

## 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.

#### 20TH JANUARY.

963. OSCAR DREYFUS, 64, Barton Arcade, Manchester. Automatic stopping apparatus for web-pile cutting machines.

968. G. BROWNING, 133, Bewsey-road, Warrington. Gathering, "smocking, and honey-combing" machines.

1010. E. EDWARDS, 35, Southampton-buildings, London. Purifying and opening machine for cotton and cotton waste. (G. Josephy's Successors, Austria.)

#### 21ST JANUARY.

1030. J. V. EYES, 6, Bank-street, Manchester. Frames for spinning flax or other material.

1036. T. J. WOODLATE, 31, Pilcher-gate, Nottingham. The application of a corded stitch embroidery to silk or cotton machine-made lace.

1062. SAMUEL and JOSHUA KNOWLES, 17, St. Ann's Square, Manchester. The production of azo colours upon cotton or other vegetable fibre in the piece, and apparatus therefor.

1107. G. HALDEN, 95, Buchanan-street, Glasgow. Knitted drawers or pants.

#### 22ND JANUARY.

1125. J. V. EYES, 6, Bank-street, Manchester. Frames for spinning flax or other material.

1135. W. FAIRWEATHER, Arcade Chambers, Manchester. Fringing machines for producing ornamental stitches and edging or fringing.

1157. G. YOUNG and F. FRARY, 45, Southampton buildings, London. Apparatus for dyeing and bleaching cotton, wool, silk, and other fibrous materials in the raw and manufactured or partly manufactured state.

1171. E. FRANCE, 321, High Holborn, London. Knitting machines.\*

#### 23RD JANUARY.

1191. JOHN CLEGG, of the firm of ASA LEES and Co., Limited, and JOSEPH MOORHOUSE, 17, St. Ann's Square, Manchester. Self-acting mules.

1210. T. DALG, 299, High-street, Kirkcaldy. Printing floor-cloth by means of flat blocks.

1249. R. W. SCOTT and N. D. WILLIAMS, 47, Lincoln's Inn Fields, London. Process of and machinery for knitting.

#### 24TH JANUARY.

1254. M. WRIGHT and F. NETTLETON, Central Chambers, Halifax. Apparatus connected with the shuttle boxes of looms.

1257. W. I. JAMES, 8, Brunswick-terrace, Stafford. Circular-knitting machines.

1299. G. DAMES, 9, Leonard-place, Kensington. A machine for use in manufactories for making solution or wash of dried Fallers' earth alkalies or other substances, and at the same time screening and separating therefrom all hard and insoluble substances.

1260. THOMAS SCHOFIELD WHITWORTH, 18, St. Ann's-street, Manchester. Revolving flat carding engines.

#### 25TH JANUARY.

1309. F. W. RAWSTON, Ox Heyes, Shelf, Halifax. Circular-knitting machine.

1317. C. HASSEL and E. HOLT, 8, Quality Court, London. Carding engine flats and attaching the clothing thereto.

1338. W. FIELDING and H. A. FIELDING, 4, St. Ann's Square, Manchester. Jacquard harness.

1357. H. JAMES, 323, High Holborn, Middlesex. Apparatus for plaiting or braiding straw, grass, rushes, etc., raffia, or like materials.

1364. E. EDWARDS, 35, Southampton Buildings, London. Fleece-dividing machinery. (G. Josephy's Successors, Austria.)

### SPECIFICATIONS PUBLISHED.

#### 1899.

415. SALAMON. Bleaching fibre. 6d.

3,529. WILCOX (Bayer and Co.) Indulines. 6d.

3,561. HOLLINGWORTH. Looms. 11d.

3,647. MELLOR and WILDING. Calenders, mangles, etc. 8d.

3,694. TOMLINSON and others. "Breaking," etc. waste fibres. 8d.

3,867. SIR F. GREEN. Fuel economisers. 6d.

4,592. SHEPHERD. Textile machinery. 1d.

4,614. BODEN and BODEN. Double locker lace machines. 6d.

16,248. RADFORD and CUTTS. Lace fibres. 6d.

17,270. SILVER and COHEN. Shearing wool, etc. 8d.

18,901. DREYFUS. Colouring matters. 4d.

