J. DORF.

SHOULDER BRACE.

APPLICATION FILED MAR. 24, 1908.

921,812. Patented May 18, 1909.

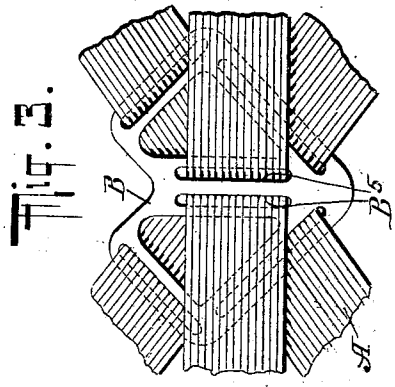

Fig. 3.

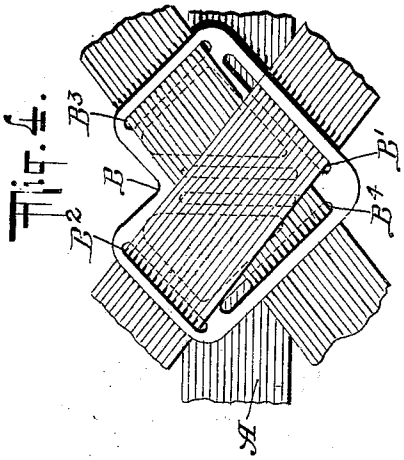

Fig. 4.

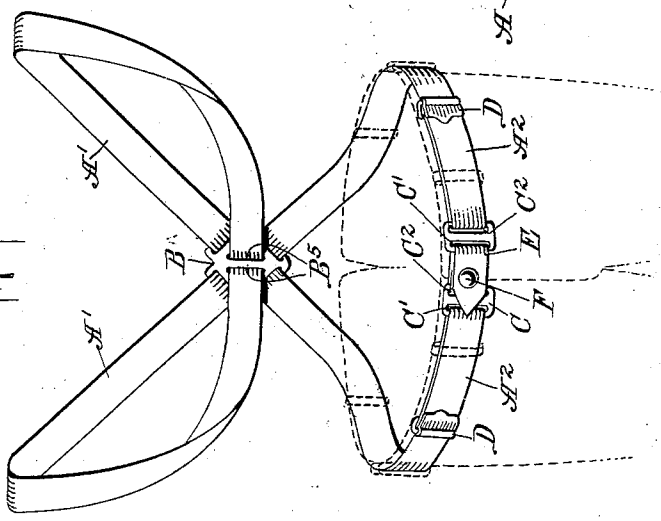

Fig. 2.

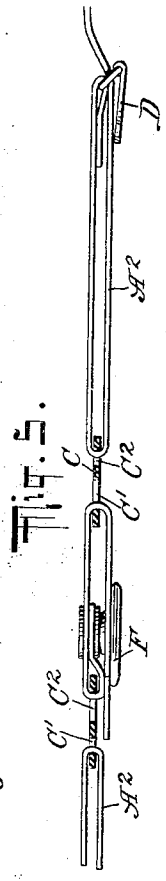

Fig. 5.

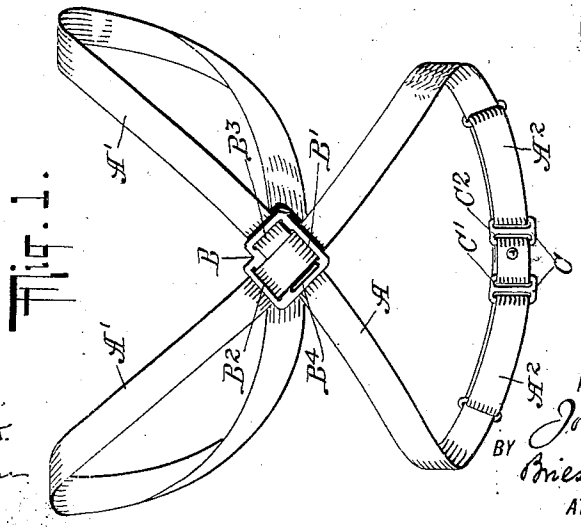

Fig. 1.

WITNESSES:

John A. Kellenbeck.

G. V. Rasmussen

INVENTOR

Joseph Dorf

BY Briesen & Knauth

ATTORNEYS

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOSEPH DORF, OF NEW YORK, N. Y., ASSIGNOR, BY MESNE ASSIGNMENTS, TO MORRIS HECHT, OF NEW YORK, N. Y.

SHOULDER-BRACE.

No. 921,812. Specification of Letters Patent. Patented May 18, 1909.

Application filed March 24, 1908. Serial No. 422,910.

To all whom it may concern:

Be it known that I, JOSEPH DORF, a citizen of the United States, and resident of the borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in Shoulder-Braces, of which the following is a specification.

