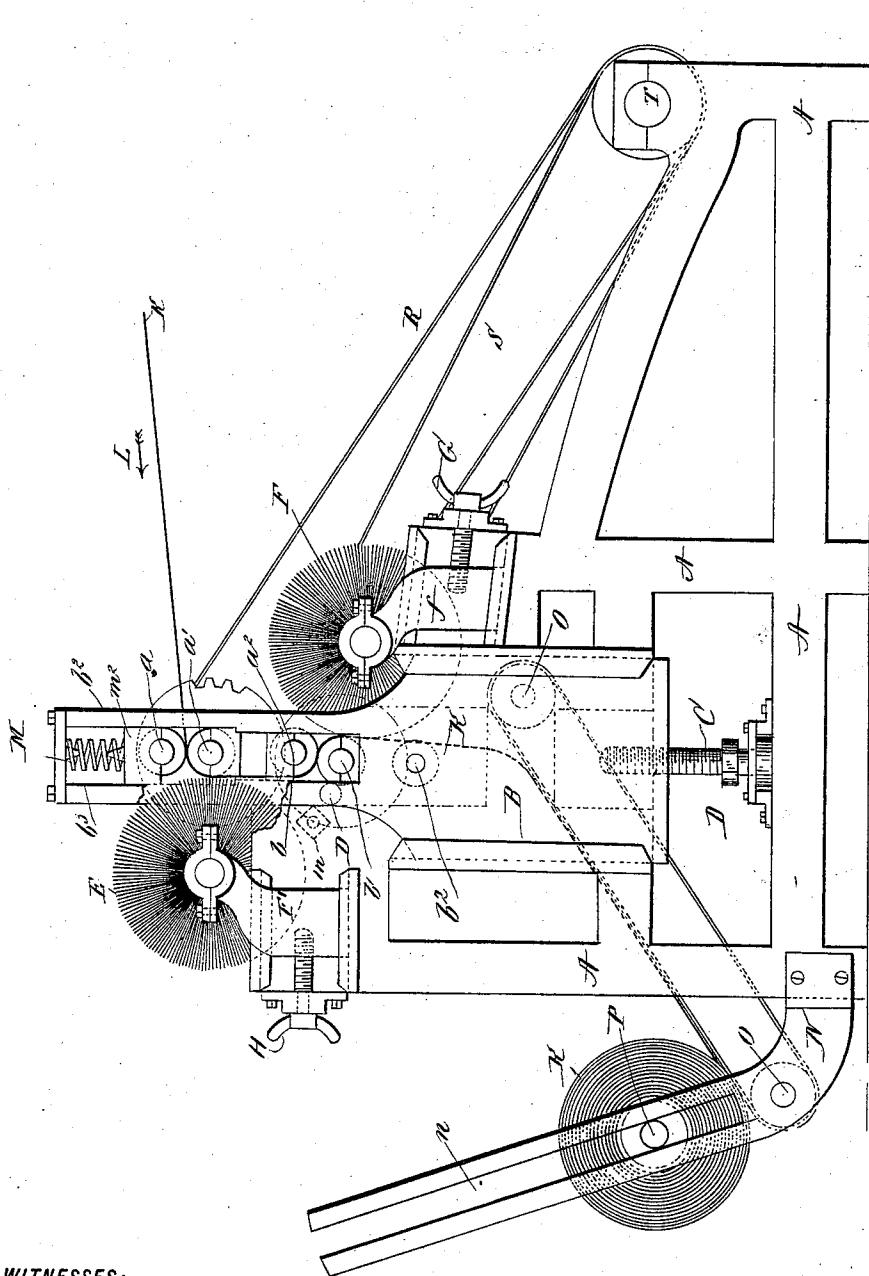


(No Model.)

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MACHINE FOR BRUSHING AND ROLLING FABRICS.

No. 577,478.

Patented Feb. 23, 1897.



