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H. KATZ ET AL

1,971,489

MAN'S SHIRT

Filed Nov. 28, 1933

2 Sheets-Sheet 1

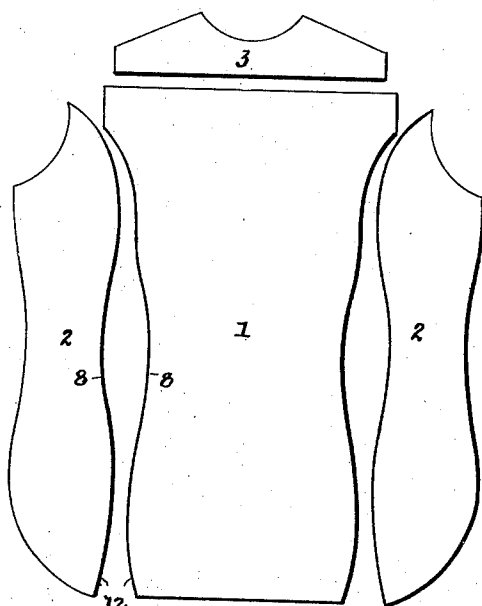


Fig. 1.

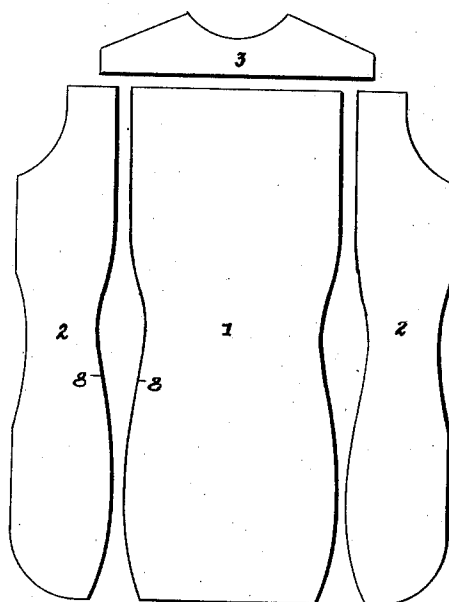


Fig. 2.

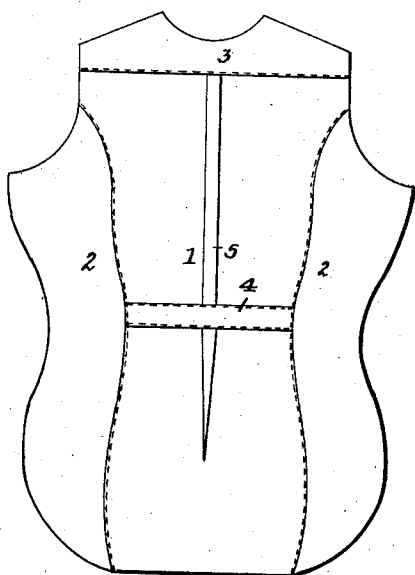


Fig. 3.

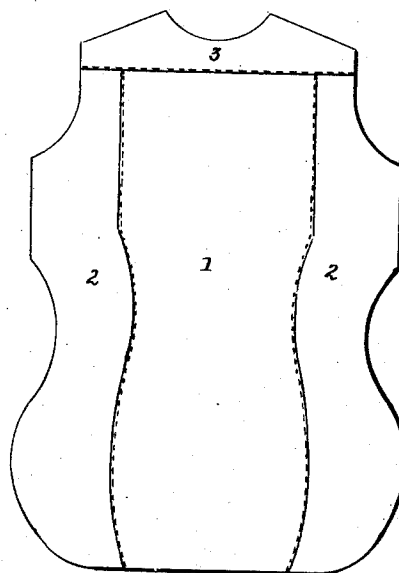
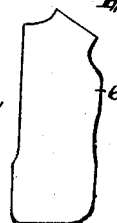


Fig. 4.



Fig. 5.

Fig. 6.



