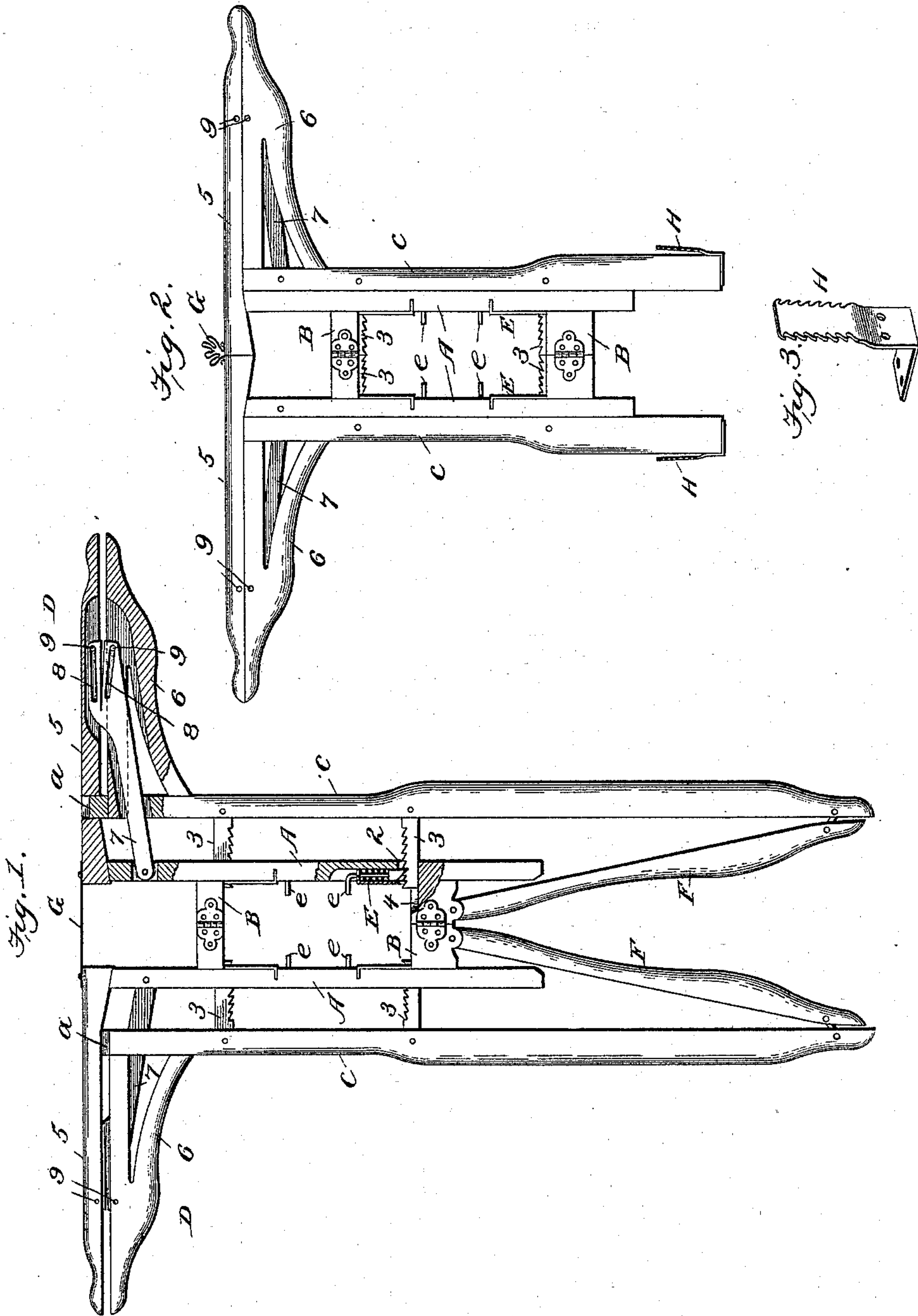


(No Model.)

I. C. HAVENS & S. WESTMAN.  
GARMENT STRETCHER.

No. 540,310.

Patented June 4, 1895.



Witnesses:  
Edwin L. Bradford  
Ralph Wormelle

Inventors:  
Ira. C. Havens  
+ Samuel Westman  
by Patrick O'Connell  
Attorney



# UNITED STATES PATENT OFFICE.

IRA C. HAVENS AND SAMUEL WESTMAN, OF THREE RIVERS, MICHIGAN.

## GARMENT-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 540,310, dated June 4, 1895.

Application filed April 17, 1894. Serial No. 507,863. (No model.)

*To all whom it may concern:*

Be it known that we, IRA C. HAVENS and SAMUEL WESTMAN, citizens of the United States of America, residing at Three Rivers, in the county of St. Joseph and State of Michigan, have invented certain new and useful Improvements in Garment-Stretchers, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to stretchers for shirts and drawers, especially designed for knit goods, for manufacturers and finishers of this class of wearing apparel to stretch the goods over.

The primary object of the invention is the provision of a device of the character aforesaid which can be used for either garment separately or both combined, and which will be adjustable to adapt it to different sizes and shapes of the goods to be fashioned on the stretcher.

