

## SILK.

## LONDON.

FRIDAY, JAN. 31st.—London Produce Clearing House quotations of best 4½ Tsaltee: February 13s. 3d., March 13s. 2d., April 13s. 3d., May 13s. 4d., June 13s. 5d., July 13s. 6d., August 13s. 7d., September 13s. 8d. per lb.

MONDAY.—Quotations of best 4½ Tsaltee: February 13s. 1d., March 13s. 1d., April 13s. 2d., May 13s. 3d., June 13s. 4d., July 13s. 5d., August 13s. 5d., September 13s. 6d. per lb.

TUESDAY.—Quotations of best 4½ Tsaltee: Feb. 13s., March 13s. 1d., April 13s. 2d., May 13s. 3d., June 13s. 4d., July 13s. 5d., August 13s. 5d., September 13s. 6d. per lb.

WEDNESDAY.—Quotations of best 4½ Tsaltee: February 13s., March 13s. 1d., April 13s. 2d., May 13s. 3d., June 13s. 4d., July 13s. 5d., August 13s. 5d., September 13s. 6d. per lb.

THURSDAY.—Quotations of best 4½ Tsaltee: Feb. 13s., March 13s. 1d., April 13s. 2d., May 13s. 3d., June 13s. 4d., July 13s. 5d., August 13s. 5d., September 13s. 6d. per lb.

## DRY GOODS.

## MANCHESTER.

This week has been marked by a considerable increased activity in the warehouses, most departments having shared in the improvement. Linoleums have moved off well, and reports of "very large shipments" from this country to the States continue to be circulated, although, as we have frequently pointed out, the business transacted in 1888 cannot have been more than two-thirds of that of 1889. This decline is only noticeable in the case of the American outlet, and does not apply to other markets. The carpet trade is still depressed amongst distributors, although reports from the manufacturing centres state that looms are busily engaged. This can scarcely be owing to new business, and is no doubt due to orders booked some time ago. The waterproof trade is active, but more will be doing in a month when the new styles are out. It is reported that one large local firm, engaged in this important and rapidly growing industry, has taken over a mill in this neighbourhood, laying down looms for the weaving of the twoed linings, which are used extensively for waterproofs, and have hitherto been principally sold by Scotch manufacturers.

## LACE.

## NOTTINGHAM.

The activity in the curtain branch referred to in our last report has been continued this week, although even yet some of the machinery is standing. Both plain and silk net makers are not in a satisfactory position, owing to the poorness of the demand both from home and foreign buyers. The Levers department of our staple trade is inactive, and business generally is further depressed, owing to the increased cost of production. Makers, finishers, and dressers are all suffering from this cause, and greatly against their will, have in several instances found it necessary to issue advanced lists. This, it is feared, will tend to make buyers continue still longer their present waiting attitude.

## THE KIDDERMINSTER CARPET TRADE.

The Brussels department of this trade, so far as regards the turnover from week to week, continues in a healthy state. Perhaps there is hardly the usual quantity of new business arriving for the time of year, but some temporary falling off in this respect just now is not surprising, considering the uncertainty which exists as to the future conduct of the trade; and then, too, the gloomy and variable weather experienced lately has not tended to improve matters. Still, although orders are not coming in very briskly at present, there are still a large number of orders on the books, taken early in the season, and these enable manufacturers to keep their

machinery pretty fully employed. This is the case throughout the district, and here and there looms are running overtime on specials. Prices remain as they were, and are far from satisfactory from the manufacturer's point of view. A fair amount of business is doing in tapestry carpets, but this branch in Kidderminster has been in an unsatisfactory condition for many years past, and only a certain portion of the machinery remaining in the trade is kept regularly engaged.

There is little alteration in the position of the wool market. Prices for most sorts are well maintained, and this is considered a satisfactory feature, as spinners hold moderately heavy all round stocks, and are, therefore, not forced into the markets. In the yarn market there is little new business stirring, although a considerable number of enquiries are being made by manufacturers with a view to placing new contracts. So far, however, there have been few transactions, as spinners show no disposition to concede on late rates, and these, manufacturers say, they cannot afford to pay so long as carpet prices remain so extremely low.

