June 15, 1943. J. W. STEELE 2,321,870

SHIRT IRONING, FINISHING AND FOLDING OPERATIONS

Original Filed July 2, 1938

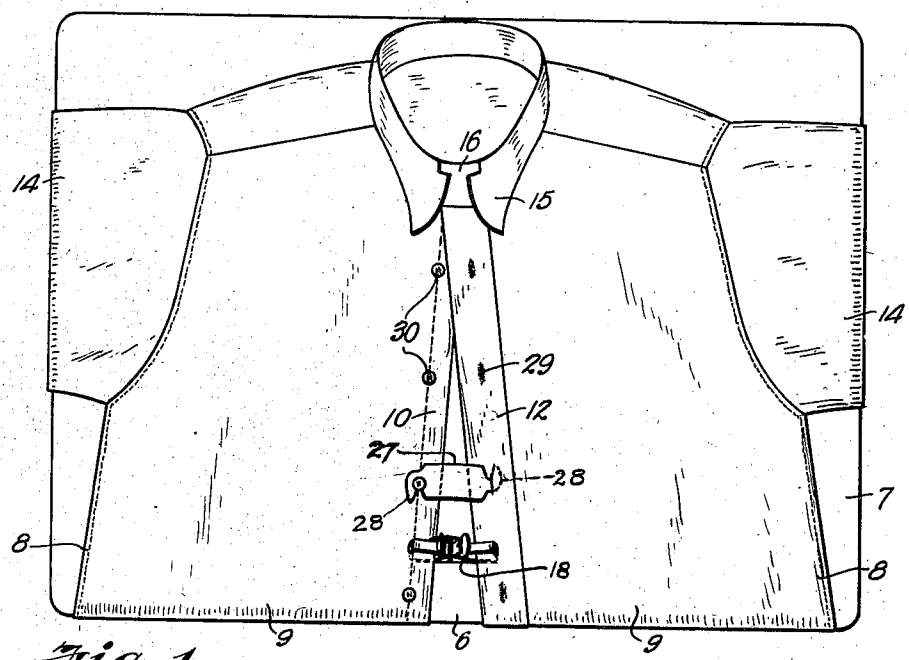
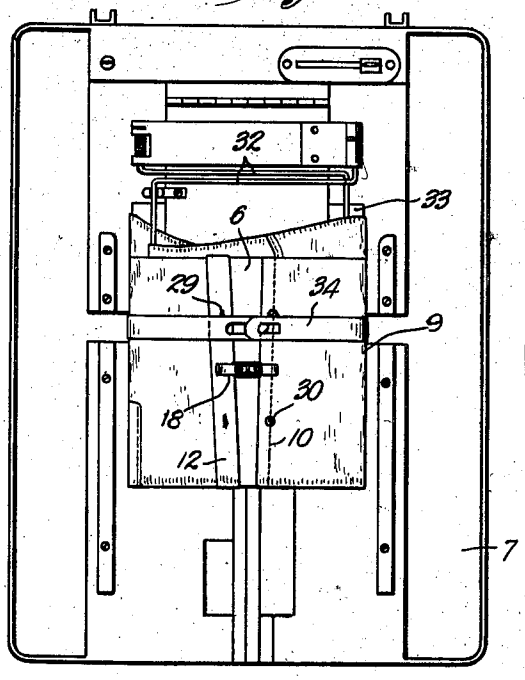


Fig. 1.

Fig. 2.



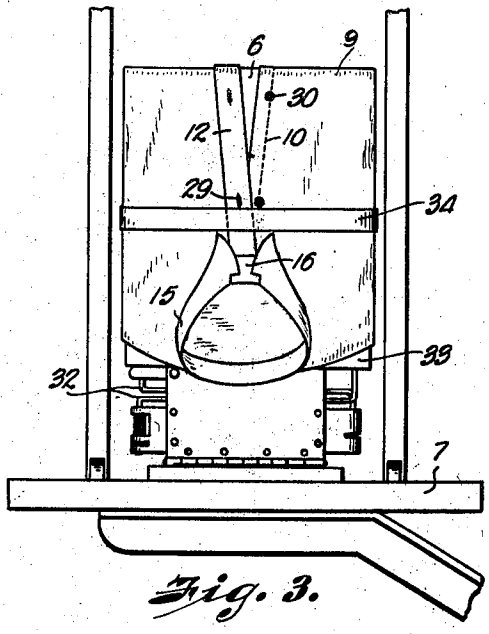


Fig. 3.

