May 19, 1931. C. D. THOMA 1,805,709

FORM FOR WASHING AND DRYING GLOVES

Filed June 19, 1929

Fig. 1

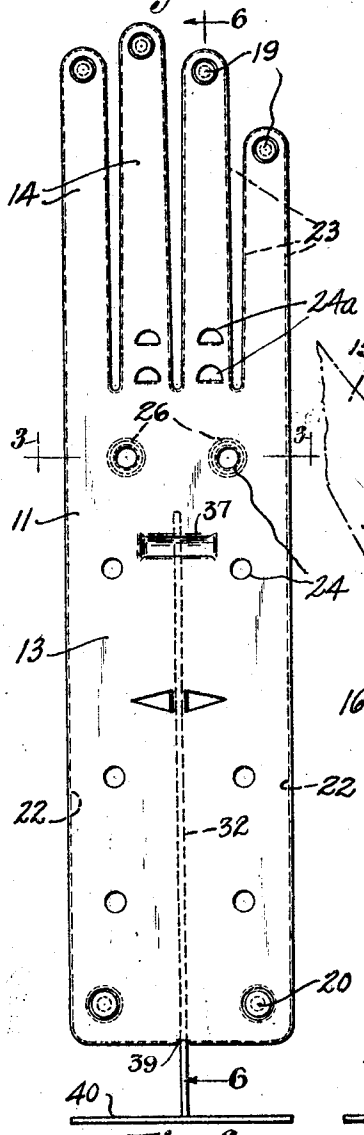


Fig. 2

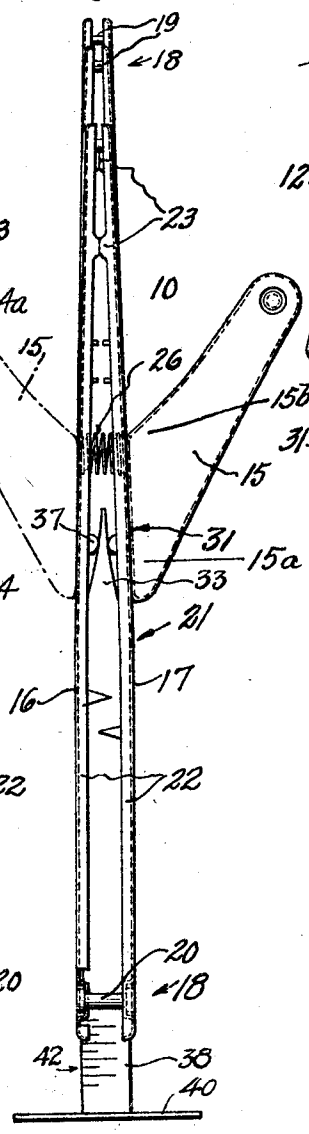
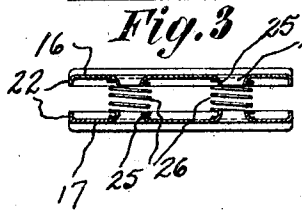


Fig. 3



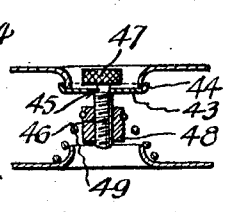


Fig. 7

Fig. 4



Fig. 5

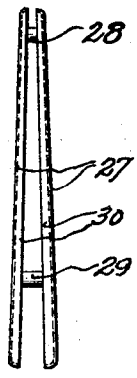
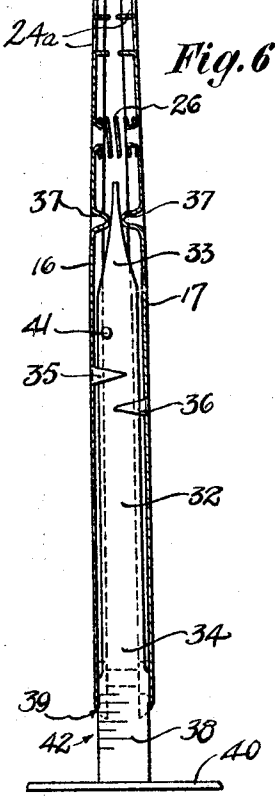


Fig. 6



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UNITED STATES PATENT OFFICE

CORALLIE D. THOMA, OF NEW YORK, N. Y.

