E. VAN DUSEN.

MODEL FORM FOR GARMENT FITTING.

APPLICATION FILED JUNE 24, 1909.

974,936.

Patented Nov. 8, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

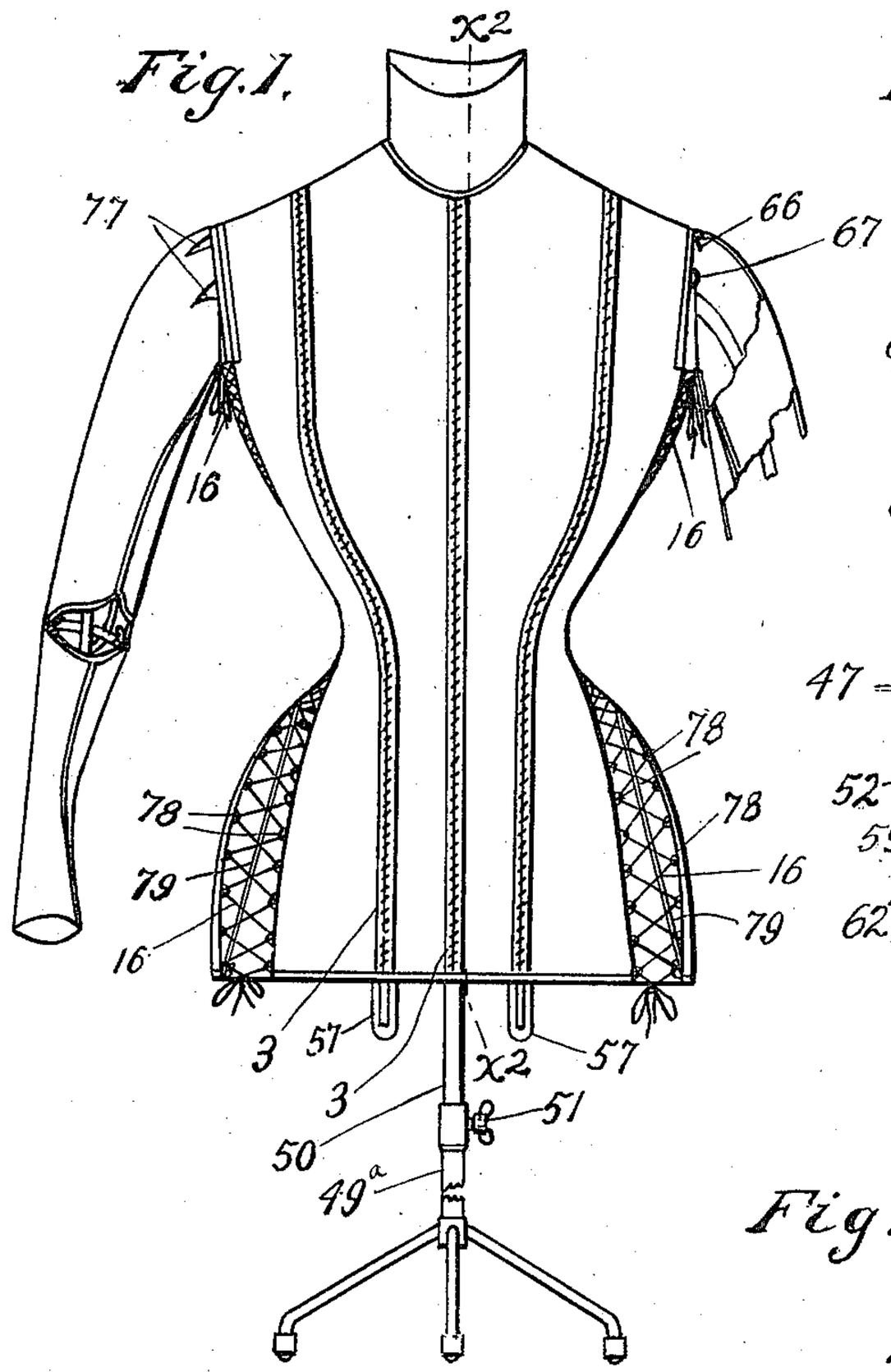


Fig. 2.

