I. LEVIN.

COLLAPSIBLE GARMENT FORM.

APPLICATION FILED MAY 16, 1912.

1,039,764.

Patented Oct. 1, 1912.

2 SHEETS—SHEET 1.

Fig. 1.

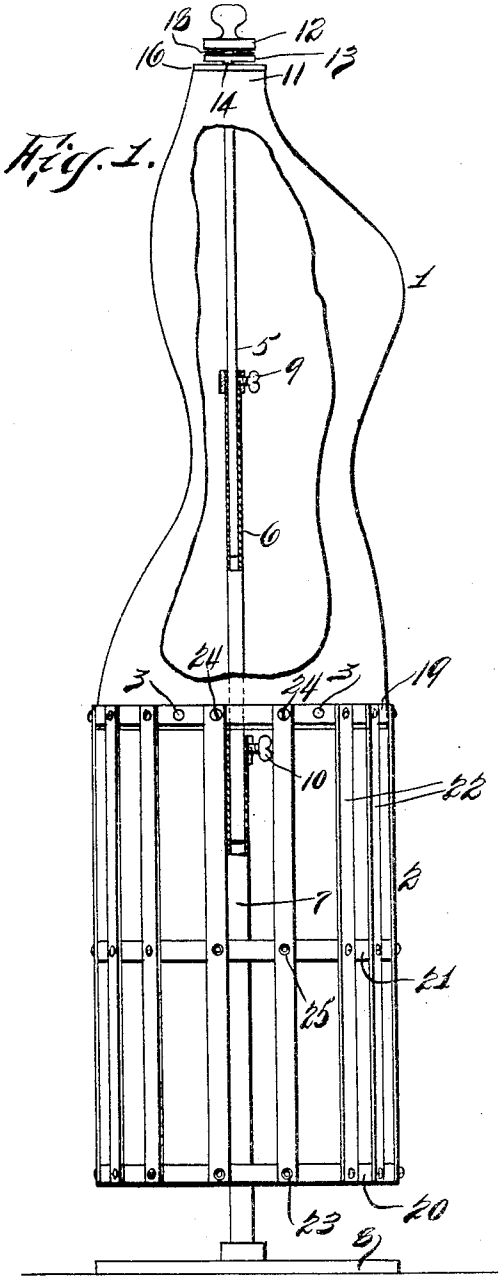



Fig. 2.

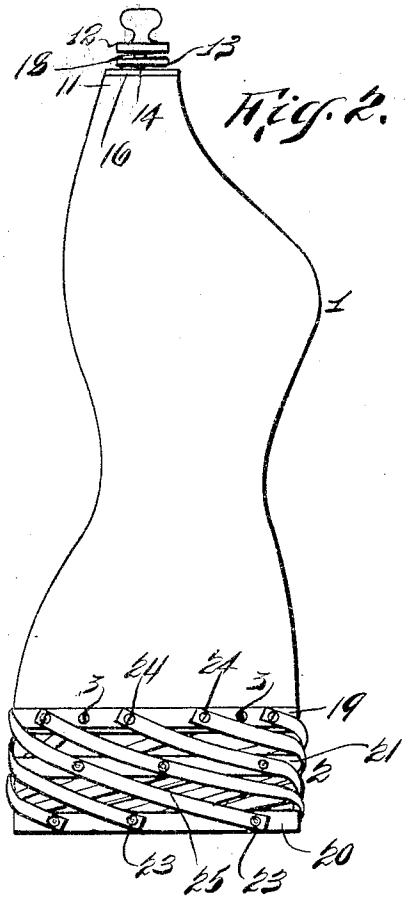
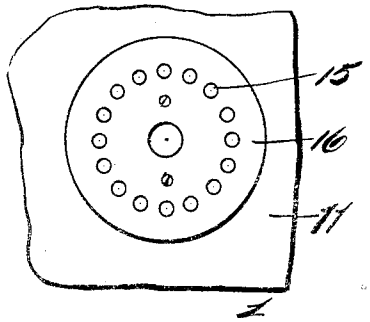



Fig. 4.



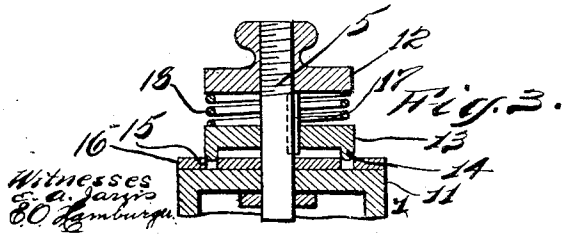




Fig. 3.

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2 SHEETS—SHEET 2.

