L. J. KNOWLES.

COMBINED SHOULDER AND BODY BRACE AND HOSE SUPPORTER.

APPLICATION FILED NOV. 21, 1905.

915,191. Patented Mar. 16, 1909.

Fig. 1.

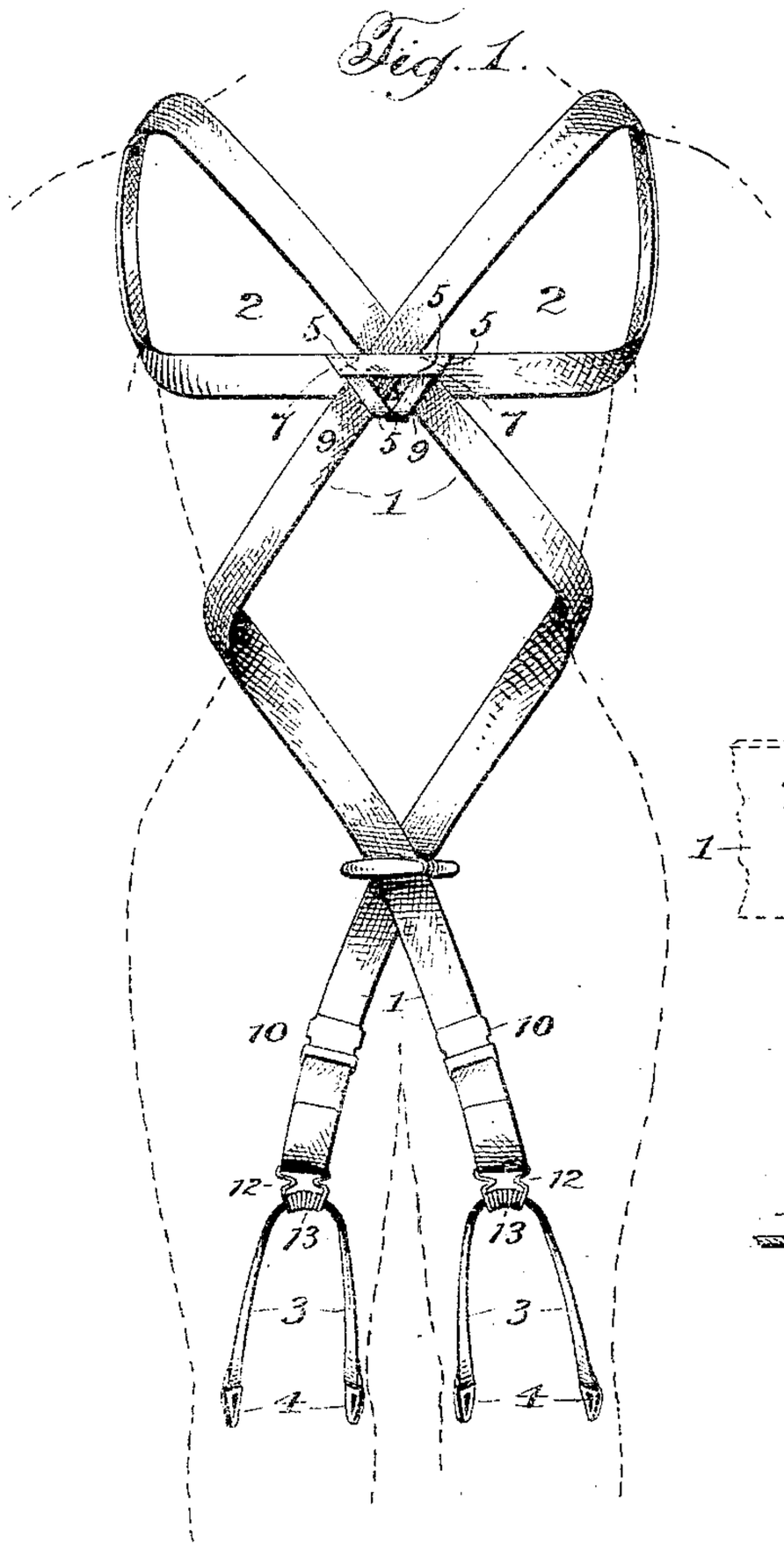


Fig. 2.

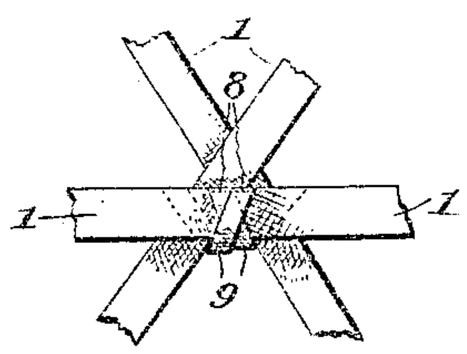


Fig. 3.