19,126. ROSCHER. Knitting machines. 6d.

19,354. KINNEY and MAU. Wire fabrics. 6d.

19,332. WALMSLEY. Spinning frames. 6d.

19,435. BATES and others. Spinning machines. 8d.

#### AMENDED SPECIFICATIONS.

6,687.\* ABEL. (Actien-gesellschaft fur Anilin Fabrikation.) Azo colours. 8d.

10,422.\* NEWTON. (Australian Electric Company, Ltd.) Sheep-shearing machines. 8d.

SECOND EDITION.

2,011. ASHWORTH. Carding engine flats. 8d.

THIRD EDITION.

3,803. HADDAN. (Farbenfabriken vorm. Fried. Bayer and Co.) Colouring matters. 6d.

### ABSTRACTS OF SPECIFICATIONS.

10,970. July 30, 1888. Flax Spinning. I. MACLAINE, Shirley, Down.

The yarn is spun on to bobbins or pirns of the form shown, which are used directly for weaving, the yarn being built upon the pirns in a conical form by means of a special building motion. The builder rods are supported by chains from oscillating shafts, which are operated by a chain passing over cams and actuated by gearing. [8d. Drawings.]

10,937. July 30, 1888. Umbrellas, &c. A. REVELL, 5, Rue Pizay, Lyon, France.

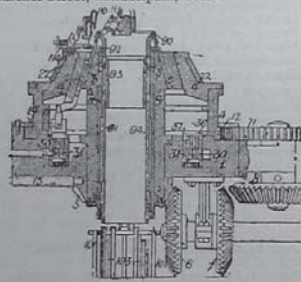
The name or trade-mark of the makers is woven or printed, etc., on the material as is used for the cover to prevent fraudulent use of the maker's name, etc. A number of rosettes, proportionate to the quantity of material required for the same number of covers, are woven, etc., at the end of each piece of material used. [6d. No Drawings.]

11,036. July 31, 1888. Knitting Machinery. S. HENSHALL, J. W. HEYWORTH, and J. HANSON, all of Mascher Street, Philadelphia, U.S.A.

Heels and toes producing.—When making plain work, the needle cylinder 3 is rotated by the gear wheels 5, 6, the cam box 4 being locked in position by the bolt 14, but, when it is required to make heel or toe pockets, the cylinder is locked in position by the bolt 13, and the cam box is reciprocated by the gear wheels 7, 8, 11, 12. Some of the needles are then put in and out of action by means of an expanding rib, composed of two sets of concentric rings 36, 37, which act upon the cams and cause the needles to pass over or under the elevating cam as desired, the cams being released from their ordinary operating position by turning the ring 22. The rings of each set 36, 37 are connected together by pins and slots, and are operated on other rings 30, 31, which are rotated in opposite directions to the desired extent by means of racks and pinions, operated by hand ratchet gearing or automatically. Various forms of cams are described.

Cylinders.—The cylinder 3 is conical and, in order to regulate the stiffness of the work, is provided with a separate head 90, which can be adjusted vertically by the threaded sleeve 91. The gauge or diameter of the fabric can also be altered by the ring 92, which can be moved vertically by the threaded sleeves 93, 94 or by other means, and either by hand or automatically.

Take-up apparatus.—A differential take-up is obtained by means of weighted hooks 100, the weights sliding on rods 101 and being arranged in tiers, so that the lower weights can descend, but not ascend, independently of the upper.



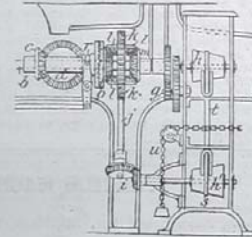
Thread guides.—In order that the thread guide 110 shall always be in advance of the rising needles, it is mounted upon a segmental bar 111, and shifted at each reciprocation of the cam box by means of the sliding bar 113 and pivoted plate 114, the toothed front end of the bar being kept by a spring in contact with the notched ring 92 or notched or grooved part of the needle cylinder. Slight modifications are described.

Holding down work.—The work is prevented from rising on the needles by two rollers 117, mounted on spring studs or sleeves and acting on the work during alternate reciprocations.

