

## DIVIDENDS.

H. Cocker, residing, at 40, Manchester New Road, Tonge, Middleton, Lancashire, and trading at 10, Gore-street, Piccadilly, Manchester, and at Marsh-street, Tonge, Middleton, general finisher and maker up, formerly trading in co-partnership with the late Thomas Brooks, as Brooks and Cocker, in the same business; 8s. 10d., first and final.

## 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.

## 31ST JANUARY.

1,663. W. TAYLOR, 17, St. Ann's Square, Manchester. Combined exhaust openers and lap machines.

1,664. J. T. AINSWORTH, 17, St. Ann's Square, Manchester. Self-acting mules and twiners.

1,688. T. R. SHILLITO, 89, Chancery Lane, London. Brown dyes. (*J. R. Geigy and Co.*, Switzerland.)

1,692. J. V. WARE, 37, Chancery Lane, London. A method applied to the materials used in the manufacture of silk or other hats.

1,699. O. IMRAY, 28, Southampton Buildings, London. Colouring matters of the induline series, soluble in water. (*The Farbwerke vormals Meister, Lucius and Bruning.*)

1,702. G. H. CRAVEN, 47, Lincoln's Inn Fields, London. Dyeing machines. [DATE APPLIED FOR UNDER PATENTS ACT, 1883, SEC. 103. 22ND JULY 1889, BEING DATE OF APPLICATION IN UNITED STATES.]\*

## 1ST FEBRUARY.

1,717. W. P. THOMPSON, 6, Lord-street, Liverpool. Compositions for renovating the faded colours of plush, velvet, cloth, &c. (*A. Mautner*, Austria.)

1,735. S. QUILLIAM, 15, Water-street, Liverpool. The prevention of cotton bales and other like fibrous bales taking fire.

1,771. T. R. SHILLITO, 89, Chancery Lane, London. Yellow dye. (*J. R. Geigy and Co.*, Switzerland.)

## 3RD FEBRUARY.

1808. O. IMRAY, 28, Southampton-buildings, London. Yellow basic colouring matter. (*Societe of Chemical Industry in Basle, Switzerland.*)

1811. R. HOLLIDAY, 55, Chancery-lane, London. Colouring matters.

1812. R. HOLLIDAY, 55, Chancery-lane, London. Colouring matters and dyeing or printing wool, &c., therewith.

1813. R. HOLLIDAY, 55, Chancery-lane, London. Dyeing textile fibres.

1825. S. GUTERMAN, 22, Southampton-buildings, Middlesex. Combined pattern and fabric. (*Schamu Moschowitz*, United States.)

1828. B. WILLCOX, 47, Lincoln's Inn-fields, London. Azo colouring matters. (*Farbenfabriken vormals, F. Bayer and Co.*, Germany.)

## 4TH FEBRUARY.

1846. S. CLEGG, J. W. CLEGG, and P. TOWN-  
END, 86, Turner-lane, Ashton-under-Lytle. Connect-  
ing picking bands to pickers in looms.

1855. F. F. ABBEY, Salendine Nook, Huddersfield. Stamping, embossing, or printing marks, patterns, or initials on the selvages or lists of knitted, woven, or felted fabrics.

1864. J. BOOTH, Central-chambers, Halifax. Machines employed in the manufacture of knitted loop or pile fabrics.

1874. J. IMRAY, 28, Southampton-buildings, London. Soluble blue colouring matters of the induline class. (*La Societe Anonyme des Matieres Colorantes de St. Denis and Dr. Chapuis*, France.)

## 5TH FEBRUARY.

1916. J. LINDSAY and R. LINDSAY, 87, Vincent-  
street, Glasgow. Looms.

1919. J. B. ELLISON, 20, Charles-street, Brad-  
ford. Apparatus for gassing or singeing yarn.

1937. J. H. KIRK, 45, Southampton-buildings, London. Picking box and shedding motions of looms.

## 6TH FEBRUARY.

1962. A. BANG, 2, East-parade, Leeds. Yellow  
dye stuffs. (*Dahl and Co.*, Prussia.)

1967. C. J. CORBITT, 10, Alfred-street, Everton-  
road, Manchester. A cloth seam to be used in the  
making cloth or woollen goods.

