

No. 736,314.

PATENTED AUG. 11, 1903.

M. THUS.  
STRETCHING DEVICE FOR STOCKINGS.

APPLICATION FILED JUNE 8, 1903.

NO MODEL.

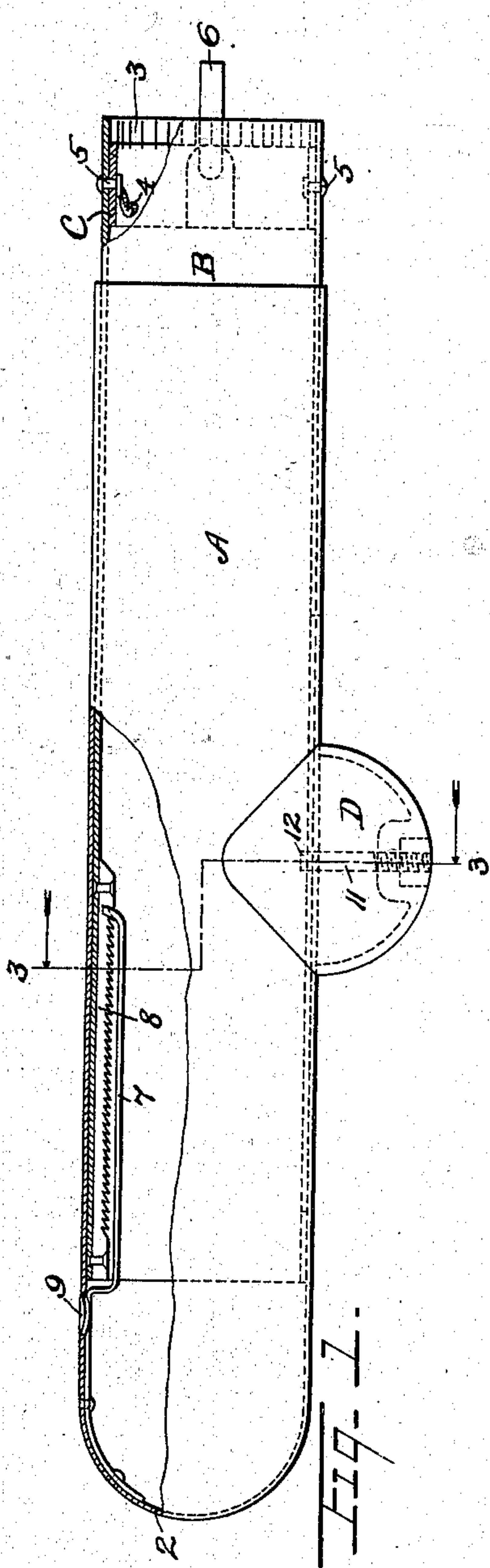


Fig. 1.

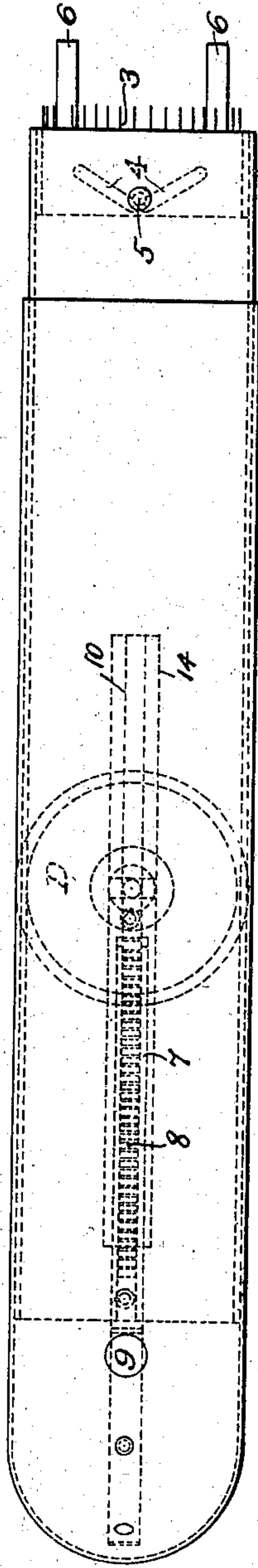


Fig. 2.