FORM FOR WASHING AND DRYING GLOVES

Application filed June 19, 1929. Serial No. 372,100.

This invention relates to glove forms or the like, and has particular reference to devices for washing and drying gloves or similar articles.

The device provided by this invention consists of a simple correctly shaped glove form that includes an improved, separate thumb piece, on which to quickly wash and air-dry or dry clean any and all types of washable and dry cleaned gloves, and which form may be made of any metal, wood, or composition material properly surfaced.

One object of the invention is to provide an improved rigid device of the character described, that is easily inserted into or removed from a glove, regardless of the length thereof, and which holds the glove, particularly at the thumb, neatly, smoothly and reliably in position, and without distorting the lines thereof, or unduly stretching the glove.

In cleaning a glove, the same is treated in various ways well known in the art, though, for purposes of illustration only, it may be stated that the glove is washed. In order to avoid distortion of the glove, and to cause the same to have the proper shape when dried, it is usually preferred to insert a form thereinto. The form also permits a suitably drying means, as, for example, a cloth, to be worked along the outside of the glove to absorb as much water therefrom as possible, to reduce the time for drying, before the glove is put away to be completely air-dried. The shape of the glove form is of great importance, as it determines the shape of the glove when the latter has fully dried, and it may be difficult or impossible to change the form of the glove thereafter. The structure of the glove form directly influences the shape of the glove by creating various stresses and tensions on the glove. Where a wire form is used, these tensions and stresses are not uniform, and act to distort the glove. Also a wire form is difficult to insert into the glove, and does not permit as effective preliminary drying of the glove with a cloth.

Another object of the invention, therefore, is to provide an improved glove form to facilitate the operations above described, and to avoid the difficulties in the use of the wire glove forms.

Another object of the invention is to furnish a device of the nature set forth that includes improved means for aerating the glove to reduce the time for drying.

A further object of the invention is the provision of a device of the class alluded to having an improved removable thumb having improved coaction with the hand proper of the form to facilitate insertion of the device into the glove, and to hold the latter in the most desirable shape, and which may used, if desired, to co-operate with the hand proper for receiving either left or right gloves on a single device.

Other objects and advantages of the invention will become apparent as the specification proceeds.

With the aforesaid objects in view, the invention consists in the novel combinations and arragnements of parts hereinafter described in their preferred embodiment, pointed out in the subjoined claims, and illustrated on the annexed drawings, wherein like parts are designated by the same reference characters throughout the several views.

In the drawings:

Figure 1 is a view in side elevation of a device embodying the invention.

Fig. 2 is an edge view of the same.

Fig. 3 is a horizontal sectional view taken on line 3—3 of Fig. 1.

Fig. 4 is a side view of the thumb.

Fig. 5 is a view in side elevation of a modified glove form.

Fig. 6 is a vertical section taken on line 6—6 of Fig. 1.

Fig. 7 is an enlarged sectional detail of a modified expansion means.

The advantages of the invention as here outlined are best realized when all of its features and instrumentalities are combined in one and the same structure, but, useful devices may be produced embodying less than the whole.

It will be obvious to those skilled in the art to which this invention appertains, that the same may be incorporated in several different constructions. The accompanying

drawings, therefore, are submitted merely as showing the preferred exemplification of the invention.

Generally described, the invention provides a glove form made of plane thin material of any suitable nature, and having a hand proper including four rigid or integral digits, and a separate thumb. The latter has merely abutment relation with the hand proper, without the use of interengaging projecting means. Thus the thumb may be easily inserted into the glove in an expeditious manner. The thumb extends at an angle to the plane of the hand proper, and is adapted for use on either side of the same, so that the form may be utilized for both right and left hand gloves. The thumb has a specially formed base, which is somewhat elongated, and the axis of the thumb may make an acute angle with the direction of the hand proper. The said base may have an extension remote from the axis of the thumb and lying in said acute angle.

It will be understood that the device can be used equally well for articles other than gloves, and generally for articles of a pliable, washable material, and that these are included within the scope of the invention, and referred to in the term glove.

