

Patents.

SPECIFICATIONS PUBLISHED.

1890.
 7,787. ST. GEORGE. Linoleum, etc. 4d.
 8,243. LAKE (A. Leenhardt & Co.) Colouring matters. 6d.
 9,495. HALLIDAY & SHORE. Combing machines. 8d.
 9,576. GUEST & BROOKES. Winding frames for yarn, etc. 8d.
 9,603. WAYLEN. Asbestos, etc. 6d.
 9,676. JOHNSON (Badische Anilin & Soda Fabrik). Substantive dye-stuffs. 6d.
 9,704. PORTER & LEWIS. Moistening, etc. air of factories. 6d.
 9,755. JAEGERMAYER & ANR. Testing wool. 8d.
 10,612. BOWN & CAPEWELL. Shearing wool, hair, etc. 8d.
 14,752. D'HUMY. Mats, carpets, etc. 8d.
 17,531. THOM. Backing, etc., textile fabrics. 8d.
 18,091. HEARTH & ORS. Stockings, etc. 8d.
 7,051. WEISS. Embroidery machines. 1s. 1d.
 7,198. HITCHCOCK - SPENCER. Bleaching textile fibres. 6d.
 8,659. JOHN CROSSLEY & SONS, LD., & SIRET. Pile carpets, etc. 1s. 6d.
 9,935. WOODWARD. Knitted vests. 8d.
 10,006. HINDLE & ORS. Looms. 8d.
 10,011. MILLS (Michalot - Sirot). Spinning, etc., fibrous materials. 8d.
 10,095. JOHNSON (Badische Anilin & Soda Fabrik). Colouring matter. 4d.
 10,152. HOLLINGWORTH. Looms. 8d.
 10,159. HAHLO & ORS. Jacquard machines. 8d.
 10,220. WORMALD & WASHINGTON. Loom pattern mechanism. 6d.
 10,231. ATHERTON & BATTERSBY. Felt hat machines. 4d.
 10,325. HUTCHINSON. Drying cloth, etc. 6d.
 10,326. HUTCHINSON. Pressing, etc., cloth. 6d.
 10,599. LAKE (Oehler). Colouring matters. 6d.
 10,788. SAINT-DENIS. Centrifugal drying machines. 8d.

1891.

- 2,282. FRIEDBERGER. Moldavian embroidery. 6d.
 2,497. TERROT. Circular knitting frames. 6d.
 4,139. BONNE (Kreissig & anr.). Warp looms. 6d.
 4,345. BARKER (Cole & anr.). Drying fabrics, etc. 8d.
 4,866. EDWARDS (Held). Looms. 6d.
 1,286. EDWARDS (Held). Looms. 6d.
 4,676. BOWKER & WILLIAMS. Looms. 1s. 8d.
 4,863. LAKE (Stafford). Looms. 8d.
 5,584. THOMPSON (Wade). Producing textile fabrics. 4d.
 5,597. SELKIRK. Producing fibres from vegetable substances. 8d.

REPRINTS (with alterations).

1889.
 20,193. SYKES, E. & D. Spinning, etc., machinery. 6d.
 17,684. STOTT. Winding yarns or threads. 11d.

1890.

- 9,473. HARDINGHAM (Silver's Sheep Shearing Machine Co., Ld.). Shearing wool. 6d.

SECOND EDITIONS.

1885.

- 3,803. HADDAN (Farbenfabriken vorm. F. Bayer & Co.). Colouring matters. 6d.

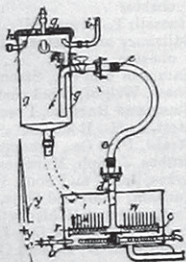
1890.

- 14,432. DAWSON. Cotton colour. 4d.

ABSTRACTS OF SPECIFICATIONS.

19,403. December 3, 1889. Dyeing, etc. C. WEBER. JACQUEL, Thann, Alsace.