WITNESSES:

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UNITED STATES PATENT OFFICE.

FREDRICK A. H. DEWALD AND EDWARD CRISPELL, OF CATSKILL, NEW YORK.

MACHINE FOR BRUSHING AND ROLLING FABRICS.

SPECIFICATION forming part of Letters Patent No. 577,478, dated February 23, 1897.

Application filed October 3, 1895. Serial No. 564,574. (No model.)

To all whom it may concern:

Be it known that we, FREDRICK A. H. DEWALD and EDWARD CRISPELL, citizens of the United States, and residents of Catskill, in the county of Greene and State of New York, have invented certain new and useful Improvements in Machines for Brushing and Rolling Fabrics, of which the following is a specification, reference being had to the accompanying drawing, forming part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to machines for brushing and rolling various kinds and classes of woven or knit fabrics, such as woolen goods, knit goods, gauzes, or pluses; and the object thereof is to provide a machine of this class that is so constructed that the brushes can have either a solid or loose surface to operate upon and which is also provided with improved means for rolling the goods; and with this and other objects in view the invention consists in the construction, combination, and arrangement of parts hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, said drawing being an end elevation of a machine involving our invention.

In the practice of our invention we employ a machine comprising a frame A, an end view of which is shown in the drawing and the front of which is at the left hand thereof. Mounted within the frame A is a vertically-movable frame B, an end view of which only is shown, and said vertically-movable frame B is adapted to be adjusted vertically by means of a screw or screws C, which pass into the lower side thereof and are supported by the frame A and are provided with burs or nuts D, by which they are operated.

It will be understood that the frame B comprises two end pieces, one of which is shown in the drawing, and each of which is provided with a vertical extension b², in which is a vertical slot b³, and mounted in this vertical slot are two sets of feed-rollers a and a' and b and b', and it will also be observed that the upper pair a and a' and the upper roller b of the

lower pair are in a vertical line, while the lower roller b' of the lower pair projects slightly in front of said line, preferably about one-half of an inch, and mounted at the front of said lower roller b' is an additional roller or idler D.

Mounted at the upper front portion of the machine is a brush-roller E, which is supported by a frame F', which is adjustable toward or from the feed-rollers a and a', and mounted behind and a little below the feed-rollers b and b' is another brush-roller F. The brush-roller F is also mounted in a frame f, which is adjustable toward or from the brush-roller b' by means of a set screw or screws G. 65

The fabric or goods to be brushed or rolled is shown at K and is fed into the machine in the direction of the arrow L. This fabric first passes between the rollers a and a', and as it passes over the roller a' it is operated upon by the brush E, and it then passes downwardly and between the rollers b and b' and is operated upon by the brush F.

In this class of machines it is sometimes necessary to provide means whereby the brushes E and F may operate upon a loose or yielding surface instead of directly upon the roller in order that the fabrics or goods may not be injured, and this we accomplish by means of the screws C, and, as will be readily understood, when the frame B is raised the brush-roller F will operate between the roller b' and the idler-roller b² immediately below it, over or in contact with which the fabric or goods passes, and, as clearly shown in the drawing, at the same time the brush-roller E will operate upon the fabric between the roller a' and the roller b, this result being produced by properly adjusting the frame B, as will be readily understood. 90

The object of the roller D is to guide the fabric or goods between the rollers b and b' in the operation of starting the machine. The guiding is effected by the contact of the edges of the fabric with the peripheries of said vertically-placed rollers. We also provide an additional guide m, which consists of a rod or bar which is angular or square in cross-section and which turns in a direction opposite to that in which the brush-roller E turns, 100

and this device also serves to guide the fabric, in the operation of starting the machine, between the rollers b and b' .

Mounted within the upper portion b^2 of the frame B or in the vertical slots b^3 , formed therein, is a spiral spring or springs M, which bear upon the housing or upper support m^2 of the upper feed-roller a, by means of which the pressure of the roller a on the roller a' may be regulated; but these features of construction form no part of this invention.

