

THE HOLLINSHEAD MILL COMPANY, LIMITED.
Registered with a capital of £2,000 in £1 shares. Object, to carry on the business of spinners, weavers, doublers, etc. The first directors are the signatories to the memorandum of association.

E. HELLIWELL, CARTER AND CO., LIMITED.
Registered by Jordan and Sons, 120, Chancery-lane, W.C., with a capital of £20,000 in £5 shares. Object, to acquire the business of Edwin Carter, trading as E. Helliwell, Carter and Co., india-rubber, steam engine packing, and asbestos manufacturers, carried on at Granville Mills, Huddersfield, Yorkshire. With slight modifications, the regulations contained in table A apply.

Patents.

SPECIFICATIONS PUBLISHED.

Where Complete Specification accompanies Application an asterisk is suffixed.

1890.
1,157. YOUNG and ors. Dyeing and bleaching cotton, etc. 1s. 1d.
3,990. DODD. Preparing and spinning cotton, etc. 11d.
4,008. HIGGINSON. Spinning mules. 8d.
4,205. GASS. Measuring cloth, etc. 8d.
4,956. PITT (*L. Cassella & Co.*). Sulphonated thionines. 6d.
4,946. IMRAY (*Farbaerke vormals Meister, Lucius, & Brauning*). Ethylether of cinnamic acid. 4d.
5,478. LAKE (*Parker and ors.*) Bolster bearings for spindles. 8d.
5,722. WILLCOX (*Farbenfabriken vormals F. Bayer & Co.*). Diquinolyline derivatives. 6d.
5,736. IMRAY (*La Societe Anonyme des Matieres Colorantes de St. Denis & ors.*). Azo colouring matters. 6d.
5,867. PACKER. Lace figurings, etc. 4d.
6,486. IMRAY (*La Societe Anonyme des Matieres Colorantes de St. Denis.*). Nitrate colouring matters. 4d.
6,540. FAWCETT. Piled carpets. 11d.
6,684. RICHARDSON. Carding engines. 8d.
7,393. LANGHAM. Cardigan jackets. 6d.
7,522. ELBERS. Obtaining designs on textile fabrics. 6d.
8,303. JOHNSON (*Badische Anilin & Soda Fabrik*). Treating alizarine blue. 6d.
9,453. MELLOR, A. & F.F. Knitting machines. 1s. 1d.
9,627. SMITH. Printing and folding textile fabrics. 6d.
12,186. CLAY. Woollen condensers. 6d.

1891.

188. RUCKDESCHL. Embroidery machines. 6d.
202. GESSNER. Card filets. 8d.
973. HOWARTH, J. B. & F. C. Humidifying, etc., air. 6d.

REPRINTS (with alterations).
1888.

- 1,432*. PLATT & RICHARDSON. Carding engines. 8d. 1889.
11,583. WOOTTON. Domestic weaving. 8d.
13,692. REDGATE. Twist lace machines. 8d.

SECOND EDITION.
1887.

166. HEBBELYNCK. Twisting cotton, etc., fibres. 8d.

ABSTRACTS OF SPECIFICATIONS.

15,276. September 26, 1889. **Spinning.** J. DODD, Hartford Works, Oldham.

Fluted rollers.—In order to prevent the leather, etc., covered rollers from being grooved by the ridges of the fluted rollers, the latter are made with the flutes of varying pitch. The roller may be divided into equal or unequal sections, the flutes in each section having a uniform or a variable pitch, and the pitch of the flutes or teeth in one section being different from that in the others. In order that the ridges may be of equal width in rollers having flutes of varying pitch, the flutes are made of varying width. 8jd. Drawings.

15,333. September 30, 1889. **Treating fibres.** K. T. SUTHERLAND, 39, Pritchard-street, Chorlton-on-Medlock, and G. ESDALE, Old Rectory, Rusholme, both Manchester.

Relates to the treatment of fibres and fibrous materials made of china grass, flax, hemp, and the like, whereby they may be more easily cleaned and bleached. Consists in first heating the material with a solution of carbonate of soda and mineral oil or wax, from half an hour to three hours, after which it is wrung out, washed in water, and dried. It is then steeped in paraffin oil, squeezed or wrung out, and passed into carbonate of soda solution, which is preferably lukewarm. Subsequently it is steeped in water and squeezed, beaten, or hammered until cleaned and bleached. 4jd.

15,340. September 30, 1889. **Wire-covering machine** T. C. BARRACLOUGH, 8, King-street, Manchester.—(C. and E. Demuth; Vienna.)

A machine for winding a covering of fibrous material upon wire or other cores. 8jd. Drawings.

