April 12, 1949. C. A. DUKES, JR 2,467,117

SHIRT FRONT STRAIGHTENER

Filed Dec. 16, 1946

FIG. 1

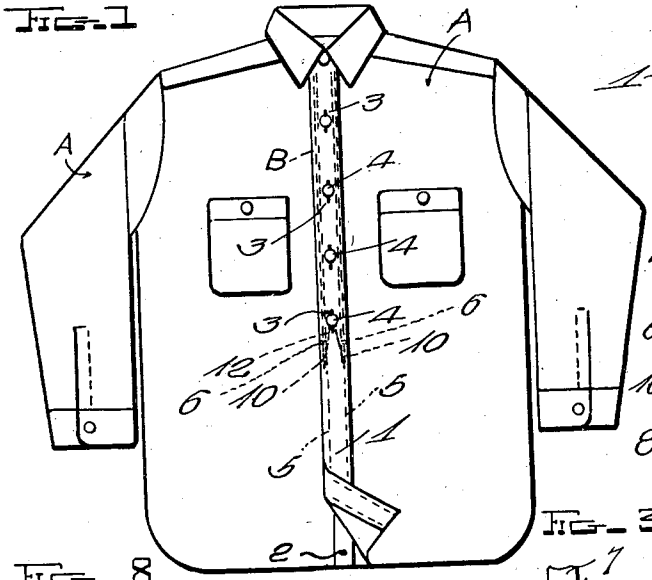


FIG. 2

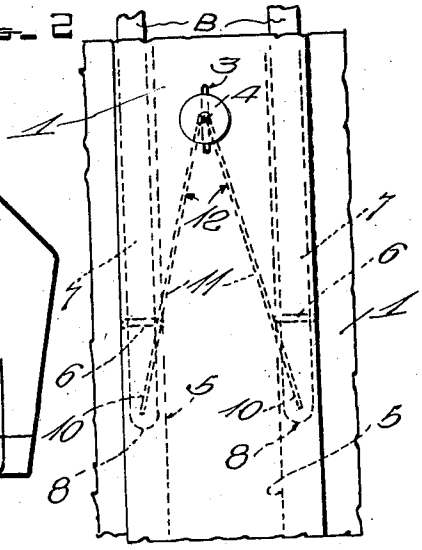


FIG. 3

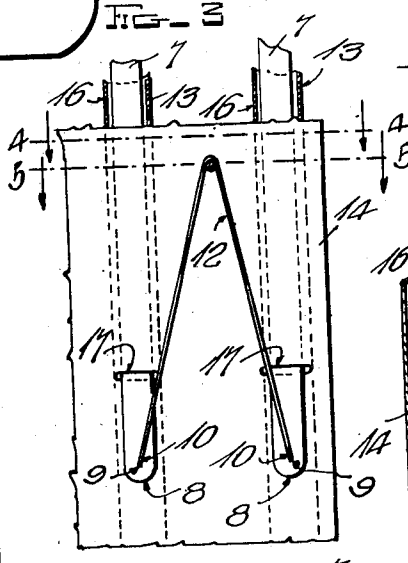


FIG. 8

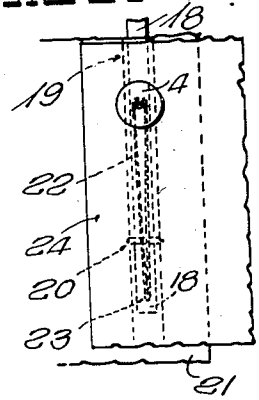
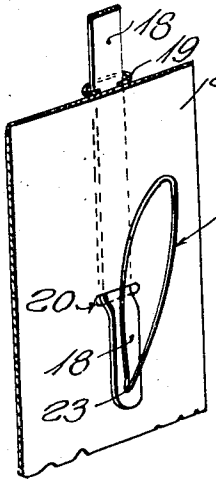


