

Cotton yarns not coarser than No. 40, unbleached, bleached or dyed, for use in covering electric wires; also for the manufacture of cotton loom harness; and for use in the manufacture of Italian cloths, cotton, worsted, or silk fabric.

Cotton yarns in cops only, made from single cotton yarns finer than No. 40, when used in their own factories by the manufacturers of Italian cloths, cashmeres, and cotton cloths for the selvages of said cloths and for these purposes only.

Colours, metallic, viz.: Oxides of cobalt, zinc, and tin, not otherwise specified.

Extracts of logwood, fustic, and oak bark.

Mexican fibre and tampoico oristle.

Fishing nets and seines, and fishing lines and twines, but not to include sporting fishing tackle or hooks with flies or tawling spoons, or threads or twines commonly used for sewing or manufacturing purposes.

Hair, cleaned or uncleaned, but not curled or otherwise manufactured.

Indigo auxiliary or zinc dust.

Jute yarn, plain, dyed, or coloured, when imported by manufacturers of carpets, rugs, and mats, and of jute webbing or jute cloth, for use in their own factories.

Models of inventions and of other improvements in the arts; but no article or articles shall be deemed a model which can be fitted for use.

Hags of cotton, linen, jute, hemp, and woollen, paper waste or clippings, and waste of any kind except mineral waste.

Ultramarine blue, dry or in pulp.

Wool and the hair of the apaca goat and of other like animals, not further prepared than washed, not otherwise specified.

Wools, being the short wool which falls from the combs in worsted factories.

Carwood and sumac for dyeing or tanning purposes when not further manufactured than crushed or ground.

Blood albumen, tannic acid, tartar emetic and grey tartar, when imported by the manufacturers of cotton and woollen goods for use in their factories only.

Yarns, made of wool or worsted, when renapped, dyed, and finished, and imported by manufacturers of braids, cords, tassels, and fringes, to be used in the manufacture of such articles only in their own factories.

7,873. F. J. PERRY, 23, Southampton Buildings, London. Embroidery machines.

7,904. O. S. HALL, 17, St. Ann's Square, Manchester. Looms.

7,911. E. MOORE, 10, Thornburn St., Liverpool. Machine for ironing and calendaring linen.

7,914. A. ACTON, Hollowstone, Nottingham. Waterproof steel, or polished thread prepared for this purpose in black and other colours in the manufacture of lace, or braid, or plaits, or nets (other than hair) on lace, curtain, warp, or net machines.

7,917. G. LONGBOTTOM, 20, Charles-street, Bradford. Stand or holder to support packing reels or frames for imitation sealskins.

7,919. G. DOUGLAS, 20, Charles-street, Bradford. Pressing and finishing textile fabrics.

7,926. J. Y. JOHNSON, 47, Lincoln's Inn Fields, London. Dioxynaphthaline carbon acids. (F. von Heyden, Germany.)

7,980. E. MEUNIER, père, and E. MEUNIER, fils, 28, Southampton Buildings, London. Spinning or twisting machines.

7,993. W. GRAY and W. P. THOMPSON, 6, Lord-street, Liverpool. Separation of cotton seed from fibre.

other suitable consistency, in a vacuum pan or other suitable vessel. Instead of using water, the solution of gluten obtained in the manufacture of starch, corn flour, and the like, may be used, the caustic alkali contained therein being neutralised, if necessary, by addition of a mineral acid. [4d.]

17,801. Dec. 6, 1888. Pile Fabrics. S. C. LISTER and J. REIKACH, both of Manningham Mills, Bradford.

For producing internal or other selvages the pile is cut away in stripes along the body or edges of the fabric as required, and, after cutting the piece along the centre lines of the stripes (in the case of internal selvages), the edges are whipped over by means of a sewing machine. The pile is cut away as indicated in the shearing machine, the rail of which is provided with bridge pieces for holding the fabric, at the required parts, nearer to the cutter. Springs, carried by a bar serve to hold the fabric down to the edge of the rail at the sides of the bridge pieces. [3d. Drawings.]

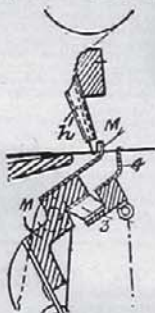
17,923. Dec. 7, 1888. Fabric. T. BURBERRY, Winchester Street, Basingstoke.

