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G. R. CRAW & O. MILLER.

SHOULDER BRACES.

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Fig. 1.

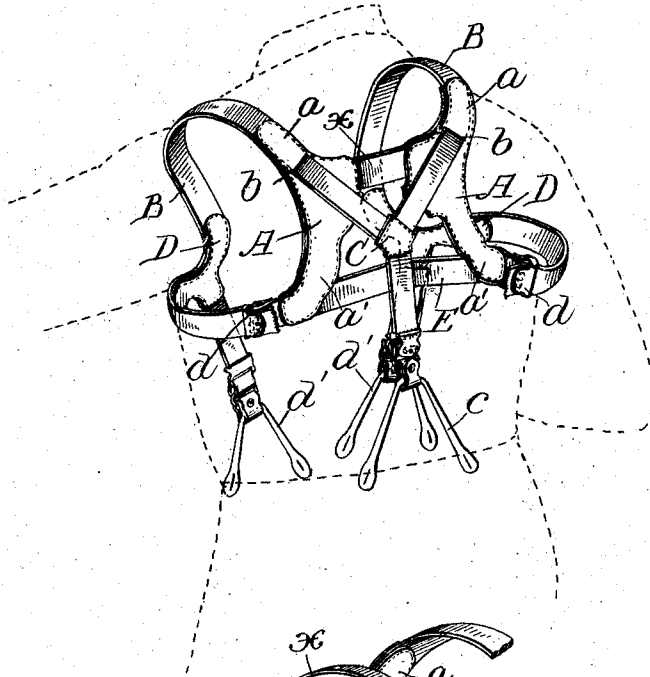
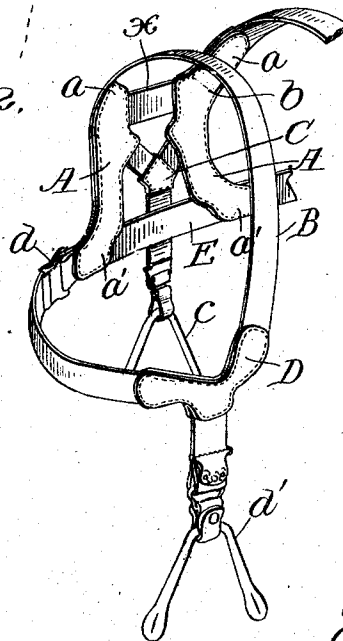


Fig. 2.



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UNITED STATES PATENT OFFICE.

GEORGE R. CRAW AND OTTO MILLER, OF CHICAGO, ILLINOIS.

SHOULDER-BRACES.

No. 846,647.

Specification of Letters Patent.

Patented March 12, 1907.

Application filed February 21, 1906. Serial No. 302,240.

To all whom it may concern:

Be it known that we, GEORGE R. CRAW and OTTO MILLER, both citizens of the United States, residing at Chicago, Cook county, Illinois, have invented certain new and useful Improvements in Shoulder-Braces, of which the following is a full, clear, and exact description.

This invention relates to shoulder-braces that are combined with suspender connections in such a manner that the tension exerted by the latter when in use will increase the backward pull of the braces against the shoulders of the wearer and at the same time distribute the tension or strain of the brace as much as possible throughout the upper portion of the body and back of the wearer.

Another desirable feature of this invention is the positive manner in which the shoulder-blades of the wearer are retained in their normal position, thereby tending to throw the chest outward and expand the same in the proper manner. This is accomplished by the means hereinafter fully described in the specification and as specifically set forth in the claims.

In the drawings, Figure 1 is a perspective view showing our improved shoulder-brace properly adjusted upon the shoulders and back of a person. Fig. 2 is a detail view in perspective of the arm pit-shield.

Referring to the drawings, A A represent suitable leather shoulder-pads formed, preferably, of soft leather and cut to conform as nearly as possible to the general outline of the shoulder-blade of the wearer, but having upper and lower wings or extensions *a* *a'*, respectively. These shoulder-pads are disposed a slight distance apart and are connected by a short rubber webbing *x*, that is stitched or otherwise secured in any suitable way to the central portion of each pad. Near the center of the upper wing or extension *a* of each shoulder-pad is an elongated transverse slot, through which the extended ends of shoulder-straps B B are adapted to pass. These shoulder-straps B B are formed of elastic webbing, having one end secured to an arm pit-shield D and near their opposite ends stitched or otherwise secured to the inner face of the wing *a* of the shoulder-pad. These straps B extend beyond where they are attached to pad A and pass through the transverse slots *b* in said pad and over the central portion of the same to a point about

midway between the lower wing *a* of the pads, where the rear ends of said straps B are united by a small triangular tie C, and form a Y-shaped coupling connecting the suspender-ends to the pads. Pads D are preferably made of leather cut in a shape substantially as shown in Fig. 2 of the drawings and has secured to the rear wing of one pad a suitable elastic body-strap E, that passes around the back of the wearer to the rear wing of the opposite pad D. This body-strap E preferably passes in line with and is stitched to the lower wings *a'* of the shoulder-pads, and mediate said wings *a'* and the rear wings of the arm pit-shields its divided ends are connected by a suitable adjustable suspender buckle or slide *d*.