## Joint Stock and Financial News.

## COTTON COMPANY.

STANDARD (ROCHDALE).—The quarterly balance sheet of this company shows cotton on hand £10,340 15s. 6d., though the mill is not yet finished. When completed it will hold about 120,000 spindles. Spent on land, buildings, and gearing £32,595, and £8,757 on machinery.

HOPKINSON, MAUDSLEY AND CO., LIMITED, registered by R. Jordan, 120, Chancery-lane, London, with a capital of £1,500 in £10 shares. Object, to acquire from G. D. Cosadinos, of 31, Queen-street, Manchester, the cotton mills known as the Hope Mills, Clitheroe.

## NEW COMPANIES.

## W. AND H. FOSTER.

Registered by Johnson, Weatherall and Sturt, 7, King's Bench-walk, Temple, with a capital of £350,000 in £1000 shares. Object, to acquire the business of worsted spinners and worsted stuff manufacturers carried on by the firm of William and Henry Foster, at Denholme, near Bradford. The first subscribers are:—

	Shares.
Mrs. Foster, Waterloo House, Denholme	1
W. Foster, White Shaw, Denholme	1
J. Foster, The Nook, Cullingworth	1
E. T. Foster, Waterloo House, Denholme	1
H. Foster, Waterloo House, Denholme	1
M. H. Wade, 8, Piccadilly, Bradford	1
E. T. Heselton, 9, Market-street, Bradford	1
T. Bancroft, Main Villa, Denholme	1

There shall not be less than three nor more than five directors. The first are—W. Foster, J. Foster, and E. T. Foster. Qualification, £1,000. Remuneration to be determined in general meeting.

## Gazette News.

## PARTNERSHIPS DISSOLVED.

Wild and Sellers, Ashton-under-Lyne, cabinet makers.  
 Vallot and Miroy, Watling-street, London, tapestry manufacturers' agents, &c.  
 Tunstall Bros. Brierfield Mills, Brierfield, near Burnley, cotton spinners, and at George-street, Manchester, commission agents.  
 Hall and Co., Bridge Croft Mills, Milnsbridge, woollen cloth manufacturers.  
 Samuel Fletcher, Son, and Co., Parker-street Manchester, merchants.  
 Hames and Staples, Wharf-street, Leicester, hosiery manufacturers.  
 Shead Bros. Newborough-street, Scarborough, drapers.  
 Todd and Grimshaw, Tetlow Bridge Engraving Works, Lower Crumpsall, Manchester, engravers, &c.  
 Shillock, Reader, and Co., King William-street, Mill, Coventry, elastic web manufacturers; so far as

concerns Thomas Shillock, Joseph Reader, and Samuel Ensley.

F. Hollins and Co., cotton brokers and merchants, Brown's Buildings, Liverpool.

Carr and Brown, linen merchants, Cannon-street, Manchester.

Aspell and Sons, cotton spinners and manufacturers, Marsden-square, Manchester.

Taylor and Selby, lace manufacturers, New Basford, Nottingham.

## ADJUDICATIONS.

A. Tantom, lace hand, late lace finisher, Primrose Hill, Ilkerton, Derbyshire; lately of London Road, Nottingham.

## ADJUDICATIONS' ANNULLED.

H. Smith, mill manager, Chester-road, Akroydon, Halifax.

## RECEIVING ORDERS.

A. Tantom, lace hand, London-road, Nottingham; Derby.

## WINDING-UP NOTICE.

The North Mill Spinning Company, Limited, Ashton.

## Patents.

## APPLICATIONS FOR PATENTS.

The names in italics within parentheses are those of Communicators of Inventions.

Where Complete Specification accompanies Application an asterisk is suffixed.

## 27TH JANUARY.

1,372. A. E. APSEY and T. F. APSEY, 6, Windsor Terrace, Totterdown, Bristol. Improvements in printing patterns by blocks on floorcloths, linoleum, and similar materials, and in apparatus therefor.

1,387. T. MASON, 8, Quality Court, London. Power looms for weaving tucked or pleated fabrics.

1,389. L. MACLAINE and W. J. FRAZER, Shrigley, Killyleagh, Down. Flax-spinning machinery.

1,400. J. JUCKER, 8, Quality Court, London. Spindles for spinning, doubling, and twisting machines, and driving the same.

1,405. W. P. THOMPSON, 6, Lord-street, Liverpool. Automatic device, applicable for use in fly frames for preventing the stretching or breaking of the roving on the stoppage of the frame. (*Nithalus Kraefft*, Austria.)