Compound fabric specially adapted for making sportsmen's garments. It consists of two layers, the outer of twill or plain linen or the like, and the inner of waterproofed or semi-waterproofed cloth or the like, and the former may or may not cover the whole of the latter. A cope and breeches for sportsmen made of this fabric are shown in the drawings. [6. Drawings.]

17,957. Dec. 8, 1888. Spinning, etc. J. STONEY, Dock-royd, and H. COLBURN, Vale Mill, Oakworth, both near Keighley.

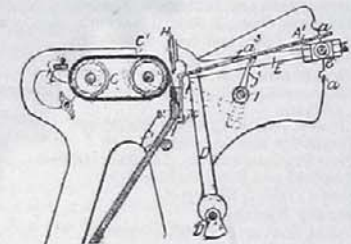
ABSTRACTS OF SPECIFICATIONS.

17,678. Dec. 4, 1888. Looms. W. ADAM, Kidderminster.



**Pile Forming Mechanism.**—In looms of the kind described in Specification No. 235, A.D. 1877, for weaving "Royal Axminster" or "Moquette" tufted fabrics, a second comb 4 is provided in addition to the usual comb M, to which latter it is attached by springs 3. In the rearward motion of the parts the comb 4 pushes forward and straightens the tufts of yarn projecting from the tubes A<sup>1</sup> and ensures their being lifted or pushed through their proper places in the warp by the comb M. In place of the comb 4 a plain bar or plate may be employed. [3d.]

17,699. Dec. 4, 1888. Burring Wool. H. H. LAKE, Southampton Buildings, London.—(A. A. Pope, Boston, and F. E. Hull, Brookline, both in U.S.A.)



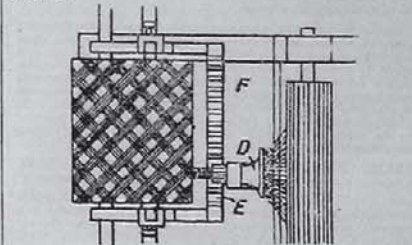
The invention consists in adapting the roller gin to burring either scoured or un-scoured wool. The belt C is made of several plies of an imperatively fine duck, cemented together with vulcanizable materials, and in order that its tension may be regulated the bearings of the roller C are made to slide in slots in the frame and are attached by hooks L to wedges upon a transverse rod capable of being moved longitudinally by a screw and nut arrangement. The iron body of the presser bar is set in notches in the frame and adjusted by screws 1, 2. It is provided with a steel blade f. The clearer arm E, pivoted on the bar e, which may be secured in notches a in the frame, are operated through a connecting rod D by means of an eccentric on the shaft D; the bearing for this eccentric is also that at the upper part of the rod being fitted with wooden bushes, that of the eccentric being made in two parts, adjustable by means of screws to allow for wear. The lower end of the clearer H is curved sharply toward the roller and terminates in a slightly rounded edge. For removing "spiral" burrs teeth are formed in the turned edge of the clearer, each tooth being a short pyramid. If double clearers are used, they may both be attached to the arms E, or the lower clearer may form the edge of the feed table, which would be vibrated up and down by connection with the rod D. All the clearers may be slotted to facilitate adjustment. The feed table A is slotted at a to allow of the passage of the drag teeth, which have preferably hooked and straight points alternately, and are mounted on the rocking shaft I. In place of these teeth a rotating cylinder carrying curved prongs may be used. [3d.]

17,734. Dec. 5, 1888. Reeling Yarn, etc. T. RIVETT, Lancashire Hill Mills, Stockport.

**Traversing.**—To facilitate dyeing or re-winding the traverse rail of the machine is moved in such a manner as to form diamond-shaped spaces or meshes in the yarn, etc., as it is wound upon the swift. The traverse rail may be operated from the axle of the swift, through bevel and change gearing, and a crank and connect-rod. [3d.]

17,811. Dec. 6, 1888. Finish for Fabrics, etc. W. PATTERSON, Phoenix Chemical Works, Maryhill, and H. STARKER, 48, West Regent Street, both Glasgow.