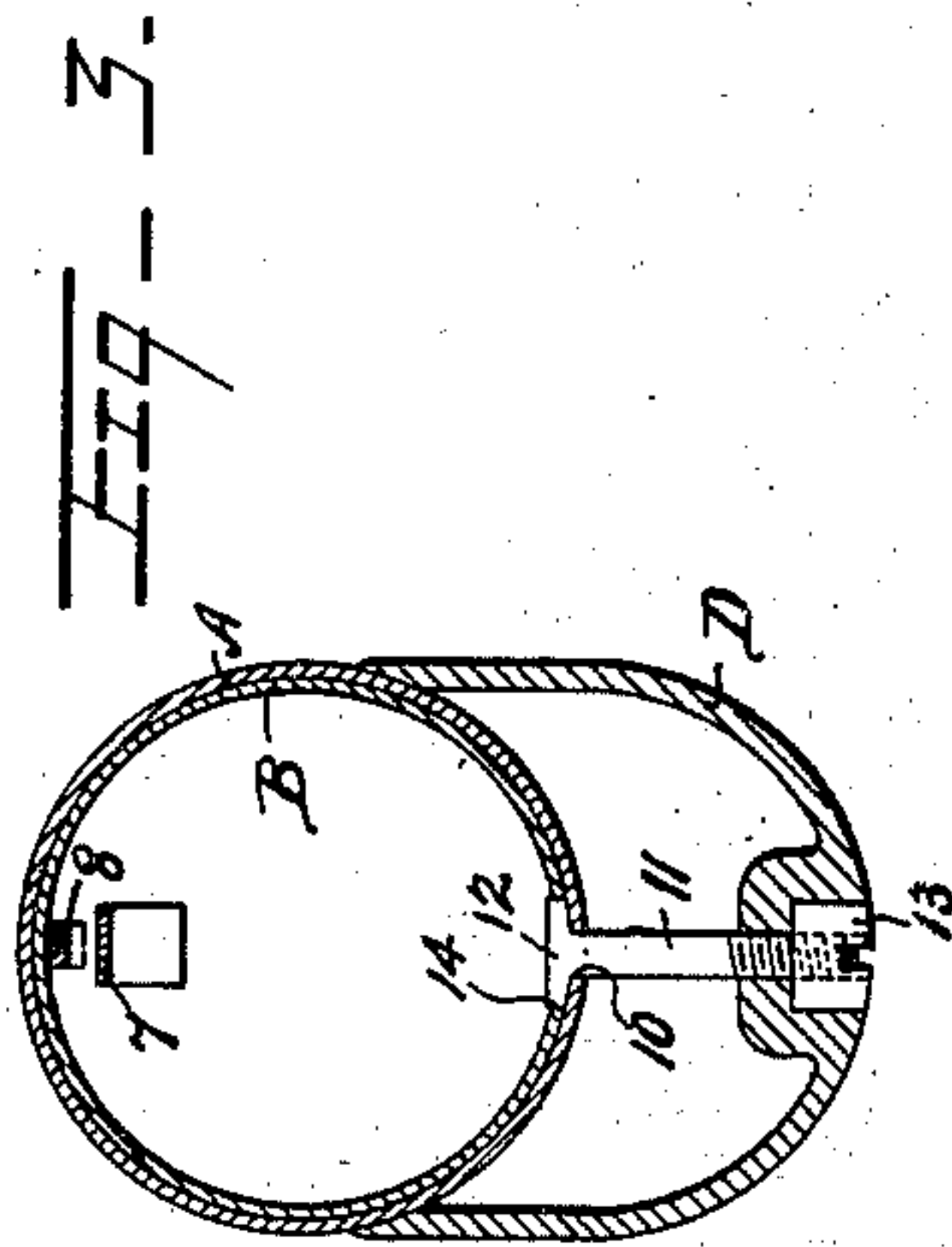


Fig. 3.

