

(No Model.)

2 Sheets—Sheet 1.

C. MANNEBACH.

MEASURING AND DRAFTING DEVICE FOR GARMENTS.

No. 482,748.

Patented Sept. 20, 1892.

Fig. 1.

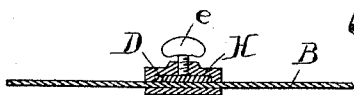
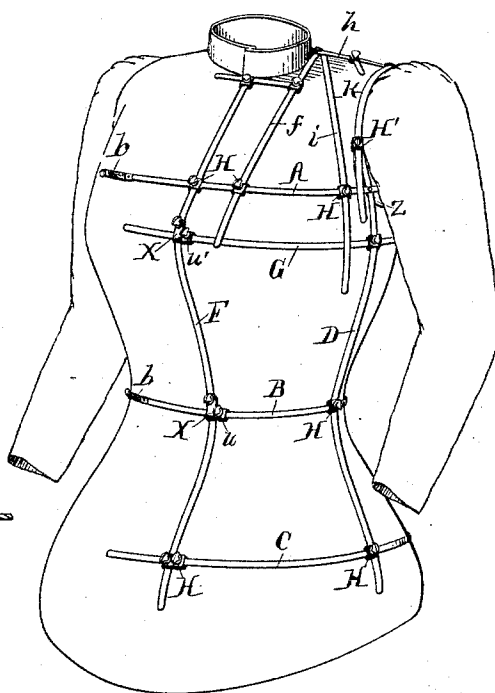


Fig. 2.

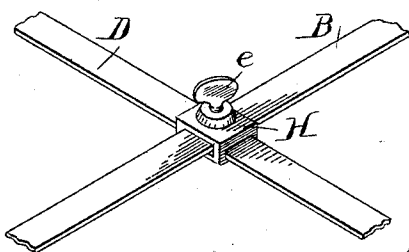


Fig. 3.

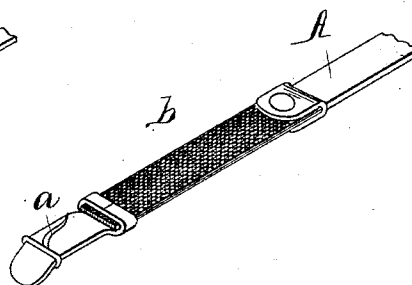


Fig. 4.

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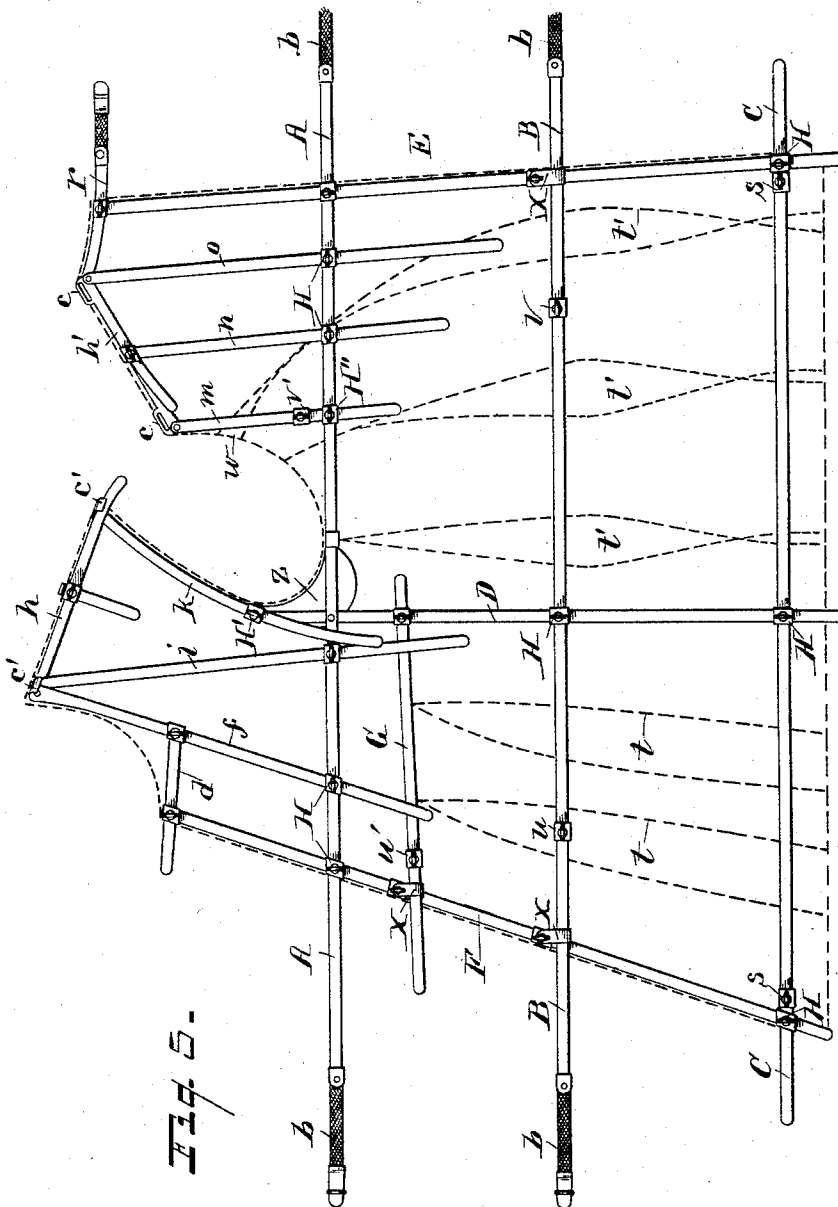
2 Sheets—Sheet 2.