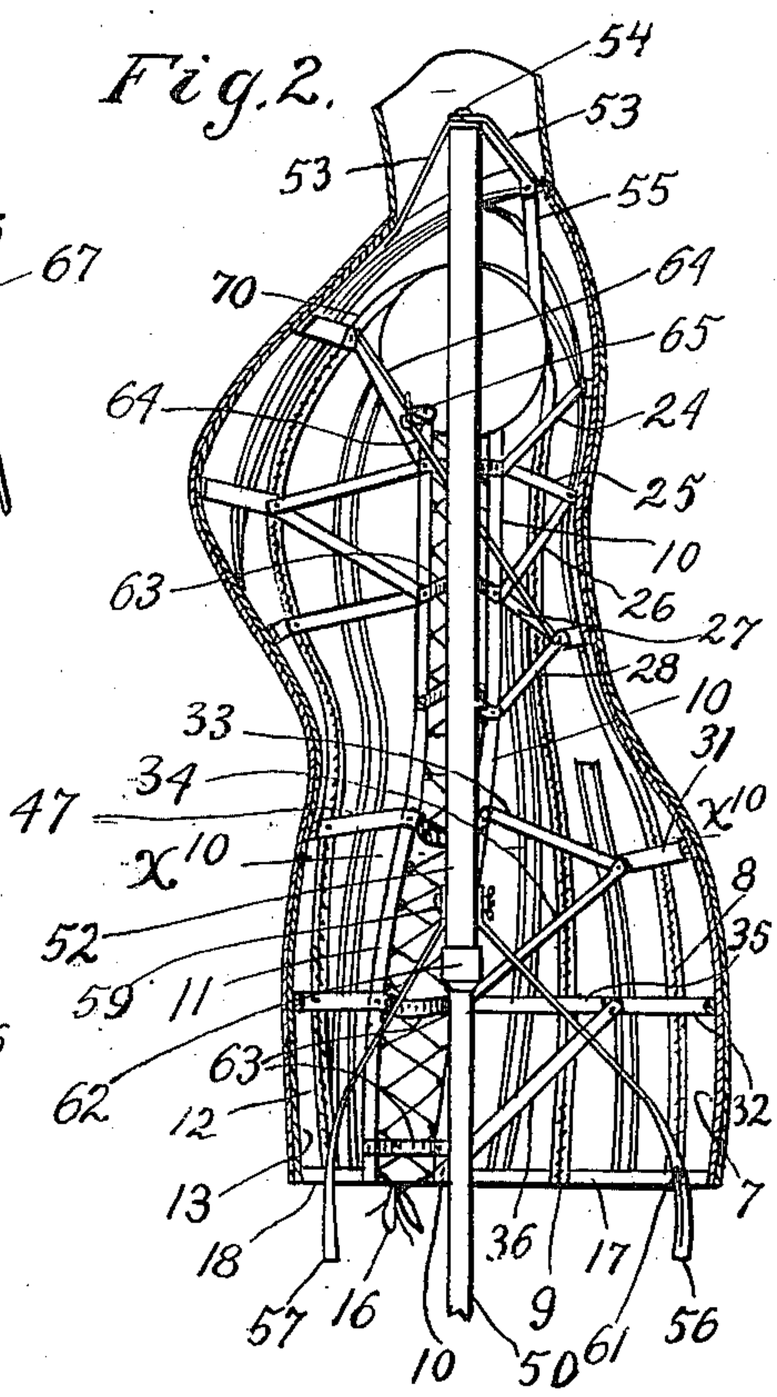


Fig. 4.

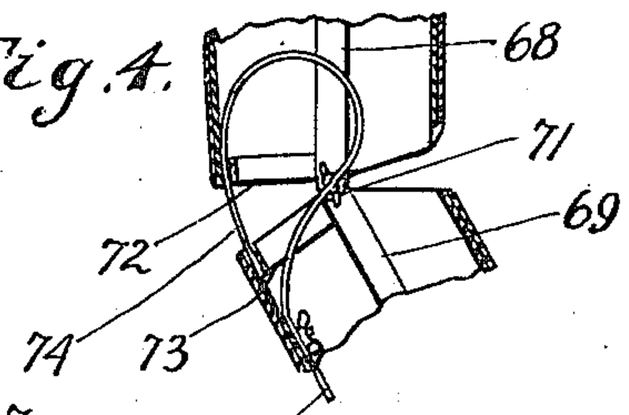


Fig. 3.

