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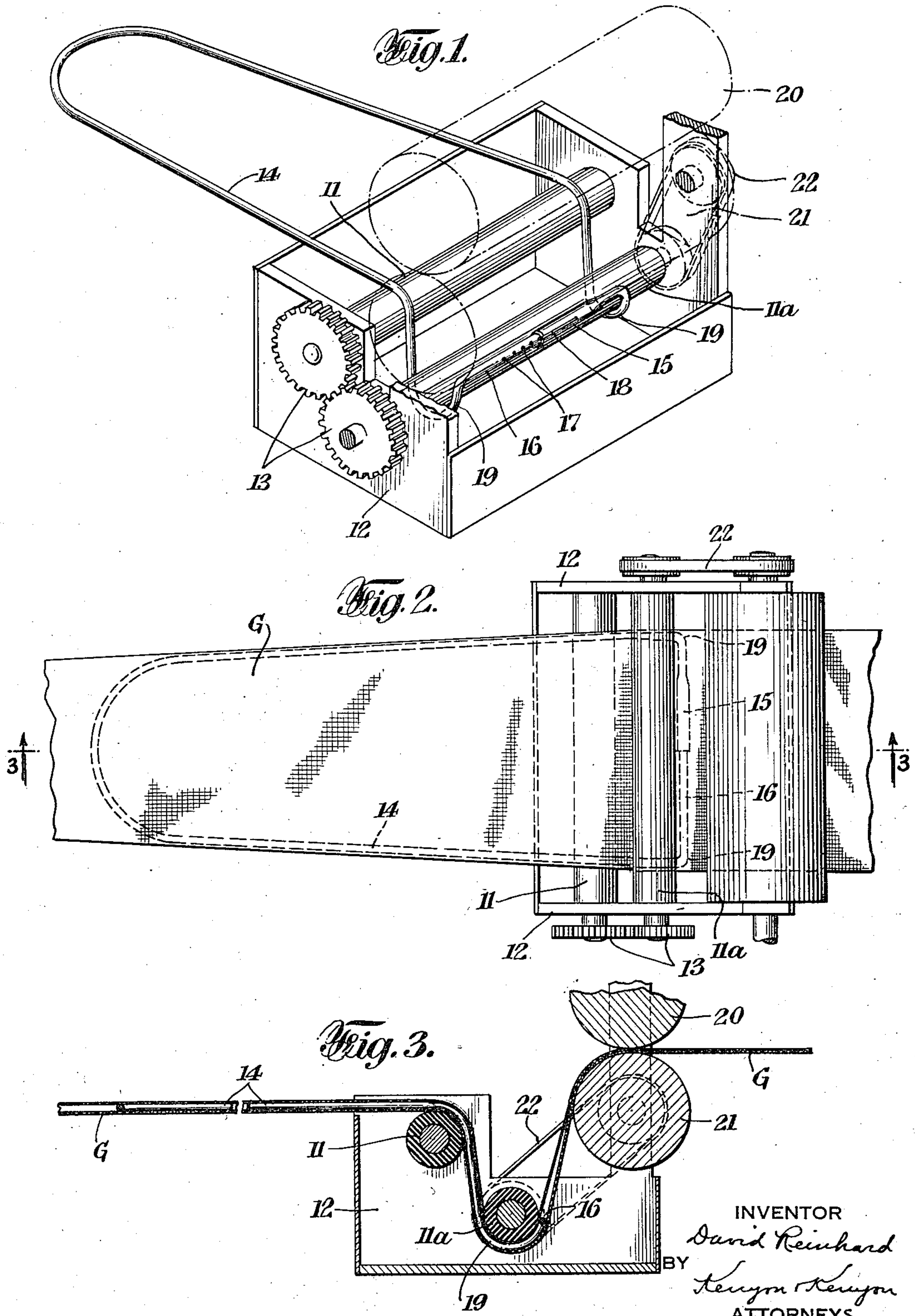
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2,011,729