1,406. T. CRITCHLEY, 8, Quality Court, London. Flyer bobbins.

1,407. M. LANGE, 68, Fleet-street, London. Separating the isomers contained in crude nitrotoluol.

1,408. J. N. WEBER and F. SCHUBERT, 97, Newgate-street, London. Shuttle; thrower for power looms.

1,436. S. TURNER, 45, Southampton Buildings, London. Looms.\*

## 28TH JANUARY.

1,446. J. P. MADDOX, 1, St. James Square, Manchester. Fabric for belting.\*

1,456. C. MACKAY, 4, Little Moorfields, London. Cloth or fabric.

1,459. J. R. HOYLE and B. SHACKLETON, Sunbridge Chambers, Bradford. Operating the dabbling brushes of combing machines.

1,461. JOHN, ISAAC, and JOSEPH SMITH, Commercial-street, Halifax. Treating or scouring and washing wool, &c.

1,462. J. B. WHITELEY and E. WHITELEY, Commercial-street, Halifax. Extracting moisture from wool, cotton, and other like fibres or fibrous materials.

1,466. E. W. WRIGLEY, R. PATTERSON, and H. TAYLOR, 8, Quality Court, London. Lubricators for ring and flyer spindles.

1,469. J. MILLS and S. SUTCLIFFE, 8, Quality Court, London. A liquid for increasing the adhesion between the contact surfaces of frictions and cams in self-acting mules.

1,518. G. S. GRIFFITH, Junior, 77, Chancery Lane, London. Carpets and upholstery fabrics.\*

## 29TH JANUARY.

1,540. W. WILKINS, 19, Bowling Green-street, Leicester. Knitted ribbed fabrics and the means of producing same.

1,579. J. IMRAY, 28, Southampton Buildings, London. Manufacturer of azoamines by the reduction of azo colouring matters derived from nitramines. (*La Societe Anonyme des Matieres Colorantes de St. Denis, Poirrier, and C.A. Rosenthal*, France.)

1,585. W. and T. MATTOCK, 4, South-street,

Winsbury, London. Weft-thread stop motion for looms.

1,598. W. W. HORN, 151, Strand, London. Circular knitting machines. (W. H. Kelly, and J. Jencks, U.S.)

30TH JANUARY.

1,607. JOHN ISAAC, AND JOSEPH SMITH, Commercial-street, Halifax. Mordanting and dyeing wool, cotton, and other fibre, and also for extracting or separating animal from vegetable fibre.

1,608. J. E. STEPHENSON, Central Chambers, Halifax. Weft fork motions of looms for weaving.

1,610. B. SHAW, Market Place, Huddersfield. Attaching fixed or vibrating tenter hooks to frames or reels for packing sealskin and other fabrics.

1,611. W. M. WILSON, 17, St. Ann's Square, Manchester. Presses for baling or compressing cotton and other materials or substances.

1,652. B. D. BARNETT, 35, Southampton Buildings, London. Extracting oil and grease from cotton waste, &c.

1,656. Le Vicomte HILAIRE DE CHARDONNET, 28, Southampton Buildings, London. Artificial silk spun from liquid, and apparatus for that purpose.

SPECIFICATIONS PUBLISHED.

1888.

14,444. HELWIG. Darning machines. 81.

1889.

- 1,119. FAIRBURN. Weaving "slit-ups." 8d.
- 1,709. JOHNSON & JOHNSON. Loom dobbies. 8d.
- 2,186. HINCHLIFFE & ROSS. Looms. 6d.
- 3,809. HATTERSLEY. Looms. 11d.
- 3,913. HETHERINGTON. Carding engines. 6d.
- 3,934. WILLCOX. (Farbenfabriken vormals Fr. Bayer & Co.) Dyeing and printing fibres.
- 15,736. WYMAN. Looms. 8d.
- 16,206. STEWART. Knitting machines. 1s. 1d.
- 18,617. REISER. Tissues with large diagonal patterns. 8d.
- 19,547. MOSER. Gig mills. 6d.
- 19,925. CRANE. Rotary pulling, dissecting, and thread-drawing machine. 8d.