Depending from the armpit-shields D and also from the triangular tie C are suitable suspender-ends *d'* *d'* and *c*, respectively. The extensions *d'* have a tendency to pull the shields D away from the armpit of the wearer and avoid any possibility of chafing. Thus it will be seen that when the improved brace is being worn the tendency of the elastic webbing E will be to pull the shoulder-straps B back and straighten the shoulders of the wearer, and at the same time it will press the shoulder-blades into their proper position by means of the pads D without any discomfort and with as much ease as an ordinary suspender.

What we claim as new is—

1. A shoulder-brace comprising shoulder-straps; shoulder-pads secured thereto, and through which said shoulder-straps extend; an elastic webbing connecting said shoulder-pads; a body-strap, to which the lower ends of the shoulder-pads are connected; armpit-shields joining the free ends of said shoulder and body straps; and suspender-ends depending from said armpit-shields and shoulder-pads.

2. A shoulder-brace comprising shoulder-straps; shoulder-pads secured thereto, and through which said shoulder-straps extend; a triangular tie-pad securing the extended ends of said shoulder-straps; a body-strap, to which the lower ends of the shoulder-pads are connected; armpit-shields joining the free ends of said shoulder and body straps; and suspender-ends depending from said armpit-shields and said triangular tie-pad.

3. A shoulder-brace comprising shoulder-straps; shoulder-pads secured thereto, and through which said shoulder-straps extend; a

triangular tie-pad securing the extended ends of said shoulder-straps; an elastic webbing connecting said shoulder-pads; a body-strap, to which the lower ends of the shoulder-pads are connected; armpit-shields joining the free ends of said shoulder and body straps; and suspender-ends depending from said armpit-shields and said triangular tie-pad.

4. A shoulder-brace comprising shoulder-straps; shoulder-pads secured thereto; a triangular tie-pad connected to said shoulder-pads by webbing; an adjustable body-strap to which the lower ends of the shoulder-pads are connected; armpit-shields joining the free ends of said shoulder and body straps; and suspender-ends depending from said armpit-shields and said triangular tie-pad.

5. A shoulder-brace comprising shoulder-straps; shoulder-pads secured thereto; a triangular tie-pad connected to said shoulder-pads by webbing; an elastic webbing connecting said shoulder-pads; an adjustable body-strap to which the lower ends of the shoulder-pads are connected; armpit-shields joining the free ends of said shoulder and body straps; and suspender-ends depending from said armpit-shields and said triangular tie-pad.

6. A shoulder-brace comprising shoulder-pads each provided with a transverse slit in their upper lobes; shoulder-straps secured near their ends to said shoulder-pads and having their free ends extended through said slits and secured together; a body-strap to which the lower ends of the shoulder-pads are connected; armpit-shields joining the free ends of said shoulder-straps and body-

straps; and suspender-ends depending from said armpit-shields and the extended ends of said shoulder-straps.

7. A shoulder-brace comprising shoulder-pads each provided with a transverse slit in their upper lobes; shoulder-straps secured near their ends to said shoulder-pads and having their free ends extended through said slits and secured together; an elastic webbing connecting said shoulder-pads; a body-strap to which the lower ends of the shoulder-pads are connected; armpit-shields joining the free ends of said shoulder-straps and body-straps; and suspender-ends depending from said armpit-shields and the extended ends of said shoulder-straps.

8. A shoulder-brace comprising shoulder-pads each provided with a transverse slit in their upper lobes; shoulder-straps secured near their ends to said shoulder-pads and having their free ends extended through said slits; a triangular tie-pad joining the extended ends of said shoulder-straps; a body-strap to which the lower ends of the shoulder-pads are connected; armpit-shields joining the free ends of said shoulder-straps and body-strap; and suspender-ends depending from said armpit-shields and said triangular tie-pad.

In testimony whereof we have hereunto set our hands this 30th day of January, A. D. 1906.

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Witnesses:

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