

March 25, 1947.

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2,418,009

BACK-PROTECTIVE SURGICAL SUSPENDER VEST

Filed Dec. 30, 1944

2 Sheets-Sheet 1

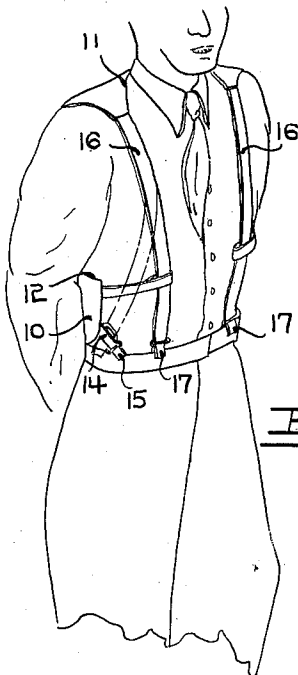


Fig. 1.

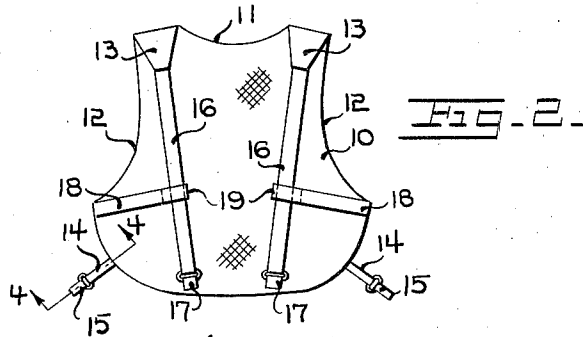


Fig. 2.

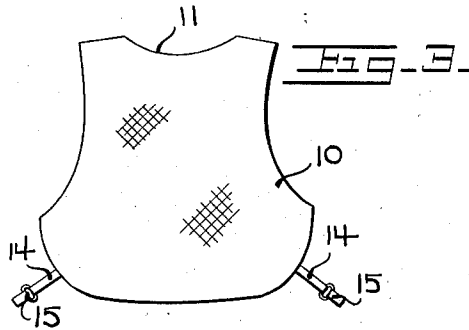


Fig. 3.

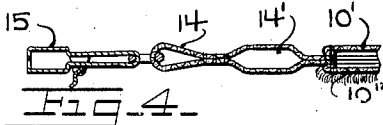


Fig. 4.

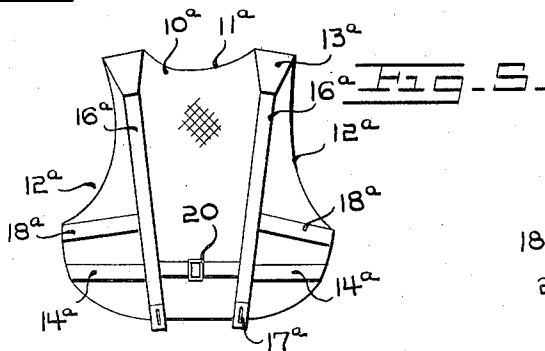


Fig. 5.

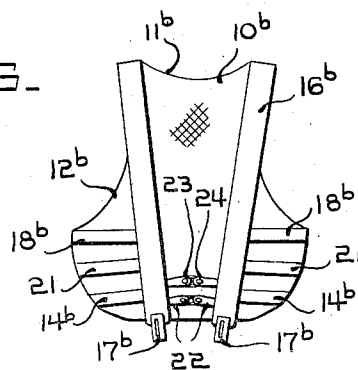


Fig. 6.

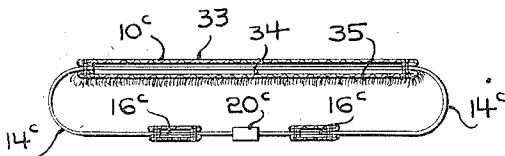


Fig. 7.