CLOTH STRETCHER

Filed April 10, 1935

2 Sheets-Sheet 1



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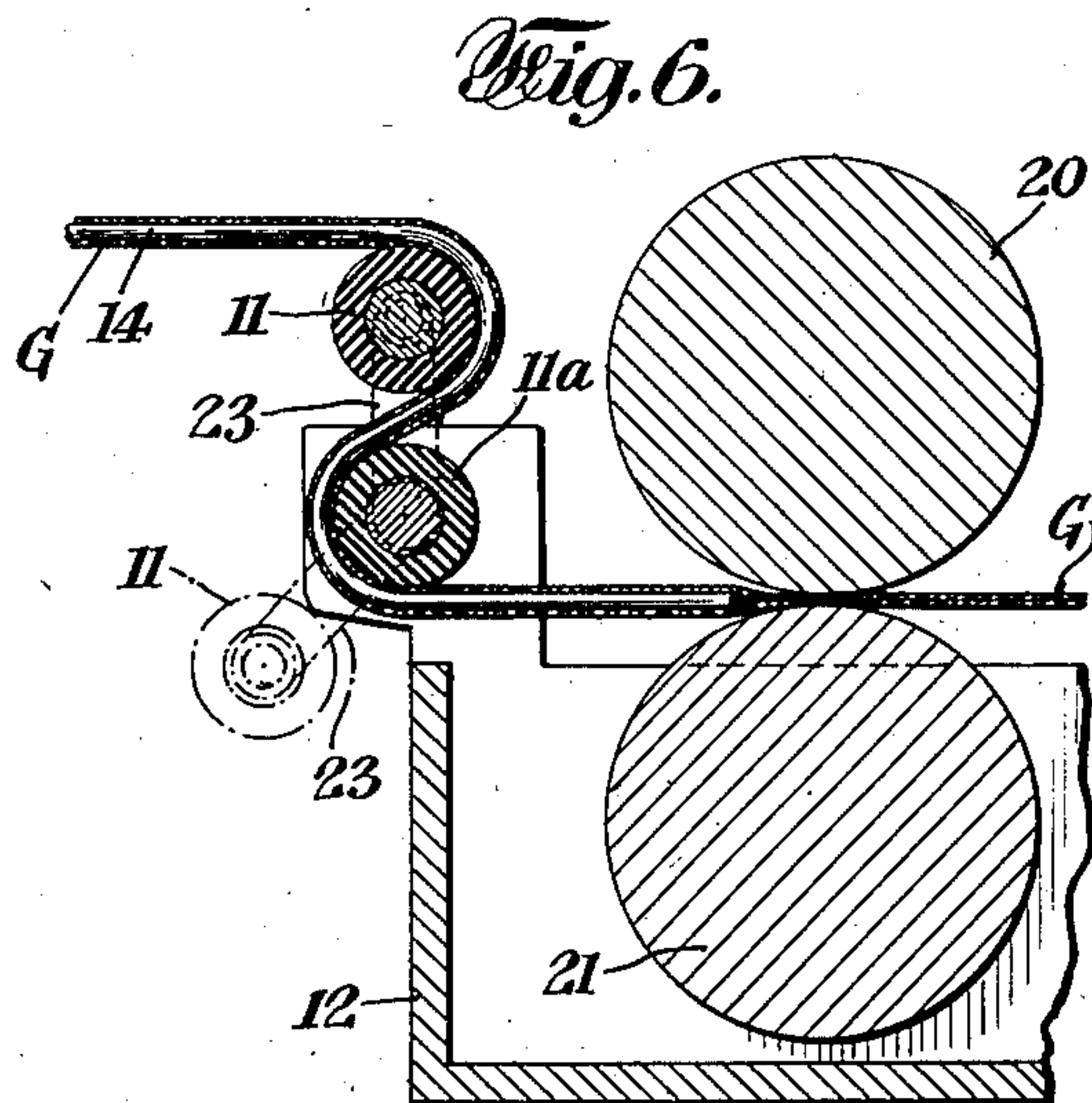