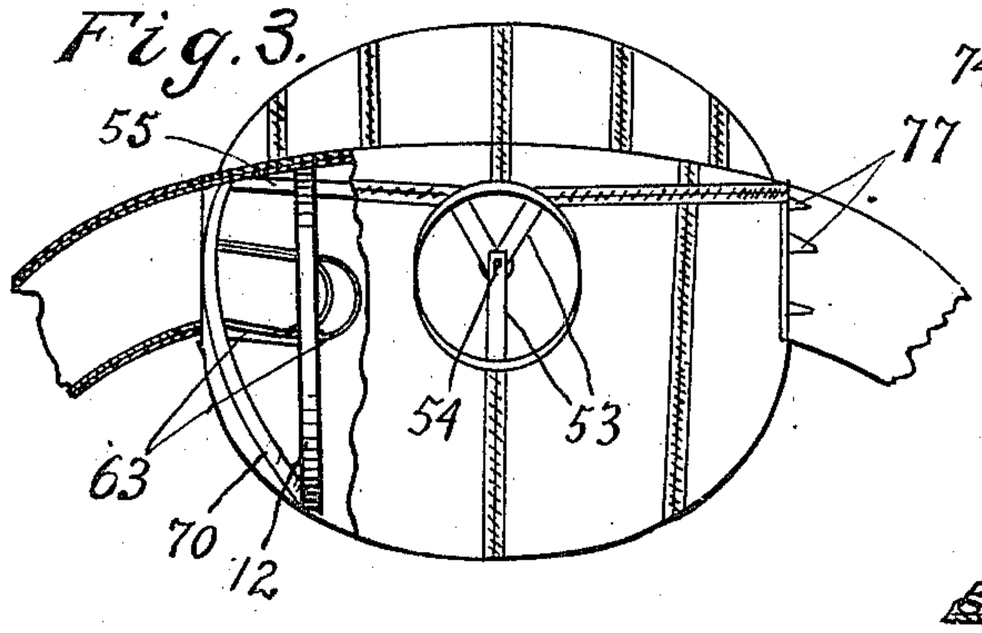
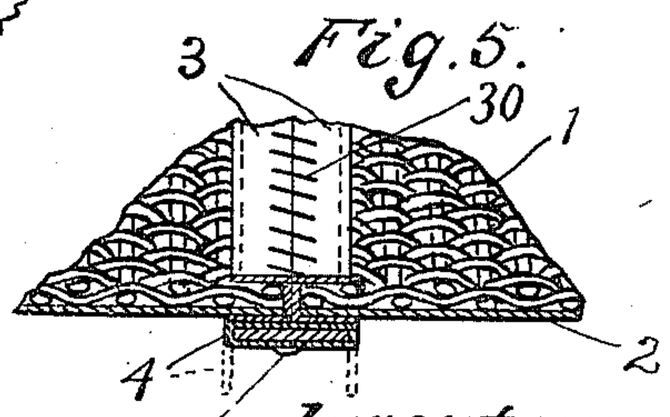


Fig. 5.



Witnesses.

H. H. Hunt.

Rebecca Rosenbaum

Inventor:

Elizabeth Van Dusen

By Albert H. Merrill,

her atty.

E. VAN DUSEN.

MODEL FORM FOR GARMENT FITTING.

APPLICATION FILED JUNE 24, 1909.

974,936.

Patented Nov. 8, 1910.

2 SHEETS—SHEET 2.

Fig. 6.

