

(No Model.)

J. CAIN.
ROLL FOR SPINNING MACHINES.

No. 527,107.

Patented Oct. 9, 1894.

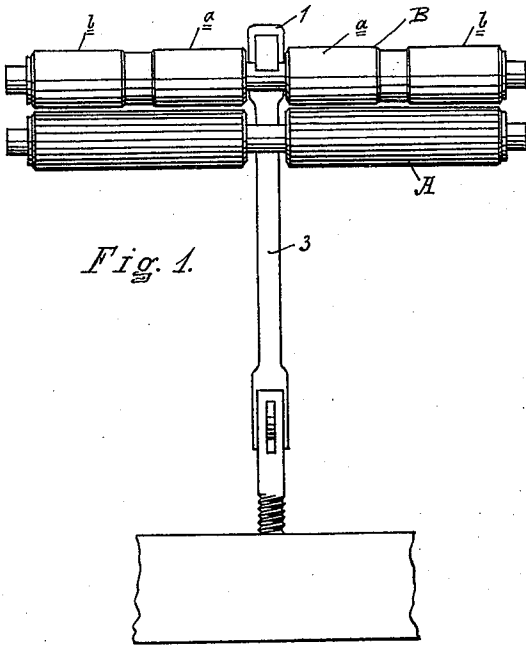


Fig. 1.

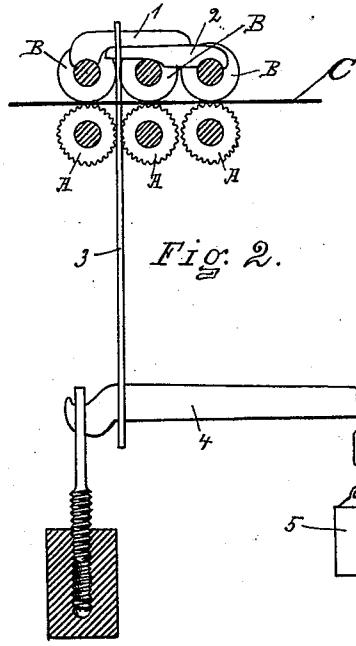


Fig. 2.

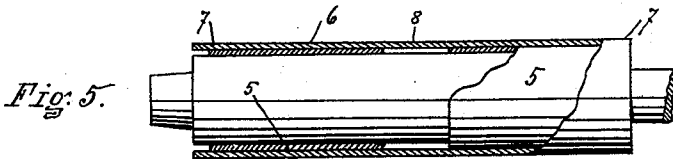


Fig. 5.

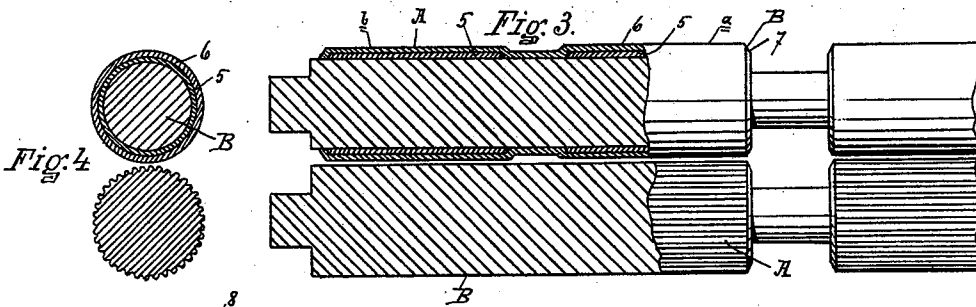


Fig. 3.

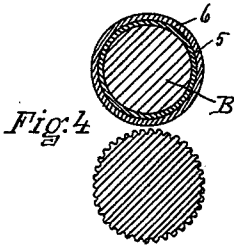


Fig. 4.

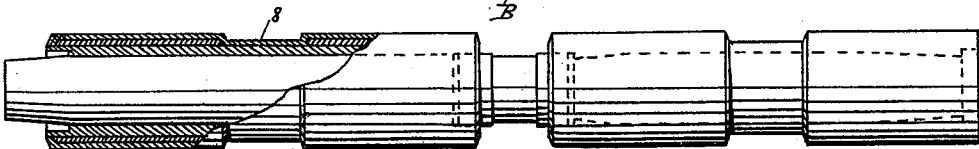


Fig. 6.

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ROLL FOR SPINNING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 527,107, dated October 9, 1894.

Application filed April 28, 1894. Serial No. 509,289. (No model.)

To all whom it may concern:

Be it known that I, JOHN CAIN, of Utica, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Rolls for Spinning-Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which 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 the letters and figures of reference marked thereon, which form part of this specification.

My invention relates to improvements in drawing rolls for a spinning machine and the method of making same.

In the drawings which accompany and form a part of this specification and in which similar letters and figures of reference refer to corresponding parts in the several views, Figure 1 is a side view of one of the pairs of rollers of a spinning frame in connection with a portion of the holding mechanism. Fig. 2 is a set of the rolls on a section at the side of the saddles. Fig. 3 shows a larger detail, partially in longitudinal section, of a pair of "solid" rolls on a larger scale. Fig. 4 shows a cross section of same on line "—B" of Fig. 3. Fig. 5 shows a partially constructed roll. Fig. 6 shows a "shell" roll.

The lower rolls A—A—A are mounted in suitable bearings in a spinning-machine frame to permit rotation, and in the construction illustrated in the drawings, are of solid metal or material with finely fluted surface.

On top of the lower rolls are mounted the covered feeding rolls B—B—B, which are held from displacement by suitable bearings in the frame and are held under tension onto the lower rolls by the saddles 1, 2, string 3 and lever and weight 4 and 5, all in the usual manner.

The roving (indicated by C) passes through the set of rolls between the upper and lower rollers. Two rovings on each side of the stirrup, so far as the upper rolls are concerned,

are engaged by the faces *a* and *b* thereof on each side of the stirrup. Reciprocating mechanism is usually provided for moving the rovings laterally substantially the full length of each of the faces *a* and *b* to produce, among other things, a uniform wear on the rollers.

Heretofore each half of the upper roll has not been provided with any depression, and the interval between the portions of the face which engage the roving receiving no wear, soon becomes a serious objection, as it holds the rollers apart so that they do not grip the rovings with a uniform tension.

On each half of the upper roll, I connect two strips of packing 5, preferably of flannel, at a suitable distance apart and surrounding the roll and of a face width equal to the width of the working faces *a* and *b*. Over the roller thus prepared, is slipped, by means of suitable appliances, a leather covering in the shape of a cylindrical shell 6. When each half of the roller has been thus prepared, it is placed in a lathe and the ends 7—7 of the shell and the middle 8 spun or burned down into the form shown in Fig. 3 by forcing a piece of wood or other suitable tool against these parts as the roller is rapidly rotated.

The construction illustrated in Fig. 6 is provided with a shell roll on each end of the mandrel. Otherwise it is the same as the solid rolls.

What I claim as new, and desire to secure by Letters Patent, is—

A roll for a spinning machine consisting of a body, two bands of padding secured to the body and having an interval between them and a covering conforming to the surface of the roll with its bands of padding.

In witness whereof I have affixed my signature in presence of two witnesses.

JOHN CAIN.

Witnesses:

GEO. A. GAYMONDS,
M. A. KELLER.