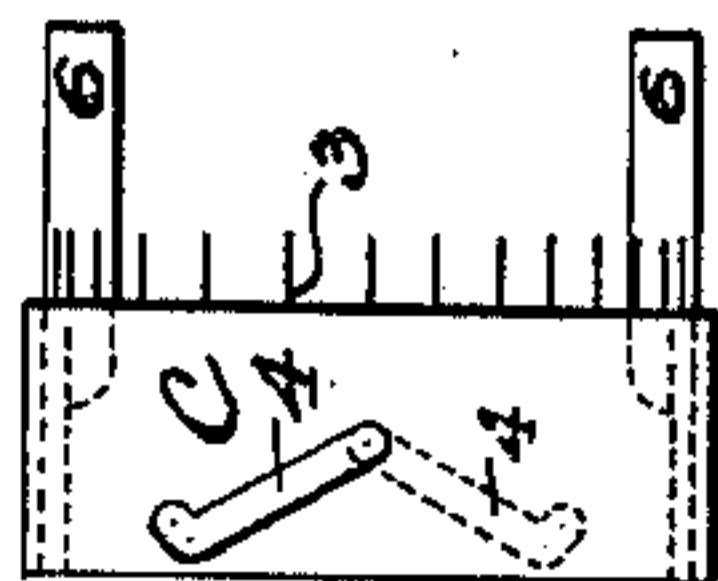


Fig. 4.

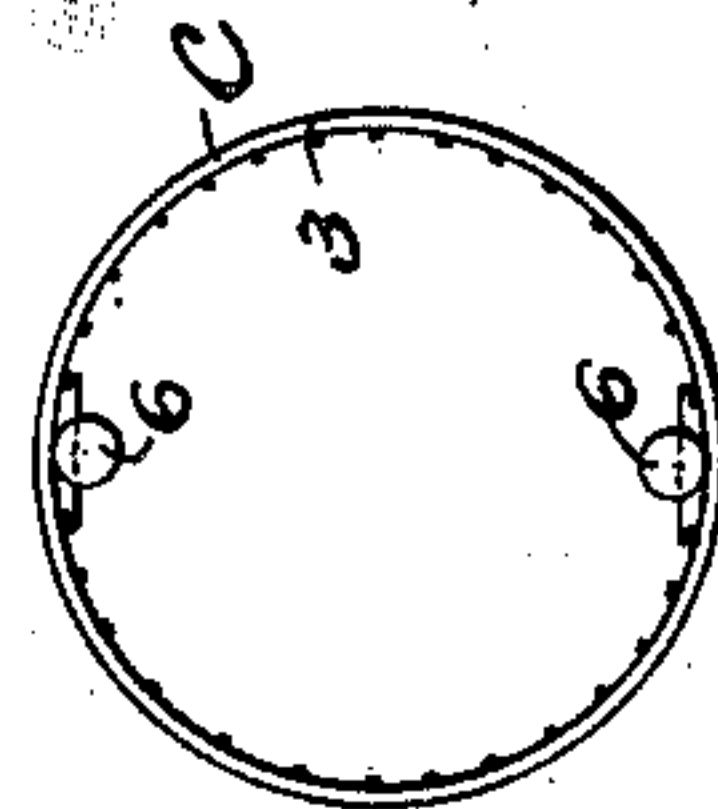


Fig. 5.

Witnesses  
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## UNITED STATES PATENT OFFICE.

MAX THUS, OF READING, PENNSYLVANIA.

## STRETCHING DEVICE FOR STOCKINGS.

SPECIFICATION forming part of Letters Patent No. 736,314, dated August 11, 1903.

Application filed June 8, 1903. Serial No. 160,480. (No model.)

*To all whom it may concern:*

Be it known that I, MAX THUS, a subject of the Emperor of Germany, residing in the city of Reading, county of Berks, State of Pennsylvania, have invented certain new and useful Improvements in Stretching Devices for Stockings, of which the following is a specification.

My invention relates to improved means for stretching stockings preparatory to subjecting them to the process of mercerizing and singeing, whereby the appearance of the stocking is greatly improved.

The invention is fully described in connection with the accompanying drawings, and the novel features are pointed out in the claims.

Figure 1 is a side elevation, partly in section, of a preferred construction embodying my invention. Fig. 2 is a plan view of the same, the stocking-engaging ring being shown projected instead of retracted, as in Fig. 1. Fig. 3 is a cross-sectional view taken on the line 3-3 of Fig. 1. Figs. 4 and 5 show the stocking-engaging ring separately.

