, etc., more satisfactorily. The combs are made thinner, those of each lead being connected near their ends by a cross-bar. *Drawings.*

16,336. Oct. 14, 1890. **Warp dressing machines.** J. M. SIMONNEAU and E. P. MORSE, Maple-street, Ware, Massachusetts, U.S.A.

In order to obtain a lease in warp dressing or slasher machines the threads are passed through two or four reeds arranged between the yarn supply rolls and the sizing apparatus. The reeds are formed with rods to having spaces 12 between them, alternate ones of which are divided by shoulder pieces 13. The upper parts of the rods are formed as shown, and bear with spring action against one another to facilitate the threading of the yarns in the reed. The threading is effected so that on raising alternate reeds a shed is produced into which can be inserted a rod or strip; these reeds being allowed to fall the others are raised, and a second rod is inserted in a new and opposite shed. Cords may then be substituted for the rods, and the yarn may be cut in the rear thereof. The details of the arrangements for carrying and operating the reeds are described.



16,359. Oct. 14, 1890. **Spinning.** E. EDWARDS, 35, Southampton Buildings, Chancery-lane, Middlesex.—(A. Heipt and W. Streit; both of Spremburg, Germany.)

Mules.—The coping rail C is provided with several hinged portions, which rest upon and are regulated by adjustable portions of a subsidiary rail arranged alongside the main rail and moving longitudinally with the shaper plates B, B₁. The part R is hinged at E to the coping rail and at G to the part F, which rests at its free end upon a plate L, the joint G being sup-



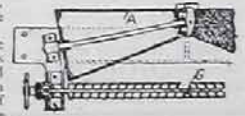
ported by a plate K which is adjustably connected to the plates L and K₁. The plate L is connected by the pin and slot arrangement O P to the shaper plate B, and the plate or bar K₁ is supported by pins Z, etc., so that it can slide on the coping rail and itself supports the free end of a bar F₁, which is hinged to a shorter bar R₁ hinged at E₁ to the coping rail. The height of the joint between the bars F and R₁ is adjusted by a screw and nut arrangement V. The parts L, K, and K₁ are made of such a form that the shape of the coping rail may be suitably and automatically altered during the formation of the cop.

16,376. Oct. 15, 1890.

Openers for fabrics.

J. B. BIRD & CO., Paradise Works, Accrington.

Cones A, which may be plain or have spiral grooves cut in them, are combined with a threaded or plain roller G, the bearings of which are adjustable to give the fabric more or less tap on the cones.



16,578. Oct. 18, 1890. **Calendering fabrics.** J. FAIRBairn, Adelphi Iron Works, Salford.

The machine is adapted for chesting or jacking, i.e., winding the cloth under pressure upon one of the bowls or upon a bobbin between two bowls, by providing means for automatically reversing the adjusting screws as the diameter of the cloth increases. Details are given. *Drawings.*

PATENTS.
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