Our improved winding or rolling device consists of a frame composed of arms N, one of which is secured to each side of the machine and extends upwardly and forwardly, as shown in the drawing, and each of which is provided with longitudinal slot n , and mounted in the lower portion of said arms N is a roller O, over which is passed an endless apron which is also mounted on the roller O', situated below the brush-roller F, and as the fabric or goods passes through the machine it falls upon the endless apron and is carried downwardly and forwardly thereby and is connected with a rod or roller P, which is adapted to be placed in the slots n of the arms N, and as the fabric or goods are wound upon this rod or roller the roll of goods produced thereby will gradually rise by means of the slots n , and, as will be understood, any desired size of a roll may be thus formed.

The means for driving or operating the machine consist of belts R and S, which are mounted on a driving-shaft T and which are connected in the usual manner with the feed-rollers and the brush-rollers; but any desired form of driving mechanism may be employed.

Having fully described our invention, we claim and desire to secure by Letters Patent—

1. In a machine for brushing knit goods, woolen goods, pluses &c., the combination with a frame, of the supplemental frame, feed-rollers thereon, said rollers being arranged in pairs, one above the other, a nut and screw for vertically adjusting said feed-roller frame, a brush-roller mounted on the main frame opposite one of the rollers of the upper pair, and a similar brush-roller, mounted on the main frame opposite one of the rollers of the lower pair, adjusting-screws for adjusting said brush-rollers toward or from the feed-rollers of the said adjustable frame, and an idler-roller mounted therein below the lower pair of feed-rollers, substantially as described.

2. In a machine for brushing knit goods, pluses, woolen goods, and other fabrics, the combination with a frame of the supplemen-

tal frame, feed-rollers thereon, said feed-rollers being arranged in pairs, and one of said pairs being below the other, a nut and screw for vertically adjusting said feed-roller frame, a brush-roller mounted adjacent to the upper pair of feed-rollers, a corresponding brush-roller mounted adjacent to the lower pair of feed-rollers, and on the opposite side, the idler-roller mounted in the adjustable frame, below the lower pair of feed-rollers, and set-screws for adjusting said brush-rollers relatively to the feed-rollers, substantially as shown and described.

3. In a machine for brushing woven fabrics, such as knit goods, pluses, &c., the combination with a stationary frame, of a supplemental frame mounted therein, a nut and screw for adjusting said supplemental frame, of two pairs of feed-rollers, one pair being below the other, the lower roller of the lower pair projecting in front of the upper roller, a guide-roller mounted in front of the lower feed-roller of the lower pair, a brush-roller, mounted at the front of the machine, adjacent to the upper pair of feed-rollers, a corresponding brush-roller mounted on the opposite side of the adjustable frame adjacent to the lower pair of feed-rollers, and an idler-roller mounted in said adjustable frame below the lower pair of feed-rollers, substantially as described.

4. In a machine for brushing woven fabrics, such as knit goods, pluses, &c., the combination with a stationary frame, of an adjustable frame mounted therein, upper and lower pair of feed-rollers, the lower rollers of the lower pair projecting in front of the upper rollers, a guide-roller mounted in front of the lower feed-roller of the lower pair, a brush-roller, mounted at the front of the machine adjacent to the upper pair of feed-rollers, a corresponding brush-roller mounted on the opposite side of the adjustable frame adjacent to the lower pair of feed-rollers, an idler-roller mounted therein, below the lower pair of feed-rollers, and a rod or bar mounted adjacent to the said guide-roller, substantially as described.

In testimony that we claim the foregoing as our invention we have signed our names in presence of the subscribing witnesses, this 24th day of September, 1895.

FREDRICK A. H. DEWALD.
EDWARD CRISPELL.

Witnesses:

HARRY SCUTT,
WILLIAM A. NICKERSON.