No. 709,694. Patented Sept. 23, 1902.

A. BIETENHOLZ.

DRAW-OFF OR STRETCHING ROLLERS FOR TEXTILE MACHINERY.

(Application filed July 23, 1901.)

(No Model.)

Fig. 1.

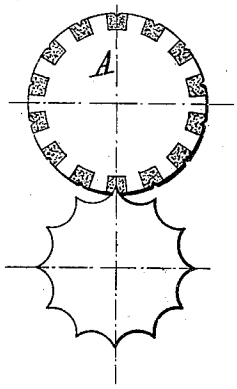


Fig. 2.

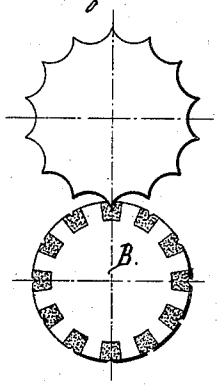


Fig. 3.

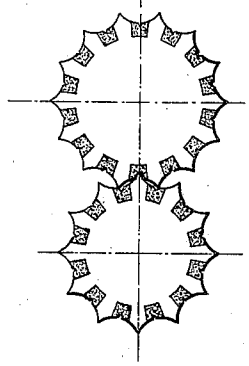


Fig. 4.

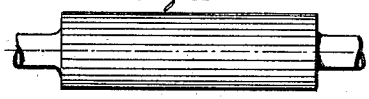


Fig. 5.

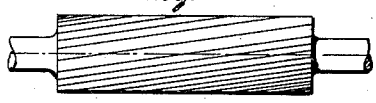
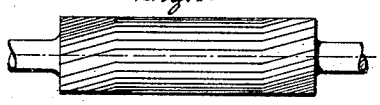


Fig. 6.



Fig. 7.



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UNITED STATES PATENT OFFICE.

ALFRED BIETENHOLZ, OF BLUMENTHAL, GERMANY.

DRAW-OFF OR STRETCHING ROLLERS FOR TEXTILE MACHINERY.

SPECIFICATION forming part of Letters Patent No. 709,694, dated September 23, 1902.

Application filed July 23, 1901. Serial No. 69,348. (No model.)

To all whom it may concern:

Be it known that I, ALFRED BIETENHOLZ, engineer, a citizen of the Swiss Confederation, residing at Blumenthal, in the Province of Hanover, German Empire, have invented new and useful Improvements in and Connected with Draw-Off or Stretching Rollers for Textile Machinery, of which the following is a specification.

This invention relates to improved draw-off or stretching rollers for use in machinery for textile-fabric manufacturing, and relates particularly to that class of rollers that dispense with the endlesss bands that are generally used in connection with draw-off or stretching rollers. The object of the invention is to provide rollers of this character by which the operation of drawing or stretching the fibers is facilitated.

To this end the invention consists of draw-off or stretching rollers provided with a plurality of flutes and elastic cushion-strips, said elastic cushion-strips being bedded in the rollers and having central longitudinal grooves provided in their exposed surfaces, the edges of said flutes adapted to mesh with said grooves, so as to obtain a positive and reliable hold upon the fibers, as will be hereinafter more fully described and finally pointed out in the claims, reference being had to the accompanying drawings.

Figure 1 is an end view of the draw-off or stretching rollers. Figs. 2 and 3 are similar views of rollers of modified construction, and Figs. 4, 5, 6, and 7 are elevations of rollers provided with flutes of various construction.

Referring to the drawings, one roller may be provided with cushion-strips or with cushion-strips and flutes or both rollers may be provided with flutes and cushion-strips, which latter are bedded at regular intervals in the surface of the rollers and are provided with central longitudinal grooves in their exposed surfaces. The flutes form sharp edges where adjacent ones intersect, and these edges are adapted to mesh with the grooves of the elastic cushion-strips.

The rollers may be constructed with flutes in one and elastic cushion-strips in the other, or they may both have flutes and elastic cushion-strips, in which latter case the elastic cushion-strips are arranged medially of the flutes, as shown in Fig. 4. In Figs. 2 and 3, respectively, the rollers A and B are provided with the elastic cushion-strips. The flutes and elastic cushion-strips may be arranged in any desired manner longitudinally of the rollers—obliquely, angularly, brokenly, as shown, respectively, in Figs. 5, 6, 7, and 8.

By the construction of rollers according to the foregoing description positive and reliable means for holding the fibers in the making of textile fabrics is provided by reason of the effective coöperation of the edges of the flutes with the grooves in the elastic cushion-strips.

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

1. Draw-off or stretching rollers, provided with fluted surfaces, and elastic cushion-strips bedded in said rollers, said flutes forming sharp edges which are adapted to mesh with said elastic cushion-strips, substantially as set forth.

2. Draw-off or stretching rollers, provided with fluted surfaces forming sharp edges, and elastic cushion-strips bedded in the flutes of said rollers, and having central longitudinal grooves in their exposed surfaces, said sharp edges adapted to mesh with said grooves, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

ALFRED BIETENHOLZ.

Witnesses:
F. A. BRYCE,
FR. HOYERMANN.