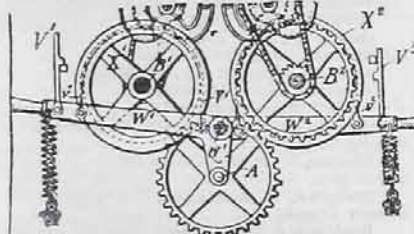
AMENDED SPECIFICATION.

1886.

7284. MARTIUS. Azo colours. 6d.

ABSTRACT OF SPECIFICATIONS.

11,246. August 3rd, 1888. Looms. J. F. HAGGENMACHER, Zurich, Switzerland.



Driving and brake mechanism for duplex vertical looms. The driving shafts B<sub>1</sub>, B<sub>2</sub> of the two parts of the loom are operated by spur or friction gearing from the main shaft A, the bearings of the latter being carried by bent levers W<sub>1</sub>, W<sub>2</sub>, mounted on fixed pins, *et.* Brake bands *v*<sub>1</sub>, *v*<sub>2</sub> are fixed at one end and attached at the other to levers W<sub>3</sub>, W<sub>4</sub> respectively. By means of the levers the driving wheels of the shaft A may be lifted into gear with the corresponding wheels of the shafts B<sub>1</sub>, B<sub>2</sub>, as required, catches V<sub>1</sub>, V<sub>2</sub> holding the levers in their raised positions. When either catch is moved from its support the corresponding end of the shaft A falls, and the brake band is made to act on the brake pulley X<sub>1</sub> or X<sub>2</sub>. The arrangement of the other parts of the loom is described. [8½d.]

11,276. August 3rd, 1888. Carding machines. J. GREYNE, Paterson, New Jersey, U.S.A.

Drawing and straightening apparatus.—Before leaving the carding engine the fibre is passed through drawing-rollers, and is straightened in its passage by a toothed roller. The lower rollers of each pair are driven by gearing from the main cylinder, the upper ones being pressed upon the lower rollers by springs, &c. [6½d.]

11,310. August 4th, 1888. Looms. D. INVEN, Preston.

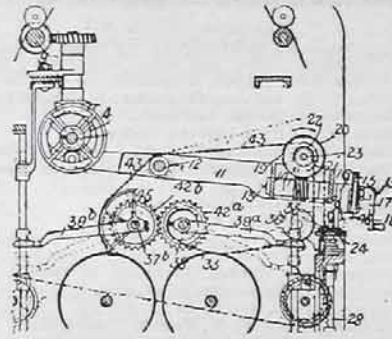
Shuttles.—The shuttle-tip is secured in position by a pin, which is driven into the body of the shuttle

and engages in a groove in the tang. The pin may be arranged to draw the tip up closer to the end of the shuttle. [6½d. Drawings.]

11,378. August 7th, 1888. Slubbing, roving, &c., frames. G. MITCHELL and T. HARGREAVES, Waterloo Mills, Bradford.

Spindles, driving.—Each band drives a pair of spindles, the wharves being provided with two or more grooves, and the cord passed round and round the two wharves until the grooves are filled. [8½d. Drawings.]

11,384. August 7th, 1888. Ring spinning, &c. F. M. FRANKE, Chemnitz, Germany.



Winding-on and building thread-guides.—In order to equalise the tension of the thread during winding-on, the thread guides are moved upwards and downwards in such a manner that the distance between the thread-guide and the ring-rail is inversely proportional to the diameter of the cop or bobbin. The figure shows the invention applied to a machine for winding yarn into cops. The lifting rails and thread-guides are operated by an eccentric 4 driven by worm and bevel gearing from the roller 9. The eccentric operates a pivoted lever 11, carrying near its end three chain wheels 20, 21, 22, which are mounted and work together loosely on the axle 23. The lifting rails are operated by the chain 24 through the chain gearing shewn and the racks 28, and corresponding pinions. The thread-guides are similarly operated from the chain-wheel 21 through the chain 35, guide-pulley 36 and chain wheel 38, upon the axis of which is the lifter arm 39, a spur-wheel 42a upon the same axis being geared to a similar spur-wheel 47 for operating the lifter arm 39 on the other side of the machine. For obtaining the intermittent motion of the lifter rails and thread-guides the lever 11 carries also a shaft 13 upon which is a ratchet 15, the pawl holder 16 of which is operated at each downward movement of the lever 11 by striking an adjustable stop 46, winding up the chains 24, 35 by means of worm gearing 14, 19. For building up the cop-bottom, the ring-rails and thread-guides having been brought to their lowest positions by winding back the chains 24 and 35 by means of the handle 18, the thread-guides are slightly raised in order to obtain the proper tension for winding upon the bare spindle, and are automatically lowered as the cop-bottom is completed. For this purpose a chain 43 is wound round the chain-wheel 32 in the opposite direction to the chain 35 and passing over a pulley 12 is connected to a quadrant 45 upon the axle 37. As the chain-wheel 22 is reversed and the thread-guides are raised the chain 35 becomes slack and in the early stages of the formation of the cop-bottom is tightened only at the latter part of the stroke of the lever 11, the slack being gradually taken up by the ratchet and pawl arrangement 15, 17, as the building of the cop-bottom proceeds. A modification is described for winding on to bobbins, the distance between the ring-rail and thread-guide being reduced as the diameter of the bobbins increases. [11½d.]