1968. B. BOOTH and J. BEAUMONT, Market-place,  
Huddersfield. Condensing woollen, cotton and  
other fibres.

1981. J. W. BRERETON, 13, Upper Mount-street,  
Dublin. Flax clamps.

## 7TH FEBRUARY.

2024. J. CURTIS, 70, Market-street, Manchester.  
Pickers for looms. (Partly communicated by *H. Stancliffe*, Russia.)

2036. I. SEVILLE and A. LEACH, 6, Bank-street,  
Manchester. Bobbin, applicable for preparing  
machinery for fibrous material.

## 8TH FEBRUARY.

2062. S. DYER, 121, Grosvenor-street, Belfast.  
Apparatus used in wet spinning frames for flax  
and like fibres for regulating the traverse of the bobbins,  
and a novel mode of controlling the amount of drag  
imparted to them.

2066. R. SCHOFIELD, W. HASLAM, and G. HAR-  
GREAVES, 4, St. Ann's-square, Manchester. Shuttle-  
guard for looms.

2072. W. HARDAKER, Cross-lane, Great Horton,  
Bradford. Jacquard machines used in looms.

2081. C. H. DRAYCUP, 20, Charles-street, Brad-  
ford. Double-lift jacquard mechanism for looms.

2086. J. HEARTH, W. HEARTH, and W. H.  
WILLIS, 323, High Holborn, Middlesex. Circular  
knitting machines.

2088. J. HEARTH, W. HEARTH, and W. H.  
WILLIS, 323, High Holborn, Middlesex. Straight  
bar knitting machines.

2090. J. H. COOPER, J. A. CORAH, and A. CORAH,  
323, High Holborn, Middlesex. Cardigan jackets  
and similar knitted goods.

2096. R. REID, J. FISHER, and J. PARKINSON,  
96, Buchanan-street, Glasgow. Machines for the  
lacing together of Jacquard cards.

## SPECIFICATIONS PUBLISHED.

1888.

935. LEEMING AND WILKINSON. Looms. 8d.

1,046. WILLCOX (*Farbenfabriken vormals Fr. Bayer and Co.*) Acid green. 6d.

2,112. SIDEBOTTOM. Spinning and doubling  
cotton, &c. 8d.

2,712. GLADDING. Cut pile fabrics. 8d.

3,048. LEVINSSTEIN. Red colouring matters. 6d.

3,441. DREYFUS and MORTON. Colouring matters. 6d.

3,764. BREARLEY and BREARLEY. Damping,  
&c., fabrics. 8d.

4,446. BRIGGS. Pumps. 8d.

4,516. BOYD. Winding, doubling, &c., machines,  
8d.

4,578. RILEY. Doubling and folding textile  
fabrics. 8d.

4,593. BOYD. Spinning, &c., machines. 8d.

4,613. KNOWLES. Winding frames. 8d.

4,777. MORTON and MORTON. Carpets. 8d.

4,834. COMBE. Hacking machines. 6d.

4,928. BYWATER and BEANLAND. Yarn  
beaming machines. 8d.

18,035. EMBRY. Seamless bags, 1s. 6d.

18,749. MELVIN. Linoleum floor-cloths. 8d.

## AMENDED SPECIFICATION.

1888.

8,934. TOLSON. Carbonizing rags, &c. 8d.

## ABSTRACTS OF SPECIFICATIONS.

11,452. August 8, 1888. Dyeing, Bleaching,  
&c. J. C. MEWBURN, 169, Fleet-street, London.—  
(*La Societe Leblois, Piceni et Cie*; 1, Boulevard St.  
Denis, Paris.)

*Dyeing and Bleaching*—Consists in a method or  
proceeds of bleaching, dyeing, or otherwise treating  
textile materials, whereby they are subjected to the  
treating liquids at a moderate temperature in order to  
avoid boiling, un gumming, or felting. The ma-  
terials are first steeped in a bath, preferably of the  
same nature as the subsequent bleaching or dyeing  
bath, in a vacuum chamber, provided with per-  
forated pipes at top and bottom for connection re-  
spectively with the exhaust apparatus, and with the  
liquid supply. The chamber receives a frame or  
rock divided into compartments, in which are placed  
openwork boxes containing the materials to be  
steeped. After the steeping process the boxes of  
materials are removed and placed in compartments  
of a wheel, which is rotated by suitable means in a  
semicircular dye vessel.