Cop machines.—Relates to apparatus for dyeing, cleansing, bleaching, and drying yarn in cops or in similar forms. Consists in a hollow spindle frame *c* formed with a number of concentric tubes *r* carrying spindles *W*. The frame *c* communicates by a pipe *d*, a coupling device, and a flexible tube *e*, with a siphon pipe *f* within a closed chamber *g*, which is connected with an exhauster by a pipe *h* and with an air compressor by the pipe *i*. The spindles *W* are formed with a central core *y* (Fig. 9a), ribbed, as shown in section, and mounted on tubes on the tubes *r*, or the ribs may be formed of wire. In operation the chamber *g* is filled with liquid, the cock on the siphon pipe *f* is opened, and the liquid runs or is forced by the compressor, into the frame *c* and through the cops. The exhauster is then put in action and the liquid is drawn back through the cops into the chamber *g*. The cops are dried by heating the air in the vat by the heat



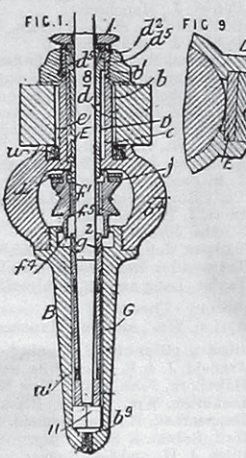
radiator *h*, or by a steam jacket, and drawing it through the cops by exhauster *g*. The chamber *g* may be mounted on rails, so as to be movable over a series of vats and cop frames. 8d.

19,377. December 3, 1889. Finishing fabrics. A. T. CLAY, Rastrick, Yorkshire.

Relates to apparatus for setting or finishing processes for woven fabrics, such as blowing or steaming, boiling, cooling, scouring, and dyeing. Consists in a chamber *A* provided with a hinged air-tight lid *B*, and containing a perforated cylinder *M*, mounted at one end upon a hollow shaft *G*, and at the other end upon a pin, adjustable by the hand wheel *R*. The cylinder is rotated by means of a worm wheel *T* and a worm *U* on the driving shaft. The shaft *O* is connected with a pump or fan, and steam is supplied by a pipe *W*, the pressure being indicated by a gauge *X*. The fabric to be treated is wound upon the perforated cylinder, a vacuum is produced by means of the pump, and steam admitted by the pipe *W* is drawn through the fabric by the pump while the cylinder is being rotated. Liquids are supplied in the same way, and when the cock *Y* is also connected with the pump, circulation may be effected in both directions. 8d.

19,435. December 3, 1889. Spinning. S. BATES, 1,900, Triana-street, E. F. SHAW, 16, Harrison-street, Frankfurt, and G. M. VON CULIN, 4,773, Garden-street, Bridesburg, all of Philadelphia, U.S.A.

Spindles.—The part *b* which supports the bolster part of the bearing is passed upwards through an aperture in the rail, and secured thereto by a nut *d*, and the part *B* which supports the footstep is secured by screwing to a yoke *f*, depending from the part *b*. The bolster bearing *D* consists of a tube having longitudinal ribs, between two of which the metal is removed, forming a vertical oblong recess with seatings for a plate *E* of glass or hardened metal, which is held in place against the spindle by a strip *g* of wood or other suitable material. Lubricant is conducted from a well *u* by means of cotton wicks, etc., the wicks passing through apertures in the part *h*, along the longitudinal channels in the bolster and through other channels in the upper part of the same to an annular groove *d*₂, from which the lubricant passes by inclined grooves *d*₃ to the spindle. Waste lubricant escapes by an aperture *d*₄ into an annular chamber, and there accumulates. The remainder of the lubricant passes downwards into a chamber *f* formed by a flanged projection from the upper surface of the wharve, which is perforated for the passage of the lubricant, and at the lower side is provided with an annular projection *f*₅, from which the main portion of the lubricant drops into the upper part of a bearing *G* for the lower portion of the spindle. The bearing *G* is cylindrical in its upper part, and there fits both the spindle and support, but below it hangs more or less loosely, so that the lower end of the spindle may move freely upon the flat footstep *H*. The lubricant which fails to enter the upper part of the bearing *G*, accumulates in a chamber *f* formed by flanges on the upper part of the support *B*, and escapes thence to the bearing by grooves *g*₂; *a*₁ are apertures for the escape of waste lubricant which, passing through longitudinal channels around the footstep, accumulates in a chamber *b*₅ closed below by a screw plug. *i* is a cover for the upper part of the bolster, and *j* is a washer which may be pressed upon the wharve in order to stop the spindle by means of a spring. In a modification a centering arrangement is described consisting of a dowel on the part *h* which takes into an aperture in the underside of the rail. 8d.