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2 Sheets-Sheet 2

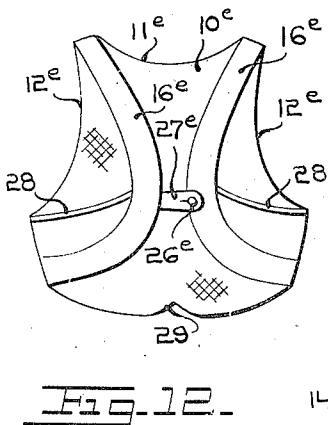
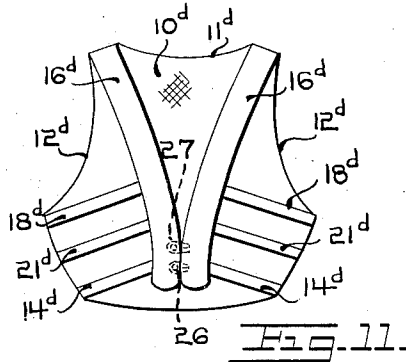
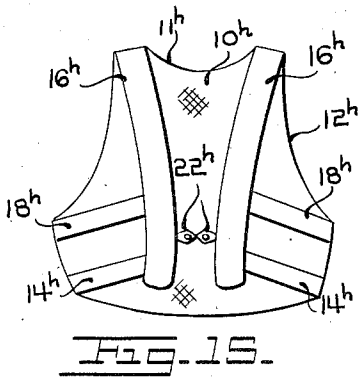
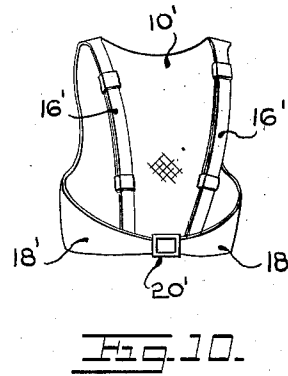
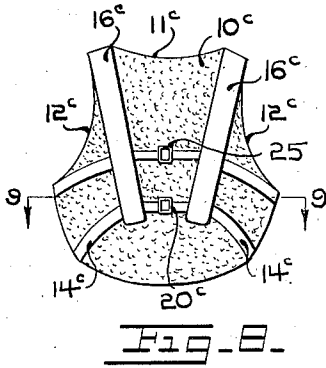
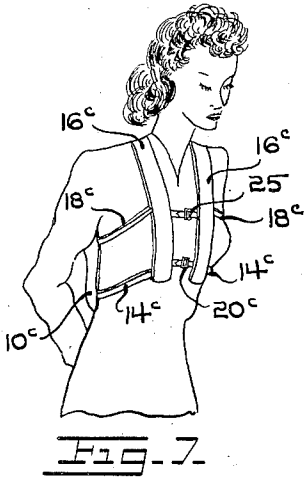


Fig. 14.

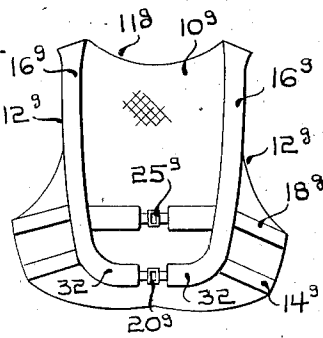
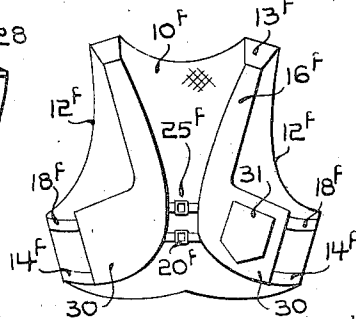


Fig. 13.

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# UNITED STATES PATENT OFFICE

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## BACK-PROTECTIVE SURGICAL SUSPENDER VEST

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3 Claims. (Cl. 2-44)

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This invention relates to new and useful improvements in a garment.

More specifically, the present invention proposes the construction of a protector for a human being's back, the protector being somewhat vest-like and preferably being padded or lined to provide sufficient warmth.

A further object is to provide a garment as aforesaid especially constructed for use by a man.