Relates to the manufacture of a substance to be called "Blackline," for use in finishing fabrics, yarns, and threads. Consists in mashing with water cereals, roots, or seeds, or other substances containing starch and gelatinous material, for instance, malt and maize, at about 150° F. After settling, the clear solution is run off and evaporated to a syrup, or



**Condensing Slicer.**—The sliver is passed through a funnel D, the tube of which is angular in section, and which is rotated alternately in opposite directions by means of a rack and pinion F, E, or other suitable arrangement. The apparatus is situated between the delivery rollers and balling heads or sliver cans of carding and gill machines, or between the supply bobbins and the rollers of slubbing, etc. frames. [3d.]

18,010. Dec. 10, 1888. Dyeing. J. LEBAY, 28, Southampton Buildings, London. (La Société Anonyme des Matières Colorantes de St. Denis; Paris.)

Relates to dyeing cotton and other vegetable fibres with blended colours, fast against soap, light, and chemical agents. Consists in a single bath process. For example, a marve blend may be dyed by immersing the material in a bath containing alizarine No. 1, silicate of soda, and pyrogallite of iron, then stirring and heating gradually to the boiling point. Afterwards the material is washed, soaped, again washed, and dried. Similarly Alizarine No. 3, a salt of tin, and oil yield a rose tint; ceruleine, bisulphite of soda, alumina, a salt of tin, and a little oil produce a green tint, and so on with other mixtures. [4d. No drawings.]

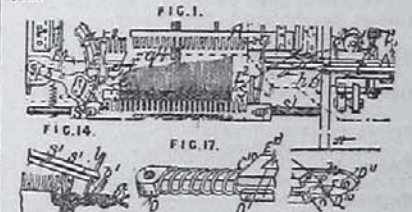
18,011. Dec. 10, 1888. Cleaning Cotton Seed. E. SHERWOOD and J. C. BARKEN, 44, High Street, Hull.

Relates to a process of cleaning cotton seed by subjecting it consecutively to the action of several machines of the following construction:—The seeds are first passed through a machine consisting of a cylinder formed of two semi-cylindrical portions hinged together, and fitted on its inner surface with inclined projecting pins or studs. The cylinder is mounted in an inclined position, with a feed orifice at its upper end and a discharge opening at its lower end. A cylinder, the surface of which is studded with pins arranged radially in helical rows, rotates within the casing. Helical blades are fitted at the upper end of the rotating cylinder, to feed the seeds into the annular space between the two cylinders. The seeds, after leaving the above machine, are screened to remove all long fibres, and are then either passed again through the previous machine, or at once passed through a brushin' machine. [3d. Drawings.]

18,015. Dec. 10, 1888. Floorcloth, etc. H. M. STREXNER, Scarborough, Yorkshire.

The invention described is a machine designed for pressing prints upon cloth for the production of floorcloth, wall coverings, etc., or for embossing. [3d. Drawings.]

18,084. Dec. 11, 1888. Looms. C. W. McCOPP, 375, Main Street, and J. J. DEWITT, 29, Lewis Street, both Bridgeport, U.S.A.



Relates to the picking and selvage forming, welt tension, and tuffing mechanism of needle looms for tufted fabrics, such as "Moquette" carpets. The various parts are operated through links and levers from a cam on the main shaft or on a shaft driven therefrom.

**Picking and Selvage Forming Mechanism.**—The curved selvage-shuttle race B (Fig. 1) is grooved to receive a T-rib on the underside of the shuttle carrier E. The shuttle E runs against a plate E', formed with an opening for the passage of the point of the welt thread D, a guard preventing the tangling of the selvage thread C. The carrier and shuttle are reciprocated upon the race by a fork-d arm E<sub>2</sub> on a vertical rock-shaft E<sub>1</sub>. The needle D is attached to a block reciprocated on an arm A. It is formed with hooks or prongs A, and made spoon-shaped at its inner end so as to carry the welt through the opening in the plate E' in front of the shuttle, which latter picks up the loop of welt and holds the same while the needle recedes. The shuttle then passes through the loop, and is brought back ready for the next welt

Joint Stock and Financial News.

NEW COMPANY.

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Gazette News.

ADJUDICATIONS.

John Beauland and Benjamin Beauland, Hollings Mill, Sunbridge-road, Bradford, wool merchants.  
William Hardwick and Henry S. Hardwick, Market-street Mills, Keighley, worsted spinner.

RECEIVING ORDERS.

John Beauland and Benjamin Beauland, Sunbridge-road, Bradford, wool merchants; Bradford.

PARTNERSHIPS DISSOLVED.

John Pidley and Sons, Eccleshill, woollen manufacturers.