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MEASURING AND DRAFTING DEVICE FOR GARMENTS.

SPECIFICATION forming part of Letters Patent No. 482,748, dated September 20, 1892.

Application filed March 21, 1892. Serial No. 425,742. (No model.)

To all whom it may concern:

Be it known that I, CASPAR MANNEBACH, a citizen of the United States, residing at Detroit, in the county of Wayne, State of Michigan, have invented certain new and useful Improvements in Adjustable Forms for Obtaining Dimensions of the Body; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to an improved device for ascertaining the measurements or dimensions used in cutting and fitting garments, especially designed for dressmakers and tailors; and it consists in a certain construction and arrangement of parts, as fully hereinafter set forth, the essential features of which being pointed out particularly in the claims.

The object of the invention is to provide means for quickly and accurately obtaining the dimensions of the body necessary to enable the proper cutting and fitting of garments, and to obviate tape-measurements and the use of figures commonly employed for obtaining such results. This object is attained by the device illustrated in the accompanying drawings, in which—

Figure 1 is a perspective of this improved device as fitted to the form of a person when taking the dimensions thereof. Fig. 2 is an enlarged section of the adjustable clamping for uniting two of the crossing strands. Fig. 3 is a perspective of the same. Fig. 4 is an enlarged perspective of the elastic extension and hook for attaching and holding the device in position. Fig. 5 is a plan view of the device, showing also by dotted lines a diagram of a pattern marked therefrom.

This improved device consists of a form or frame composed of a series of flexible metallic tapes or strands crossing one another at various angles and adjustably coupled at their crossing points, the arrangement being such that by the proper adjustment of the flexible strands the frame may be fitted to any form.

As shown in Fig. 5, the main portion of the

frame is composed of horizontal strands crossed by vertical and oblique strands. The upper horizontal strand A passes directly under the arm. The second or lower strand B indicates the waist-line, and the bottom strand C passes over the hip. The strands A and B pass entirely around one side of the body from the front to the rear, and their ends are provided with the elastic extensions *b*, having a hook *a*, as shown in Fig. 4, for attachment to the garment to retain the frame in place. The central vertical strand D indicates the division-line between the front and the back. The strand E indicates the line of the center of the back and the oblique strand F the center of the front. The short transverse strand G, which is adjustably coupled to the strands D and F, indicates the bust-line. To the upper end of the strand F is coupled a transverse strand *d*, which, in connection with the oblique strand *f*, forms the front and side of the neck. The strand *h* lies upon the top of the shoulder and is coupled to the adjustable strands *i* and *k*, the latter of which is curved and forms the front of the armhole. The rear of the armhole is indicated by the short vertical strand *m*, which, in connection with the strands *n* and *o*, is adjustably attached to the shoulder-strand *h'*, which is also adjustable, and is provided with eyelets *c*, that receive the hooks *c'* of the corresponding shoulder-strand *h* when the frame is fitted to a figure. *r* indicates a short curved strand that is adjustably coupled to the shoulder-strand *h'* and vertical strand E and forms the back of the neck, its free end being provided with an elastic extension and hook similar to the strands A and B. At the junction or crossing point of all of said strands a sliding clamping-plate H is employed, which is provided with slots or apertures passing in transverse directions therethrough, that freely receive the flat metallic strands which cross one another within said plate. Passing through a threaded boss of the plate H is a thumb-screw *e*, that bears upon the cross-strands, by which means they may be firmly clamped within said plate, which construction is shown in Figs. 2 and 3.