Another object is to provide a garment of the aforesaid type especially constructed for use by a woman.

Still another object is to provide a garment as aforesaid which completely covers the back but is skeletonized in the front so that the front coverage is negligible, whereby regardless of the other clothes of the usual types worn, the garment of the present invention provides greater protection for the back than for the chest of the human wearing the garment.

Another object is to provide a garment as aforesaid especially constructed to snugly fit a human being's body.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure—

Fig. 1 is a fragmentary view of a man wearing a garment constructed in accordance with this invention, an alternate position of one of front suspender straps of the garment being indicated in dot-dash lines.

Fig. 2 is a front view of the garment worn by the man in Fig. 1.

Fig. 3 is a rear view of the garment of Fig. 2.

Fig. 4 is an enlarged section on the line 4-4 of Fig. 2.

Fig. 5 is a front view of a garment constructed in accordance with a modification of this invention.

Fig. 6 is a front view of a garment constructed in accordance with a modification of this invention.

Fig. 7 is a view, similar to Fig. 1, of a woman wearing a garment constructed in accordance with a further modification of this invention.

Fig. 8 is a front view of the garment of Fig. 7.

Fig. 9 is an enlarged section on the line 9-9 of Fig. 8.

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Fig. 10 is a perspective view of a garment constructed in accordance with another form of the invention.

Fig. 11 is a front view of a garment constructed in accordance with a further modification of this invention.

Fig. 12 is a front view of a garment constructed in accordance with still another modification of this invention.

Fig. 13 is a front view of a garment constructed in accordance with a further modification of this invention.

Fig. 14 is a front view of a garment constructed in accordance with a still further modification of this invention.

Fig. 15 is a front view of a garment constructed in accordance with a further modification of this invention.

In the following description of the various embodiments of the present invention, like references will be employed to indicate like parts, distinguishing letters of the alphabet being added after the numbers to distinguish different embodiments.

In the embodiment of Figs. 1-4, the garment, according to this invention, includes a solid back 10 which may be made of cloth, leather or other skin, sheepskin with the fur on the inside, or may be made of a number of layers of any one of the above materials. For instance, the back may have a rear layer of cloth 10' and an inner layer of sheepskin 10'' with the fur at the front, or the back may have a rear layer of leather and a front layer of cloth, padding such as cotton being provided between the layers.

The back has a curved neck portion 11, two curved arm portions 12 and two shoulder flaps 13. Two short suspender straps 14 depend from the bottom corners of the back and have clamps 15 for attachment to the sides of a pair of trousers. Two long suspender straps 16 depend from the flaps 13 and also end in clamps 17 similar to clamps 15, clamps 17 being for attachment to the front edge of a pair of trousers. Thus the trousers are suspended from the garment of the present invention. Two straps 18 extend from the bottom of the arm portions 12 toward the straps 16, ending in loops 19 through which the straps 16, slide, providing adjustment movement. Any or all of the straps may be made of elastic, tape, leather, rubber, cloth or other suitable material. Straps 14 are provided with loops 14' thru which the straps 16 may be passed before clasping to the trousers. In such case the clasps 17 would be disposed behind the clasps

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15 and the straps 13 and loops 19 would not be employed. This disposal of the straps 16 is shown in Fig. 1 in dot-dash lines. It provides complete suspension of the trousers the man is wearing, at the sides, the front of the trousers being unencumbered.

As can be clearly seen in Fig. 1, the back 10 covers the back of the man entirely from his hips to his neck, curving over his shoulders and around under his arms. Thus the man's back is entirely protected against cold. On the other hand, the front of the man is entirely unprotected, the only covering being by the straps which afford negligible coverage and no protection. Thus the front of the garment is a skeleton, allowing entire freedom of movement of the man, especially of his arms, and permitting him to bend forward without bunching of material in front of him.

