J. W. RICKER.
STOCKING FOOT PATTERN.

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## United States Patent Office.

JOHN W. RICKER, OF CHELSEA, MASSACHUSETTS.

## STOCKING-FOOT PATTERN.

SPECIFICATION forming part of Letters Patent No. 558,563, dated April 21, 1896.

Application filed August 3, 1895. Serial No. 558,084. (No model.)

To all whom it may concern:

Be it known that I, John W. Ricker, of Chelsea, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Stocking-Foot Patterns, which improvement is fully set forth in the following specification and shown in the accompanying drawings

companying drawings.

My invention is a device to aid in conven-10 iently cutting away the worn-out parts of the foot of a stocking, and in cutting from the unworn part of the leg of another stocking a piece to be substituted for the part cut away, which will accurately fit in place, thus result-15 ing in a saving of valuable material that is ordinarily thrown away; or, to more fully explain, in the case of two pairs of stockings worn out at the feet, the worn parts of one pair may be, by using this device, cut away 20 and pieces cut from the legs of the other pair, which, substituted for the parts cut away of the first pair, make practically a pair of new stockings out of two pairs of old stockings; or, if the stockings are long, as of opera 25 length, there will be material enough in the leg of one stocking to cut therefrom pieces to renew the feet of two stockings, in which case two pairs of good stockings, for example, may be produced from three pairs of old or worn-30 out stockings if only one of the three pairs be of opera length or have sufficient material in the leg portions from which to cut two pieces each.

The device is expansible as to width and length, and also means are provided for upwardly extending the heel portion independently of the toe portion, so as to provide for cutting higher up on the heel of the stocking to remove the part worn away by the fraying

40 of the dress and skirts.

The invention is hereinafter more fully described, and particularly pointed out in the claim.

Referring to the drawings, Figure 1 is a plan of the device shown by full and dotted lines. Fig. 2 is an edge view seen as indicated by arrow in Fig. 1. Fig. 3 shows the adaptation of the device to the parts of a stocking. Fig. 4 shows in plan a piece cut from the leg of a stocking with which to renew a foot. Figs. 5 to 8, inclusive, show the primary pieces of the frame detached. Fig. 9

shows the lower part of a stocking with most of the foot cut away. Figs. 3 and 9 are drawn to a scale smaller than that of the other 55 formers.

figures.

The device consists of a frame A, shaped approximately like the foot of a stocking, composed of primary strips or pieces a b c d, preferably of thin elastic metal, as German 60 silver, having a roll temper. The perimeters of the pieces are for the most part curved, and the pieces are formed with slots and openings, as shown, and are secured together by holders consisting of screw-clamps e and f 65 and g g' and slide-rivets h h'. The pieces ad overlap longitudinally to form the upper part of the frame, and they are provided with longitudinal slots l i, which correspond with each other and through which, respectively, 70 the holders g and h pass, each holder being secured in the opposite overlapping piece. Likewise the pieces bc overlap longitudinally to form the lower part of the frame, they being formed with corresponding longitudinal 75 slots m k, which receive, respectively, the holders g' and h', each holder being secured in the opposite overlapping piece. The piece a is substantially triangular with one edge curved. The piece b is slightly L-shaped with 80 one side curved and with a curved portion extending from the point of the shorter arm of the L, and c and d are each substantially L-shaped with the two arms joined on a curve instead of at an angle.

The upper part and the lower part of the frame are joined to complete the frame, the two parts being secured together by the clamp-screws e and f. By means of this construction and relation of the parts entering 90 into the make-up of a frame the latter may be expanded or contracted longitudinally, as use may require, a shortened form of the frame

being shown by dotted lines A'.

The slots i k in the respective pieces d c are 95 formed with enlarged parts p r, at one end of each, to admit the passing through them of the heads of the fixed slide-rivets h h'. By means of these and the removable thumb-nuts of the several screw-clamps the frame may be 100 at any time taken to pieces and put into a compact form—for instance, for the purpose of packing or shipping.

