March 11, 1930. H. HEMMERICH 1,750,005

HOSIERY TURNING AND INSPECTING FORM

Filed Jan. 15, 1927

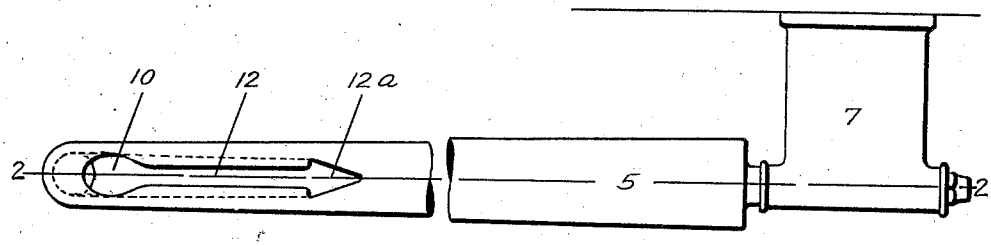


Fig-1

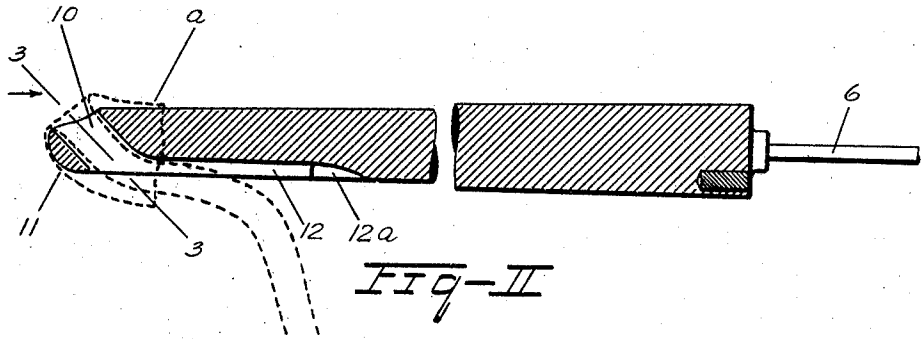


Fig-II

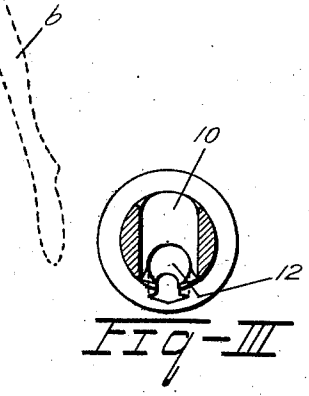


Fig-III

Hugo Hemmerich,

INVENTOR.

BY W. G. & D. Mitchell

ATTORNEYS.

Patented Mar. 11, 1930 1,750,005

UNITED STATES PATENT OFFICE

HUGO HEMMERICH, OF WYOMISSING, PENNSYLVANIA, ASSIGNOR TO BERKSHIRE KNITTING MILLS, OF WYOMISSING, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA

HOSIERY TURNING AND INSPECTING FORM

Application filed January 15, 1927. Serial No. 161,389.

My invention relates to improvements in forms intended particularly to facilitate the examination of stockings for possible defects in manufacture.

My main objects are, first to provide for reversing the stocking in the act of satisfactorily displaying it upon the form, so as to effect these two desired results in a single and simple operation; second to insure quickness, smoothness and ease in such operation; and third to provide a simple, economical, and lasting device for such purpose. The invention is fully described in connection with the accompanying drawings illustrating a preferred embodiment thereof, and the novel features are clearly defined in the claims.

Fig. 1 is a plan view of my improved form, showing it as horizontally arranged for convenient use by a seated operator and with the longitudinal recess turned to the top; an end support being indicated.

Fig. 2 is a longitudinal section of the device, on the line 2—2 of Fig. 1, with the recess turned downward; a top portion of a stocking being diagrammatically indicated by dotted lines as having been passed upward through the apertured head of the form, and as opened preparatory to reversingly drawing it over the latter and the trailing collapsed portion of the stocking.

Fig. 3 is a cross-sectional view on the line 3—3 of Fig. 2.

Knitted stockings are ordinarily "turned" preliminary to inspecting the same for defects, which latter are not very satisfactorily found by examining the wrong side. This preliminary turning has been commonly done by first passing the top of the stocking through a rod-supported ring and then pulling it down over the ring to reverse it; the "turned" stocking being thereafter strung upon a form for examination as to defects.

The most important feature of my improved device is that it provides for combining these two operations by enabling the stringing of the stocking upon the inspection form in the very act of turning it; and it further provides for insuring specially satisfactory examination, particularly of the toe and heel, and for effecting the combined operations with a minimum of labor and nervous strain upon the operator, while at the same time employing a simple one-piece construction.