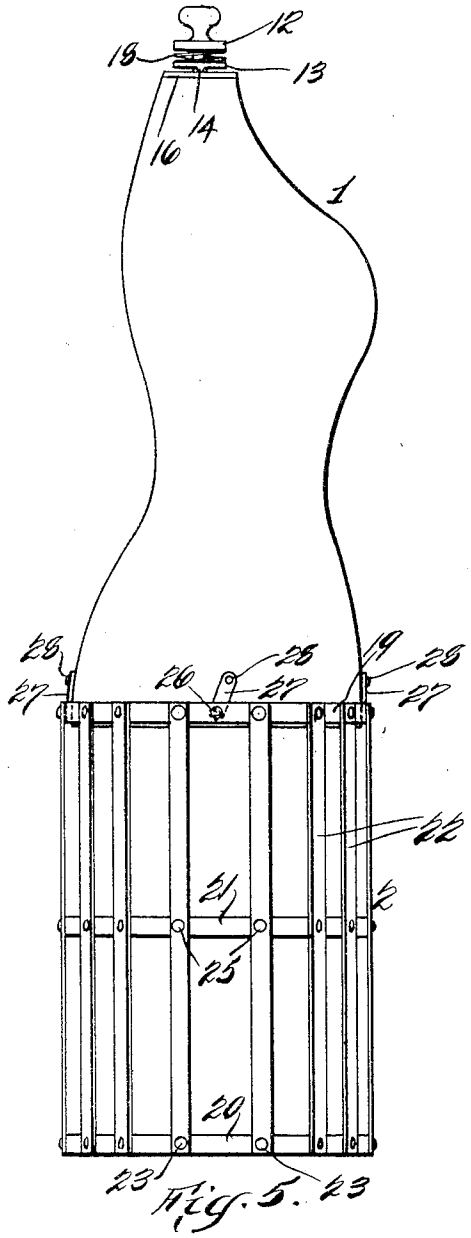


Fig. 5.


Fig. 6.

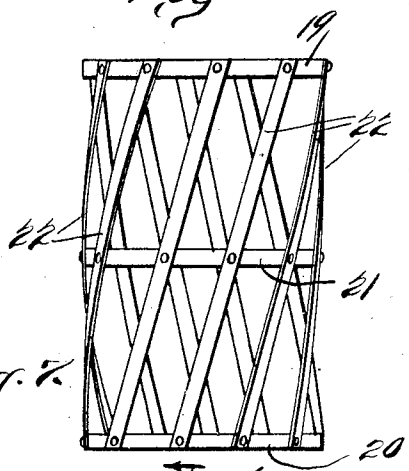


Fig. 7.

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# UNITED STATES PATENT OFFICE.

ISAAC LEVIN, OF NEW YORK, N. Y.

## COLLAPSIBLE GARMENT-FORM.

1,039,764. Specification of Letters Patent. Patented Oct. 1, 1912.

Application filed May 16, 1912. Serial No. 697,624.

*To all whom it may concern:*

Be it known that I, ISAAC LEVIN, a citizen of the United States of America, residing at the borough of Brooklyn, county of Kings, city and State of New York, have invented certain new and useful Improvements in Collapsible Garment-Forms, of which the following is a full, clear, and exact description.

This invention relates to an improvement in dress-forms, but more particularly to a skirt portion which is secured to the bust-portion of the form, the object being to provide a collapsible skirt portion, which may be greatly reduced in length for the purpose of storing the form in a comparatively small space for the purposes of shipment or for any other reason.

A further feature of my invention comprises a device for locking the bust-form to a support therefor, for the purpose of preventing the rotation of the form during the operation of collapsing or folding the skirt portion thereof.

One of the chief advantages of my improved collapsible skirt portion is that it can be reduced in length without the necessity of disconnecting any of its parts, it being made out of resilient and preferably flat steel strips, the said strips being pivotally secured together. The upper end of the skirt portion is secured to the bust-form in such manner as to prevent the rotation thereof, during the operation of folding or collapsing.

Although the upper end of the skirt portion is held against rotation, the lower end thereof is, however, adapted for a partial rotary movement, whereby the vertical members which form a part of the skirt portion are moved from a vertical to an angular or oblique position sufficiently to bring the lowermost pivotal points far enough out of alinement with the uppermost pivotal points to permit the lower band members of the skirt portion to be moved toward the bust portion, at which time the heretofore straight but resilient strips are transformed into a portion of a spiral or helix.

By virtue of the fact that the strips are flat and made out of comparatively thin spring steel, the said strips will twist during the bending operation which will occur when the lower end of the skirt portion has imparted to it a rotary movement.