*Drying*—For drying carded or combed slivers,  
baskets or holders, made of metallic rods, are pre-  
ferably employed, which allow the slivers to swell  
to nearly their original size. [8d. Drawings.]

11,457. August 8, 1888. Jute and Hemp, soft-  
ening. J. CHEYNE, Paterson, New Jersey, U.S.A.  
To the ordinary jute softening machine, in which

the jute, fed along the apron, between the rollers,  
is oiled from a reservoir, a steam and water box is  
added from which steam and boiling water issue  
down to the fibre. The water pipe is provided with  
a float valve, and the steam pipe with perforation;  
through which the steam issues to heat the water.  
[6d. Drawings.]

11,465. August 8, 1888. Wadding. C. RUTTEN,  
Griveguois, Belgium.

Peat is made into wadding by drying it and suc-  
cessively heckling, beating, and carding it, then  
mixing it with a small quantity of cotton, hair,  
wool, or other long fibre, and boiling it in water,  
after which it may be mixed with corrosive subli-  
mate or other antiseptic, and is again carded. This  
wadding is used for surgical bandages, and mixed  
with a large quantity of foreign material, such as  
wool, hair, etc., for the manufacture of bedding,  
and the stuffing of furniture, carriages, harness, and  
the like. [6d. No drawings.]

11,478. August 9, 1888. Lace, &c. F. H.  
BOWMAN, Halifax, Yorkshire.

A suitable design is embroidered in silk on a  
ground of cotton or the like, which is afterwards  
destroyed by the action of acids and heat. [6d.  
No Drawings.]

11,481. August 9, 1888. Yarns or Threads.  
J. S. LINGS and W. E. FAIRLIE, Reddish, Lanca-  
shire.

Yarns or threads are manufactured from fibrous  
materials obtained from the "*Callotropis Gigantea*,"  
either alone or mixed with cotton, wool, etc. [4d.  
No Drawings.]

11,501. August 9, 1888. Dyeing. J. C. MEW-  
BURN, 169, Fleet-street, London.—(*La Societe Jean-  
nolle et Cie*; 1, Boulevard St. Denis, Paris.)

Consists in oxidizing toluidine, aniline, or analog-  
ous coal derivatives in concentrated baths contain-  
ing the materials. The fabrics or fibres are  
agitated in a bath prepared by mixing two concen-  
trated solutions; the first containing chlorate of  
potash or soda, hydrochlorate of ammonia, sulphate  
of iron and of copper, vanadate of ammonia, and  
glycerine; and the second containing toluidine or  
other analogous coal derivative, and tartaric acid.  
They are then washed, squeezed, and dried, and  
passed into a solution of bichromate of potash or  
soda. The colour may be fixed by heat or toned  
down by the usual processes. [4d.]

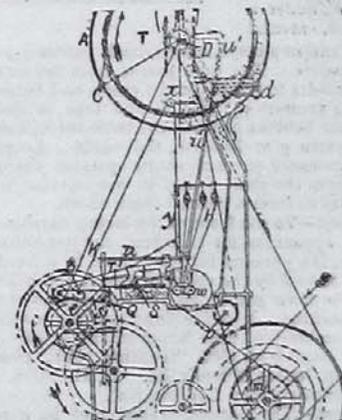
11,521. August 10, 1888. Looms. H. A. SORET,  
Junr., 12, Rue Henri, Elbeuf, J. HURTU, and V.  
FLAUTIN, 54, Rue St. Maur, Paris.

Relates chiefly to the picking, beat-up, take-up,  
and driving mechanism of circular looms for  
weaving fabrics in a tubular form. The application  
of the shuttle and divided batton mechanism,  
etc., to rectilinear looms is also described. [1s. 2d.  
Drawings.]

11,586. August 11, 1888. Spinning, &c. T.  
BENTLEY, 5, Commercial-street, Oldham.