The pieces a b correspond with the heel of

the stocking and together make up the heel portion of the frame, and the pieces dc, forming the toe portion of the frame, correspond with the toe of the stocking. The piece d is 5 formed with a short transverse slot n and the piece  $\alpha$  with a similar transverse slot o. The screw-clamp f occupies the slot n and is connected with the piece c, and the screwclamp e occupies the slot o and is secured to ro the piece b. On account of this construction of the parts the frame may be expanded or contracted as to width, an expanded form being shown by the dotted lines A<sup>2</sup>.

The piece d is provided or marked with a 15 scale of numbers, usually from "5" to "11," inclusive, as shown in Fig. 5, (omitted from Fig. 1 to avoid confusion with dotted lines,) which numbers correspond with the manufacturer's numbers for the different sizes of

20 hose.

In Fig. 3 the stocking B is shown by dotted lines, it being represented as being pressed down flat. In using the device it is first set to the proper size, the operator being guided 25 by the scale of numbers and by the size of the stocking to be repaired, the frame being set one-half size larger than that of the foot of the stocking to allow for overlapping at the seams. It is then placed upon the foot of the 30 stocking, as shown, the latter being marked along the curved edge or line s v w, to which line the material is subsequently cut, the worn part, covered by the frame, being discarded. Without altering the frame it is then placed 35 upon the leg of the stocking from which a piece is to be cut, substantially as shown in outline at C, and marked around. The piece cut to the marking is subsequently sewed to

the foot along the side lines  $s^2 v^2 w^2$ , Fig. 9, 40 to take the place of the part cut therefrom. In placing the frame upon the leg of the stocking for the purpose of marking out a piece to be cut therefrom the straight part of its edge, from t to u, is placed even with the folded 45 edge of the stocking, the material between which points not being cut when the piece is subsequently taken from the leg. When opened out, the piece has substantially the form shown at E, Fig. 4, the points t' and u'50 corresponding, respectively, with the points t and u of the frame and the two curved edges s' v' w' corresponding with the curved line sv w of the frame. In joining the part E to the truncated end of the stocking the two 55 curved edges s' v' w' unite with the curved edges  $s^2 v^2 w^2$ , Fig. 9. The two edges of the

piece E, from t' to s' s', respectively, are pri-

marily sewed together to form the toe of the

foot, the two points s' s' coinciding; also the

two edges from u to w' w', respectively, are 60 sewed together to form the heel of the foot, the points w'w' coinciding. This piece, thus constructed, is then sewed to the lower end of the stocking, as above stated.

Referring to Fig. 1, the upper edge of the 65 frame, between the points s and w, is curved downward to v, as shown, so as to bring the side seams, along  $s^2 v^2 w^2$ , Fig. 9, below the upper edge of the shoe or slipper worn upon the foot, and thus be covered and out of sight. 70

The point w of the heel is purposely carried high, so that all of the frayed part of the heel portion of the stocking may be cut away, and provision is made for swinging the rear portion of the upper part of the frame (con- 75 sisting of the pieces a and d, regarded as a unit) upward upon the screw-clamp f as a center of motion, as before stated, should the heel of the stocking be worn or frayed above the shoe from the action of the skirts. To 80 readily effect this upward swinging of this part of the frame, the slot o is made substantially concentric with the screw-clamp f, the slot n being about parallel with the slot o.

The lower horizontal edges of the combined 85 pieces a d together form a straight line parallel with the line t u of the pieces b c, and the companion slots l i are parallel with the

companion slots m k.

The piece E not being divided between the 90 points t' and u' there is no seam along the bottom of the foot of the repaired stocking.

The frame is made broad or long, according to whether the foot to be fitted is thick and chubby or long and slender.

What I claim as my invention is—

A stocking-foot pattern, comprising a frame, one piece of which is substantially triangular with one curved edge and provided with a longitudinal and with a curved slot, a 100 piece slightly L-shaped with one curved edge. and a curved portion extending from the point of the shorter arm, the main portion, and the projection being each provided with a slot, and two other pieces, each of which is 105 substantially L-shaped with the arms joined together with a curve and the main portion slotted longitudinally, and slide-rivets and thumb-nuts for securing the parts of the frame together, substantially as set forth.

In witness whereof I have hereunto set my hand, this 27th day of July, 1895, in the presence of two subscribing witnesses.

JOHN W. RICKER.

Witnesses:

C. M. B. RICKER, B. J. McKown.