William J. Elliot and Charles J. Elliot, trading as Thomas Elliot, Nottingham, cotton doublers.  
C. Pearson and Co., Old Basford, Nottingham, bleachers, dyers, and lace dressers.

Goss and Tapper, Well-court, Queen-street, Cheapside, London, manufacturers' agents.  
John Green and Sons, Morgan-street East, off Ribbleson-lane, Preston, shuttle manufacturers.

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.

19TH MAY.

7,765. JOHN WALTON, Commercial-street, Halifax. Pickers, composed of buffalo-hide, etc.  
7,785. T. MITCHELL, 321, High Holborn, London. Linoleum.

7,787. A. F. S. GEORGE, Redhill, Surrey. Colouring and inlaying coloured designs upon and through linoleum.

20TH MAY.

7,829. W. HEMINGWAY, 4, St. Ann's-square, Manchester. Fastening card clothing to the flats of carding engines.

7,841. H. MCCOLL, 96, Buchanan-street, Glasgow. Printing designs on handkerchiefs, etc.

shot. One form of needle D is shown in Fig. 17. It is enclosed by a shield E<sup>1</sup>, having a V-shape projecting beyond the needle head. An eye D<sup>2</sup> for the warp is provided, in vertical alignment with the prong h. An extension E<sup>10</sup> strikes a projection on the loom frame, the needle advancing further against the action of a spring C<sup>10</sup> at its rear end. The selvaige shuttle enters the recess F<sup>10</sup>. Modified forms are described. A reciprocating selvaige point or projector L<sup>1</sup> (Fig. 1) is pivoted above the warp, and drops over each warp shot just after the beat up, to hold it at the selvaige while the next shot is inserted.

**Warp tension mechanism.**—The warp comes from a spool at the needle side of the loom, and passes between tension wheels A, B, (Fig. 1) and through eyes H to the needle. A feeder J, forked to embrace the warp, is made to reciprocate. The wheel I is fixed whilst it is reciprocated for grasping and releasing the thread. A weighted grooved roller K takes up any slack.

**Tufting mechanism.**—The spools of tuft yarns are carried from endless feed chains to near the warp by transfer arms. The tuft yarns (Fig. 14) are then drawn down through the warp, released, and raised around a welt shut H by the action of specially worked nippers, and of a comb R (Fig. 1) formed with upturned teeth S. The yarns are cut by knives S<sup>1</sup>, formed with cutting teeth T, and moved one over the other at the proper time. To bring the knives to and from their work their carrying plate is mounted on arms on a rock shaft. [1s. 2s.]

**18,110** Dec. 11, 1888. **Linoleum, etc.** H. W. GODFREY, C. F. LEAKE, and C. E. LUCAS, Linoleum Manufacturing Works, Staines, Middlesex.

Linoleum and like fabrics are made by arranging coloured tesserae, consisting of the usual linoleum composition, upon a prepared backing or fabric, and then consolidating the whole by pressure. The composition is rolled into a sheet, passed between rollers coated with paraffin wax (which is transferred to the sheet and prevents sticking), and then cut or stamped by a suitable machine. The tesserae are next arranged, according to the pattern required, in a series of layers, upon a vertically movable table of the pressing machine. [8s.]

**18,151** Dec. 12, 1888. **Knitting.** T. J. and J. W. KIDDER, Hosiery Machine Building Company, Nottingham.

**Straight-bar machines.**—The presser-bar is recessed, and is shogged by the serrated and ratchet wheels on the same axis. The ratchet wheel is driven by a pawl and lever from a double cam, the bowl being shifted from one cam surface to the other, in order to change the rate of motion of the ratchet wheel by means of a spring lever, operated by a cam. [5s.]

**19,165** Dec. 12, 1888. **Looms.** F. SCHMIDT, Grossenhain, Saxony.

The shuttle-boxes and shuttle operating parts are mounted on the frame of the loom, the lay being independent thereof, whether it have an oscillating or a reciprocating motion. This motion is imparted by cams through levers and rods, the lay remaining as long as possible at the back end of its strokes [6s.]

**18,226** Dec. 13, 1888. **Spinning, &c.** S. H. BROOKS, Union Iron Works, West Gordon, and W. NAPIER, 89, Barrett Street, Old Trafford, both in Lancashire.