*Delivery, Stopping*—One or more pairs of balanced  
levers, each supported by a sliver, are provided with  
teeth, which, when the lever falls, owing to the  
breaking, etc of the sliver, takes into the remaining  
sliver causing it to be severed by the drawing  
rollers. When three threads are twisted together,  
three balanced levers are used, each supported by  
one thread and having teeth capable of engaging  
with the other two. Another arrangement, de-  
scribed in the Provisional Specification, consists of  
a rotating wiper which engages with a balanced  
lever dropped on the breaking of the thread, clamp-  
ing the remaining threads between the other end of  
the balanced lever to a bracket. [8d. Drawings.]

11,612. August 11, 1888. Doubling, Twisting,  
and Skeining Threads. P. HADDAN, 18, Bucking-  
ham-street, London, W.C.—(*E. Six*; Tourcoing,  
France.)



Comprising in one machine mechanism for  
doubling, twisting, and skeining yarns or threads.

**General arrangement.**—The threads from the bobbins H, after passing through the guide T, pass between the rollers e, L, and thence through a guide D to a traveller C which traverses a ring A surrounding the drum or reel T on which the doubled thread is wound. The roller e is driven through change gearing so that its rate of rotation may be varied as desired.

**Stop-motions.**—When a thread breaks, a detector wire suspended by the thread and carried in a pivoted box comes in contact with one of the ribs upon a travelling apron w. The box is thereby tilted, liberating a catch I which holds the pivoted lever k. This lever, by means of a projection Q lifts the arm S carrying the top roller e, and by means of the levers u, u and d, the strap driving the drum is transferred from the fast to the loose pulley, and a spring brake is applied to stop the drum. The brake consists of a disc carried by two spring rods guided in the frame, normally it is prevented from engaging with the drum by the bent end of the lever u. To ensure the stoppage of the machine when a definite length of thread has been wound on the reel, a suitable length of cord is wound upon a roller z, said cord passing over a pulley x, and through a guide y, and carrying at its end a piece of wire, which, after a certain number of revolutions of the roller engages with the ribs of the travelling apron w, and the machine is stopped as in the former case. [8½d.]

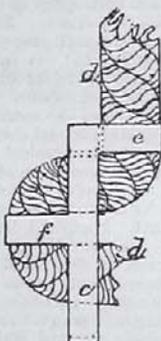
**11,590.** August 11, 1888. **Carpets and "Under-felts."** W. WITCHELL, Waterfoot, near Manchester.

Fireproof carpets and under-felts are made of asbestos or amianthus and animal or other fibre, such as wool, flax or hemp, felted together. [4½d. No Drawings.]

**11,636.** August 13, 1888.

**Securing rope ends.** J. DEWHIRST, Dunkirk Mill, Oxenhope, near Keighley.

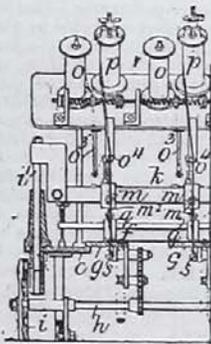
Means for securing the loose ends of ropes, more especially of those employed in connection with loom beams. The rope d is threaded through two holes in a metal bracket c, so as to lie in V-shaped notches, formed between pairs of projections e, f. The bracket may be formed with an opening or a hook for attachment to a fixed object. [6½d.]



**11,639.** August 13, 1888. **Lacing and punching jacquard cards.** J. NUTTALL, 99, Heap Bridge, near Bury, Lancashire.

**Lacing.**—The cards

are connected by sewing on tapes to one or both sides by means of twine. The cards are fed over plates g on a table c by endless peg chains f, which travel over pulleys driven intermittently from a main shaft h. The needles m and holders n are carried by a bar k reciprocated vertically by the action of a cam on rods i. The twine passes from bobbins o, under a guide rod, around



grooved tension pulleys, and through guides o<sub>1</sub>, o<sub>2</sub>, to the needles. The tape passes from bobbins p through guides to the top of the cards, and beneath the spring pressers q; if a second tape is used it passes from bobbins beneath the table through slots in the plates g to beneath the cards. Looping hooks s, mounted on small shafts operated through gearing from the shaft h, act in conjunction with the needles to form a twisted chain stitch.

**Punching.**—To the front of the lacing machine is attached apparatus for punching the peg holes in the cards, the punches being operated by a treadle. The card is held by the operator during the punching, and is then placed on the feed chains of the lacing machine. A self-acting repeating machine may be combined with the lacing machine. [8½d.]

