

(No Model.)

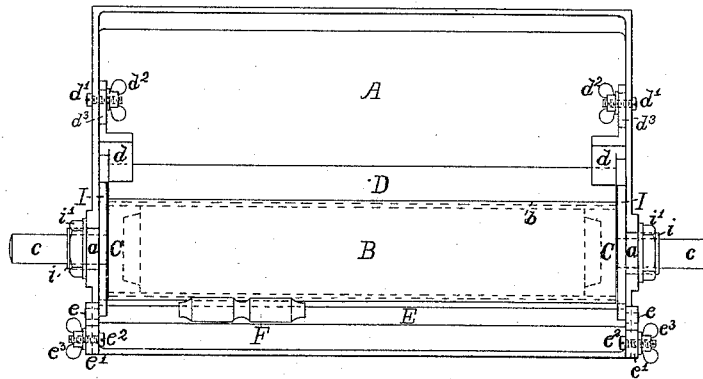
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MACHINE FOR APPLYING GLUE TO TOP DRAWING ROLLS OF SPINNING  
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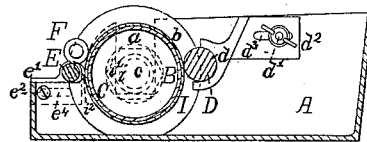
No. 306,419.

Patented Oct. 14, 1884.

Fig. 1.



*Fig. 2.*



Witness:

John J. Reardon  
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Princeton:

Benjamin F. Nichols, per  
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# UNITED STATES PATENT OFFICE.

BENJAMIN F. NICHOLS, OF SPRINGFIELD, MASSACHUSETTS.

MACHINE FOR APPLYING GLUE TO TOP DRAWING-ROLLS OF SPINNING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 306,419, dated October 14, 1884.

Application filed May 19, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, BENJAMIN F. NICHOLS, of Springfield, in the county of Hampden, Commonwealth of Massachusetts, have invented certain new and useful Improvements in Machines for Applying Glue to the Top Drawing-Rolls of Spinning-Machines, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

The object of my invention is to provide a machine by which glue may be rapidly and evenly spread on the surfaces of the top drawing-rolls used in cotton-mills, to prepare them for the reception of the cloth covering which is to be applied thereto.

In the drawings, Figure 1 is a plan view of a machine embodying my invention, and Fig. 2 a transverse section of the same.

A is a glue box or reservoir, and B a hollow gluing roll or cylinder arranged within said reservoir, and having a cloth covering, *b*, said cylinder being carried by heads C, having journals *c* projecting outward through plates I, having hollow hubs or sleeves *i* arranged in slots *a* in the ends of the said box, said hubs affording bearings for said journals. The ends of the cloth-covered cylinder B are in close contact with the plates I, so that the liquid glue in the reservoir cannot escape between the said plates and the ends of the cylinder. The sleeves or hubs *i* affording bearings for the journals *c* are vertically adjustable in the slots *a*, and are held in any position to which they may be adjusted by set-nuts *v*. This vertical adjustment of the bearings for the journals of the cylinder B enables said cylinder to be more or less deeply immersed in the glue contained in the reservoir, as may be desired.

D is a scraper for removing the surplus glue from the cylinder B, said scraper being preferably in the form of a roll, as shown, turning by frictional contact with the said cylinder B. This scraping-roll is sustained by bearing-pieces *d*, having flattened shanks *d'*, provided with slots *d''*, through which and the ends of the reservoir pass screws *d'*, fitted with set-nuts *d''*. By means of this construction the scraper may be adjustably secured to the in-

side of the glue-reservoir, thereby being capable of being moved toward or from the gluing-cylinder, as circumstances or different sizes of gluing-cylinders may require.

E is a roller for supporting the drawing-rolls to be coated with glue. This supporting-roller E is arranged on the side of the gluing-cylinder opposite to the scraper, and is supported by brackets *e'*, in which the journals *e* of the said roller have their bearings. The brackets *e'* are provided with slots *e''*, through which and the ends of the reservoir pass screws *e''*, having set-nuts *e'''*. The brackets *e'* and the roller E carried thereby are thus capable of being adjusted toward or from the gluing-cylinder B, so as to vary the space between said cylinder and roller.

F indicates a drawing-roll supported by the roller E and held by gravity in gentle contact with the gluing-cylinder so to be coated with glue, as the latter revolves, preparatory to receiving the cloth covering which is to be stuck on by the glue. The roller E is placed a sufficient distance from the gluing-cylinder to cause the drawing-rolls supported by said roller to incline toward the said cylinder and to be held in gentle contact therewith by gravity, as will be readily understood by reference to Fig. 2.

The operation of my invention will be readily understood from the foregoing: The parts being assembled as shown in the drawings, and the glue-reservoir being partly filled with liquid glue, (which may be kept warm by any suitable means,) the drawing-rolls to be coated therewith will be placed on the supporting-roller E in contact with the gluing-cylinder. The latter, being partly immersed in the liquid glue, will, when rotated, spread the glue smoothly and evenly on the surfaces of the drawing-rolls, (supported in frictional contact with said cylinder and thus rotated thereby,) the warm surface of the gluing-cylinder, kept heated by the warm glue, imparting sufficient heat to the drawing-rolls to cause the glue to spread properly thereon.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. The combination, with a glue-reservoir and a gluing-cylinder adapted to revolve in

said reservoir, of a scraper arranged in contact with said gluing-cylinder, a supporting-roller for the drawing-rolls, and means for adjustably sustaining said supporting-roller on  
5 said reservoir, substantially as set forth.

2. The combination, with a glue-reservoir and a gluing-cylinder adapted to revolve therein, of a rotary scraper arranged in contact with

said gluing-cylinder, a supporting-roller for the drawing-rolls, and brackets adjustably secured to the said reservoir, for sustaining said supporting-roller, substantially as set forth.

BENJAMIN F. NICHOLS.

Witnesses:

JOHN J. REARDON,  
WILLIAM G. HAM.