FIG. 9



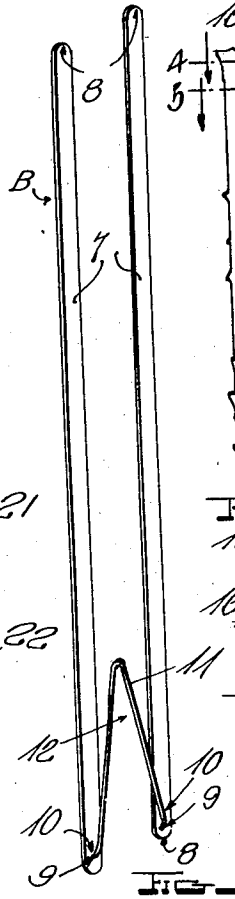


FIG. 7

FIG. 4

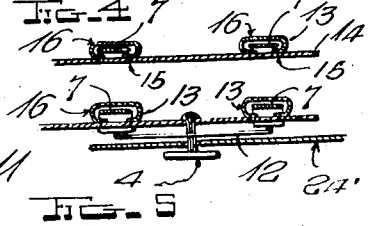
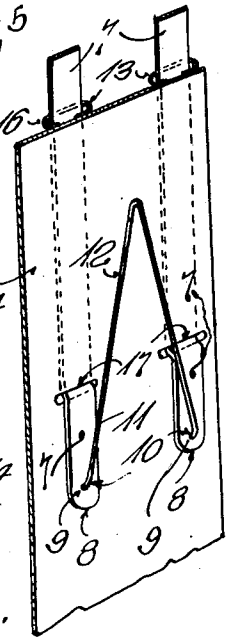


FIG. 5

FIG. 6



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SHIRT FRONT STRAIGHTENER

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3 Claims. (Cl. 2—120)

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Generically this invention relates to shirts, but it is more particularly directed to men's shirts of the type opening down the front with overlapping portions detachably secured together by buttons on the inner portion and corresponding button holes on the outer portion.

Shirts of this type tend to bulge, and to gap apart between buttons by reason of the change in position and posture of the wearer and, therefore, the principal object of this invention is to provide a simple means attachable to the shirt to maintain the front substantially smooth irrespective of the changing positions of the wearer.

Another important object of this invention is the provision of flexible stay means attachable to the overlapping center plate or panel of the usual type of men's negligee or dress shirts, concealed from view, and adapted to keep the front of the shirt straight, and prevent bulging, but without discomfort to the wearer.

A further important object of this invention is the provision of stay means attachable to the overlying or underlying center panels or portions in a manner to support the shirt throughout the entire length of the stays, and at the same time permitting relative movement thereof with respect to the attachable means and freedom of movement of the wearer without binding or discomfort.

Another important object of this invention is the provision of a pair of flexible stays insertible in the usual hems of the overlapping center panel of a shirt through openings therein, and loop means attached to the lower end of the stays and looped over or attached to a button above said lower ends.

A further important object of this invention is the provision of a single stay secured throughout its length to the under surface of the underlapping portion of the shirt in a manner to permit slidable movement of the stay, said stay being resiliently or otherwise secured at its lower end and completely concealed from view when in operative position.

With these and other objects in view, which will become apparent as the description proceeds, the invention resides in the construction, combination, and arrangement of parts, hereinafter more fully described and claimed, and illustrated in the accompanying drawings, in which like characters of reference indicate like parts throughout the several figures, of which:

Fig. 1 is a front view of a shirt showing in dotted lines my improved shirt front straightener device in operative position.

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Fig. 2 is an enlarged fragmentary front view of Fig. 1.

Fig. 3 is a fragmentary sectional elevation of a modified form of the device showing the stays mounted on the under surface of the inner underlapping portion, and anchor means therefor.

Fig. 4 is a horizontal section taken on the line 4—4 of Fig. 3.

Fig. 5 is a horizontal section taken on the line 5—5 of Fig. 3.

Fig. 6 is a fragmentary sectional perspective view of the form shown in Fig. 3.

Fig. 7 is a perspective view of the stays or straighteners and anchor loop means in detached position.

Fig. 8 is a fragmentary front elevation of another form showing a single stay and anchor loop lines in operative position.

Fig. 9 is a fragmentary sectional perspective view of the single stay shown in Fig. 8, partly in dotted lines, and showing the anchor loop in full lines.