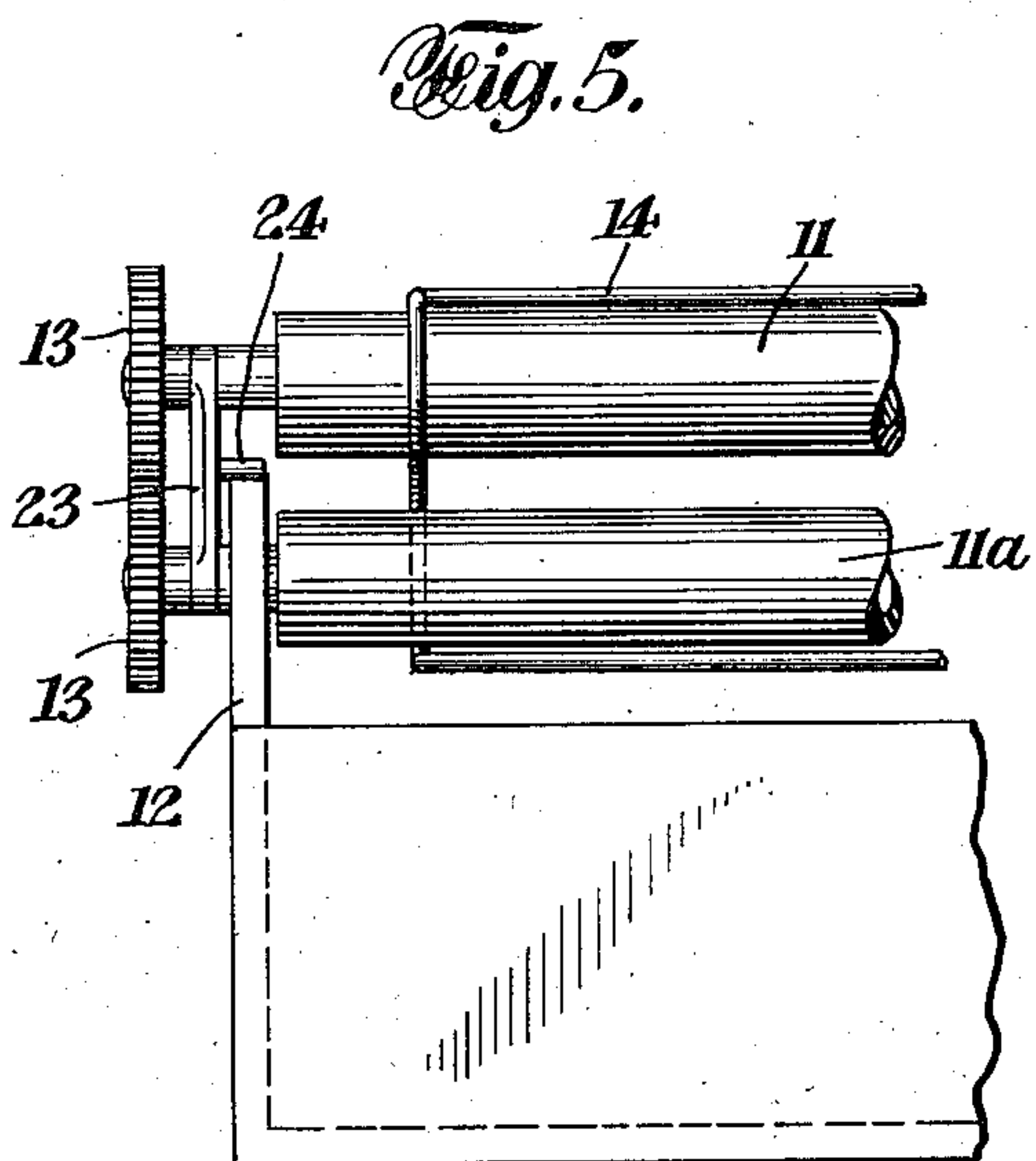
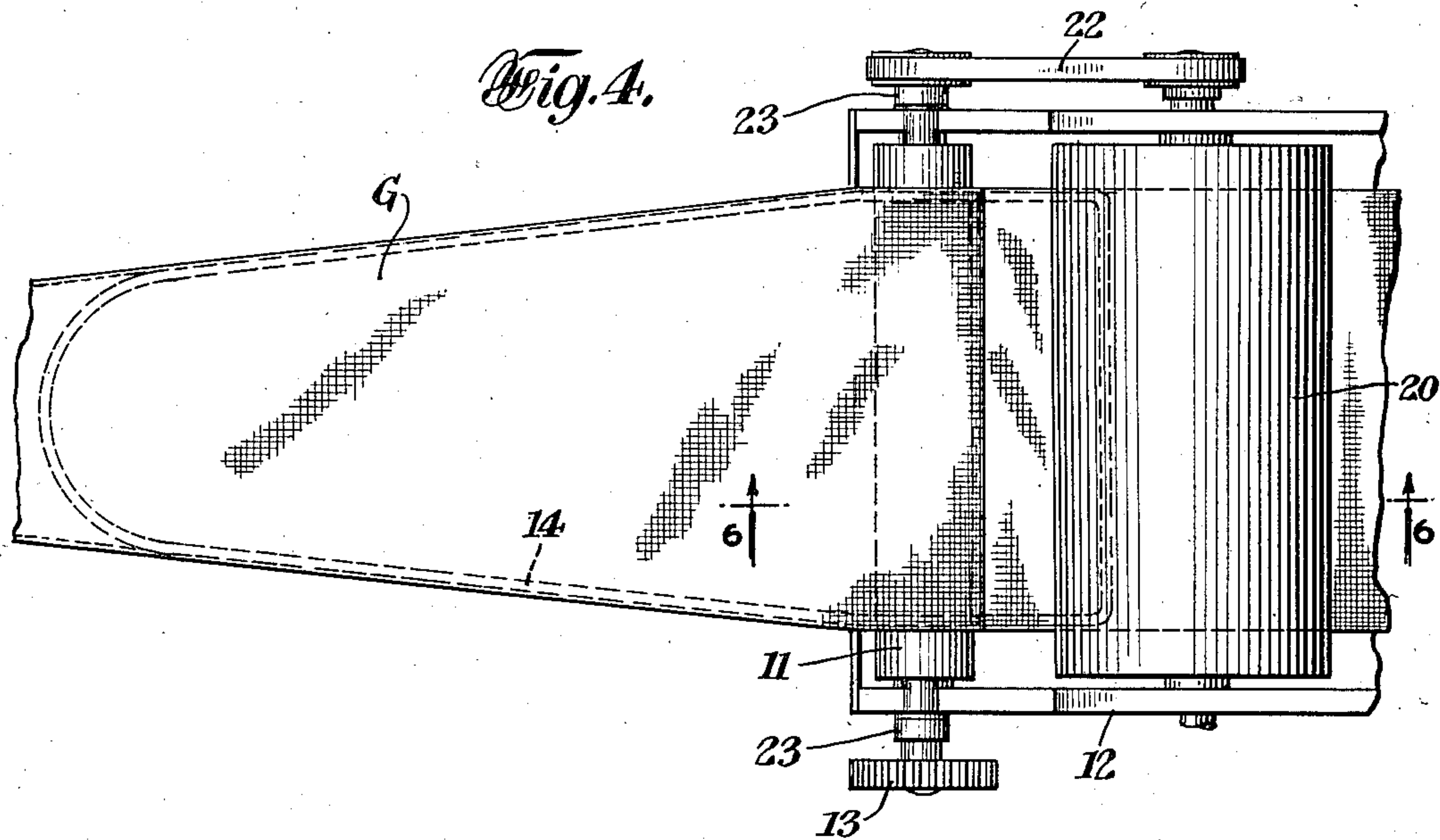
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CLOTH STRETCHER