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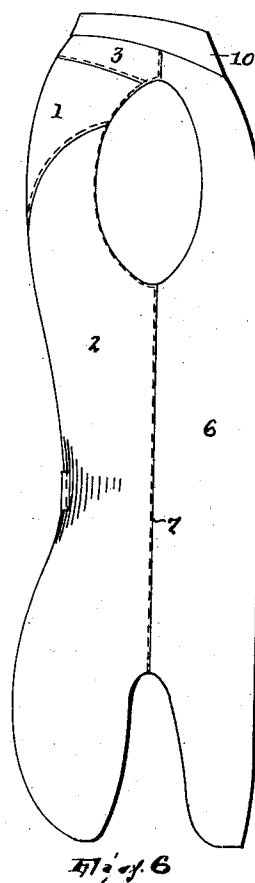
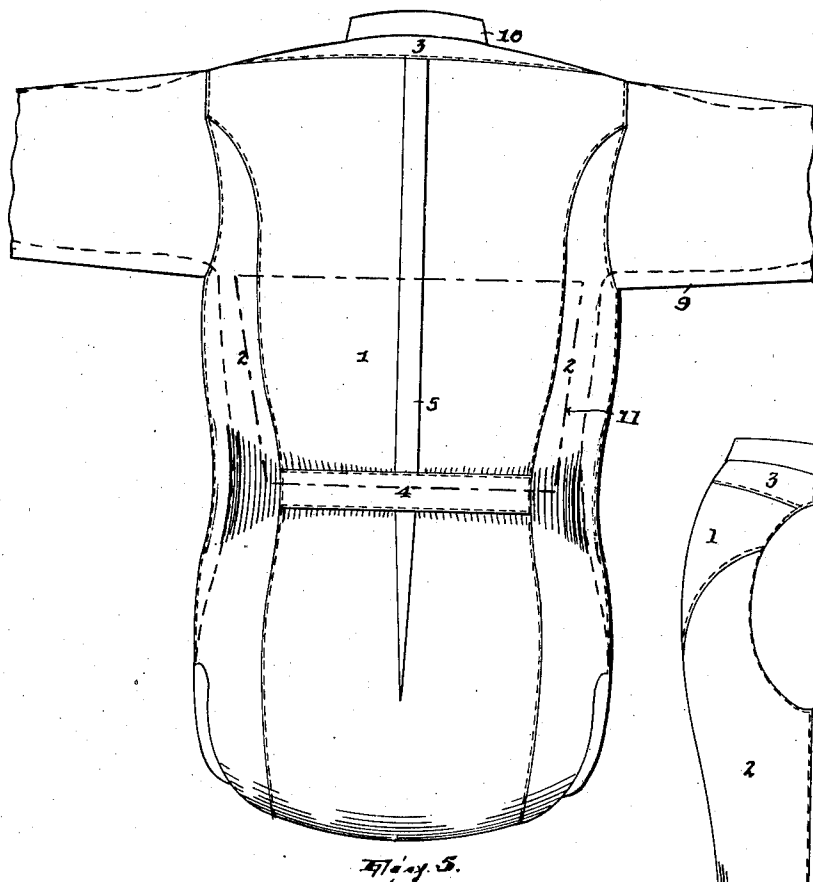
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MAN'S SHIRT

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2 Sheets-Sheet 2



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## UNITED STATES PATENT OFFICE

1,971,489

## MAN'S SHIRT

Henry Katz and Abraham Bogart, Paterson, N. J.

Application November 28, 1933, Serial No. 700,043

6 Claims. (Cl. 2-115)

This invention relates to body garments of the texture of material used for shirtings, such as men's outer shirts, which at their skirt portions are covered by the upper portion of the trousers or other nether garment, and it contemplates certain improvements therein which, as practical use of garments containing the improvements has shown, will overcome the fault in such garments as ordinarily constructed of their working up and becoming bagged to an excessive degree above the waist line of the nether garment, if not actually parted therefrom, as the result of the wearer's physical exertions, and which will nevertheless not detract in any respect from the comfort or freedom of movement of the wearer.