The garment as thus far described is especially adapted to be worn in the winter and to protect a person against the commonest of all causes of colds and similar illnesses, namely, a cold in the back. It is a known fact that if the back is protected from chilling and drafts, and kept warm, the remainder of the body is favorably affected and keeps warmer. The garment thus affords additional protection to the back over what is afforded to the front by the other garments worn by the man. The garment of the present invention is made of warm materials, enabling the layer or layers to be kept thin so that no bulkiness is caused, thus permitting the garment to be worn under a man's coat. It will be noticed that the garment is especially designed so that it will not interfere with the wearing of a regular suit coat or jacket. This is because the front is skeletonized, the arms and waist line are uncovered and the coverage on the shoulders is small. The curved neck and arm portions with the straps on the front enable the garment to fit a man's body quite snugly.

The garment of Fig. 5 distinguishes from the garment of Fig. 1 in that the straps 18<sup>a</sup> are secured to the straps 16<sup>a</sup> and the straps 14<sup>a</sup> extend to and are secured to the straps 16<sup>a</sup> and then extend further between the straps 16<sup>a</sup>, a buckle 20 being provided. This buckle not only serves to hold the garment on the man, but it also holds the straps 16<sup>a</sup> from spreading.

The garment of Fig. 6 distinguishes from the garment of Fig. 5 in that the flaps 13<sup>a</sup> and clamps 17<sup>a</sup> are eliminated. A strap is provided between the straps 13<sup>b</sup> and 14<sup>b</sup> and instead of the buckle 20 on the extensions of the straps 14<sup>a</sup>, two straps 22 extend inwardly from each strap 16<sup>a</sup>, opposed straps 22 being provided, one with a button 23 and the other with a buttonhole 24 whereby the straps 22 may be employed for a purpose similar to the buckle 20. The added strap 21 provides extra support and partly girdles the wearer's abdomen. The garments of Figs. 1-5 are especially adapted for use by men.

A garment especially adapted to be worn by a woman is shown in Figs. 7-9. It is somewhat similar to the garment of Fig. 5 except that it is cut to fit a woman's body, the flaps 13<sup>a</sup> and clamps 17<sup>a</sup> being omitted, the straps 16<sup>c</sup> being shorter and the straps 14<sup>c</sup> curving upwardly to reach the ends of the short straps 16<sup>c</sup>. The straps 14<sup>c</sup> are extended for a buckle 20<sup>c</sup> and similarly, the straps 18<sup>c</sup> are extended for another buckle 25. The straps 16<sup>c</sup>, being shorter, converge more sharply so that they may be disposed between a woman's breasts with the straps 18<sup>c</sup> above and

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the straps 14<sup>c</sup> below the breasts, as shown in Fig. 7.

In Fig. 10, the garment 10' is shown with a pair of adjustable straps 16' which are connected to side straps 18'. These straps are joined by buckle 20'. Instead of a buckle, snap fasteners, tie strings or other fastening means may be used.

The garment of Fig. 11 distinguishes from the garment of Figs. 7-10 in that the straps 16<sup>d</sup> come together at their bottom end portions, which portions are parallel. One end portion has two buttons 26 and the other has two straps 27 provided with buttonholes for coaction with the buttons 26. The straps 16<sup>d</sup> are also longer than the straps 16<sup>c</sup> and an extra strap 21<sup>d</sup> is provided similar to Fig. 6.

The garment of Fig. 12 has a back 10<sup>e</sup> substantially like the back 10<sup>d</sup> of Fig. 11. However, the straps 16<sup>e</sup> converge to about the middle of the garment and then curve outwardly in a reverse direction and are connected to the sides of the back 10<sup>e</sup> at the bottom thereof. The back 10<sup>e</sup> has extensions 28 from the bottom of the arm portions 12<sup>e</sup> to the bottom of the straps 16<sup>e</sup> and extending inwardly to the point where the curvature of the straps 16<sup>e</sup> is reversed. At this point, a strap 27<sup>e</sup> is secured to one strap 16<sup>e</sup> and a button 26<sup>e</sup> is secured to the other strap 16<sup>e</sup>. At the center of the bottom of the back 10<sup>e</sup> is a V-shaped recess 29.