19,519. December 5, 1889. Spinning. B. A. DOBSON and W. BROMLEY, Kay-street Works, Bolton.

Carding-engines.—The flats are ground while passing over an adjustable bracket *c* (Fig. 1) by means of a roller *i*, situated between the working and the returning flats. Each flat is attached to the carrying chains by pivots, which the flat is turned by means of a catch *f* as it takes on to the bracket *c*. The pivots are situated somewhat eccentrically with regard to the flat, so that as the latter leaves the bracket *c* it may resume its normal position automatically. A catch may, however, be provided to assist the operation. The flats may be ground in the ordinary manner while being pressed upwards by spring or

weighted levers against a fixed bracket, or they may be ground from their working surfaces. In the latter case the working surfaces of the flats take against the upper surface of the bracket *c*, and in order to give the necessary heel to the flat the grinding roller or the bracket is tilted automatically as each flat is being ground. Several arrangements for this purpose are described. The drawing shows the sliding bracket *c*, as operated by an eccentric *h*, provided with a lever *h*₁, which engages with the back of the working flats. The grinding roller *i* is mounted in a carriage consisting of two parts *k*, *k*₁ (Fig. 15), adjustable with regard to one another, and mounted by means of rollers *l*, *u* on shafts *m*, *v*. 8d.

19,464. December 4, 1889. Spinning. G. TOLSON, Prosper House, Wakefield-road, Dewsbury.

Wool, silk, cotton, or other animal or vegetable fibres are prepared for spinning by passing between two series of lugs or tables covered with card clothing, one or both of which are reciprocated. 8d. Drawings.

19,590. December 4, 1889. Dyeing. L. SCHREINER, Stuttgart, Germany.

Aniline black dyeing.—Consists in treating the material with a mixture of an aniline salt and of a substance which will coagulate with the metallic salts used in the subsequent oxidation process. Albumen, casein, glutine, and chondrine may be used. The process may be carried out, for example, by soaking the material in a mixture of 10 per cent. solution of glue, and a 20 per cent. solution of aniline hydrochlorate, partly drying, and then treating it with a solution of chromic acids or its salts, or with salts of iron or copper, with or without other oxidizing agents, such as combinations of oxygen with chlorine and manganese, until the aniline black is developed. 4d.

19,534. December 5, 1889. Knitting. A. E. ADAMS, W. A. SHEFFIELD, and J. HALLAM, Adelaide-buildings, Albion-street, Leicester.

Thickening.—Ribbed fabrics are thickened by putting the ribbing or the frame needles out of action at every alternate course. The leg or ankle of stockings, seat of pants, armpit of shirts, front or back of under-vests, jerseys, Cardigan jackets, etc., may thus be thickened on circular, straight-bar, or parallel machines. The fabric produced is shown in the figure, in which *Y* represents the loops formed on the frame needles only and *Z* the main fabric formed on both sets of needles. 8d. Drawings.

19,544. December 5, 1889. Bobbin, etc., holders. E. W. COOPER, King-street, Coventry.

Bobbins, reels, or similar articles are held for warping, winding, and other purposes, in creels, etc., by means of springs carrying one bearing. In a modification the bobbins are carried upon an axle having at one end a fast cone, and at the other a loose one adjustable by a spring and screw nut. 8d. Drawings.

19,547. December 5, 1889. Gig-mill. C. E. MOSER, Aix-la-Chapelle, Germany.