The main body 5 of my inspection form is shown of substantially round cross-section as usual, which is gradually enlarged in size toward the supported end as required to conform with the larger upper portion of the stocking; and it has a supporting-rod extension 6 which is rotatably mounted in a fixed antifriction bearing 7 so as to permit of turning the freely extending form for convenient examination of the stocking when strung upon it. As shown the whole form is conveniently made of a single piece of solid wood, though obviously my improvements hereinafter described may be similarly embodied either in a parted structure or in a heavier tubular material as may be preferred, the complete form preferably constituting a single rotatably mounted device.

My improvements relate particularly to the reduced forward end of the form which serves as a stocking-entering head, and upon which the toe portion of the stocking is engaged when it is strung upon the form; and to the shaping of the form rearward of said entering head; my full purpose being to enable simultaneous turning of a stocking and free stringing of it upon the form for inspection of the right side thereof. This purpose I fully accomplish, as shown, by providing a transverse collapsed-stocking passage-way 10 in the entering head of the form, rearward of the tip or crown 11 of the head; and by additionally providing a longitudinal collapsed-stocking receiving groove or recess 12 in the form, rearward of said transverse passage-way 10 and communicating therewith, whereby the trailing portion of the stocking operated on will be automatically positioned within the periphery of the form while the upper portion of the stocking is being strung over it. This receiving recess 12 is adapted to practically eliminate frictional contact between the reversely-moving portions of the stocking, and also to avoid bulging effect upon the stocking during the stringing-on operation; both of which effects are very im-

portant for the securing of easy and satisfactory manipulation of the stocking, though not essential to the simultaneous turning and stringing-on operation. The transverse passage-way 10, as shown, is arranged at an incline to the form axis, and its walls are well rounded, so as to facilitate the movement of the collapsed stocking therethrough; the recess 12 being similarly rounded for the same purpose.

The simple operation of simultaneously turning a stocking, and stringing it on my improved device, will be readily understood by reference to Fig. 2 in which the introducing of the stocking to it is diagrammatically indicated by a dotted outline showing; the top portion *a* of the collapsed stocking having been passed upwardly through the passage-way 10 with the depending portion freely trailing below, and being represented as opened by the operator preliminary to passing it over the crown 11 of the entering head of the form and thereafter pulling it onto the form. This reversing and stringing-on movement of the stocking is completed when said top portion *a* thereof has been brought to the far end of the form (near its support 7), and its toe portion brought up against the crown 11 of the entering head with the seamed part of the toe spanning the passage-way opening. During such turning and stringing-on movement, the collapsed trailing portion *b* of the stocking is gradually pressed into the horizontal recess 12 of the form as the strung-on portion of the stocking encloses it, so that said trailing portion will freely move in said recess in reverse direction to the stringing-on movement and without friction or bulging effect upon the strung-on portion. When the stocking has been fully strung upon the form, right side out, it may of course be readily inspected throughout; and especially satisfactory inspection of the toe is provided for by the fact that it is freely spanned over the passage-way opening close to the crown 11 of the entering head, so as to permit of quick manipulation as well as ordinary inspection; which advantageous inspection is applied also to the heel of the stocking by stopping it in like position against the crown 11.

The receiving groove 12 shown for the trailing portion of the stocking, extends a sufficient way along the length of the form, to insure that said reversely moving trailing portion will always be practically free of frictional contact with or bulging effect upon the enclosing portion of the stocking; and its end 12^a is so shaped as to insure free movement of the trailing stocking. It is obvious however that this specific receiving recess for insuring free movement of the trailing stocking may be modified, and that the preferred construction specifically set forth may be otherwise readily varied, without departing from the essentials of my invention as defined in the claims.

What I claim is:

1. A turning and inspecting device for stockings consisting of a stocking-extending form the toe-engaging entering head of which is provided rearward of the tip portion thereof with a transverse passage way for a collapsed stocking.

2. A turning and inspecting device for stockings consisting of a stocking-extending form the toe-engaging entering head of which is provided rearward of the tip portion thereof with a transverse passage way for a collapsed stocking; said passage-way being at an incline to the form axis and having its exit end located adjacent said tip portion.

3. A turning and inspecting device for stockings consisting of a stocking-extending form the toe-engaging entering head of which is provided rearward of the tip portion thereof with a transverse passage way for a collapsed stocking; said passage way communicating with a longitudinally-extending body recess adapted to receive the trailing portion of a stocking in applying the latter to the form.

4. A turning and inspecting device for stockings consisting of a stocking-extending form the toe-engaging entering head of which is provided rearward of the tip portion thereof with a transverse passage way for a collapsed stocking; said passage-way being at an incline to the form axis and having its exit end located adjacent said tip portion and its inlet end arranged in communication with a longitudinally-extending body recess adapted to receive the trailing portion of a stocking in applying the latter to the form.

In testimony whereof I affix my signature.

HUGO HEMMERICH.