**11,704.** August 14, 1888. **Treating reha, ramie, flax, hemp, leaves of trees, &c.** H. H. DOTY, 11, Queen Victoria-street, London, E.C.

**Treatment.**—The material is immersed in a saccharine solution heated to 95°-100° F., by which an acid fermentation is set up. It may be then sub-

jected to the action of petroleum or other hydrocarbons; and is finally washed in a soda solution. Suitable apparatus is described. [8½d. Drawings.]

**11,804.** August 16, 1888. **Wire cards.** J.

MOSELEY, Chapel-field Works, Ardwick, Manchester.

**Foundations.**—Relates to foundations formed of two or more layers of fabric cemented together. To prevent the stretching of the foundation one or more layers of yarns or threads B are arranged in a parallel manner between or upon the layers of fabric. The foundation is preferably manufactured by passing the threads, together with the other layers of the foundation which may be coated with india-rubber or other suitable cement, between the rollers of a cloth doubling machine, the threads being previously wound upon a beam and guided by a reed or comb. The threads may also be passed through a solution of cement, if desired. [8½d.]

**11,806.** August 16, 1888. **Dyeing.** E. and G. E. SUTCLIFFE, Patent Process Dyeing Company, Halifax.

Relates to the process of dyeing aniline black. Consists in preparing the bath with such proportions of ingredients that the oxidation of the aniline goes on slowly, and in removing the goods from the bath as soon as saturated. They are then put on one side for about 24 hours, or until the slow reaction is completed. A suitable bath is prepared by mixing together 120 gallons of aniline hydrochlorate, 20 gallons of potassium chlorate, both five per cent. solutions, and 4 gallons of hydrochloric acid. Other oxidising agents, such as bichromates, hypochlorites and bleaching liquor may be used. The process is applicable for use with machines in which the goods are saturated by pumping the liquid through them. [6½d. No Drawings.]

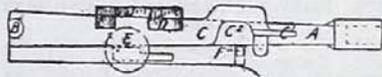
**11,807.** August 16, 1888. **Looms.** J. ANDREW and A. H. TOMLINSON, both of New Line, Britannia, Bacup, Lancashire.

**Brake.**—A brake strap or bar, lined with leather, etc., is pivoted at one end and linked at the other to the brake lever. The latter is weighted, and is supported by a drop rod, which, on the failure of the web, falls and allows the brake to be applied to the fly-wheel. The usual brake lever may be extended at its short end to suit the arrangement. [8½d. Drawings.]

**11,812.** August 16, 1888. **Balling slivers.** P. KELLY, Sutton Mill, Cross Hills, Yorkshire.

The presser rollers are mounted on a frame, which is pivoted and provided with a cross-bar, which is forced by a weight against the fibre being wound, the pressure on the fibre thereby decreasing as the ball increases in diameter. [8½d. Drawings.]

**11,819.** August 16, 1888. **Looms.** S. WHITAKER, Spring-hill Shed, Burnley.



**Take-up, stopping, and brake mechanism.**—On the stud B of the ordinary weft fork lever A is mounted a lever C supporting the tricker D. On the failure of weft both levers are carried forward by the weft stop mechanism so as to release the tricker D, which falls and applies the brake as usual. At the same time the spring handle E is moved from its detent, and a finger lever F is operated, the latter raising the retaining and actuating catches of the take-up motion out of action to permit of automatic recoil. For this purpose the retaining catch projects under the actuating catch. Arrangements for limiting the amount of recoil of the take-up motion are described. To apply the brake and stop the loom when weft is unbroken the lever C is pulled forwards by means of the lug C', the recess C<sup>2</sup> preventing action on the finger F. Modifications are described. [8½d.]

**11,826.** August 16, 1888. **Endless fabrics.** W. P. THOMPSON, 6, Lord-street, Liverpool.—(D. Fileppi; Lyons, France.)