The invention consists in a body garment of the particular class indicated having only the back segment of that portion of the garment which encompasses the wearer's body (i.e., torso) generally shaped from the waist upward toward but not beyond a horizontal line approximating the lower ends of the shoulder-blades to conform to an inverted partial cone and reaching in each lateral direction from the middle short of the median side-line of the garment. How said back segment is made to have the form indicated is not material, though usually it will be by shaping the elements of which it is composed with concave cut-outs in their adjoining edges and then stitching the cut-out edges together.

By constructing the garment in this way the said segment conforms to the wearer's back and becomes the factor active in preventing the garment from working up at the back and consequently at all other points around the body of the wearer, and all other portions of the garment leave the wearer with as much comfort as in the case of any ordinary shirt, to wit, across the shoulders, down the front of the garment and under the arms, so that he experiences no restraint whatever in raising his arms high, swinging them far forward or bending over to any degree.

In the drawings,

Figs. 1 and 2 respectively show the back elements of a Norfolk style and a plain style of shirt which are to embody this invention;

Figs. 3 and 4 respectively show the back elements of the shirts after joining them;

Figs. 5 and 6 are, respectively, back and side views of the completed shirt as it would appear on the wearer, the shirt shown being the Norfolk style;

Fig. 7 shows one of the front elements; and

Fig. 8 is a cross-section of a seam.

According to the example illustrated the back

of the shirt in either style shown by Figs. 3 and 4 comprises three elements—a mid-element 1 and two side-elements 2 each reaching from the bottom of the garment to the yoke 3, as in Fig. 4, or near the yoke 3, as in Fig. 3, the difference in the latter respect being merely a matter of the difference in the two styles of garments shown. If the shirt is of the Norfolk style, as in Fig. 3, there may be a horizontal band 4 stitched to the back at the waist line and a vertical central pleat 5, as is frequently the case in the Norfolk style. These, however, are not indispensable.

We treat the back of the garment, as that term is used above, as comprising the elements 1 and 2—2; it extends in the finished garment from one to the other of the two front elements 6, one of which is shown in Fig. 7 (the other being of course its reverse counterpart), and each of its lateral edges is stitched to the adjoining lateral edge of said front element from the top to nearly the bottom along what we term the median side line 7 indicated in Fig. 6, all as usual.

Referring to Figs. 1 and 2, the adjoining edges of the mid-element 1 and the two side-elements 2—2 are formed with concave cut-outs 8 whose deepest points are at the waist of the garment, their uppermost points being preferably just below the points in the finished garment which coincide with the lower ends of the wearer's shoulder-blades and their lowermost points approximately at points in the finished garment which about coincide with the wearer's hip-joints.

The mid-element and two side-elements, thus formed, are joined together from top to bottom of their adjoining edges as in Figs. 3 and 4, by lapping and interlocking them and then stitching them together in a well-known manner, as in Fig. 8. To complete the garment, the two front elements 6, the back thus formed, the yoke 3, the sleeves 9, and the collar 10 (or it may be a neck-band) are assembled and joined together the same as in any ordinary garment of the class in question, using the seam shown in Fig. 8 if desired.

In Fig. 5 we show the wearer's form in dotted outline. The effect of forming the back as we have described is to produce a segment thereof—to wit, extending from the waist of the garment upwards toward but not beyond a horizontal line approximating the lower ends of the wearer's shoulder-blades and also extending laterally in each direction short of the mentioned median line 7, such segment being here approximately bounded by the dot-and-dash outline 11—which

in horizontal section is somewhat curved forward at its sides and in elevation tapers somewhat downwardly, having therefore the general form of a partial cone. When the garment is worn, therefore, the said segment conforms to and more or less snugly fits the shape of the portion of the wearer's back which it covers and due to this it is held from working up. Nevertheless the wearer has the same freedom which he has in an ordinary shirt, thus: at the front, where the shirt hangs the same as any ordinary shirt; across the shoulders at the back, where there is the same fullness as in the ordinary shirt; and under the arms, to wit, from the sides of the segment forward past the median lines 8 for the full length of the shirt. In short, the shirt does not more closely fit the wearer at the front or across the shoulders at the back than the ordinary shirt and he has the same freedom under the arms, so that bending over extremely, reaching up or forward with both arms, and twisting of his body and all other movements are unrestrained.