My invention relates to shoulder braces and has for its object to provide a device of this description which, when worn, will tend to draw back the shoulders of the wearer, and to expand the chest and thus induce proper breathing.

My invention automatically adjusts itself to every change in position of the wearer and may, if desired, be used as a belt, or suspender to support a wearer's trousers.

The device is preferably constructed of one continuous piece of material and is adjustable to different sizes so as to enable it to be worn by differently built persons.

In the drawings Figure 1 is a rear view of the device; Fig. 2 is a front view thereof, showing the brace as it would appear in position on the wearer and serving as a belt or suspender; Fig. 3 is an enlarged detail rear view of the slide with the strip of material passed through it; Fig. 4 is a front view thereof, and Fig. 5 is a detail view partly in section showing the means for connecting the two ends of the brace.

The brace comprises a strip of material A, which may be either elastic or non-elastic web, as desired.

B is a slide provided with a number of slots B', B^2, B^3, B^4 and B^5, through which the strip A passes as will be hereinafter more fully described.

C are metal loops provided with slots C', C^2, and D are clasps to which the ends of the strip A are secured.

In the present instance the device for securing the brace in position on the wearer comprises a strip of material E which passes through the slots C^2 of the loops C and which has its ends secured together by a fastener F which may be of the glove fastener type. The strip A is first passed through the slot B' and then through the slot B^2 over the shoulder of the wearer and then back again through the slots B^5 to the front of the wearer and over the other shoulder to the back and through the slots B^3, B^4, to the front where it is connected with the other end of the strip A by means of the fastening device E, F. The clasps D to which the free ends of the strip A are secured are intended to adjust the length of said strip to accommodate the brace to different wearers.

When the device is used as a support for trousers, the strip is passed through the usual belt loops as shown in Fig. 2. When the trousers are not supplied with belt loops, the strip is simply clasped around the waist of the wearer near the upper part of the trousers in about the same position as illustrated in Fig. 2.

The device may be utilized simply as a brace, in which case it may be worn beneath the outer shirt of the wearer, if desired.

In placing the brace in position, portions A' of the strip are drawn upward in Fig. 1 as far as possible and then put on much in the same way as a waistcoat, after which the portions A^2 are drawn around to the front of the wearer and clasped together by means of the fastening device E, F. To remove the brace, the fastening device E, F, is first disconnected and the portions A' drawn forward and the brace slipped off.

With my brace the shoulders of the wearer are drawn back and the chest is expanded so that perfect breathing automatically results, in addition to which, as above stated, the brace may be utilized for the purpose of supporting a wearer's trousers. The brace is adjustable so as to be capable of being worn by either adults or children.

The slots of the slide B are all arranged at such angles that the particular portion of the strip A which passes through each of them, moves freely and with a minimum of friction so that as the wearer changes his or her position, the slide will adjust itself freely and easily. In other words, the slots B' and B^2 are arranged parallel with each other and the slots B^3 and B^4 extend parallel one to the other but at an angle to the slots B' and B^2. The slots B' B^4 are preferably longer than the slots B^2, B^3, thus allowing the diagonal strap portions to readily adjust themselves to different angles. The slots B^5 project in a substantially vertical direction and parallel to each other but at an angle to all the other slots. Each pair of slots forms a guide in which the corresponding portion of the strip A' is adapted to slide. With this construction, the different portions of the strip A are properly maintained in position relatively to each other at the point of cross-

ing, without, however, binding the different parts of the strip at this point.

I claim:

1. A shoulder brace comprising a plate having two oblique guides arranged at an angle to each other, and a third guide, and diagonal strips of fabric extending through said oblique guides, and having a central portion arranged to slide bodily on said plate in a horizontal direction along said third guide, the upper portions of said strips being adapted to engage the wearer's shoulders, and the lower portions being continued to form a waistband.

2. A shoulder brace comprising a plate having two sets of oblique parallel slots, one set at an angle to the other, and a third set of parallel slots arranged centrally with respect to the other two sets, and diagonal strips of fabric each extending through one set of oblique slots, the connecting portion of said diagonal strips being arranged to slide bodily in the central set of slots, the upper portions of said strips being adapted to engage the wearer's shoulders, and the lower portions being continued to form a waistband.

3. A shoulder brace comprising a plate having two sets of oblique parallel slots, one set at an angle to the other, the lower slot of each set being longer than the upper slot, and a guide located centrally with respect to said oblique slots, and diagonal strips of fabric each extending through one set of oblique slots, the connecting portion of said diagonal strips being arranged to slide along the central guide, the upper portions of the said strips being adapted to engage the wearer's shoulders, and the lower portions being continued to form a waistband.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOSEPH DORF.

Witnesses:
HANS V. BRIESEN,
JOHN A. KEHLENBECK.