Referring in detail to the drawings, 10 denotes a device embodying the invention. The same includes a form for gloves, or similar articles, which is made of any suitable material that is sufficiently inexpensive for the purpose, and yet possesses ample strength and rigidity to permit the same to be easily inserted into a glove without distorting or tearing the glove. This is important, considering that gloves, particularly those worn by ladies, are often rather delicate. I have found thin sheet metal quite satisfactory for my purpose.

The said form comprises two separate elements 11 and 12, the former including a hand proper 13 and four digits 14, and the latter the thumb 15.

The element 11 consists of a pair of spaced side members 16, 17 which lie in substantially parallel planes. The side members referred to co-operate to provide the said hand proper and the four digits.

Holding the side members 16 and 17 together, whether permanently or separably, as may be desired, are fastening means 18 that are located in any suitable position, preferably at the ends of the form 11. The said fastening means may be movable or rigid in character, as will be readily understood in the art, as by the use of tongues, screws, or the rivets 19, 20. These rivets or their equivalent, are positioned at the tips of the digits and at the base of the form 11. Their heads are preferably countersunk, so that a smooth surface in the said form is assured. The rivets may permit a slight degree of relative movement between the members 16, 17.

The portion of the form 11 at the digits is thinner than at the lower part of the form, to conform to the shape of the glove. This gradation in thickness may be accomplished by making the rivets 20 longer than 19. The side members 16, 17 may lie disposed at a uniform small angle, or lie bent slightly at a point intermediate the ends thereof, as, for example, at 21. The said members are maintained in the spaced relation aforesaid by any suitable means.

The thumb has a base portion 15*a* elongated in the general direction of the glove form, to reliably support the thumb with the axis thereof extending at a uniform acute angle with the glove form. The said base 15 has also an abutment portion 15*b* remote from said axis and lying within the acute angle mentioned to support the thumb at said angle.

Extending along the edges of the side members 16, 17 are flanges 22 to prevent the gloves from being damaged or cut. These flanges extend toward each other, but terminate in spaced relation, both at the hand proper and digits.

The said flanges also serve to strengthen the form and are accordingly made of the requisite width for this purpose. To afford additional re-enforcement at the digits, the flanges thereat have projections 23 in spaced relation to the rivets 19, which projections abut against each other, when the glove form is in its narrowest or collapsed condition. Thus it is impossible by pressure to deform the digits.

Due to the spaced relation above described, aeration and rapid drying of the glove is assured. This object may be further aided by the provision of openings 24 in the members 16, 17, which openings have inturned edges 25 so as not to catch on any portion of a glove. It is believed that the metal of the glove form also aids in causing the glove to dry rapidly. At the third and fourth digits, where drying usually proceeds most slowly, openings 24*a* may be struck in the metal.

Interposed between the side members 16, 17 are resilient means, as, for example, expansion coil springs 26. These are easily set in position about the inturned edges 25. By means of these springs, in combination with the flexible or resilient quality of the side members, the entire structure of the form 11 is rendered expansible and resilient.

The thumb 15 is made of one or more members 27 that are spaced by any suitable pins or rivets 28, 29. Along the edges of the members, extend spaced flanges 30.

The said thumb 15 is made with a base that abuts in any suitable manner against the element 11, for which purpose the said base is straight or lies in a plane 31. The base of the thumb may be elongated to afford ample abut-

ment. The said base may further be so constructed that the thumb extends at an acute angle to the direction of the hand proper as shown in Fig. 2. The shorter edge of the thumb is outwardly curved. Thus an extension is provided in the acute angle remote from the axis of the thumb for reliably supporting the thumb.

In practice, the thumb 15 is first inserted into the glove, and then the element 11 is placed thereinto. The latter automatically bears against the said thumb, so that it fits the glove snugly. In the arrangement shown, the thumb extends substantially at right angles from the element 11, but this will be subject to the particular construction of the device. As the thumb has easy sliding coaction with the element 11, the latter can be readily withdrawn from the glove, and the thumb removed subsequently.

By this invention, a single form 10 can be used for both right and left hand gloves, since the thumb can be positioned on either side of the element 11, as shown in full and dotted lines in Fig. 2.