My improved device, as shown in the drawings, comprises two slidably-engaged portions A and B in the form of outer and inner tubes, the latter loosely fitting within the other in telescope fashion. One end 2 of the outer tubular portion A is closed in hemispherical form, adapted to approximately fit within the toe portion of a stocking, while the concentric inner tube B is projected more or less beyond its opposite open end, depending upon the total length of the stocking operated upon. The projecting end of this inner tube is provided with means for engaging the open end of the stocking, said means, in the preferred construction shown, consisting of a ring C, loosely fitting within the inner tube B and arranged to have its pin edge 3 projected beyond the latter or retracted within it, as required. This projecting or retracting movement of the ring is produced, as shown, by means of the reversely-inclined slots 4 and 4', provided opposite each other in the wall of the ring and engaging inwardly-projecting pins 5 on the wall of the inner tube, the turning of the ring C in one direction or the other by means of the handle 6 thus serving to move it axially in the tube B.

Within the outer tube A, toward its closed end, I provide a fixed spring-pawl 7, adapted to cooperate with a rack 8, fixed to the inner portion of the inner tube, so as to permit the free outward movement of the tube B, but to automatically lock it against any return movement except when said spring-pawl is released from the rack by pressure upon the button 9, which is accessible through an opening in the wall of the outer tube A.

The tubes A and B, as described, form a straight extensible cylinder of practically uniform diameter. To provide for the heel of the stocking, I secure to the outer tube A a heel-piece D of approximately hemispherical form, said part being adjustably attached thereto, as shown, by means of a bolt 11, the head 12 of which is seated within the tube A, while its body portion passes through a longitudinal slot 10 in the wall of said tube, a nut or nuts 13, recessed in the heel-piece, serving to secure the latter at any desired point upon the tube A. The inner tube B is provided toward its inner end with a slot 14 sufficiently wide to permit free longitudinal movement of said tube B, while at the same time serving to prevent rotation of the same in the outer tube.

In operation my improved device, with the heel-piece properly adjusted to the length of foot to be operated upon, is preferably supported on a suitable fixed arm adapted to enter the hollow device. The inner tube being pushed forward in the outer one and the engaging ring C being projected as indicated in Fig. 2, the stocking is drawn upon the device until the open top thereof can be engaged upon the pin edge 3 of said ring, after which the inner tube is forced downward to properly stretch the stocking, the ratchet mechanism 7-8 retaining it in extended position against the tension put upon the stocking. The heel of the latter is tightly stretched over the properly-located heel-piece D, and every portion of the stocking is firmly held in stretched condition during the succeeding operations to which the stocking is subjected. In order to release it when desired, it is only necessary to turn the ring C by means of the handles 6, so as to retract the ring within the inner tube B, thus withdrawing the engaging pins from the edge of the



stocking. To return the inner tube to its normal position within the outer tube A, the spring - pawl 7 is released by pressing upon the button 9, when it can be readily pushed  
5 in, as desired.

What I claim is—

1. A stretching device for stockings comprising an outer tube having a closed end, and a sliding inner tube having a ratchet engagement with said outer tube and provided at its  
10 projecting outer end with means for engaging the stocking.

2. A stretching device for stockings comprising two portions arranged in sliding engagement with each other, means for retaining  
15 said portions in extended relation, a heel-piece adjustably secured to one of said portions and means at the outer end of the other portion for engaging the open end of the  
20 stocking.

3. A stretching device for stockings comprising an outer tube having a closed end, and a sliding inner tube having a ratchet engagement with said outer tube and provided at its  
25 projecting outer end with means for engaging

the stocking and a heel-piece secured to said outer tube.

4. A stretching device for stockings comprising an outer tube having a closed end, a sliding inner tube having a ratchet engagement with said outer tube, a stocking-engaging  
30 ring in the outer end of said inner tube, and means for independently projecting or retracting said ring.

5. A stretching device for stockings comprising an outer tube having a closed end and a heel-piece adjustably secured thereto, a sliding inner tube having a ratchet engagement  
35 with said outer tube and projecting into the latter beyond the point of attachment of said heel-piece to the outer tube, and stocking-engaging means at the outer end of said inner  
40 tube.

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

MAX THUS.

Witnesses:

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D. M. STEWART.