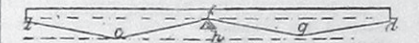
15,360. September 30, 1889. **Amides: dyes.** J. C. L. DURAND, D. E. HUGUENIN, and A. J. J. D'ANDRIAN, Bale, Switzerland.

Relates to the preparation of amides by condensation of tannin or catechine with primary aromatic amines, and to the preparation of colouring matters of the galocyanine class by reacting with these amides upon nitroso derivatives of tertiary aromatic amines. For example: gallo-naphthylamides are obtained by simply heating tannin with three times its weight of α - or β -naphthylamine to about 150°-180° C., and on cooling excess of naphthylamine is removed by means of benzine or other suitable solvent. In a similar manner catechine reacts with aniline, toluidines, xyliidines, etc., as well as with the naphthylamines. The colouring matters are prepared by reacting with these products upon nitrosodimethylaniline hydrochlorate, or upon nitroso derivatives of tertiary aromatic amines in general, in a manner analogous to that described in Specification No. 4,899, A.D. 1887. With alkaline bisulphites they yield bisulphite compounds which dye unmoderated fibres from red violet to very blue violet. 4jd.

15,363. September 30, 1889. **Lace-making.** E. SCHAULICH, 28, Dufourstrasse, Leipzig, and R. LEONHARD, Mittweida, Saxony.

Twist-lace-machines.—For making bobbinet, having hexagonal meshes with or without pattern, and curtains, having parallel running warp threads with pattern, the warp thread bobbins are mounted upon an endless jointed chain or carrier, which is moved step by step or reciprocated by suitable ratchet mechanism, or remains stationary. The warp bobbins and carriers are moved to and fro in one vertical plane by clutches, the lids or catches of which are opened and closed automatically. For making parallel warp fabrics, the endless chain is put out of action and the warp threads are shifted by a jacquard. For making bobbinet with patterns, a pusher-guide-box is employed, containing a number of pusher-guides to be traversed laterally by a jacquard, the guide box and guides being moved periodically towards the warp threads to pass the toothed pusher bits of the guides between the threads. This mechanism also can be used for making parallel warp fabrics. 1s. Drawings.

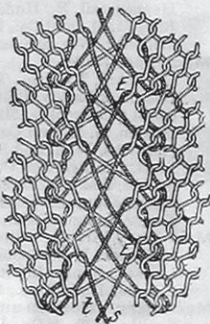
15,398. October 1, 1889. **Spinning.** J. HOPWOOD, 115, York-street, Heywood.



Mules and twiners.—The drawing is a development of the cam surface for operating the roving or thread guides to prevent the rollers from becoming grooved. Its form is such as to cause the roving, etc., guides to traverse twice for one revolution of the cam, and the points *a*, *f*, and *g* respectively are made of different heights in order to vary the limits of the traverse. To diminish the dwell at the extremities of the traverse, the arm *h* upon which the cam operates is made of an angular form as shewn. 6jd.

15,420. October 1, 1889. **Knitting.** C. H. YOUNG, Manchester, New Hampshire, U.S.A.

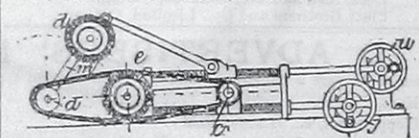
Widening.—In order to fill up the holes *E* made in widening a tubular fabric produced on two rows or ranks of needles, supplementary yarns *s*, *t* are laid on the new or additional needles brought into action, and are knitted with the main yarn in the manner shewn. The invention is particularly applicable to the manufacture of sleeves of shirts, legs of drawers and stockings, and bodies of shirts and drawers, where abrupt widening is necessary. 8jd.



15,432. October 1, 1889. **Spinning.** R. MARSDEN, 20, Redlaw-road, New Wortley, and J. PIGGARD, 4, Fallowfield-terrace, both Leeds.

Condensers.—The ordinary rubbing apparatus is dispensed with, and each sliver as it leaves the doffer is passed through a guide tube and then through one or more twist tubes, which are screw-threaded on their interior surfaces, and may be rotated by means of bands. 6jd. Drawings.

15,436. October 1, 1889. **Treating yarns in hanks.** H. J. HADDON, 18, Buckingham-street, Strand, London.—(J. Riera; St. Martin de Provensals, Barcelona.)



Machinery for separating yarns or threads in hanks from each other and cleaning the same after dyeing, bleaching, and the like. The hank is cleaned, etc., by rotary brushes *a*, *d*, provided with animal or vegetable bristles or soft metal wires, one of which *d* is carried by an arm *m* and may be moved into or out of action, as required, by means of a hand wheel *u* and suitable bevel and screw gearing. The brush *e* is situated between two rollers *a*, *c*, one of which is rotated uniformly and the other is loose on its axle, and is capable of being moved parallel to itself, for the stretching and the removal of the hanks, by means of a hand wheel *j* and bevel and spur gearing. The brush *d* and roller *a* may also be mounted so as to be movable, if desired. 6jd.