11,397. August 7th, 1888. Treating flax, &c. L. DE KIEN, Courtrai, Belgium.

The plants are scutched as they come rough dried from the field, and may be then combed, retting being dispensed with. [6½d.]

11,401. August 7th, 1888. Fabrics. B. J. B. MILLS, 23, Southampton Buildings, London.—(V. Dodet, Lyons, France.)

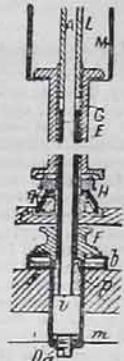
Lace, gimp, openwork fabrics, etc., are produced or modified by using groundwork or certain yarns of silk, which is afterwards destroyed by a solution of ammoniac of copper. In the case of lace, etc., a suitable design is embroidered in textile or metal threads on a light silk groundwork, and in woven or knitted fabrics certain silk threads or worked into the fabric. Any other silk threads must be protected by salts of lead, tin, etc. [6½d. No Drawings.]

11,402. August 7th, 1888. Knitting. S. and S. DAVIS, Hinckley, Leicestershire.

Half-hose and similar articles are made from circular or bag fabric, having a false seam, for the leg and foot portions, and a fully fashioned and selvaged heel and toe. The heel and toe may be made thicker than the circular part. [4½d. No Drawings.]

11,404. August 7th, 1888. Spinning. J. R. MINSON, Newton, Massachusetts, U.S.A.

Cap spindles.—The bobbin is carried by a sleeve G, which is driven by a sleeve E passing through the lifting rail C, and surrounding the fixed spindle A, which carries at the top the cap M. The sleeve G is guided in the upper part of its traverse by a fixed sleeve L having a flange at the top to prevent the sleeve G being withdrawn during doffing. The lower and cylindrical part i of the spindle A takes into a foot-step D, and is screwed at a into the bottom thereof. The spaces between the sleeves are supplied with lubricant from the oilcup b, which communicates with the footstep by apertures f, the oil passing upwards between the spindle and the sleeve E, and over the upper edge of the latter to lubricate the surfaces between it and the sleeve G. The sleeve E has one or more vertical grooves in it by which the passage of the oil is facilitated, and into which take suitable pins for connecting the sleeves E and G; m and p are packing rings to absorb waste lubricant, and K is an inverted and perforated cap containing felt, etc., for the same purpose. The driving wharve F, and also the bobbin-supporting flange H are provided on the underside with bosses or projections. [8½d.]

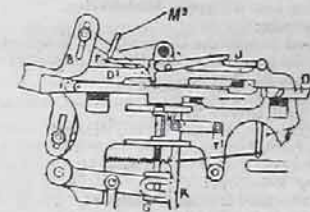


the footstep by apertures f, the oil passing upwards between the spindle and the sleeve E, and over the upper edge of the latter to lubricate the surfaces between it and the sleeve G. The sleeve E has one or more vertical grooves in it by which the passage of the oil is facilitated, and into which take suitable pins for connecting the sleeves E and G; m and p are packing rings to absorb waste lubricant, and K is an inverted and perforated cap containing felt, etc., for the same purpose. The driving wharve F, and also the bobbin-supporting flange H are provided on the underside with bosses or projections. [8½d.]

11,405. August 7th, 1888. Finishing cloth. D. GESSNER, Worcester, U.S.A.