I will now proceed to describe my invention in detail, the novel features of which I will finally point out in the claims, reference being had to the accompanying drawings, forming part hereof, wherein:

Figure 1 is a side elevation of a bust-form, having applied thereto my improvements, the bust-form being broken away to show the support therefor, the said support being shown partially in section; Fig. 2 is a side elevation of the bust-form and attached skirt portion, the support being omitted and the said skirt portion, illustrated as partially folded or collapsed; Fig. 3 is an enlarged sectional view of the locking device for the form; Fig. 4 is an enlarged top plan view of the locking plate which forms part of the locking device for the form; Fig. 5 is a side elevation of a bust-form provided with pivotal plates to which the collapsible skirt portion is secured; Fig. 6 is a similar view showing the skirt portion folded or collapsed and moved upwardly and away from the bottom of the bust-form; and Fig. 7 is a diagrammatic detail view, illustrating to some extent the action of the members of the skirt portion during the collapsing operation.

Referring to the drawings, my improved dress-form comprises the bust-portion 1 and skirt-portion 2, which at the upper end thereof is secured to the lower end of the bust-portion as at 3.

The supporting element for the dress-form comprises, in this instance, a plurality of elements 5, 6 and 7, which are slidably connected, the element 5 being a rod which fits in the tubular element 6, which in turn fits in the tubular element 7, the tubular element 7 being carried by a base plate 8.

To adjustably secure the elements 5, 6 and 7 together, I provide set-screws 9 and 10. As can be seen, the upper end of the rod 5 passes through the neck portion 11 of the bust portion of the form and is threaded at the extreme end to receive a plate 12, which forms a part of the locking device for the form.

A further element of the locking device comprises a slidable plate 13, provided with lugs 14 adapted to engage openings 15, (see Figs. 3 and 4) in a locking plate 16, which, in turn, is secured to the bust-portion 1. The plate 13 is slidably mounted upon the rod 5 but is held against rotation by means of a feather 17 carried by the rod 5. A further element of the locking device com-

prises a spring 18 which acts to normally press the plate 13 downwardly, toward the plate 16, and which keeps the lugs 14 in engagement with the openings 15 in the locking plate 16.

The function of the locking device is to hold the dress-form against rotation during the fitting of a garment or the folding or collapsing of the skirt portion, that is to say, to hold the dress-form against any rotation that might be otherwise imparted to it by the placing of the hand upon the form to smooth out the wrinkles of a garment or during the sewing thereof, but it should be understood that the form may be rotated upon the support by exerting enough pressure upon the form to cause the lugs 14 to move out of engagement with the openings 15, against the tension of the spring 18.

As herein illustrated the skirt portion 2 comprises an upper band member 19, which is secured to the bust-portion 1, a lower band member 20 and an intermediate band member 21, the said band members having secured thereto a plurality of strips 22, which, when the skirt portion is extended, as shown in Fig. 1, will be vertically disposed. In order to carry out the object of this portion of my invention, I connect the said band and strip members in such manner that they will move one upon the other, in order that the lower end of the skirt portion may have imparted to it a partial rotary movement, in order to bring the lower pivotal points 23 out of alinement with the upper pivotal points 24. The lower end of the form may be partially rotated either to the right or to the left.

It will be evident from the above statements that the connection existing between the elements of the skirt portion is pivotal and, in this instance, the pivotal connection at 23, 24, and 25 is effected by means of eyelets but rivets or any other mechanical expedient may be resorted to.

As shown in Fig. 1 the upper end of the skirt portion 2 is rigidly secured to the lower end of the bust portion by means of screws 3, screws being employed in order that the bust portion and skirt portion may readily be disconnected, although any other means whereby the two parts may be separated can be employed.

As shown in Fig. 5 the skirt portion 2 at the upper end thereof is pivotally secured as at 26 to plates 27, which in turn are pivotally secured to the bust-portion 1 as at 28.

When secured, as illustrated in Fig. 1, the skirt portion, when folded, will not come exactly flush with the bottom of the bust-portion, that is to say, the band members 19, 20 and 21 will not all be located above the bottom of the form; therefore, the form when prepared for storage will be slightly longer than when the pivotal plates (Fig. 5) are employed. When the pivotal plates 27 are employed, the skirt portion 2, when folded may be moved upwardly beyond the lower end of the bust-portion, as shown in Fig. 6. When the pivotal plates 27 are employed, the skirt portion, after being collapsed can be pushed upwardly and away from the bottom of the form for the reason that the plates 27 will swing upon the pivots 28, there being enough play between the band member 19 and bust-form to permit the said plates to swing upon their pivots.