With these objects and such others as pertain to the nature of the invention, the improvement consists of the novel features which hereinafter will be more fully described and claimed and which are shown in the accompanying drawings, in which—

Figure 1 is a front view of the combined shirt and drawers stretcher, portions being broken away to show the means for holding the parts in the adjusted position. Fig. 2 is a similar view of the shirt-stretcher. Fig. 3 is a detail view of the notched plate at the lower end of the shirt-stretcher.

Similar letters and numerals refer to corresponding parts in the different views of the drawings.

The side frame bars A, are connected near their ends by cross bars B, and have mortises 2 contiguous to the said cross bars to receive the toothed plates 3 pivotally attached to the templet bars c. The arm extensions D, constitute a part of the templet bars and the profile of the latter will conform as nearly as practicable to the outline of the completed garment. The toothed plates 3 work in the mortises 2 and are held in the required position by spring catches E, which are operated by projecting portions e. The inner edges of the cross bars B, have grooves 4 for the plates 3 to work in.

The arm extensions D, are composed of two

parts, an upper bar 5 and a lower bar 6. The bar 6 is permanently attached to the templet bar c, whereas the bar 5 is relatively adjustable to vary the width of the arm extensions to adapt them to the size of arm of the garment being furnished. The inner of the bars 5 project beyond the templet bars c and have the projecting portions cam faced on the nether side and constructed to engage with the ends of the frame bars A, whereby on moving the templet bars c outward the inclined ends of the bars 5 riding on the ends of the bars A will be moved away from the bars 6 and increase the width of the arm extensions proportional to the outward adjustment of the templet bars. A tenon a at the end of the templet bars c works in a corresponding mortise in the bar 5 and serves to retain the latter in place. A thin rod 7 is pivoted at its inner end to the frame bar A, and passes through the templet bar c and is enlarged at its outer end to work in kerfs in the bars 5 and 6. Outwardly diverging slots 8 are provided in the enlarged end of the rod 7 and pins 9 pass transversely through the slots 8 and the bars 5 and 6 and riding in the slots as the templet bars c and the arm extension are adjusted outwardly, cause the bars 5 to move away from the bar 6 and widen the said arm extension. The inclination of the slots 8 and the projecting ends of the bars 5 are such that the bar 5 will move away from the bar 6 and at all stages of its movement will remain parallel to its normal position.

For a combined shirt and drawers stretcher the templet bars c are extended and connected to leg pieces F, which are pivotally attached at their upper ends to the lower cross bars B and at their lower ends to the ends of the templet bars. Obviously from their construction it will be seen that the leg portions of the stretcher as well as the arm extensions will be widened on moving the templet bars outwardly.

An elastic or extensible piece G, is provided to extend across the space between the inner ends of the bars 5 to support the garment.

The shirt stretcher, shown in Fig. 2, is provided at the lower ends of the templet bars with plates H, having the edge notched or provided with prongs to engage with garments of different lengths and hold them distended.



For convenience in storing, packing, and transportation the cross bars B, are hinged midway of their ends, thereby reducing the size one-half.

5 We claim—

1. A garment stretcher, comprising a frame, templet bars, means for independently and adjustably connecting the templet bars with the frame, arm extensions attached to the  
10 templet bars, each composed of two bars, and means for simultaneously spreading the arm extension bars on separating the templet bars, substantially as described.

2. A garment stretcher, comprising a frame, 15 templet bars adjustably connected with the frame, and arm extensions attached to the templet bars, and composed of two connected parts, the inner side of the upper bars being cam shaped and adapted to extend over and  
20 ride upon the ends of the frame to spread the said arm extensions simultaneously on separating the said templet bars, substantially as set forth.

3. The combination with the frame with the 25 templet bars adjustably connected with the said frame, of arm extensions composed each of two bars, one bar of each arm extension having a cam portion to engage with the frame, rods attached at their inner ends to  
30 the frame and having diverging slots at their inner ends, and pins passing through the said diverging slots and entering the respective bars of the arm extensions, substantially as described.

35 4. A combined shirt and drawers stretcher composed of a frame, side templet bars having their lower ends projecting beyond the lower

end of the frame, means for adjustably connecting the templet bars with the frame, arm extensions carried by the side templet bars 40 and composed of two bars, means substantially as described for automatically adjusting the width of the arm extensions simultaneously with the lateral adjustment of the side templet bars, and inner leg templet bars hav- 45 ing attachment with the frame, and with the said side templet bars, substantially as described.

5. The herein specified combined shirt and drawers stretcher composed of, side bars A, 50 hinged cross bars, B, connecting the said side bars, templet bars means for adjustably connecting the said templet bars with the bars A, arm extensions carried by the side templet bars and composed of two bars, means sub- 55 stantially as described for automatically adjusting the width of the arm extensions simultaneously with the lateral adjustment of the side templet bars, inner leg templet bars having attachment at the upper end with the 60 frame of the device and at the lower end with the said side templet bars, and an extensible piece spanning the space between the inner end of the top arm extension bars, substantially as described and for the purpose speci- 65 fied.

In testimony whereof we affix our signatures in presence of two witnesses.

IRA C. HAVENS.  
SAMUEL WESTMAN.

Witnesses:  
PAUL EATON,  
C. A. BOYLE.