Calendering and pressing.—The cloth is pressed between the steam-heated cylinder and bed plates. Various modifications are described of the arrangement of the bed-plates, pressing levers, etc. In a plate press the cloth is steamed between successive pressures. An additional cylinder may be employed, which may be covered with felt or work with an endless apron. The steamers may be made to fit the cylinders, or the steam may be supplied through the cylinders themselves. The troughs have preferably a sheet-metal lining, which is held down at the ends by special clamps or holding devices. Means are also described for relieving the pressure of either bed-plate at will. [1s. 7d. Drawings.]

11,439. August 8, 1888. Looms. J. PARKINSON, Chester-street, Bradford.



Dobbies.—Arrangements are described for putting the pattern cylinder in and out of action, and for shifting the needle frame so as to be acted on by different portions of the cards. The cylinder G, reciprocating vertically, is turned as usual by a catch x. The latter is put in and out of action by connection with a lever z, which is operated through a lever e from one of the ordinary draw-bars p according to the selection of the cards. A tappet chain on a pulley turned by a catch x<sub>2</sub> worked from the lever z operates through levers on the shifting needle frame N; the catch being put in or out of action by a lever f, which is acted on by a second draw-bar at times. The two draw-bars are formed with swells p<sub>1</sub> for acting on the levers, z, f. [8½d.]

11,420. August 7th, 1888. Dyeing, bleaching, &c. H. RICHMOND, Providence, Rhode Island, U.S.A.

Cop Machines.—Relates to apparatus whereby a group of cops is subjected to several processes successively, and whereby several such groups of cops are simultaneously subjected to one or the other of these processes. The operations are effected as follows:—The rotary motion of the cop-carrier

disc is controlled by an automatic clutch so as to be intermittent, a stoppage occurring as each tubular fulcrum comes over a pipe. The motion of the plunger is also intermittent, a rest occurring at the end of each up and down stroke. These motions are also timed so that the arms only move when the disc is stationary, and the disc only moves when the arms are in their raised position. In consequence of these motions each arm with its group of

cops is connected with a charging pipe, dipped in the mordant tank, and charged therefrom by the suction pumps, raised, carried round one step by the disc, lowered between the mordant and dye tank, deprived of excess of dye by the exhaust pumps drawing air through it, raised and passed on to the dye tank successively in the order stated. A similar course of operations is performed in connection with the dye tank and the washing tank.

Finally the group of cops comes on to a dead face, and is substituted by another. Eight groups are thus simultaneously undergoing one of the processes of mordanting, dyeing or washing, or an intermediate exhausting process. [18. Gd. Drawings.] 11.437. August 8, 1888. Mules. E. KNOWLES and W. DRXON, both of Gomersal, Yorkshire. Detailed drawings are given of two-speed arrangements. [8½d. Drawings.]

## INDEX TO ADVERTISERS' NAMES.

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Bell, Geo., and Sons, London: front of cover.  
Blackman Ventilating Co., Limited: cover iv.  
Bleazard, James, and Sons, Burnley: ix.  
Boshardt & Co., Manchester: front of cover.  
Bradshaw, A., Accrington: iv. of cover, Jan. 18th.  
Bransby Foundry and Engineering Co., London: v.  
Broadbent, Thomas and Sons, Huddersfield: i.  
Butterworth and Dickinson, Burnley: ix. Jan. 11th.  
Curtis, Sons and Co., Manchester: ii. of cover.  
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Dugdale, John, and Sons, Blackburn: iv. Jan. 25th.  
East Lancashire Chemical Co., Manchester: front of cover, Jan. 18th.  
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Horrocks, John, and Son, Manchester: vii. Feb. 1st.  
Holden, G. H., and Co., Manchester: iv. Jan. 18th.  
Howard and Bulloagh, Accrington: vi.  
Hoyle, E., and Sons, Limited, Halifax: x.  
Hurst, Wm. & Co., Rochdale: viii.  
Hutchinson, Hollingworth & Co., Dobcross, near Oldham: iv.  
Jagger, E., and Co., Oldham: x.  
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Lancaster and Tonge, Pendleton: front of cover.  
Lees, Asa, and Co., Limited, Oldham: v. Feb. 1st.  
Livesey, Henry, Limited, Blackburn: xv. Feb. 1st.  
Lord Brothers, Todmorden, iii. of cover.  
McMurdo, James, Manchester: x. Feb. 1st.  
Makinson, E. and W. G., Preston: front of cover.  
Matthews and Yates, Manchester: iv. of cover.  
Meredith-Jones, J., and Sons, Wrexham: v.  
Orme, G., and Co., Oldham: iv. of cover.\*  
Pemberton and Co., Burnley: x. Jan. 18th.  
Pickles, Robert, Burnley: xvi. Feb. 1st.  
Platt Brothers and Co., Ltd., Oldham: iv. Feb. 1st.  
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Rosendale Belting Co., Manchester: iv. of cover, Jan. 25th.  
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Schofield, W., Oldham: ix. Sept. 28th.  
Scott, E., & Co., Stockport: front of cover, Jan. 11th.  
Shaw, Wright, Stockport: x.\*  
Stone and Burnett, Preston: xiv.\*  
Stubbs, Joseph, Manchester: vii.  
Sykes, John, and Sons, Huddersfield: v.  
Tatham, John, and Sons, Limited, Rochdale iii.  
Taylor, Lang, and Co., Ltd., Stalybridge: vi. Feb. 1st.  
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Wells, M., & Co., Manchester: iv. of cover, Aug. 17th.  
Wilson, Bros., Cornholme, Todmorden: x.

