H. C. PEASE.

SPREADER FOR TUBULAR FABRICS.

APPLICATION FILED FEB. 23, 1914.

1,113,905. Patented Oct. 13, 1914.

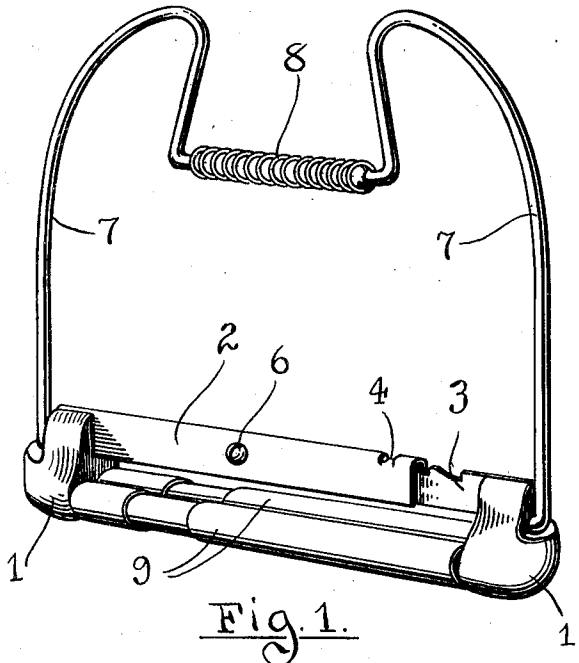


Fig. 1.

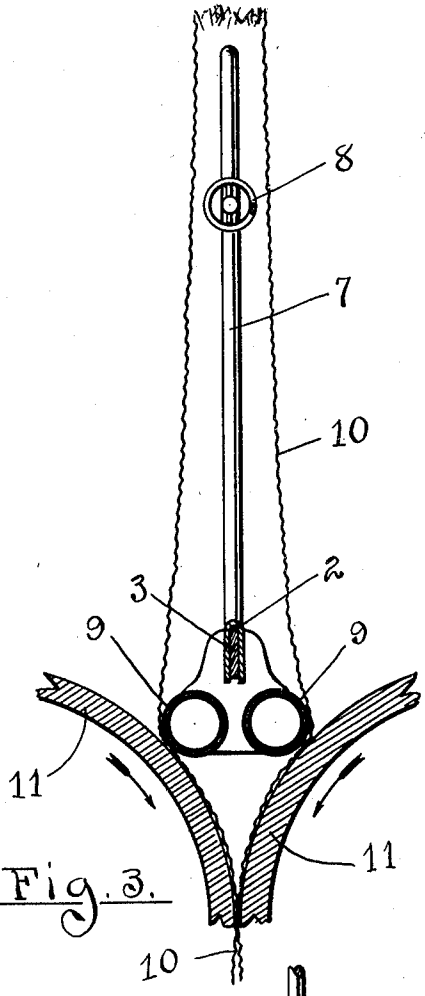


Fig. 3.

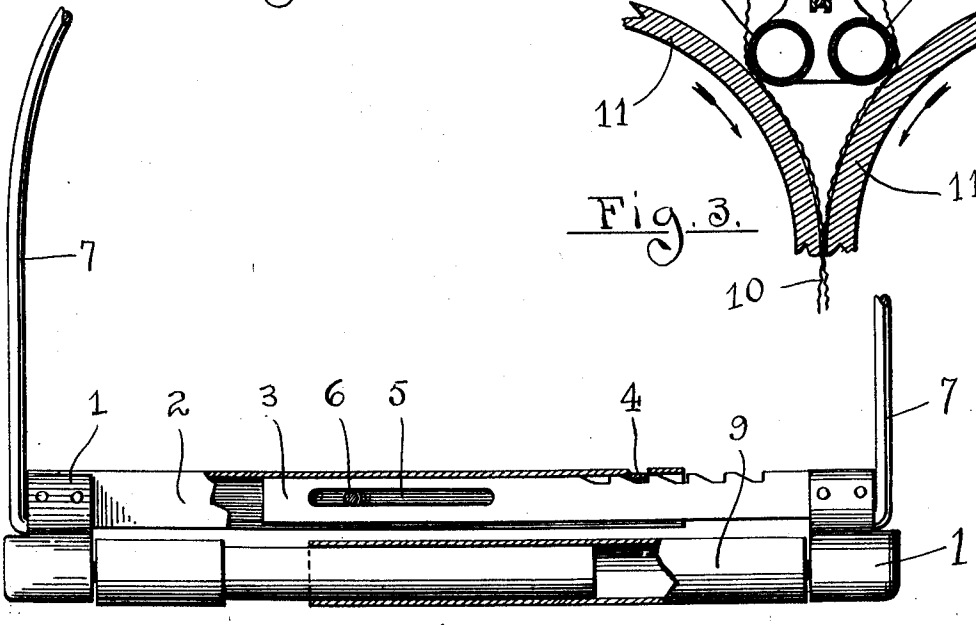


Fig. 2.

