E. KEMPSHALL.

METHOD OF FORMING DRAWING ROLLS FOR SPINNING MACHINES.

APPLICATION FILED APR. 29, 1913.

1,074,590. Patented Sept. 30, 1913.

Fig. 1.

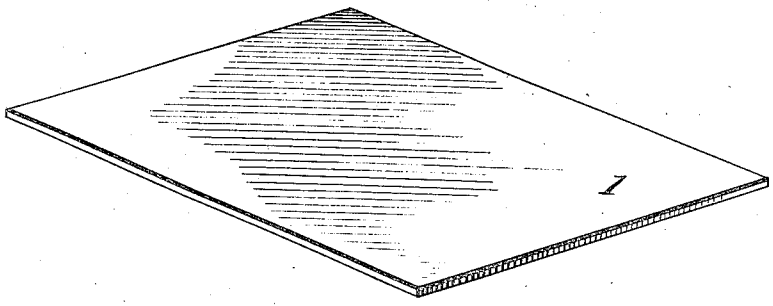


Fig. 2.

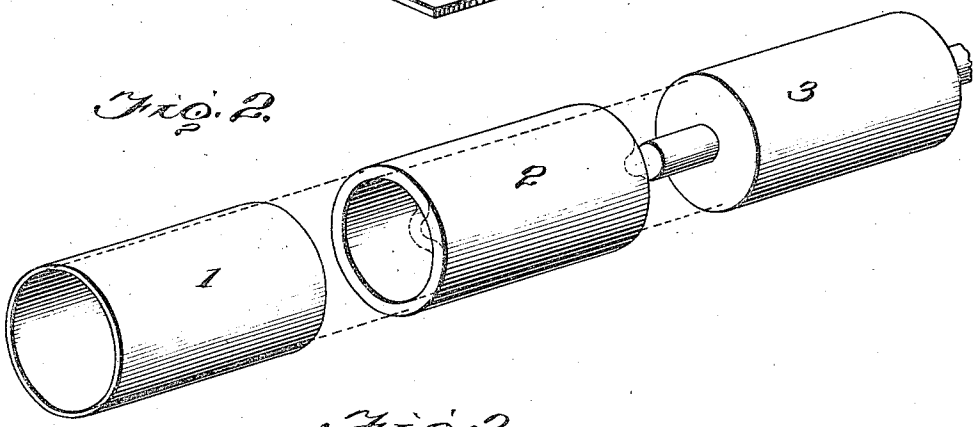
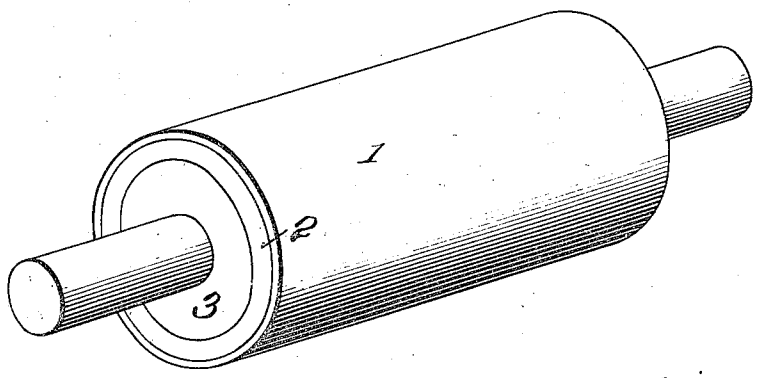


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

ELEAZER KEMPSHALL, OF NEW YORK, N. Y., ASSIGNOR TO KEMPSHALL SUPPLY COMPANY, A CORPORATION OF NEW JERSEY.

METHOD OF FORMING DRAWING-ROLLS FOR SPINNING-MACHINES.

1,074,590. Specification of Letters Patent. Patented Sept. 30, 1913.

Original application filed March 3, 1913, Serial No. 751,893. Divided and this application filed April 29, 1913. Serial No. 764,395.

To all whom it may concern:

Be it known that I, ELEAZER KEMPSHALL, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Methods of Forming Drawing-Rolls for Spinning-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in the method of forming drawing rolls for spinning machines.

The object of the invention is to provide a simple and economical method of forming a drawing roll, so that a roll may be covered without requiring a great loss of time or expensive special machinery for equipping a roll with a cot.

Heretofore it has been customary to form a coating of rubber on a hard core, and then roll a sheet of leather on the rubber, or others have vulcanized the rubber on the core, and then in various ways have placed the covering over the rubber.

In my pending application for patent, Serial No. 751,893, filed March 3, 1913, I have described a cot for a roll, this cot being employed in carrying out the method described in this application.

According to the invention I employ a soft rubber tube, and a tubular leather cover, the interior diameter of which is slightly less than the exterior diameter of the rubber tube, and then slide the tube and cover over a hard core which is slightly larger in diameter than the interior diameter of the rubber tube. In this way the cot is held in position because of the rubber being compressed between the leather cover and the hard core.

In the drawing: Figure 1 is a perspective view of a strip of leather, from which an endless cover is formed. Fig. 2 is a separated view of the cover, rubber tube, and hard core. Fig. 3 is a view of the roll, equipped with a cot.

1 indicates a leather cover, 2 a vulcanized soft rubber tube, the exterior diameter of which is greater than the interior diameter of the leather cover.

3 indicates a hard core, on which the cot is placed.

In carrying out my method, I bend or crease the rubber sleeve, and slip same in the leather cover, and then permit the rubber to expand to frictionally engage with said cover. The outward compression of the rubber causes a binding action between the two elements, which results in the thin leather covering fitting the leather tightly and forming a smooth surface. After the leather and sleeve have been fitted to each other to form a complete cot, the latter is drawn over the hard core, which, being greater in diameter than the interior diameter of the sleeve, compresses the rubber between the cover and said hard core, and materially increases the density of the rubber. The differences in diameter creates friction between the parts, and therefore the cot is firmly held in position. Of course, if it should be found necessary, I may iron the edges of the cot.

By my improved method, I produce a convenient and practical manner of forming a drawing roll, and one which can be handled by inexperienced help.

Having thus described my invention, what I claim is:

The herein described method of manufacturing a drawing roll consisting in forming a covering from a thin flat strip of leather, then forming a rubber tube of slightly greater diameter than the leather covering, and inserting the tube in the covering by bending or creasing said tube, and then expanding the tube, then drawing the com-

pleted cot over a hard core of slightly greater diameter than the rubber tube, so that the said tube will be held frictionally and in a compressed state on the said core, and the entire cot will be firmly secured on the core.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ELEAZER KEMPSHALL.

Witnesses:
JOHN IMIRIE,
W. A. WILLIAMS.