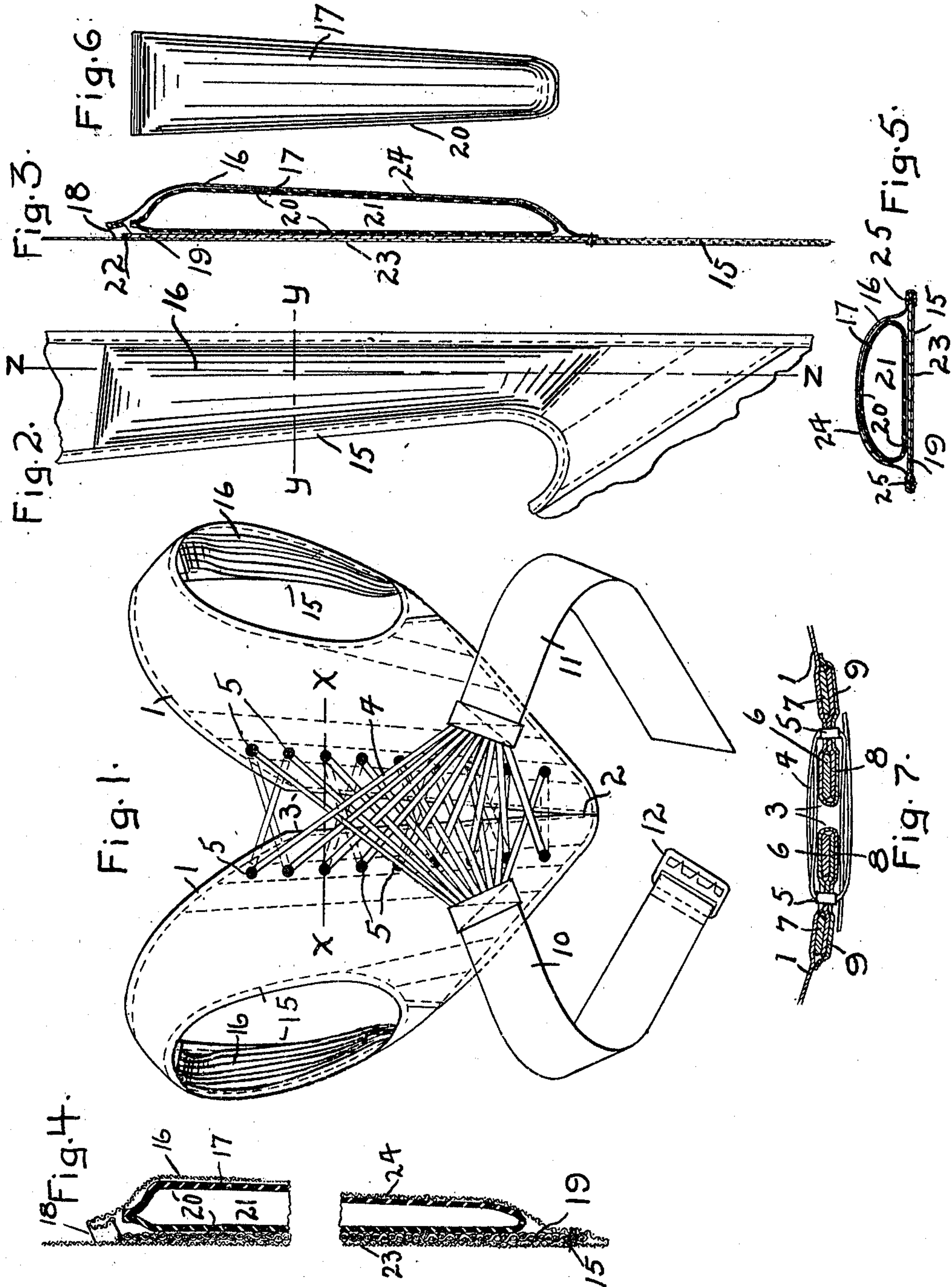


J. J. SCHILDERINK.  
SHOULDER BRACE.  
APPLICATION FILED OCT. 5, 1908.

945,200.

Patented Jan. 4, 1910.



Witnesses.  
Jacob A. Gollander  
Lillian Burnett

Inventor.  
John J. Schilderink  
by A. A. Werbock  
His Attorney.



# UNITED STATES PATENT OFFICE.

JOHN J. SCHILDERINK, OF CINCINNATI, OHIO.

## SHOULDER-BRACE.

945,200.

Specification of Letters Patent.

Patented Jan. 4, 1910.

Application filed October 5, 1908. Serial No. 456,187.

*To all whom it may concern:*

Be it known that I, JOHN J. SCHILDERINK, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, 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 the providing of a device of this character which will conform to the body of the wearer, and be a brace upon the shoulders without undue stress upon the same, and arranged to urge the shoulders backward or into proper position with an easy and constant pressure.