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2 Sheets-Sheet 2



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## UNITED STATES PATENT OFFICE

2,011,729

## CLOTH STRETCHER

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12 Claims. (Cl. 26—55)

This invention relates to cloth stretchers and more especially to a device for stretching tubular knit goods.

An object of this invention is an inexpensive, simple and efficient device for stretching tubular knit goods.

Other objects, novel features and advantages of this invention will become apparent from the following specification and accompanying drawings, wherein:

Fig. 1 is a perspective view of a device embodying the invention;

Fig. 2 is a plan view showing a length of tubular knit goods being stretched;

Fig. 3 is a section on the line 3—3 of Fig. 2;

Fig. 4 is a plan view of a modified form of the device;

Fig. 5 is a fragmentary elevation, and

Fig. 6 is a section on the line 6—6 of Fig. 4.

A pair of parallel rollers 11 and 11a, preferably composed of rubber are journaled in opposite sides of a support 12, the rollers being horizontally offset from each other. The left hand roller 11 is located at a higher elevation in the support than is the right hand roller 11a. Intermeshing gears 13 are carried by the rollers 11 and 11a for driving one from the other.

A spreader 14 consists of a frame formed from a rod or tubing which is bent into substantially U-shape and has its end portions 15 and 16 bent inwardly to close the U. The frame increases gradually in width from the bowed end thereof to its opposite end. One intumed end 15 is recessed to receive the other intumed end 16 so as to permit adjustment of the width of the wider end of the frame. The end 16 is provided with a series of holes 17 and the end 15 carries a spring latch 18 having one end bent to enter a hole 17 and lock the ends 15 and 16, against relative movement. Near its wider end, the frame is offset as at 19, so as to pass over the roller 11 and under the roller 11a, the offset being of proper shape and size to receive the roller 11a.

The frame 14 rests on the roller 11 and the offset portion extends under the roller 11a, the weight of that portion of the frame to the left of the roller 11 serving to hold the offset portion up against the roller 11a. In the use of the stretcher above described, a length of wet knitted goods G is presented to the bowed end of the frame and is drawn over the frame and off the wide end. In passing over the frame, the knitted goods follow the frame over the roller 11 and under the roller 11a. From the spreader, the length of goods passes between two finishing rollers 20

and 21 which are driven by any suitable means (not shown). The roller 11a is driven from the roller 21 by means of a belt 22 and the roller 11 is driven through the medium of the gears 12 and 13. The positive rotation of the rollers 11 and 11a facilitates passage of the knitted goods over the spreader which stretches the goods to a width equal to the widest part of the spreader.