Mounted upon the various horizontal and vertical strands of the frame are adjustable stops carrying set-screws for securing them at any desired point.

To employ this improved device for obtaining the dimensions of a figure, the shoulder-strands *h h'* are coupled by means of the hooks *c'* and eyelets *c* and the frame placed upon the figure, the hooks on the elastic extensions of the strands being engaged in the garment to retain the frame in position, as clearly shown in Fig. 1. The thumb-screws to all the clamping-plates *H* at the crossing-points of the strands are then loosened and the frame fitted closely to the figure, which is readily accomplished through the adjustable features of the frame, no matter what the dimensions of the figure are. The clamps are then tightened to retain it in form. The waist-strand *B*, passing around the smallest circumference of the figure, draws in the strands *D*, *E*, and *F*, which slide freely through their respective clamps *H* at their lower ends, which clamps are not tightened until the frame has been so adjusted, the dimensions over the hip being retained by the sliding stops *s* on the strand *C*, which are slid against the plates *H* of the strands *E F*. As the vertical strands are drawn in to conform to the figure the stop *u* on the strand *B* is slid against the front strand *F*, as well as the stop *u'* on the bust-strand *G*, said stops being then secured in place, and the stop *v* on the strand *B* is slid against the back-strand *E* and also secured. The fitting around the neck and upon the shoulder is in like manner accomplished by the adjustment of the several parts. The size and shape of the front of the armhole are determined by the curved strand *h*, which slides through the clamp *H'* to effect its adjustment, the form of the armhole at the back being determined through the medium of the vertical strand *m*, passing through the clamp *H''* and carrying the sliding stop *v'*, which indicates the distance the strand *m* slides through said clamp when fitted to the round of the armhole, as will be readily understood by any one skilled in the art. When the complete adjustment of the form or frame to the figure has been accomplished, as shown in Fig. 5, it is removed and unclasped at the shoulder and such of the clamps loosened as are necessary to permit the frame to lie perfectly flat, the dimensions being preserved by the stops, which are securely retained in place after adjustment. For instance, the amount of goods to be taken up in the front darts is indicated by the distance between the stops *u* and *u'* and the front strand *F*, which distance is divided between the front darts (indicated by dotted lines *tt* in Fig. 5) and that which is to be taken up by the darts in the back, as indicated by the distance between the stop *v* and the back-strand *E*, which distance is also divided between the darts *tt'*. The distance between the stop *v'* and the clamp *H''* indicates what shall be taken up in the dart *W* to make the proper fit at the back of the armhole, and the outline of the frame presents a form

from which to draft the body of the pattern, as clearly shown by the dotted diagram of Fig. 5. The plate *Z* (shown in Fig. 5) is rigidly secured to the horizontal strand *A* and the vertical strand *D* at their point of crossing. The upper curved edge of said plate conforms to the shape of the armhole, enabling it to be fitted closely to the under side of the arm, and by being rigidly secured to said strands they are thereby firmly held in the form of a square and the entire frame is prevented from rocking. The end portions of the horizontal strand *B* are supported by swinging loops *x*, as is also the outer end of the strand *G*, said loops being adjustably secured to the strands *F E*, respectively. This arrangement prevents the horizontal strands from buckling.

It will now be apparent that by the employment of this improved device a perfect pattern of the figure or form may be quickly and perfectly secured without employing the ordinary measurements and figures, obviating the liability of a faulty fit through mis-measurements and mistakes in reading figures, as a perfect model of the figure is secured.

Having thus fully set forth my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A device for taking the dimensions of a figure, consisting of a series of vertical and transverse strands adjustably coupled, the loops pivoted to the outer vertical strands, the intermediate vertical strand *D*, and the transverse strands *B G*, attached to said strand *D* and having their outer ends supported in said loops, substantially as set forth.

2. A device for obtaining the dimensions of a bust or figure, consisting of a form composed of a series of flexible crossed strands adjustably coupled at their points of crossing, said form adapted to inclose but one side of the figure from the center of the back to the center of the front, and the transverse strands having elastic extensions provided with means for attachment to the apparel for retaining said form yieldingly in place upon the figure while being adjusted, substantially as specified.

3. A device for the purpose specified, consisting of a frame composed of vertical and transverse strands crossing at an angle and adjustably coupled, the plate *z*, having the inner curved edge, and the strands *A* and *D*, crossing at right angles, said strands being rigidly secured at their points of crossing and fixedly attached to said plate, whereby said strands are retained in the form of a square and the rocking of the frame is obviated.

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

CASPAR MANNEBACH.

Witnesses:

E. S. WHEELER,
H. R. WHEELER.