The types of devices of this general character with which I am familiar have proven deficient in many respects, such as for instance, being attachable to the collar button or to the shirt in the same general area, and at their lower ends to the shirt fabric in a manner susceptible of becoming detached when the shirt is being worn, the means of attachment tending by repeated use to injure the shirt fabric, and at the same time tending to permit disalignment of the shirt intermediate the ends of the device, and it was to overcome such disadvantages and to provide stay means adapted to support a shirt throughout the entire length thereof, and which may be of any desired length, their lower ends being resiliently or otherwise anchored to a selected button and permitting limited relative movement of the stays with respect to the shirt, whereby freedom of movement of the user is permitted and smoothness of the shirt front maintained without strain on the shirt or device and without discomfort to the wearer, that I designed the shirt straightener device forming the subject matter of this invention.

In the illustrated embodiment characterizing this invention there is shown a shirt A of the negligee type and a shirt front straightener device B. The shirt A, in the present instance, is formed with a center panel or plate 1 adapted to overlap the underlying opposite extending edge of the shirt 2 formed with a series of button holes 3 through which are adapted to engage buttons 4 sewed or otherwise suitably secured to the un-

derlying portion 2 as will be well understood. The upper overlapping center panel 1 is usually formed with hems 5 and to mount the device B on shirt A it is only necessary to cut a transverse slot 6 through the inner or under wall of the hem 5 to the inner surface of the shirt, as and for a purpose directly more fully appearing.

The straightener device B (Fig. 7) comprises a pair of flexible elongated stays 7, in the present instance, rounded at their ends as at 8, and formed at their lower ends with apertures or openings 9 in which is secured in any suitable manner the free ends 10 of a cord 11 formed of elastic cotton, rubber, or other suitable material and forming the anchor loop 12. The stay strips 7 may be formed of plastic, metal, or other flexible material, and to attach them to the shirt it is only necessary to insert the upper ends in the slots 6 formed in the opposite hems 5 and slide them upwardly in said hems substantially their entire length, wherein they remain until removed to permit laundering of the shirt or for insertion in another shirt as will be well understood.

When the wearer dons the shirt and prior to buttoning the button 4 adjacent the lower end of the stays, the anchor loop 12 is engaged over said button and then the panel 1 is secured by buttoning said button, whereupon the device B is completely concealed from view.

Generally the stays 7 are of a length extending from approximately the upper end of panel 1 to a point at or adjacent the waist-line, and the button to which the stays are anchored may be generally the fifth button of the shirt, but may be a higher or lower button dependent upon the height and size of the particular individual wearing the shirt. Different lengths of stays may be desired, therefore a series of transverse openings 6 may be formed below a series of the buttons 4, and the stays may be inserted in the slot next below the desired button to which the anchor cord 12 is to be looped or twisted about to secure the stays, as desired.

Some shirts may not be manufactured with the center panel 1, and in such instance, it may be desirable to secure parallel strips of material 13 to the undersurface of the underlapping edge 14 (corresponding to edge 2, Fig. 1) of the shirt, Fig. 3, the longitudinal edges of the strips being, in the present instance, folded under and secured by stitching 15 forming the stay casing elements 16. The stays 7 are slidably housed in said casings 16 throughout their length (similar to hems 5) as shown in Figs. 3, 4, 5 and 6. In this form the slots 17, corresponding to slots 6 are formed in the normally underlying shirt portion 14 (Figs. 3 and 6) and the anchor loop 12 is looped over the desired button 4 as shown in Figs. 3 and 5. Fig. 5 shows the overlapping portion 24' in secured position. Said portion 24' corresponds to portion 1' (Fig. 1), and portion 24 (Fig. 8).

It is apparent that when the overlapping portion of the shirt A is not formed with panel 1 or when the panel is not formed with hems 5, casings 16 may be secured to the undersurface of said overlapping portion, similar to Fig. 3 with respect to the underlying portion 14, except that the transverse opening 17 will be formed in the casing 16 so that the ends of the stays 7 project downwardly and underlie said overlapping portion, instead of as shown in Fig. 3.