It is a further object of my invention to provide a shoulder brace with resilient cushions in the shoulder-straps which will yield to pressures upon different points of the cushions and transfer said pressures lengthwise of said cushions, and further, to provide the shoulder-straps of the shoulder brace with removable cushions, and the invention will be readily understood from the following descriptions and claims, and from the drawings, in which latter:

Figure 1 is a rear elevation of my improved device. Fig. 2 is a front elevation of one of the shoulder-straps, partly broken away, and showing the cushion-pocket for the same. Fig. 3 is a vertical section of the same taken on the line  $z-z$  of Fig. 2. Fig. 4 is a similar section of the same showing the same enlarged and partly broken away, and indicating the materials of which the parts are composed. Fig. 5 is a cross section of the same, on the line  $y-y$  of Fig. 2 showing the cushion-containing pocket and the cushion therein. Fig. 6 is a front elevation of the cushion; and, Fig. 7 is a detail in cross-section on the line  $x-x$  of Fig. 1.

The shoulder brace comprises the body-sections 1, each of which may represent one-half the body of the shoulder brace, and which may be permanently connected at the bottoms of the rear portions, as shown at 2, the rear parts of said body-sections having adjacent edges 3, which may be drawn more or less close to each other by a series of lacing-cords 4 adapted to be respectively received through eyelets 5 which are preferably located on the respective body-sections in a row between stays 6 7, which may be of steel, whale-bone, or the like, and be received in pockets 8 9 at the rear of said body-sections. The lacing-cords are respectively

received through the eyelets of the respective body-sections and preferably cross each other to front and rear of said body-sections, the free ends of said lacing-cords being respectively secured to bands 10 11 which preferably have an adjustable fastening device, as indicated by the buckle 12, at their free ends. The adjacent edges of the body-sections are placed upon the back of the wearer, at the median line of the same, the lacing cords being drawn taut by the pulling on the bands, the free ends of which are then secured together at the front of the wearer.

The body sections are respectively provided with shoulder-straps 15 arranged to be received about the shoulders of the wearer. Each of these shoulder-straps is provided with a pocket 16, extending longitudinally thereof, and preferably received at the front of the shoulder of the wearer and extending beneath the arm-pit of the same. A cushion 17 is received in each of these pockets and is preferably removably received therein, each pocket having a mouth 18 through which the cushion is inserted and removed. This mouth is preferably at the upper end of the pocket and is preferably of smaller cross section than the body of the pocket, as indicated in Figs. 1, 2, 3 and 4, so that, when the cushion has been received in the pocket, the tendency of the mouth of the pocket is to close or substantially close for retaining the cushion in the pocket. The shoulder brace, at the outer face of the pocket, is also preferably provided with a stiffening-piece 19, which may be a piece of fabric thicker than the fabric of the inner wall of the pocket and shoulder-strap, and serves primarily to stiffen the pocket in lateral plane.

The cushion is preferably a hollow closed cushion filled with air and preferably comprises a wall 20 surrounding the hollow 21 thereof. This wall is preferably of rubber or other resilient material impervious to air. The pocket preferably bulges from the inner face of the shoulder-strap so that the cushioning effect of the cushion therein may be directed against the shoulder and arm-pit of the wearer, thus avoiding the crimping or creasing of the outer face of the shoulder-strap, the action of this hollow cushion being to yield at various points to the inequalities of the body and the strains that may be directed against the same, for selectively yielding at different points thereof, depending on where the severest strain is directed, the dis-



placed air at the points of severest strain being received in other parts of the cushion, lengthwise and also crosswise of the same, so that the resultant strain upon the wearer is  
5 equalized throughout the entire cushion.

My improved device has the further function of urging the shoulders backward, as the cushion, which may be termed a pneumatic rubber cushion, is located between the  
10 body of the wearer and the fabric of which the strap is composed, and acts continuously and subconsciously on the wearer to straighten his shoulders. The cushions act further to maintain the proper form of the shoulder-  
15 straps as they act to continuously distend the same. The stiffening piece 19 may terminate inside the pocket adjacent its top as shown at 22, so that the same may not be visible from the outside of the pocket. The  
20 outer face of the shoulder-strap is indicated at 23 and the outer fabric of the pocket is indicated at 24, and these, with the stiffening-piece, may be united by the side-seams 25, which are at the respective sides of the  
25 shoulder-strap.

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

1. In a shoulder brace having body sections and shoulder straps to embrace the  
30 shoulders of the wearer, in combination with

elongated pockets each having a mouth and which are disposed in general vertical position on the inner faces of the shoulder straps so as to be adapted to bear against both the  
35 front parts of the wearer's shoulders and under and against his arm-pits, and elongated pneumatic cushions contained within and extending lengthwise of said pockets which are removable or insertible through  
40 the mouths therein.

2. A shoulder brace having body sections and shoulder straps to embrace the shoulders of the wearer, in combination with elongated  
45 pockets each having a mouth of contracted size at its upper end, said pockets being disposed in general vertical position on the inner faces of the shoulder straps so as to be adapted to lie against both the front parts of  
50 the wearer's shoulders and under and against his arm-pits, and elongated pneumatic cushions contained within and extending lengthwise of said pockets which are removable or insertible through the mouths therein and  
55 are held by the said contracted mouths.

In testimony whereof I have signed my name hereto in the presence of two subscribing witnesses.

JOHN J. SCHILDERINK.

Witnesses:

LILLIAN BURNETT,  
O. S. BRYANT.