**Thread Guides.**—The glass rods used as thread guides are protected by a tube or casing of brass or other suitable material, notched at intervals for the passage of the threads. [6s.]

**18,315** Dec. 15, 1888. **Weaving tufted fabrics.** W. ANAM, Kildermaster.

In the manufacture of tufted pile or "Moquette" carpets and other fabrics on looms of the class described in Specification No. 235, A.D. 1877, the tufts of D, the foundation warps A and B, the dead warp C, and the welt I, 2, 3, are woven in the manner indicated, the pattern showing on the back of the fabric. The forms of grooved cams required for operating the heads of the warps A, B, C, are described, these cams being mounted loosely on the cam shafts, from which they are driven at half its speed. A tappet on the periphery of one of the cams operates the selvaige head. The picking and beat-up cams are altered to suit the arrangements described. [8s.]

**18,827** Dec. 15, 1888. **String, twine &c.** W. BARNLEY, Central Chambers, Halifax. [R. Knab: Nürnberg, Germany.]

Relates to apparatus for passing each strand of yarn, etc., through a bath of size before it is twisted into twine. The yarn, which is wound on bobbins, is passed beneath a longitudinal roller in a bath containing size, etc. The impregnated strands are then passed between rollers to express superfluous liquid. They are then passed over a rotating brush roller which smooths down any inequalities, and finally to a spindle and flier, which twists them in the ordinary way, and winds the finished twine on bobbins. [8s.]

**18,425** Dec. 17, 1888. **Dyes.** S. PATT, Sutton, Surrey. [L. Cassella & Co.: Frankfurt-a-Main.]

Relates to the manufacture of bluish black azo-colouring matters of the general formula R—N equal N—O<sub>2</sub> H<sub>2</sub>—N (a)

—equal N—R<sub>1</sub>. Consists in employing the general process (a)

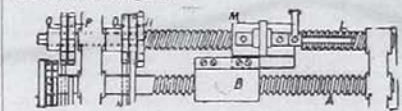
described in Specification No. 9214, A.D. 1885 (in which diazo-naphthalene sulpho acids are combined with a naphthylamine and the products are diazotized again and combined with naphthols or their sulpho acids), but with the following variations, viz.—(1) replacing the naphthylamine sulphonic acid known at the date of the above Specification, by certain isomers thereof and by certain naphthol sulphonic acids de-

scribed in the English Specifications No. 12,938, A.D. 1889, and No. 8245, A.D. 1887; (2) replacing the naphthol-sulphonic acids described in the said by other naphthol-sulphonic acids described in the English Specifications No. 12,938, A.D. 1889, and No. 8265, A.D. 1887; (3) replacing the naphthols by dioxynaphthalenes and their sulpho acids; (4) combining the tetrazo compounds obtained as under (1) with naphthylamines and their sulpho acids instead of with phenols. The Provisional Specification describes another variation in which the naphthylamines are replaced by secondary and tertiary amido-naphthylamines, e.g., *o*-phenyl-naphthylamine. [6s.]

**18,460** Dec. 18, 1888. **Spinning, &c.** G. CLEGG, J. THOMAS, and W. H. HARRISON, Mill Street Mills, Halifax.

**Cap spindles.**—In order to reduce the friction between the spindles and the tube the upper part of the latter is loose, only a short length being secured to the wharve. In a groove in the upper part of the spindle an elastic or split ring is secured, to prevent the withdrawal of the tube during doffing. [6s.]

**18,461** Dec. 18, 1888. **Knitting.** G. SOWERS, 88, Clarendon Villas, Nottingham.



**Straight-bar machines.**—For fashioning hose, socks, pants vests, or similar articles at any distance from the selvaige, an additional screw L and box M are provided for operating the points independently of the selvaige stops, which are carried by the box B on the ordinary screw A. The screw L has two pairs of ratchet wheels P, Q and S, O, operated by clawbars from the cam-shaft. The selvaige points are moved inwards the required distance, and attached by screws or otherwise to a wide set of points for making the required widenings or narrowings, the two sets of points being operated simultaneously by the screw L. The wide points can be again separated from the filling-up box, when the latter is required to work at the selvaige. [8s.]

## PATENTS.

**W. P. THOMPSON & CO.**

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6, Bank St. (Exchange), Manchester

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Thomas, G. and Co., Manchester.

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Makinson, E. and W. G., Preston.

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Wallwork, Henry and Co., Manchester.