To expand the glove form, any suitable means may be used, interposed between the members 16, 17. One form of this arrangement consists of a wedge member 32. This may be of any desired width, although it will suffice to make it of sheet metal. The wedge member includes a point 33, and a shank 34. The latter is guided for longitudinal sliding movement by pairs of projections 35, 36 extending from the members 16, 17. The point 33 coacts with depressions 37 struck inward from the members 16, 17, and between which the point engages to spread the glove form. The latter yields through the flexibility or spring quality of the said members to become outwardly convexed. The maximum thickness of the glove form, as expanded by the wedge is intermediate the ends thereof, and at a point corresponding to the thickest portion of the human hand. When the glove is expanded, the spring 26 will not function materially, but it comes into play when the glove form is collapsed to remove the glove, and also when the glove form is used with the smaller sizes of gloves.

To facilitate actuation of the wedge, the shank 34 extends at 38 below the glove form through notches 39 in the flanges 22. At this point the shank is of a width sufficient to fully span the space between the members 16 and 17.

To support the glove form the actuator part 38 has a base or pedestal 40 secured thereto upon which the entire device with a glove thereon may rest in upright drying position.

To limit the extent to which the wedge may be withdrawn from the glove form, a stop 41 is struck in the shank to coact with a guide member 35.

To indicate the extent to which the wedge ought to be moved according to the gloves of different sizes, indicia 42 are provided at the portion 38. This assures that the glove will not be stretched unduly.

In Fig. 7 is shown a modification of the invention in which the expansibility of the element 11 can be adjusted by any suitable means, but one form of which is shown. Thus a washer 43 has an annular rim flange 44 to receive the inturned edge 25 at an opening 24. Extending through the washer and journaled therein at 45 is a screw 46 having a knurled head 47 that is countersunk. The said screw coacts with a nut 48 that is suitably fixed to an end of an expansion coil spring 49, whose other end may engage frictionally or otherwise, an adjacent inturned edge 25. By operating the screw 46, the element 11 can be expanded or permitted to contract, so that gloves of various sizes may be placed on the same form. Nevertheless, a slight tension due to the expansibility of the spring, may always be retained within predetermined limits. This is important, since a leather glove can stretch very easily when wet, and thus become of an excessive size.

It will thus be seen that I have provided a device which fulfills the several objects of the invention and is well adapted to fulfill the conditions of practical use.

I claim:

1. A device of the character described, including a form for gloves, said form including a hand proper and four digits therewith, and a thumb wholly separate from the hand proper, said thumb having a base portion to abut the hand proper, the said base portion and a portion adjacent to an edge of the hand proper constituting a plane sliding and abutment area for the base of the thumb, whereby the latter may be adjustable along the hand proper, and the thumb insertable into the glove with a uniform sliding contact of the base thereof along the hand proper.

2. A device of the character described, including a form for gloves, said form including a hand proper and four digits therewith, and a thumb wholly separate from the hand proper and having an axis extending at a uniform angle to the hand proper, said thumb having a base portion elongated in the general direction of the glove form to abut the hand proper, the said base portion and a portion adjacent to an edge of the hand proper constituting a plane sliding and abutment area for the base of the thumb, whereby the latter may be adjustable along the hand proper, and the thumb insertable into the glove with a uniform sliding contact of the base thereof lengthwise the hand proper.

3. A device of the character described, including a form for gloves having a hand proper and four digits connected thereto, and a separate thumb being engageable with the

hand proper on either side thereof, to cause the form to be engageable with both right and left hand gloves, said thumb having an axis extending at a substantially uniform acute angle to the plane of the hand proper, said thumb having a base portion elongated in the general direction of the glove form to abut the hand proper and support the thumb at the angle mentioned.

4. A device of the character described, including a form for gloves, said form including a hand proper and four digits therewith, and a thumb wholly separate from the hand proper, said thumb having a base portion to abut the hand proper, said thumb having an axis extending at a substantially uniform acute angle to the direction of the hand proper, said base portion including an extension in the acute angle and remote from the axis of the thumb to abut the hand proper to support the thumb at said angle, the said base portion and a portion adjacent to an edge of the hand proper constituting a plane sliding and abutment area for the base of the thumb, whereby the latter may be adjustable along the hand proper, and the thumb insertable into the glove with a uniform sliding contact of the base thereof along the hand proper.

In testimony whereof I affix my signature.

CORALLIE D. THOMA.