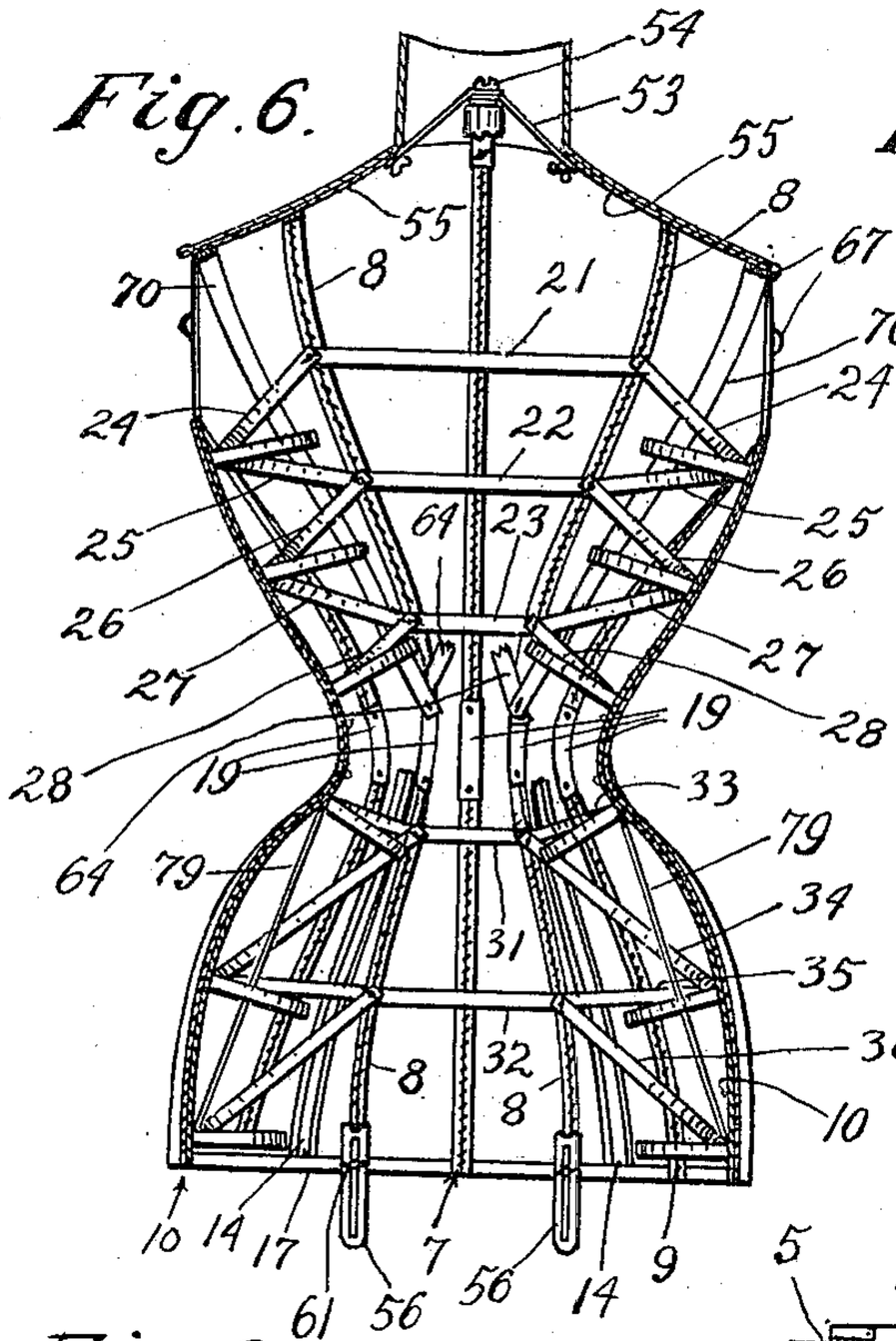


Fig. 7.

