

J. W. BRODERICK.

COMBINED SHOULDER-BRACE AND SUSPENDERS.

No. 173,156.

Patented Feb. 8, 1876.

Fig. 1.

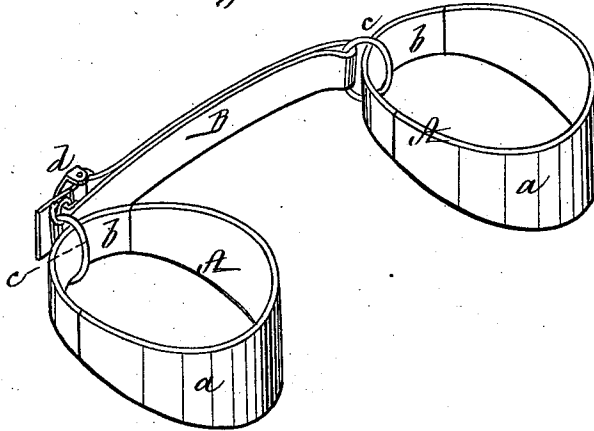


Fig. 2.

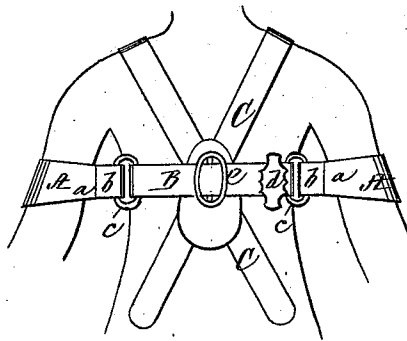
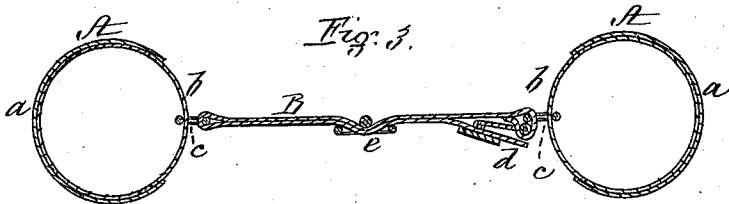


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN W. BRODERICK, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN COMBINED SHOULDER-BRACES AND SUSPENDERS.

Specification forming part of Letters Patent No. **173,156**, dated February 8, 1876; application filed December 30, 1875.

To all whom it may concern:

Be it known that I, JOHN W. BRODERICK, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Shoulder-Brace, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of my improved shoulder-brace detached. Fig. 2 is an elevation of the same, connected with a pair of suspenders and applied to the arms of the wearer. Fig. 3 is a longitudinal section.

Shoulder-braces, as usually constructed, have been applied directly upon or over the shoulders themselves, which method of application is objectionable, for the reason that great force is required to draw back or straighten the shoulders, the elastic bands usually employed for this purpose being necessarily so stiff that they cramp and chafe the parts to which they are applied, whereby the free action of the arms is prevented.

To overcome the above-mentioned difficulty is the object of my invention, which consists in a shoulder-brace composed of two arm-bands or loops connected by a strap or cord, a portion or the whole of each band or the strap or cord being elastic, and each arm-band being applied to the arm at a point between the shoulders and the elbow, whereby a greater purchase or leverage is exerted in drawing back the arms and shoulders, while the chafing and restraint incident to the use of shoulder-braces as heretofore constructed and applied is avoided.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A A represent two bands or loops, which are to be slipped over the arms to points a little below the shoulders, the outer portions of the bands being of a greater width than their inner portions, in order that they may afford an extended bearing-surface where they come into contact with the front of the arms, so as thereby to avoid cutting or chafing them. The outer portion *a* of each band (which bears against the arm) is of non-elastic material, the inner portion *b*

consisting of a piece of elastic webbing, which passes through a metal ring, *c*, secured to one end of an elastic strap, B, which connects the two arm-bands together, the connecting-strap being either single or double and of sufficient length to allow of drawing up or letting out the bands, so as to diminish or increase the distance between them to correspond to the breadth of the back of the wearer and the amount of resistance required to straighten the shoulders back, a buckle, *d*, or other device being employed for preventing the parts from slipping when adjusted.

This shoulder-brace may be used with or independently of a pair of suspenders, C, Fig. 2, but when used with them the connecting-strap passes through a loop or guide, *e*, secured to the suspenders at a point where they cross each other, by which means any tendency of the shoulder-brace to work out of its proper position is counteracted.

It is evident that the arm-bands may be non-elastic, but, in this case, the connecting-strap must be elastic; or the connecting-strap may be non-elastic, in which case the bands must be wholly or partially elastic. But I prefer to make the shoulder-brace in the manner above described.

A shoulder-brace made in accordance with my invention is easily adjusted in place, is comfortable to the wearer, and effectually straightens the shoulders as desired.

I claim—

1. A shoulder-brace consisting of the arm-bands A A and connecting-strap B, constructed and adapted for use substantially as described.

2. I also claim the arm-bands A A and connecting-strap B, constructed as described, in combination with a pair of suspenders, C, substantially as described.

3. I also claim the loop or guide *e*, in combination with the suspenders C C and shoulder-brace, constructed as above described, for the purpose set forth.

Witness my hand this 22d day of December, 1875.

JOHN W. BRODERICK.

In presence of—

N. W. STEARNS,

P. E. TESCHEMACHER.