15,439. October 1, 1889. **Bobbins, etc.** C. G. F. CONNICK, Rochlitz, Germany.

Relates to means for securing the flanges of paper bobbins, cop tubes, etc., to the central tube or cone. For this purpose the flanges are subjected to strong pressure parallel to the axis of the bobbin, first in a hand, etc., press provided with a special mould, and then by means of a hydraulic press, the platforms of which may be heated by steam, etc. The mould, press, etc., are described. 8jd. Drawings.

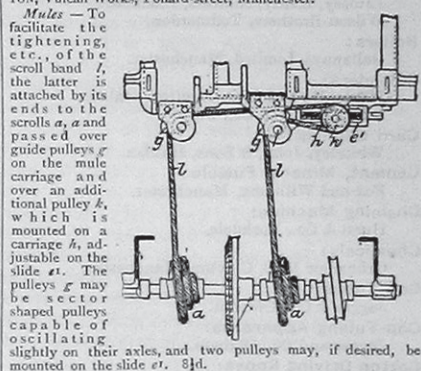
15,454. October 2, 1889. **Balance for ascertaining the counts of yarn, etc.** G. THOMAS, 25, Deansgate, Manchester.

Improvement on the invention described in Specification No. 6,793, A.D. 1886. 8jd. Drawings.

15,455. October 2, 1889. **Dyeing.** R. GEE, New Hay, Lindley, near Huddersfield.

Hank machines.—In two parallel frames are mounted a pair of toothed driving wheels and four pairs of guide pulleys, over which pass two parallel chains, each carrying a series of bobbins. The bobbins are rotated intermittently by vertical leather-covered bars being brought into contact therewith on opposite sides alternately and automatically by means of cams. For facilitating the removal and changing of hanks the ends of the frame are hinged and can be approximated by a right and left-hand screw operated by a hand wheel. At the end of the operation the frames are lifted out of the vat by hydraulic rams. Over the vat is a smaller tank into which the dye is pumped in order that the vat may be charged with water or washing or chroming liquid. 8jd. Drawings.

15,464. October 2, 1889. **Spinning.** J. M. HETHERINGTON, Vulcan Works, Pollard-street, Manchester.



Mules.—To facilitate the tightening, etc., of the scroll band *f*, the latter is attached by its ends to the scrolls *a*, *a*, and passes over guide pulleys *g* on the mule carriage and *d* over an additional pulley *k*, which is mounted on a carriage *h*, adjustable on the slide *et*. The pulleys *g* may be a set of shaped pulleys capable of oscillating slightly on their axes, and two pulleys may, if desired, be mounted on the slide *et*. 8jd.

15,512. October 3, 1889. **Dyeing.** R. GEE, New Hay, Lindley, near Huddersfield.

Hank machines.—In a frame is mounted a series of bars geared together by pinions, which are operated by a toothed wheel driven by a worm wheel and worm. The toothed wheel may be incomplete, so as to rotate the bars intermittently. A lower series of bars is mounted in bearings supported on a frame by pins provided with nuts and surrounded by springs. The lower frame is raised and lowered in order to alternately slacken and tighten the hanks for facilitating access of the liquid to the yarn. 8jd. Drawings.

15,558. October 3, 1889. **Dyeing.** F. RHODES, Westfield, General, Yorkshire.

Relates to apparatus for extracting colouring matters from dyewoods and other materials. The extracting vessel is formed with a perforated false bottom covered with filtering cloth, and a hinged lid at one end fitting on elastic packing and secured by bolts and nuts. The liquid is circulated through the extractor and the dye vat by a pump or injector, a pipe supplying the extractor direct, or through a vessel containing a coiled steam heating pipe. The extract is delivered by a pipe into the vat, and this is also heated by a steam pipe. The extracting apparatus is also arranged in combination with the dyeing apparatus described in Specification No. 2,993, A.D. 1888. 6jd. Drawings.

15,570. October 4, 1889. **Spinning.** S. FALLOWS, Ewood Works, and G. HAWORTH, 12, Audley Range, both in Blackburn.

Differential gearing.—Improvements on the invention described in Specification No. 11,938, A.D. 1888. 1s. Drawings.

15,581. October 4, 1889. **Printing.** H. S. BOOTH, 6, Hall-street, Manchester.

The lengths of piece goods are stamped upon tickets, and the lengths and number of the pieces are registered upon an endless tape, by means of figures fitted to discs which are carried by a parallel motion frame. 8jd. Drawings.

PATENTS.
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