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SHIRT IRONING, FINISHING AND FOLDING OPERATION

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Original application July 2, 1938, Serial No. 217,206. Divided and this application December 22, 1941, Serial No. 423,922

3 Claims. (Cl. 38—144)

This invention pertains to improvements in shirt ironing, finishing and folding operations, such as those involved in garment factories and laundries, and relates particularly to the ironing and finishing of the body of the garment or shirt just prior to the folding of the same in the final stage of the process.

The primary purpose of the invention is to devise a method for retaining the garment or shirt in such a position for operation that the regular ironing or finishing treatment may be carried out without producing wrinkles or objectionable creases in either the front or the rear face of the garment; and for accomplishing this result in the present case the invention employs means for holding the front portions of the shirt in such relation as to accommodate the extra fullness in the rear portion of the shirt, throughout the period of the operation.

Another object of the invention is to provide a method in which not only is the necessity obviated for buttoning the garment for any purpose, but the practice of the method further serves to maintain the button and buttonhole portions in a spread or separated and unbuttoned condition which facilitates proper inspection of these portions of the garment.

With the foregoing objects in view, the invention will now be described by reference to the accompanying drawing, wherein is illustrated the improved method or procedure as well as the devices utilized therein, after which those features deemed to be essentially novel and patentable will be particularly set forth and claimed.

In the drawing—

Figure 1 is a plan view of the working face of an ironing surface with a shirt arranged thereon in accordance with the practice of the present invention;

Figure 2 is a plan view, on a smaller scale showing the garment following completion of the ironing and folding operations and in folded relation to the folding appliances and with the latter in lowered position to show the lower portion of the shirt front and with the band which is applied thereto affter folding; and

Figure 3 is a similar view, in elevation, showing the folded shirt and said folding appliances in raised position preparatory to removal of the finished product.

This is a division of my application Ser. No. 217,206 filed July 2, 1938, now Patent No. 2,273,072.

It is well known that the patterns of such garments as shirts, and the like, comprise a back portion or panel which is wider between the side seams than the combined width of the front portions or panels when their button and buttonhole pleats are overlapped for buttoning. Thus, if the garment is laid over the ironing surface in the usual manner, with said pleats in overlapping relation, and the side seams defining the sides of the garment at the sides of the ironing surface, this results in a fullness in the back of the garment and hence in the formation of wrinkles and creases in the back of the garment when its front portions are ironed smooth. While this result can not be completely eliminated because of the pattern of the yoke portion of the shirt between the sleeve openings, I have found that the desired result may be very closely approximated by carrying out the ironing operation with the back of the shirt spread as completely flat on the ironing surface as possible between the side seams, and correspondingly spreading the front portions of the shirt upon said flat and practically smooth back panel. This can of course only be done by leaving the front of the shirt unbuttoned,—that is, with the button and buttonhole pleats separated and spread apart from the collar on down the full length of the body of the garment while the ironing takes place; and for effectively accomplishing this separating and spreading function I have found it preferable to employ means for definitely engaging the pleats and positively maintaining the same in the proper spread relation to insure accuracy in the ironing operation.

Referring now to the drawing in detail, and more particularly to Figure 1, this illustrates the improved method in relation to a shirt which has been disposed with its back portion 6 stretched flat upon the ironing surface 7, the sides of said back portion or panel 6 being defined by the side seams 8 of the garment. The front portions or panels 9 of the shirt are likewise disposed flat upon the upper face of said back portion 6 and without disturbing the side seams 8,—which results in the button strip or pleat 10 and the buttonhole pleat 12 being separated and spread apart along downwardly diverging lines, as shown. By this means, the fullness of the back panel 6, as compared with the front portion of the garment, is accommodated by the spread relation of the front sections of the shirt, so that the ironing operation can be carried out with the front and back portions in this superposed relation without producing any wrinkling or creasing of the back portion other than that which may be unavoidable on account of the

peculiar fullness existing in the yoke between the armholes of the sleeves **14**.