The countershafts for driving the card-rollers of machines of the class described in Specification No. 11,640, A.D. 1885, are themselves driven by speed cones, the belt of which is shifted by a fork, operated by a screw shaft, and carrying a finger to indicate the speed on a scale. 6d. Drawings.

19,598. December 5, 1889. Knitting. L. and C. R. WOODWARD, both of Lee Works, Nottingham.

Circular machines.—Both the frame and machine needles rotate, and the latter are divided into sets, arranged alternately to knit with one colour of yarn to each set for the production of fabrics with stripes on one side only. In the Provisional Specification it is stated that the invention may be applied to straight latch-needle frames. 4d. Drawings.

19,700. December 7, 1889. Knitting. W. H. REVIS, A. BAWIN, and J. MARRIOTT, Goldsmith-street Works, Nottingham.

Straight-bar machines.—The narrowing point bars are moved forwards and backwards at will, to produce two or more rows of narrowings. For this purpose, a rack, secured to each point bar, is operated by gearing from reversely cut ratchet wheels, which are operated alternately by pawls on the T-end of a bent lever. 8d. Drawings.

19,757. December 9, 1889. Beaming and balling warps. H. HAWORTH and J. WALMSLEY, both of 50, Belvedere-road, Burnley.

A balling machine is applied to the end of a beaming frame, the yarn passing from the latter to the former around a tension roller and through the calendaring rollers. A lease of tapes is taken by a reel, alternate dents of which are provided with double catch hooks, so that on shifting the reel laterally, and then raising or lowering it, the required sheds are obtained. A footboard or platform is provided between the beaming frame and the balling machine. The traversing lever of the latter is operated through a link and crank from a side shaft driven by bevel gearing. The Provisional Specification states that the yarn from the creels may pass direct to the balling machine; also that the beaming machine may be provided with a slow motion, which is put into action when piecing ends. 6d. Drawings.

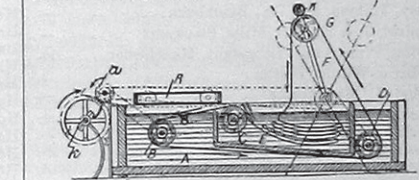
19,773. December 9, 1889. Preserving hemp, etc. E. T. TRUMAN, 23, Old Burlington-street, Middlesex.

Hemp, flax, jute, cotton, and other substances are treated with one or more of the following oxides:—Black oxide of manganese, black oxide of copper, peroxide of lead, and peroxide of barium. The oxides may be mixed with ozokerite, tar, or other vehicles to facilitate application. The preservative substances may also be used for preserving the materials used in the construction or laying of electric conductors or cables, or for treating sail cloths, tarpaulins, ropes, etc. 4d.

19,788. December 9, 1889. Finishing pile fabrics. S. C. LISTER, Manningham Mills, Bradford.

The pile of sealskin and other fabrics is raised by means of steam or air, blown through or upon the fabric. 4d.

19,863. December 10, 1889. Dyeing, etc. C. CORRON, St. Etienne, Loire, France.



Relates to apparatus for mordanting, dyeing, washing, and otherwise treating fabrics in the full width. Consists in a vessel *A* in which is an inner vessel *E*, and provided with rollers *B*, *C*, *D*, and with a roller *G* carried on oscillating arms *F* which are rocked by links connecting them with crank discs on the crank shaft *h*. The rollers are all driven from the driving shaft *a* by means of chains and chain wheels. In operation the fabric is folded into the vessel *E* by the oscillating roller *G* and is drawn out thence under a guide board *L* into the vessel *A*, where it passes, as shown, back to the roller *G*. The latter is provided with a pressing roller *K* mounted in spring bearings. The fabric is kept extended in width by spiral ribs on the rollers running from the middle in opposite directions to the ends. The same object is effected by passing the fabric over several steam pipes with perforations diminishing in diameter towards the ends of the pipes, and these perforations may be inclined away from the middle of the pipes. For collecting the fabric a tray *R* is run under the folding roller *G*. 8d.