In the modification disclosed in Figs. 4, 5 and 6, the rollers 11 and 11a have their axes lying in the same vertical plane, and the roller 11 is journaled in brackets 23 which are in turn journaled on the shaft of the roller 11a so that the roller 11 may be swung into dotted line position shown in Fig. 6. The roller 11a is driven from the roller 20 by a belt 22 and the two rollers 11 and 11a are rotated in unison by means of the intermeshing gears 13 carried by said rollers. The frame of the spreader 14 is offset generally similar to the arrangement shown in Figs. 1 to 3 but to a greater extent, this being necessitated by reason of the vertical alinement of the rollers 11 and 11a. The rollers 11 and 11a are so arranged that when the spreader 14 is in position on them, the wide end of the spreader lies in horizontal alinement with the passageway between the finishing rolls 20 and 21.

Latch means 24 are provided for maintaining the rollers 11 and 11a in the position of vertical alinement shown in Fig. 6. The spreader 14 is assembled with the rollers 11 and 11a by first releasing the latch means 24, swinging the roller 11 into the dotted line position shown in Fig. 6, engaging the offset portion of the frame with the roller 11a and then swinging the roller 11 into the full line position shown in Fig. 6.

In the use of the device shown in Figs. 4 and 5, a length of wet knitted goods is drawn over the stretcher 14 from the bow end to the wide end and delivered to the finishing rollers 20 and 21 as above described. The frame stretches the goods to a width equal to the widest part of the stretcher and the positive rotation of the rollers 11 and 11a facilitates the passage of the knitted goods.

By this device, tubular knit goods in which shrinking has taken place by reason of treatment with liquid are expeditiously restored to original size. The apparatus is simple and inexpensive to manufacture and is adjustable over different widths of cloth by relative movement of the ends 15 and 16.

It is of course understood that various modifications may be made in the device above described, without in any way departing from the



spirit of the invention as defined in the appended claims.

I claim:

1. A stretcher for tubular cloth comprising a frame of greater width at one end than at the other and provided at the wider end with a portion offset transversely to the plane of the frame, and a pair of parallel cylindrical members, said frame being supported by one of said members and having its offset portion receiving the other cylindrical member.

2. A stretcher according to claim 1 in which said cylindrical members are rollers, and means are provided for rotating the same in unison.

3. A stretcher for tubular cloth comprising a frame composed of a rod or tube bent into U-shape with its ends turned in toward each other to close the U, and a pair of spaced cylindrical members, said frame having adjacent one end a portion offset transversely to the plane of its two sides and receiving one cylindrical member and said frame resting on the other cylindrical member.

4. A stretcher according to claim 3 in which means are provided for varying the relative position of said intumed ends to vary the effective width of the frame.

5. A stretcher according to claim 3 in which said cylindrical members comprise rollers and means are provided for rotating the same in unison.

6. A stretcher according to claim 3 in which the intumed ends of the frame are provided with means for varying the relative position thereof to adjust the effective width of the frame and the cylindrical members comprise rollers and means are provided for effecting rotation thereof in unison.

7. A stretcher for tubular knit cloth comprising

ing a U-shaped frame having its ends bent inwardly toward each other, means for fastening said intumed ends together in different positions to vary the effective width of the said frame, and a pair of parallel cylindrical members, said frame being bent transversely of the plane of its two sides to pass over one of said cylindrical members and under the other.

8. A tubular stretcher according to claim 7 in which said cylindrical members are rollers, and means are provided for rotating the same in unison.

9. A stretcher for tubular knit cloth comprising a U-shaped frame having its ends bent inwardly toward each other, a pair of parallel cylindrical members arranged in vertical alignment, said frame being bent transversely of the plane of its two sides to pass over one of said cylindrical members and under the other, and means supporting the upper member for swinging movement about the axis of the under member.

10. A stretcher according to claim 9 in which said cylindrical members are rollers, and means are provided for rotating the same in unison.

11. A stretcher for tubular knit cloth comprising a U-shaped frame having its ends bent inwardly toward each other, and a pair of parallel horizontal cylindrical members, swinging brackets journaled on the lower member and supporting the upper member, and latch means for maintaining said members in vertical alignment, said frame being bent transversely of the plane of its two sides to pass over one of said cylindrical members and under the other.

12. A stretcher according to claim 11 in which said cylindrical members are rollers, and means are provided for rotating the same in unison.

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