In some instances it may be desired to use, instead of the stays 7, a single stay 18, which form is shown in Figs. 8 and 9. Said stay 18 is similar to one of the stays 7, mounted in casing 19, similar to casings 16 and secured underlying the row of buttons 4, and adapted to extend through a selected transverse opening 20 formed in the normally underlying shirt portion 21 similar to the stays 7 (Fig. 3). A loop 22, similar to loop 12, is secured in opening 23, in the lower end of stay 18 except having both free ends secured therein. Fig. 8 shows the underlying portion 21 (corresponding to portion 2 or portion 14) and overlapping portion 24 (corresponding to panel 1 of Fig. 1) with stay 18 and loop 22 in operative position in dotted lines.

While I have preferably shown the anchor cord in the form of a loop, and elastic, it is to be understood that cords may be attached to the lower end of the stays and tied about the button, if desired. It will also be noted that different length stays may be employed with different sized shirts or as desired by a particular wearer without departing from the spirit or scope of the invention.

It is apparent that the stays are positively supported throughout their length in contact with the shirt front so as to maintain the front smooth and prevent buckling or bulging thereof, and at the same time while maintaining relation with the shirt are adapted for relative movement with respect thereto by reason of the changing body movements of the wearer, and in addition the resilient anchor means attached to a selected button tends to prevent binding whereby comfort is afforded the user, and this is equally true whether a pair of stays are used or only a single stay.

It will likewise be apparent that I have provided reinforcing stay means movably mounted in one or more longitudinal casings forming passages in connection with one of the edge portions of a shirt bosom, which portions are adapted to be arranged in verlapping relation, said portions being detachably connected by buttons constituting anchoring means, flexible loop means connected to the lower end of said stay means and engageable with a selected button to permit movement of said stay means in said passage or passages for preserving the shape of said shirt bosom and without discomfort to the wearer.

Further, the instant device is not only easily installable without material change to the existing shirt structure, but does not damage the shirt or affect its wearing qualities by repeated use. The device is easily removable or transferable from one shirt to another for the purpose of laundering or changing shirts.

It will be apparent that I have designed a shirt straightener device for shirts, blouses, and the like, manufacturable at a negligible cost, simple in construction, easily attachable and removable, and efficient for the purposes intended.

Although in practice it has been found that the form of the invention illustrated in the accompanying drawings and referred to in the above description as the preferred embodiment is the most efficient and practical, yet realizing that conditions concurrent with the adoption of the invention will necessarily vary, it is desired to emphasize that various minor changes in details of construction, proportion and arrangement of parts, may be resorted to within the scope of the appended claims without departing from or sacrificing any of the principles of this invention.

Having thus described the invention, what I desired protected by Letters Patent is as set forth in the following claims:

1. The combination with a shirt of the button-

front type having edge portions arranged in overlapping relation, of anchoring means attached to one of said edge portions, a strip of suitable material secured to the surface of one of said edge portions to form a casing, a stay element arranged in said casing in a manner such that its lower end will extend to the exterior of the undersurface of said edge portion, and a flexible connection between said stay and anchoring means to permit relative movement of the stay with respect to said casing to eliminate binding action on the part of the stay incident to movements of the wearer.

2. The combination with a shirt of the button-front type having its edges arranged in overlapping relation, of anchoring means attached to one of said edges, the other edge being formed with parallel hems, a pair of stays arranged in said hems in a manner such that their lower ends will extend exteriorly of the under surface of said hems, a flexible connection between the lower ends of said stays and said anchoring means, said flexible connection passing over said anchoring means to permit sliding movement of the stays relative to each other and their respective hems to eliminate binding action on the part of the stays incident to movements of the wearer.

3. In a shirt of the button-front type having edge portions in overlapping relation, anchoring means attached to one of said edges, a pair of parallel spaced casings in connection with one of said edge portions, said casings having transverse openings in their undersurfaces, a pair of flexible stay elements arranged in said casings and openings with their lower ends extending exteriorly of said casings, and a flexible connection between the stays and said anchoring means, said flexible connection engaging said anchoring means to permit movement of said stays relative to each other and their respective casings to eliminate binding action on the part of the stays incident to movements of the wearer.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
232,696	Devereux	Sept. 28, 1880
2,244,167	McGee	June 3, 1941