\* This advertisement appeared last week, February 1st; it will appear again next week, February 15th.

## TEXTILE MACHINERY, APPLIANCES, &c.—DIRECTORY OF MAKERS.

**Auctioneers:**  
Rushton, Edward, and Son, Blackburn, and Manchester.  
Salisbury & Hamer, Blackburn and Manchester.  
Unsworth, Geo., Manchester.  
**Ballooning and Snarl Preventer:**  
Schofield, W., Oldham.  
**Belting:**  
Reddaway, F., and Co., Pendleton.  
Rosendale Belting Co., Manchester.  
Sampson and Co., Stroud.  
**Bobbins, Spools, Shuttles:**  
Kay, John, Rochdale.  
Livesey, Henry, Limited, Blackburn.  
Wilson Brothers, Todmorden.  
**Calenders:**  
Hoyle, E., and Sons, Limited, Halifax.  
**Cement, Mineral Fusible:**  
Fox and Williams, Manchester.  
**Chemicals:**  
East Lancashire Chemical Co., Manchester.  
Grimshaw Bros., Clayton, Manchester.  
**Cop-Tubing Apparatus:**  
Jagger and Co., Oldham.  
**Gold and Silver Wire:**  
Makinson, E. and W. G., Preston.  
**Dust Fuel Furnace:**  
Donkin, B. and Co., London.  
**Emery Filletting:**  
Dronsfield Brothers, Oldham.  
**Engineering Work:**  
Bransby Foundry and Engineering Co., London.  
Hoyle, E., and Sons, Limited, Halifax.  
**Fire Hose:**  
Reddaway, F., & Co., Pendleton.  
**Heating Engineers:**  
Matthews and Yates, Manchester.  
**Humidifiers:**  
Matthews and Yates, Manchester.  
Scott, E., & Co., Stockport.  
**Hydraulic Presses:**  
Hoyle, E., and Sons, Limited, Halifax.  
**Hydro-Extractors:**  
Broadbent, Thomas, and Sons, Huddersfield.  
**Indicators:**  
Orme, G., and Co., Oldham.  
**Jacquard Machinery:**  
McMurdo, James, Manchester.  
**Knitting Machinery:**  
Harrison, W., Manchester.  
**Lattices, Pegs, Jacquard Slips, &c.:**  
Livesey, Henry, Limited, Blackburn.  
Stone and Burnett, Preston.  
**Looms etc.:**  
Butterworth and Dickinson, Burnley.  
Dugdale, John, and Sons, Blackburn.