Stop-motions.—The machine is stopped automatically after a certain number of courses by releasing the belt shifter from a catch lever, which is tripped by means of a descending nut on a screw, turned by ratchet gearing from the rotating needle cylinder. [1s. 8d.]

11,062. July 31, 1888. Scutchers for cotton, &c. drawing-frames. J. ROSEWORTH, 299, Oldham-road, Failsworth, and W. RUSHWORTH, 19, Copster Hill-road, Oldham.

Scutchers, &c.—The feed rolls are driven through bevel gearing e, d, from the side shaft b, which is driven from the cone drums h, h', through spur and bevel gearing g, i, and epicyclic gearing k, m, l, o, a worm on the shaft j operating the wheel k. The feed may be stopped by shifting a clutch-box r. The strap guides t are shifted by the ordinary pedal mechanism operating the chain u when the thickness of the lap varies.



Drawing-frames.—The Provisional Specification states that the mechanism is applicable for regulating the draft in the rollers of drawing-frames. [6d.]

11,410. July 31, 1888. Opening, separating, and cleaning cotton, &c. W. S. ARCHER, 50, Ackers-street, Manchester.

Improvements on the inventions described in the Specifications No. 7,650, A.D. 1885, and No. 11,441, A.D. 1887. [8d. Drawings.]

11,137. August 1, 1888. Carding engines. J. CLARKE, Acree, Haslingden.

Cams.—To prevent the formation of "fly," &c. by air currents between the cylinder and doffer, each side of the carding engine is fitted with a segmental plate terminating below in a blade, curved to the form of the cylinder. [8d. Drawings.]

11,152. August 1, 1888. Separating vegetable fibres from the pulpy matters. F. DARRIN, Brooklyn, U.S.A.

The stalks or leaves, which are piled on a table, are carried by an elevator to a table at the level of the feed-apron. From the apron the material is taken up by gripping chains, passing over chain wheels, which also effect the crushing. The links of the chains are ribbed and recessed respectively to increase the gripping surface, being pressed together by spring bars. The material is thus carried before a rotating toothed stripper, the fore end being conical so that the extremities of the stalks are first operated upon. The material next passes to another pair of endless chains, which take up the end operated on, and in a similar way subject the other end to the action of a second stripper. From the latter chains the fibres are taken up at the middle by an endless drying rope, which delivers them ready for packing. Under the strippers are endless racks or rods moved by hand, for taking up any short fibres that may fall, the refuse dropping into chutes below. [11d. Drawings.]

11,156. August 1, 1888. Cleaning wool. F. A. OWEN, Burlington, Vermont, U.S.A.

The wool is packed by hand and by a press into perforated drums containing a central perforated tube or shaft in which is temporarily placed a solid core to prevent wool or dirt entering it. When filled and closed, a drum is run through into the extracting box, in which are runways containing seats for the drum shaft. On the first seat the drum is slowly rotated by hand or band pulley, whilst solvent from a tank drips on to it from a perforated pipe running over it, or the solvent enters by a flexible pipe connected to the perforated shaft of the

drum; or, preferably, both methods of saturation are employed. The drum is then rapidly rotated to expel the solvent by centrifugal force. The drum is then lifted by a lever on to the next section of runway, along which it rolls to the next seat, where it is again subjected to saturation and centrifugal extraction, another charged drum taking its place on the first seat. On further seats the drum is similarly located, but a purer solvent is supplied, and, after expulsion, is returned by a pump to the first tank, which supplies the first two sections. The drum is next lifted by levers through the runways in an air-tight chamber, where it drains until the chamber has become filled with drums. The drums are then run into a chamber, in which they are deprived of the remaining solvent, either by a steam jacket, or by forcing hot air into the perforated shafts of the drums, or preferably by both these means. The volatile solvent thus expelled is conveyed to a still. Finally the drums are removed and the dry wool now free from grit or grease is withdrawn from them. [8]. Drawings.]

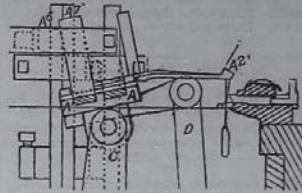
11,158. August 1, 1888. Fireproof fabric. A. L. SMITH, 6, Morris-place, Glasgow.