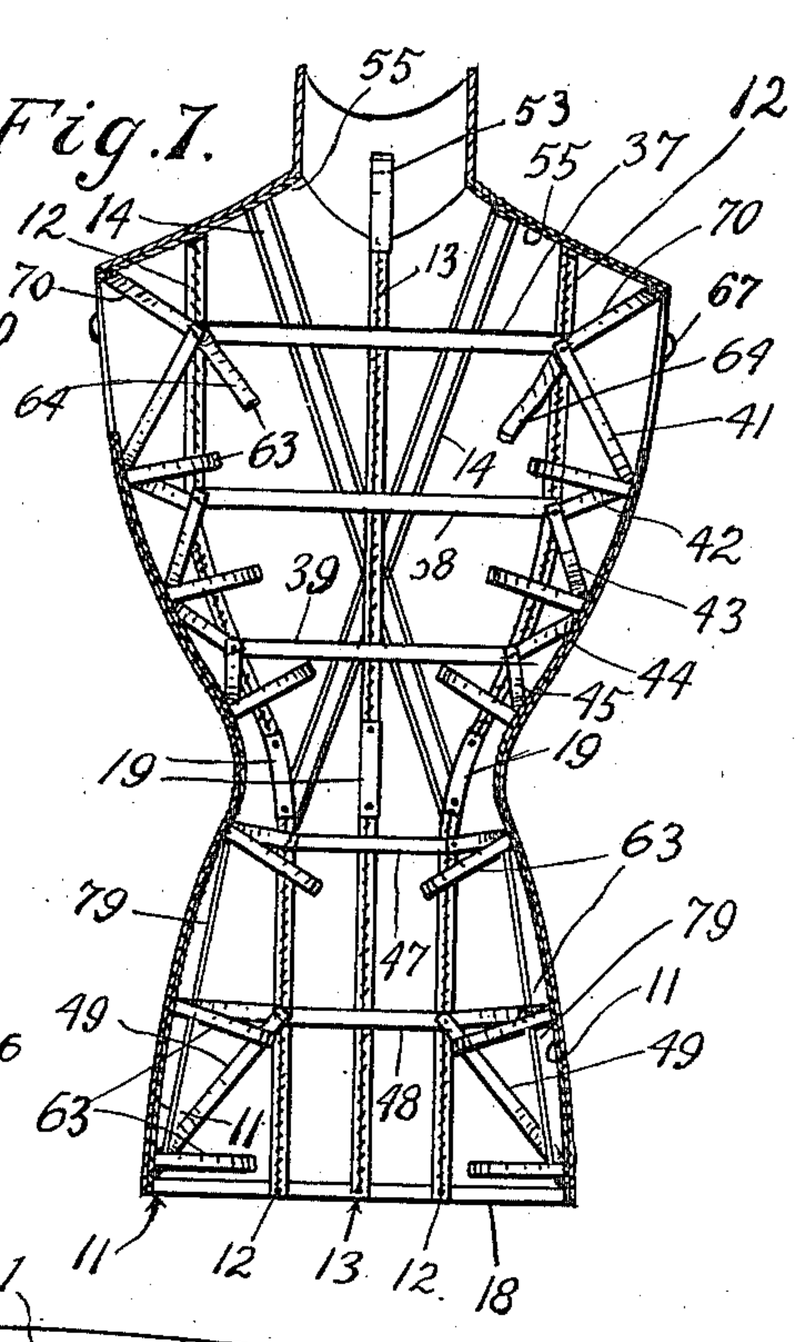


Fig. 8.

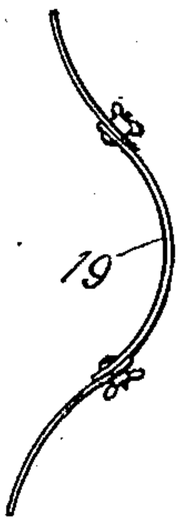


Fig. 9.

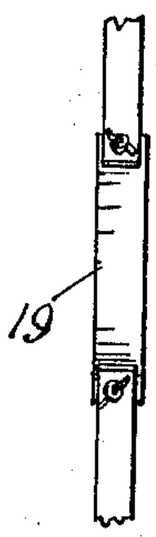
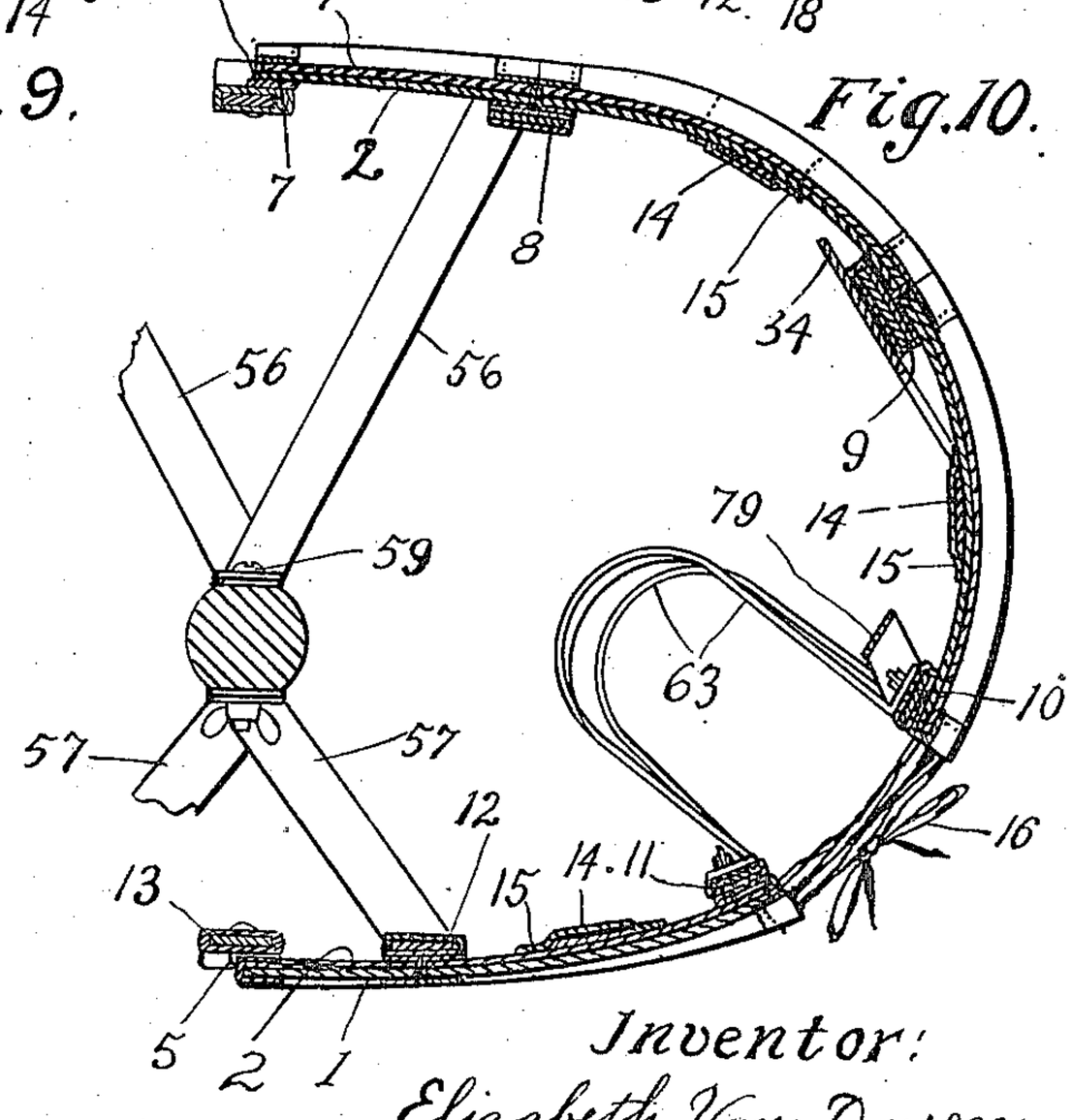