Witnesses

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UNITED STATES PATENT OFFICE.

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SPREADER FOR TUBULAR FABRICS.

1,113,905. Specification of Letters Patent. Patented Oct. 13, 1914.

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To all whom it may concern:

Be it known that I, HARRY C. PEASE, a citizen of the United States of America, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Spreaders for Tubular Fabrics; 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.

This invention relates to improvements in spreaders for tubular fabrics, and its object is to provide a device which will successfully perform its function; which may be readily adjusted to operate upon tubular fabrics of different diameters, and to provide the device with various new and useful features hereinafter more fully described and particularly pointed out in the claims.

In handling tubular knit fabric it is often desirable to pass the same between rollers of different machines for such purposes as folding the fabric flat in superposed layers, etc., and in order that the fabric will pass in a smooth unwrinkled condition it has been customary to place within the fabric immediately above the rollers a device commonly known as a spreader, which spreads and flattens the tube and prevents it from wrinkling as it passes between the rollers. This spreader is supported by the rollers, its lower edge being sufficiently thick to prevent its passing between them.

Owing to the different diameters in which the tubular fabric is knit it has been considered necessary to provide spreaders of different widths to accommodate each different fabric, and it is the object of this invention to provide a spreader the width of which may be easily adjusted so that the one device will successfully operate upon a variety of fabrics having different diameters. This object, together with certain new and useful features of construction and arrangement is accomplished by my invention, a preferable embodiment of which is shown in the accompanying drawings, in which:—

Figure 1 is a perspective view of a device embodying this invention; Fig. 2 is an enlarged elevation of the lower part of the same with portions broken away; and Fig. 3 is a transverse sectional elevation of the device shown in operative position in a tubular fabric with a portion of the rollers between which the said fabric is passed.

Like numbers refer to like parts in all of the figures.

1 represents the end members of the frame which are joined by an extensibly adjustable connecting member comprising the inverted channel bar 2 fixed to one of the end members and the ratchet bar 3 fixed to the opposite end member and telescoping into the said channel bar. The upper edge of the bar 3 is provided with ratchet teeth, and a detent 4 near the free end of the channel bar 2 engages said teeth. The ratchet bar within the channel member is provided with a longitudinal slot 5, through which a screw 6 passes which tends to retain the members 2 and 3 in assembled position and limits their relative longitudinal movement.

The end members 1 are provided with upwardly extending arms 7 which serve as the side members of the spreader, and these arms converge toward their upper ends and are preferably bent downward and are connected at their ends by a contractile spring 8 which yieldably draws them toward each other and maintains the parts in adjusted position. When in use the fabric serves the same purpose and the spring is not necessary.

Two telescopic rollers 9 are arranged beneath the telescopic connecting members 2 and 3 and are journaled at their respective ends in the end members 1.

It will be obvious that the width of this device may readily be adjusted within the range limited by the length of the slot 5. The spring 8 normally adjusts the device to its narrowest diameter when the detent 4 is released, and by manually moving the side members apart the device may be widened and retained in such condition by engagement of the detent 4 with the ratchet teeth on the bar 3. Looseness of the connections between the different members provides sufficient flexibility to permit the end of the channel member 2 to be raised sufficiently to disengage the detent from the ratchet teeth on the bar 3 when it is desired to adjust the device. All edges and corners are rounded and smooth, leaving nothing upon which the fabric can catch when the device is in operation.

The device after being adjusted is placed within the fabric 10 in the usual way, as

illustrated in Fig. 3, and the rollers 9 engage the fabric above the rollers 11 through which the fabric is passed and thus eliminate friction and tendency to stretch or warp the material out of shape.

What I claim is:—

1. A spreader for tubular fabrics, comprising separate side members, an extensible connecting member, and longitudinally extensible rollers journaled at their respective ends in said side members.

2. A spreader for tubular fabrics, comprising separate side members, extensible connecting means attached at its ends to said side members, means for holding said connecting means adjusted, and extensible rollers journaled in said side members and extending between the same.

3. A spreader for tubular fabrics, comprising separate side members, extensible connecting means composed of a channel member attached to one side member and having a detent, a ratchet bar attached to the other member and extending into the channel member and engaged by said detent. and longitudinally extensible rollers extending between said side members.

4. A spreader for tubular fabrics, comprising separate side members converging at their upper ends, a spring attached to the upper ends of said members to draw them together, a channel bar attached to one member and having a detent, a ratchet bar attached to the other member extending within said channel bar and engaged by the detent, and two longitudinally extensible rollers arranged parallel and extending between the lower ends of the side members.

In testimony whereof I affix my signature in presence of two witnesses.

HARRY C. PEASE.

Witnesses:

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