The fabric is especially applicable for making scenes and side wings for theatres, concert halls, &c. Coarse fine or woolen woven fabrics, felts, or union materials, which may be made in specially wide widths, are coated on both sides with whiting, white lead, or other white pigment, coloured or not, and mixed with size and water. [6]. No drawings.]

11,172. August 2, 1888. Cleaning, &c., textile materials. W. P. THOMPSON, 6, Lord-street, Liverpool.—[J. Rieger, Lure, Haute, Saone, France.] Garnet toothed cylinders.—The toothed blade, which is provided with teeth on its inner edge to facilitate bending, is wound spirally on the plain surface of the cylinder, being attached by one end to a fixed ring or washer, secured at intervals by solder, and clamped in position by means of an adjustable washer. The band may be made thicker at the lower than at the toothed edge, to allow of

the spacing of the teeth, or separate spacing pieces may be used. [8].

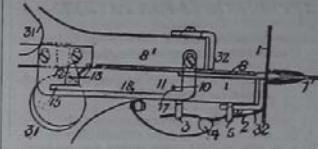
11,208. August 2, 1888. Knitting. S. WARD, Arnold, Nottinghamshire.



Straight bar machines.—Vertical stripes, spots, or checks are produced on the face of knitted fabrics by means of thread guides A<sup>2</sup> in front of the usual thread carriers. These thread guides are carried by two bars A<sup>1</sup>, which are reciprocated in grooves in the bar A by rocking levers A<sup>6</sup>, A<sup>7</sup>, operated by a pattern wheel. The pattern wheel is driven by ratchet mechanism and levers from a cam on the main shaft. Other cams operate the lever C, for moving the thread guides A<sup>2</sup> to and from the needles, the lever D for raising and lowering the guides, and a lever for reciprocating the cops, spools, or bobbins to take up the slack thread. The levers C, D can be put out of action by hand. [18. 8d.]

11,215. August 2, 1888. Elastic Fabrics. J. C. NEMER, 23, Boulevard de Strasbourg, Paris. Woven fabrics are made elastic by gathering into rope form and furling by passing between rollers, which rotate in a soap or equivalent bath, and then between others, which rotate in a bath of soda solution. The fabrics are then rinsed in hot water, and fixed by heat to their reduced width. [4]. No drawings.]

11,232. August 3, 1888. Looped or pile fabrics.—W. and M. PULLEN, Lower Cote, Fixby, near Huddersfield.



Apparatus is described for making hearthbrugs, travelling rugs, mats, and other looped or pile fabrics by forming loops on a ground fabric or backing and cutting such loops if required. The backing 1 is stretched tightly in a holding frame. The pile yarn 2 is passed through guide eyes 3, 4, 5 and through a needle 7, which is pushed forwards through the backing to form a loop as shown. A forked loop holder 8 then moves forwards and catches the loop, whereupon the needle recedes, and is ready to be again pushed forward. The needle and loop holder are carried respectively by slide pieces 11 and 8', moved one on the other by handles 31 with thumb holes. As the slide piece 11 recedes a pin 10 catches against and turns a spring switch plate 12 pivoted at 13, and moves along an incline into the slot 15, whereby the needle is diverted slightly ready for the next forward movement; the plate 12 preserving this inclination of the needle until it has entered the backing. An incline 17 of the guide plate 13 acts on the pin 10 to draw the slide 8' close to the slide 11 as it moves forwards. The length of loop is adjusted by butt plates 32. When out pile is required the loop holder carries a spring knife, which is moved suddenly outwards to sever the loop. In another form of apparatus the parts are worked by cams turned by hand or power. [11].

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Salisbury & Hauser, Blackburn and Manchester. Unsworth, Geo., Manchester.

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Roddaway, F., and Co., Pendleton.

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Sampson and Co., Stroud.

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Livesey, Henry, Limited, Blackburn.

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Platt Brothers and Co., Limited, Oldham.

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Shaw, Wright, Stockport.

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Taylor, Lang and Co., Limited, Stalybridge.

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Platt Brothers and Co., Limited, Oldham.

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"Textile Mercury" Patents Dept., Manchester.

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