I will now endeavor to make clear the operation of collapsing the skirt portion. As has been stated the skirt portion comprises band members and resilient strips which are pivotally secured thereto, the said structure being adapted for a partial rotation at the lower end thereof, whereby the strip members are moved to an oblique position in order that the lower and intermediate pivotal points may be brought sufficiently out of alinement with the upper pivotal point in order that the band members may be forced toward each other, whereby the skirt portion is reduced in length or collapsed.

In describing the collapsing operation, Fig. 7 will be referred to. In order to collapse the skirt portion the said skirt portion at the lower end thereof, will have imparted to it a partial rotary movement; say, for instance, in the direction of the arrow 29 in Fig. 7, I find in practice that in order to carry the lower and intermediate pivotal points far enough out of alinement with the upper pivotal points, I have to turn, twist or rotate the lower end of the skirt portion about one-half way around. As the upper end of the skirt portion is anchored, so to speak, or at least held against any great amount of rotation, the upper pivotal points act as a fulcrum about which the strips 22 would rotate if they were not secured at their lower ends. When the lower end of the skirt portion has imparted to it the necessary rotary movement, the strips 22 will be subjected to a so to speak compound movement, one of which is radial, the other a movement tending to bow them. As the said strips are secured at their upper ends in such manner as to prevent their position, relative to the band member to which they are secured, from changing, and as the said strips are secured at their lower ends and intermediate their ends to similar band members, there must be a resultant of the two forces, one of which acts to swing the band members upon the upper pivotal points, the other of which acts to bow the said band members, the resultant force being a twist of the strips.

As the upper end of the strips are piv-

otally secured at a point which does not change and as the lower ends of the strips and intermediate portions are secured to members which rotate, it is quite apparent with the aid of Fig. 7 that the said strips will be caused to assume a helical formation, which virtually transforms each into a portion of a convolution of a coil spring.

When the strips have had imparted to them the necessary helical formation, the lower and intermediate band members 20 and 21 may be pushed together until the structure assumes the position shown in Figs. 2 and 6. It may be here stated that the skirt portion as illustrated in Fig. 2 is but partially collapsed, it being so shown for the purposes of a clear understanding.

A further feature of my improved bust form is that it will automatically open or assume the position shown in Fig. 1 after it has been slightly pulled outward when in folded position.

When the lower end of the skirt portion is twisted to cause its collapse the twisted and bowed strip members 22 will be placed under tension and will form a structure having the nature of a coiled spring.

When the skirt portion is folded to its full extent, the tension of the strip members will not, however, be sufficient to open or extend the skirt portion unless assisted by a slight outward pull.

Having now described my invention, what I claim and desire to secure by Letters Patent is:

1. A garment form comprising a bust portion and a skirt portion, said skirt portion comprising an upper band member secured to said bust portion, a lower band member, an intermediate band member and flat resilient strips pivotally connected to said band members, the lower end of said skirt portion being adapted for a partial rotation, whereby said strips can be partially rotated about their upper pivotal points and bowed intermediate the upper and lower pivotal points to cause said strips to assume a helical formation, so that said band members can be forced toward each other.

2. A garment form comprising a bust portion and a skirt portion, plates pivotally secured at one end thereof to said bust portion, a skirt portion comprising an upper band member pivotally secured to the free end of each of said plates, a lower band member, an intermediate band member and flat resilient strips pivotally connected to said band members, the lower end of said skirt portion being adapted for a partial rotation, whereby said strips can be partially rotated about their upper pivotal points and bowed intermediate the upper and lower pivotal points to cause the strips to assume a helical formation so that said band members can be forced toward each other.

3. A garment form comprising a bust portion and a skirt portion, said skirt portion comprising a plurality of band members and a plurality of resilient strip members pivotally connected thereto, one of said band members being secured to said bust portion, the lower end of said skirt portion being adapted to have imparted to it a twisting movement, whereby said skirt portion can be collapsed, and means for preventing the rotation of said bust form during the twisting of said skirt portion.

4. A garment form comprising a support, a bust portion rotatably mounted thereupon, a plate provided with openings secured to the upper end of said form, a plate provided with lugs adapted to engage the openings in said plate, a spring adapted to keep said lugs in engagement with the openings in said plate and a backing for said spring carried by said support.

5. A garment-form comprising a bust-portion and a skirt-portion, the skirt-portion comprising a plurality of horizontally disposed band-members and vertically disposed resilient strips pivotally connected to said bust-portion and said band-members, the lower end of said skirt-portion being adapted for a partial rotation whereby said strips can be partially rotated about their upper pivotal points and bowed intermediate the upper and lower pivotal points to cause the strips to assume a helical formation so that the band-members can be forced toward the bust portion.

Signed at New York city, N. Y., this 15 day of May 1912.

ISAAC LEVIN.

Witnesses:

EDWARD A. JARVIS,

ESTELLE O. HAMBURGER.