The garment of Fig. 13 has flaps 13<sup>f</sup> and the straps 16<sup>f</sup> have wide bottoms 30 in one of which is a pocket 31. The bottoms 30 are connected to the back below the arm portions 12<sup>f</sup> by straps 14<sup>f</sup> and 18<sup>f</sup>. The straps 16<sup>f</sup> are connected between the bottoms 30 by straps provided with buckles 20<sup>f</sup> and 25<sup>f</sup>.

The garment of Fig. 14 is similar to the garment of Fig. 7 except that the buckle 20<sup>g</sup> is on straps connected to inwardly curved end portions 32 of straps 16<sup>g</sup>.

The garment of Fig. 15 is similar to the garment of Fig. 7 except that the buckles are omitted, and two straps are provided, one with a buttonhole and the other with a button.

The garments of Figs. 7-15 are especially adapted to be worn by a woman.

Referring to Fig. 10, which is a sectional view of the garment shown in Figs. 7-9, it will be seen that the back has a rear layer of cloth 33, and a front layer of sheepskin 34 with the fur 35 forward, the ends of the layers being turned in and sewed together. The straps 16<sup>c</sup> are each formed of two layers of cloth. The other straps are of similar construction.

Generally speaking, the garments for the men can be used for women with small changes made therein, namely, the omission of the clasps, and the garments for the women can be used for men with small changes therein, namely, the addition of clasps. The fastening means for the straps, besides those shown and described may be buttons, ties, hooks, buckles and so forth. Generally speaking, the straps 16-16<sup>h</sup> are long for men and short for women. The side straps 14, 18 and 21 may be made of elastic, and instead of being sewed to the straps 16-16<sup>h</sup>, they may end in loops and slide on the straps 16-16<sup>h</sup>. The straps 14 and 18 and corresponding straps ending in clasps, may be made adjustable in the same manner that well known types of suspenders are made adjustable.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the

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precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new and desire to secure by United States Letters Patent is:

1. A back protecting surgical suspender vest comprising a fabric body adapted to cover the entire back portion of a wearer between the hips and neck, said fabric body having a curved neck portion and a shoulder portion disposed on each side of said neck portion, a curved arm portion extending downwardly from each of said shoulder portions to a point adjacent the base of said body, the lower end of each of said arm portions merging with the back portion of said body, an open breast frame section comprising a pair of shoulder straps, each of said straps having one of its ends connected with one of said shoulder portions, the lower ends of said straps being free and curved inwardly to a juxtaposed position, means connecting said free ends, means disposed intermediate the ends of said straps inhibiting lateral movement thereof, and means connecting said shoulder straps with the lower portion of said body.

2. A back protecting surgical suspender vest comprising a fabric body adapted to cover the entire back portion of a wearer between the hips and neck, said fabric body having a curved neck portion and a shoulder portion disposed on each side of said neck portion, a curved arm portion extending downwardly from each of said shoulder portions to a point adjacent the base of said body, the lower ends of each of said arm portions merging with the back portion of said body,

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an open breast frame section comprising a pair of shoulder straps, each of said straps having one of its ends connected with one of said shoulder portions, the lower ends of said straps being free and curved inwardly to a juxtaposed position, buckle means connecting said free ends, a pair of side straps each having one of its ends secured to a different one of said shoulder straps intermediate the ends thereof and projecting laterally therefrom in juxtaposed position, buckle means connecting the free ends of said laterally projecting straps to restrain the lateral movement of said shoulder straps, and means connecting the free ends of said shoulder straps to said body.

3. A back protecting surgical suspender vest as defined in claim 2, said last named means comprising a second pair of laterally extending side straps one at each side of the vest, the two side straps on each side of the vest having ends secured in spaced relation to the shoulder strap at that side of the vest, the other ends of the two side straps on each side of the vest being secured in spaced relation to said body at that side of the vest.

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