In our shirt the back is shaped to conform substantially to the concavity of the region of the wearer's back which is between his shoulder-blades and buttocks (see Fig. 6) but each side is shaped to have appreciably less concavity from the arm-pit to the hip-point of the shirt (Fig. 5). Such shaping in the former respect is itself a factor in opposing riding up of the shirt, whereas the shaping in the latter respect leaves the lifting and other movements of the wearer's arms unrestrained.

The movement most calculated to cause a shirt to work up is one of bending over repeatedly or raising the arms straight up. In this the back waist of the garment herein disclosed may on each such movement rise somewhat, but when the wearer resumes normal position such back-waist again resumes its normal position—at the waist of the wearer. This is partly due to the mentioned conformation of the segment to the generally conical form of the part of the wearer's back which it covers and to the side-elements clinging to the wearer at his hips, the fabric due to some residual elasticity stretching up the middle of the wearer's back relatively to the mentioned hip clinging portions and returning as soon as the strain incident to the movement ceases.

If the portion of the shirt back above the waist-line is held in this way from riding and remaining up the portion below the waist-line is not disposed to work up, the reason being that the pull, which usually comes from the region of the shoulders, is resisted by the mentioned segment hugging the corresponding portion of the wearer's back. But we prefer to shape the portion of the back below the waist-line so as to form a bulging back-skirt of least circumference at its bottom margin and thus bent around and under the wearer's seat, as by cutting away the adjoining edges of the mid-element and side-elements, as at 12 in Figs. 1 and 2, before joining said edges together. This discourages said portion or the back-skirt of the garment from possibly working up independently and it also avoids the de-

velopment of uncomfortable wrinkles or creases in such back-skirt.

Having thus fully described our invention what we claim is:

1. The hereindescribed shirt having the back segment of that portion of the shirt which encompasses the wearer's body generally shaped from the waist upward toward but not beyond a horizontal line approximating the lower ends of the shoulder blades to conform to an approximate partial inverted cone and reaching in each lateral direction from the middle short of the median side-line of the shirt, whereby the shirt-back is body-conforming in the localized region constituted by said segment, the front of the shirt and the part above said segment being free fitting as usual.

2. The hereindescribed shirt having the back segment of that portion of the shirt which encompasses the wearer's body generally shaped from the waist upward toward but not beyond a horizontal line approximating the lower ends of the shoulder-blades to conform to an approximate partial inverted cone and reaching in each lateral direction from the middle short of the median side-line of the shirt, whereby the shirt-back is body-conforming in the localized region constituted by said segment, the front of the shirt and the part above said segment being free fitting as usual, and said shirt having the portion of the back thereof below the waist forming a bulging back-skirt having a reduced circumference at its bottom margin.

3. The hereindescribed shirt having its back shaped inwardly to conform substantially to the concavity of the region of the wearer's back which is between his shoulder-blades and buttocks and having each side shaped to have appreciably less concavity from the arm-pit to the hip point of the shirt, whereby the shirt is body-conforming in the small of the back without thereby causing restriction at the sides.

4. The hereindescribed shirt shaped inwardly to hang close to the small of the wearer's back by means of a seam extending up and down from the waistline between the middle of the back and each median side-line and having the region bisected by said side-line also shaped inwardly but to relatively less extent, the front being free fitting as usual.

5. The hereindescribed shirt shaped inwardly to hang close to the small of the wearer's back and also tapered inwardly at the bottom by means of a seam extending up and down from the waistline between the middle of the back and each median side-line and having the region bisected by said side-line also shaped inwardly but to relatively less extent.

6. The hereindescribed shirt having a back which includes a middle piece and two side pieces stitched together along seams extending from the tail up to the shoulder region, the shirt being shaped inwardly to hang close to the small of the wearer's back by means of said seams and being also shaped inwardly at the sides of the wearer's waist but to relatively less extent.

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