For maintaining the separated or spread relation of the front portions of the shirt as illustrated in Figure 1, the neckband or the collar **15** may be fastened in any desired way, as by buttoning it, or the collar supported as shown, by means of a suitable collar supporting device **16**. It is also preferable, for accuracy and neatness in the carrying out of the ironing and subsequent operations, to provide suitable means for positively maintaining the proper separated relation of the front pleats **10** and **12**; and to this end I employ any one of several different forms of spacers, such as the double clamping bar **18** adapted for engagement with the pleats **10** and **12** of the garment as illustrated in Figures 1 and 2.

An alternative form of said spacing device is also shown in Figure 1, the same comprising a spacer **27** of cardboard or any equivalent material, provided with terminal hooks **28** extending in opposite directions, by the use of which the operator may, by a single motion, engage the device with both the buttonhole **29** and the corresponding button **30** of the pleats **10** and **12**, as represented in Figure 1.

In the ironing of the garment its front is ironed first and then its back with the front of the garment faced down on the board, in the usual manner with tables of the type illustrated,—this being of the character shown in Patent 2,010,333, dated Aug. 6, 1935. The garment is then folded with the described spacing device preferably left in the position shown for insuring that the front and rear portions of the shirt shall remain in the same relative position in which they have been ironed,—the sleeves **14** being first folded in the usual manner by use of the conventional folding devices or arms **32** shown in Figs. 2 and 3, and then the tail and body portions folded upon each other and these folded portions again folded up over the end of the fold board **33**,—that is, in folded relation to the upper or yoke portion of the garment.

Following this final folding operation, a suitable band **34** is strapped around the completely folded garment as shown in Figure 3, after which the pleat-spacer or clamping device may be removed and the finished product removed from the fold board **33**.

From the foregoing it will be apparent that, with the shirt disposed upon the ironing surface in the manner above explained and as illustrated in Figure 1, so that the side seams are spaced apart a distance representing the full width of the back portion **6** of the shirt and thus taking out the fullness of said back portion, and then disposing the front portions **9** flat and smooth upon said back portion and allowing the pleats **10** and **12** to spread apart so as not to disturb the smooth-lying position of the back portion **6**, it is possible to iron both the front and back portions of the garment in this state without any wrinkling of the back portion or producing any objectionable creases therein. The use of the spacer device as shown enables the work to be speeded up by ensuring accuracy of the operation without any appreciable loss of time for inserting or removing the device after the proper mode of use of this has been acquired.

A further feature of advantage in employing the improved method, aside from the benefits due to a much more neatly ironed and finished product, is due to the fact that the button and buttonhole pleats are preferably left in their unbuttoned and slightly spaced relation, which of course exposes the buttons and greatly facilitates the work of inspecting the garments, to note the absence of any buttons, or other defects, as well as leaving the garment in an unbuttoned state, as preferred by the average customer who is thus saved the labor of unbuttoning it before using it.

While I have herein illustrated and described what I now regard as a preferred mode of practicing my invention, I desire to be understood as expressly reserving the right to make such changes or modifications therein as may fairly be deemed to fall within the spirit and scope of the invention as defined by the following claims.

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

1. The method of ironing shirts and like garments which consists in disposing the full width of the back portion of the garment, between the side seams thereof, flat upon the ironing surface to accommodate the extra fullness of the back portion as compared with the width of the front portion between said seams, folding the sections of said front portion along said side seams and spreading said sections smoothly upon the back portion with the button and buttonhole pleats in separated and diverging relation, and then ironing and folding said front and back portions simultaneously in their superposed relation.

2. The method of ironing shirts and like garments, which consists in spreading the back portion of the garment its full width between its side seams flat upon the ironing surface to accommodate the extra fullness of the back portion as compared with the width across the front of the garment between said seams, folding the sections of the front portion along said side seams and spreading said sections smoothly upon the back portion and then ironing said front and back portions simultaneously in their superposed relation while employing detachable spacer means for maintaining the button and buttonhole pleats of the front portion below its collar in unbuttoned and spread-apart relation.

3. The method of ironing and folding shirts and like garments which consists in spreading the back portion of the garment its full width between its side seams flat upon the ironing surface to accommodate the extra fullness of the back portion as compared with the width across the front of the garment between said seams, folding the sections of the front portion along said side seams and spreading said sections smoothly upon the back portion, and then ironing said front and back portions simultaneously in their superposed relation and thereafter folding the ironed garment while maintaining the button and buttonhole pleats of said front portion below its collar continuously in unbuttoned and separated relation throughout the entire process of both ironing and folding.

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