Fig. 10.



Witnesses:

H. H. Hunt.

Rebecca Rosenbaum.

Inventor:

Elizabeth Van Dusen

By Albert H. Merrill

her atty.

UNITED STATES PATENT OFFICE.

ELIZABETH VAN DUSEN, OF LOS ANGELES, CALIFORNIA.

MODEL-FORM FOR GARMENT-FITTING.

974,936. Specification of Letters Patent. Patented Nov. 8, 1910.

Application filed June 24, 1909. Serial No. 504,184.

To all whom it may concern:

Be it known that I, ELIZABETH VAN DUSEN, a citizen of the United States, residing at Los Angeles, California, have invented a new and useful Model-Form for Garment-Fitting, of which the following is a specification.

An object of this invention is to provide a form of the character stated that will accurately represent the shape of the body of the person it is intended to represent and yet be simple, light and portable, and comparatively inexpensive to construct.

Another object is to provide a form that will, in addition to conforming to the shape of a human body, yield inwardly as garments are fitted thereover, thus simulating more closely the nature of a human body so that a dressmaker will be enabled to shape garments to fit with the same degree of nicety as though the person for whom the garment is intended were posing.

Among other objects which will hereinafter appear, may be mentioned the provision of improved means for regulating the thickness of the body from front to rear, the provision of an improved joint for the elbows, and of convenient means for varying the inclination of the body.

Referring to the accompanying drawings which illustrate the invention,—Figure 1 is a front view of the form showing the same in position for use. Fig. 2 is a section thereof on line x^2 of Fig. 1. Fig. 3 is a top view of the form. Fig. 4 is a sectional detail of the elbow joint. Fig. 5 is an enlarged fragmental sectional detail illustrating in perspective the structure of the covering of the form. Fig. 6 is an interior view of the rear section of the form. Fig. 7 is a like view of the front section thereof. Fig. 8 is an enlarged detail in side elevation of bendable means of connection between certain sections of the reinforcing strips of the covering. Fig. 9 is a face view of the strips shown in Fig. 8. Fig. 10 is an enlarged transverse section on line x^{10} of Fig. 2.

The outer covering 1, composed of cane web, is sewed to a strong inner coat 2 of cloth, desirably a heavy galatea cloth. In constructing the covering, the cloth portion thereof is first formed into a garment which closely fits the body of the person to be represented by the form. The garment thus formed is then cut into sections which are laid upon corresponding sections of cane web and bound thereby along the edges by tape strips 3. After the individual sections are all thus completely constructed, they are placed together edge to edge and fastened to each other along their edges by means of wide tape strips 4 which are sewed throughout their mid-width to the under side of each contiguous edge of the covering by means of overcast stitches 5 (shown in two places in Fig. 10). The edges of said strips 4 are left free (as indicated by dotted lines in Fig. 5) so that they may be stitched together by stitches 6 over stiffening strips of spring steel or other resilient material, such of these strips as appear in Fig. 10 being designated by numerals 7 to 13. The outer stitches 30, best shown in Fig. 5, also assist in holding the sections of the covering together. Intermediate stiffening strips 14 may be added wherever necessary to stiffen the covering, and be retained in place by cloth strips 15 stitched to the inner side of the covering.