Endless wire and other fabrics for use in paper-making and other industries are made by weaving, the warp consisting of one or more continuous threads. In the warping process the yarn is passed the required number of times around rollers, through a comb, and around lease-ropes. The healds are formed on the warp by supporting the lower halves by their rails, and by spindles, the upper halves or meshes being formed with the lower meshes by special threads which are passed around the spindles and rails, and are made to embrace the warp coils as required. When the warping is completed the spindles are withdrawn, and the warp, comb, and healds are placed on a loom, the warp being passed around a series of rollers, one of which is adjustable to regulate the tension. The weaving is effected as usual until it is nearly completed, when very small shuttles must be used. The upper parts of the healds are out, and the comb is then utilized for producing the shed, and is finally opened and

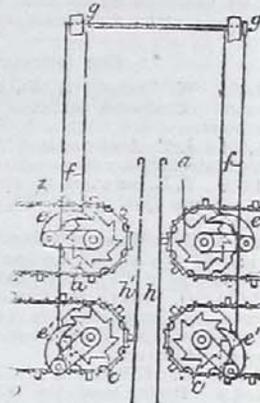
allowed to fall clear of the warp, and the small portion remaining to be woven is filled up by passing the weft through by means of a needle or other tool. The warping may be done on the loom. [8½d. Drawings.]

**11,831.** August 17, 1888. **Surgical Dressings.** J. F. ANDERSON, Airlee works, Dundee.

Selected jute fibre is treated with perchloride of mercury, biniodide of mercury, carbolic acid, or other antiseptic, heckled or carded by hand or machinery, and then put up into hanks or coils of suitable size for one dressing. They are then enclosed in air-tight packets and subjected to a high temperature, such as 150° C., to render them perfectly sterile. [4½d.]

**11,928.** August 18, 1888. **Looms.** H. ROBINSON, Shaw Bridge Mill, Clitheroe, and J. MCGRAW, 4, Bridge Bank, Walton-le-Dale.

In *dobbies* for weaving bordered goods such as handkerchiefs, one or more extra pattern cylinders is or are provided. The figure shows the cylinders a, a of a double lift dobbie with lattices b for one portion of the pattern, and extra cylinders c, c with lattices b for the other portion; the dobbie hooks are shown at h, h. The driving pawls e are put in and out of action at the required times by cords f connected to levers g which may be controlled through intermediate levers from cams or tappets geared with the take-up motion, the levers being partly controlled by cord connections with the dobbie hooks. Both pairs of cylinders may be stopped at once for plain weaving. [8½d.]



**11,938.** August 18, 1888. **Spinning.** G. HAWORTH, 12, Audley Range, and S. FALLOWS, Edwood Works, both in Blackburn.

**Differential Gearing.**—The shaft, driven uniformly, carries a bevel wheel in gear with bevel teeth, on an inclined disc, mounted loosely on a ball, bevel teeth on the other side of the disc, engaging with a bevel wheel upon a collar, from which the bobbins are driven. The motion transmitted through the disc is modified by the oscillation of the said disc by the cam edge of a casing, mounted on a collar driven from the lower cone. The speed of the collar will be faster or slower according as the number of the teeth on one side of the disc is greater or less than the number on the other side; and the disc may be reversed if desired. [11½d. Drawings.]

**11,947.** August 18, 1888. **Jacquard card lacing machine.** R. REID and J. FISHER, Abbey Gardens Works, Dunfermline.

The cards, which are first punched with the pattern and peg-holes and with holes for lacing them by, are fed through the machine by endless peg chains at each side. The chains pass over pulleys driven intermittently by ratchet mechanism, arrangements for preventing back motion being provided. The cards pass under the vertical lacing needles 6 and over the shuttle-race 7, guard-plates preventing them from falling into the machine. The presser feet 47 are carried by spring rods 46 in a horizontally reciprocating frame 42 the rods being raised and lowered by suitably operated arms 48. To the frame 42 are secured at 43 a set of guide-plates 44 on each side of a central rail-plate 45 in which the needle holes are formed. The needles 6 and their bars 6<sup>1</sup> are raised and lowered through levers and links from a cam on the main shaft. The needle-threads a are fed from bobbins above through an eye-plate and guide and tension-pulleys to the needles. The shuttles 6 are carried by a slide 7 reciprocated from the main shaft through bevel gearing and other mechanism. Traversing guard-plates 92 prevent the threads a from injuring the cards whilst they pass forward, and guards (not shown) press against the needles whilst they rise to prevent them from bending. A bell or gong is arranged to be sounded when a certain number of cards have been laced. A clutch governed by a treadle, is provided for putting the machine in or out of action. The cards may be fed by endless chains from a punching machine. [11½d.]