Hacking and Co., Bury.  
Hall, Robert, and Sons, Bury.  
Hutchinson, Hollingworth, and Co., Dobcross, Oldham.  
Livesey, Henry, Limited, Blackburn.  
Pemberton and Co., Burnley.  
Platt Brothers and Co., Limited, Oldham.  
Schofield and Kirk, Huddersfield.  
Shaw, Wright, Stockport.  
**Lubricators:**  
Bradshaw, A., Accrington.  
**Machinery (Cotton):**  
Curtis, Sons and Co., Manchester.  
Hetherington, John, and Sons, Manchester.  
Holden, G. H., and Co., Manchester.  
Horrocks, John, and Son, Manchester.  
Howard and Bulloagh, Accrington.  
Hurst, W., Rochdale.  
Lees, Asa, and Co., Limited, Oldham.  
Lord Brothers, Todmorden.  
Platt Brothers and Co., Limited, Oldham.  
Stubbs, Joseph, Manchester.  
Tatham, John, and Sons, Limited, Rochdale.  
Taylor, Lang and Co., Stalybridge.  
**Machinery (Dyeing):**  
Heppenstall, E., Huddersfield.  
**Machinery (Silk):**  
Curtis, Sons and Co., Manchester.  
Holden, G. H. and Co., Manchester.  
Horrocks, John, and Son, Manchester.  
Platt, Brothers and Co., Limited, Oldham.  
Stubbs, Joseph, Manchester.  
Sykes, John, and Sons, Huddersfield.  
Taylor, Lang and Co., Limited, Stalybridge.  
**Machinery (Woolen and Worsted):**  
Curtis, Sons, and Co., Manchester.  
Hetherington, John, and Sons, Manchester.  
Holden, G. H. and Co., Manchester.  
Horrocks, Jno., and Son, Manchester.  
Lees, Asa, and Co., Limited, Oldham.  
Platt Brothers and Co., Limited, Oldham.  
Stubbs, Joseph, Manchester.  
Sykes, John, and Sons, Huddersfield.  
Tatham, John, and Sons, Limited, Rochdale.  
Taylor, Lang and Co., Stalybridge.  
**Oil Cans:**  
Royle, W., Leigh.  
**Oils:**  
Wells, M., and Co., Manchester.  
**Patent Agents:**  
Boshardt, F. & Co., Manchester, Oldham, and Stockport.  
"Textile Mercury" Patents Dept., Manchester.  
**Pickers, Picking Bands, &c.:**  
Greenwood, John, Todmorden.

**Picker Steeper:**  
Green, James, Blackburn.  
**Pistons:**  
Lancaster and Tonge, Pendleton.  
**Reducing Valves:**  
Bradshaw, A., Accrington.  
**Roller Leather:**  
Meredith-Jones, J., and Sons, Wrexham.  
**Shuttles:**  
Kay, John, Rochdale.  
Livesey, Henry, Limited, Blackburn.  
Pickles, Robert, Burnley.  
Walton and Halstead, Hebden Bridge.  
Wilson Brothers, Todmorden.  
Greenwood, John, Todmorden.  
**Sizing and Filling Preparations:**  
Adley, Tolkien, and Co., Blackburn.  
Eastwood, James, Manchester.  
"Gloy" Manufacturing Co., London.  
Grimshaw Brothers, Clayton, Manchester.  
**Smoke Consumers:**  
Greaves, W. McG., Manchester.  
**Sprinklers, Automatic:**  
Bradshaw, A., Accrington.  
**Steam Traps:**  
Bradshaw, A., Accrington.  
Lancaster and Tonge, Pendleton.  
Matthews and Yates, Manchester.  
**Tambouring Threads, Braids, &c.:**  
Makinson, E. and W. G., Preston.  
**Technological Handbooks:**  
Bell, George, and Sons, London.  
Brooks, C. P., Stalybridge.  
**Temples, etc.:**  
Bleazard, James, and Sons, Padiham.  
**Tools (Machine):**  
Hetherington, John, and Sons, Manchester.  
**Type Writers:**  
Richardson & Co., London and Manchester.  
**Valves:**  
Bradshaw, A., Accrington.  
**Ventilation:**  
Blackman Ventilating Co., London.  
Matthews and Yates, Manchester.  
Rothwell, John, Farnworth.  
Scott, E., & Co., Stockport.  
**Wire, Gold and Silver:**  
Makinson, E. and W. G., Preston.  
**Wire Healds:**  
Barlow, H. B., and Co., Cornbrook, Manchester.  
**Yarn Assorting Balance:**  
Thomas, G. and Co., Manchester.  
**Yarns, Coloured:**  
Makinson, E. and W. G., Preston.  
**Yarn Testing, &c., Machine:**  
Wallwork, Henry and Co., Manchester.