The covering thus constructed and stiffened by the various upright strips is formed into main front and rear sections united above the shoulder but spaced apart throughout their length from the arms downward each side of lacing 16. A segmental stiffening or selvage strip 17 extends along the inner side of the lower edge of the rear section, and a corresponding strip 18 is provided for the front section (see Figs. 6 and 7). These strips may be attached to the covering by strips of tape similar to the tape 4 already described.

The strips 7 to 13 are each formed in upper and lower sections separated from each other by being longitudinally spaced apart at the waist and there united by bolting to pieces 19 of soft untempered metal which tend to maintain themselves in any shape to which they may be bent. This construction makes it possible to give additional inward curvature at the waist to copy more closely the human figure, and also assists in yieldingly maintaining the strips or sections 7 to 13 in adjusted position.

By constructing the body of the form of cane web and cloth, thus providing a relatively flexible wall therefor, the shape of which may be modified by the combined action of the U-shaped springs and lacing, it is possible to vary the contour of the form to a

nicety and in a more satisfactory manner than could be done if the wall of the form consisted of an inflexible shell.

The covering of the form is mounted upon a supporting framework which will now be described. Said framework consists of front and rear sections corresponding to the main sections of the covering. Each section of said framework consists chiefly of a series of resilient segmental strips extending along the underside of the covering in directions more or less circumferential with respect to the body of the form.

Referring to Fig. 6, the rear or back section of the framework is desirably provided above the waist with the upper cross-piece 21, middle cross-piece 22 and lower cross-piece 23. The ends of these cross-pieces are bolted to the strips 8. To each end of the cross-piece 21 is fastened a curved rib 24 the other end of which is fastened below the arm-pit to the strip 10. Another rib 25 is fastened to the same point and connects the cross-piece 22 therewith. Farther down, ribs 26 and 27 corresponding to ribs 24 and 25 extend from cross-pieces 22 and 23 to the side piece 10, this arrangement being duplicated on the other side of the form. Ribs 28 connect the ends of the cross-piece 23 with the lower ends of the upper sections of the pieces 10.

Below the waist the back section of the form is provided with cross-pieces 31 and 32 from which radiate ribs 33, 34, 35 and 36 constructed and arranged on the plan of the upper ribs. Rib 36 is fastened to strips 10 and 17 at their junction.

In Fig. 7 the main front section of the frame-work is shown provided above the waist with a chest strip or brace 37, a breast strip 38, and stomach strip 39. Ribs 41, 42, 43, 44, and 45 are also provided, these ribs and strips being arranged with respect to the upright strips 11 and 12 according to the plan already described for the back of the form. Below the waist the front of the form may be provided with cross-pieces 47 and 48 and with the braces 49 the lower ends of which are fastened to the selvage strip 18 where said strips join the strips 11.

To support the form, a pedestal 49[a] is provided, in which is mounted a stem 50 adjustably supported by the thumb-screw 51. The form is attached to an upper section 52 of stem 50 by means of the internal downwardly radiating arms 53 the upper ends of which are fastened to the top of the stem desirably by a single nail or screw 54. The lower ends of these arms are fastened to the upper portion of the framework, two of them preferably being bolted to shoulder braces 55, and a third to the upper section of strip 13 (see Fig. 7).

The lower portion of the form is adjustably connected with the supporting stem by means of the rear braces 56 and front braces 57. Said braces may all be secured to the stem at their upper ends by a single bolt 59. The lower ends of these braces are slotted to receive bolts 61 which adjustably connect them with the selvage strips 17 and 18. By this arrangement the inclination of the body may be varied to secure the desired posture.

The upper section 52 of the stem is desirably of wood and may be secured to the lower metal section 50 by means of a pipe coupling joint 62.

Springs 63, desirably strips of steel each bent to a U-shape, are arranged in a vertical series along each side of the form to vary its width by operating in opposition to the lacing 16. The ends of said springs are bolted to the edge strips 10 and 11, desirably at the points the various ribs are attached to said strips so that a single bolt may suffice for several pieces at each point of fastening.

Certain internal connections, desirably straps provided with buckles, are employed to assist in regulating the contour of the covering. Such connections as shown in Fig. 2 may consist of straps 64 provided with buckles 65. The lower end of said straps are shown in Fig. 6 and their upper ends in Fig. 7. The upper ends of these straps are attached to the cross-piece 37 and to the end portion of the strips 70 which extend upwardly along the under side of the covering of the back portion of the form across the shoulder portion thereof and terminate at the chest. From this point the straps lead to the back portion of the form being desirably attached thereto so that shortening the straps brings the covering down in place across the chest and also assists in contracting the waist.

The arms are provided at their upper ends with inwardly directed lugs 66 which are hooked into eyelets 67 on the shoulder to support the arm.

The stiffening strip 68 (see Fig. 4) of upper section of each arm is pivoted to the strip 69 of the lower section thereof by a bolt 71. At the outer curve of the elbow joint the upper section of the arm is provided with a segmental metallic strip 72, and the other section of the arm is provided with a corresponding strip 73. Said strips 72 and 73 are inclosed by a pear-shaped metallic loop 74 desirably of spring steel which may be fastened to a stiffening strip 75 with which the lower arm-section is provided. The loop is arranged to cause friction enough to maintain the arm in adjusted position. Both ends of the resilient loop 74 are fastened to the same section of the arm, one being placed flatwise upon the other thereby securing double the amount of stiffness in the spring to what would result if one end only of the spring loop were made fast at that point. Said spring loop oper-

ates by frictional resistance caused by the loop engaging one section of the arm under tension, to hold the sections of the arm in adjusted position.

The various parts of the framework are detachably held together by short bolts and thumb-nuts of the character shown in Fig. 4.

The arms are provided with triangular cuts 77 where they join the body to provide a smooth fit.

The edge strips 10 and 11 are provided with eyelets 78 with which the lacing 16 is connected. Said edge strips are outcurved below the waist and are maintained in the curved position by internal tie strips 79 fastened to the ends of the lower section of the edge strips as shown in Figs. 1 and 7.

The thickness of the covering and of the strips of the framework is exaggerated in the drawings for clearness of illustration. In Fig. 10, for example, the strip 9 and its tape covering is shown so thick as to make the brace 34 stand out from the inside of the covering, but it is to be understood that in reality the strips 34 and any strips which cross each other lie practically snug against the inside of the covering.

I claim:

1. In a form for garment fitting, a body portion having a frame work provided with longitudinal strips of resilient metal, said strips consisting of upper and lower sections separated from each other by being spaced longitudinally apart at the waist line, a section of relatively soft more flexible metal uniting said sections at their adjacent ends, and a covering, said uniting section of metal being adapted to maintain the portion of the covering extending thereover in any curve to which it may be bent.

2. A model form for garment fitting comprising a covering consisting of sections spaced apart below the waist and outcurved along the edges next said space, resilient reinforcing strips extending along said edges, and internal tie-strips connecting upper and lower portions of said resilient strips to maintain the curve thereof, said resilient strips constituting selvage strips to maintain the contour of the edge portions of the covering of the form.

3. A model form for garment fitting having a relatively flexible covering, a resilient strip extending upwardly along the under side of said covering from the back portion of the form across the shoulder portion thereof and terminating at the chest, and a connection fastened to said strip and leading from the portion of said strip underlying the chest transversely of the form to another part of the form to maintain the curve of said strip where it underlies the shoulder.

4. In a form for garment fitting a supporting stem within said form, a covering therefor, a plurality of downwardly and outwardly radiating strips fastened to said stem, supporting means in the neck portion of said form to permit the same to swing thereon to a limited extent, said strips having slotted lower ends, and means at the bottom of said form in substantially the same plane with the covering thereof to engage said slots, said means being adjustable to different points along the slots to vary the inclination of the form.

5. A form for garment fitting provided with a joint having hollow sections, a strip of resilient material bent into a loop and having one of its ends placed flatwise upon the other and both fastened to one section of the joint, the bent portion of said loop engaging the interior of the other section of the joint to hold the same yieldingly in adjusted position.

6. A form for garment fitting having a limb provided with two sections, a pivot pivoting said sections together, said sections being hollow adjacent to said pivot, the wall of said sections being cut away at one side of the joint to permit flexion of the limb, and a spring bent into a loop and having its ends brought together and made fast to one of the sections, said loop tending to spring against the side of the joint opposite the cut-away portion thereof to hold the sections of the limb friction-tight in adjusted position.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses at Los Angeles, in the county of Los Angeles and State of California, this seventeenth day of June 1909.

ELIZABETH VAN DUSEN.

Witnesses:
ALBERT H. MERRILL,
FLORA H. FOSS.