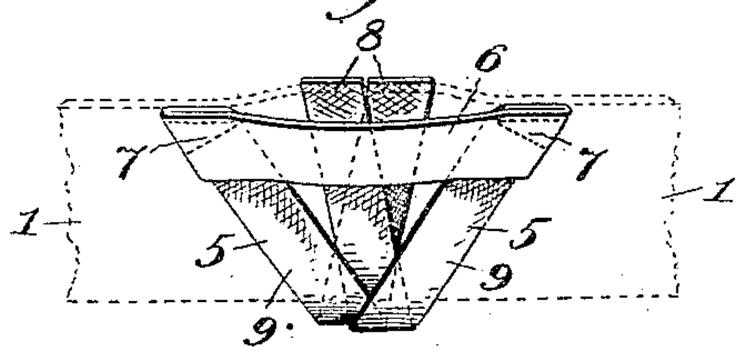


Fig. 4.

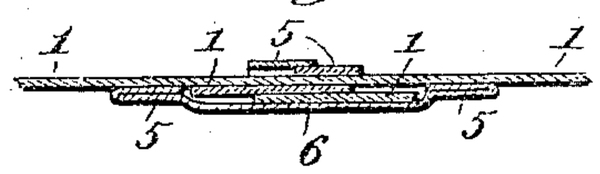
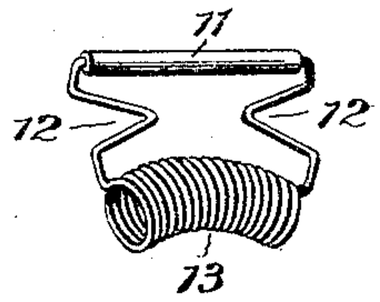


Fig. 5.



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UNITED STATES PATENT OFFICE.

LOUISA J. KNOWLES, OF TACOMA, WASHINGTON.

COMBINED SHOULDER AND BODY BRACE AND HOSE-SUPPORTER.

No. 915,191. Specification of Letters Patent. Patented March 16, 1909.

Application filed November 21, 1905. Serial No. 288,408.

To all whom it may concern:

Be it known that I, LOUISA J. KNOWLES, a citizen of the United States, residing at Tacoma, in the county of Pierce and State of Washington, have invented certain new and useful Improvements in a Combined Shoulder and Body Brace and Hose-Supporter; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in combined shoulder and body braces and hose supporters, and is more particularly designed as an improvement in that class of such combined devices illustrated, described and claimed in a pending application filed by me February 4, 1905, Serial No. 244,142.

The present invention contemplates the provision in a combined device of the character mentioned of means whereby the shoulder-supporting loops may be effectually held in proper relation for application to the body of the wearer when the device has been removed from, as well as when on the person. In the form of brace and supporter made the subject-matter of the application hereinbefore referred to there exists no provision for the purpose stated; hence no definite or approximately fixed relation of the shoulder supporting loops is preserved. This causes annoyance in that in use the loops become deranged, while the loops when the device is not in position upon the wearer lose their formation, and some inconvenience is experienced in readjusting the device and reforming the loops when the device is again placed upon the person. The present invention, however, overcomes these difficulties, and also provides means whereby the size of the shoulder supporting loops may be easily regulated at the will of the user.

Furthermore, the present invention also has in view the provision of simple and efficient means for connecting the hose-supporting straps to the webbing of the supports, which means present a neater appearance and at the same time are more durable than the construction disclosed in my previous application.

Having these general objects in view, and others which will appear as the nature of the improvements is better understood, the invention consists substantially in the novel construction, combination and arrangement of parts as will be hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the appended claims.

In the drawings—Figure 1 is an elevation, viewing the same from the rear, of a combined shoulder and body brace and hose supporter embodying the herein-described improvements. Fig. 2 is a fragmentary view similar to Fig. 1, the position of the device being reversed. Fig. 3 is a detail perspective view of the guide loops, the webbing being shown in dotted lines. Fig. 4 is a sectional view taken at the points of intersection of the overlapping portions of the webbing. Fig. 5 is a detail perspective view of the connecting loop for the hose supporting straps.

Referring in detail to the drawings, the numeral 1 designates the webbing of the herein-described brace and supporter; 2 the shoulder supporting loops; 3 the hose supporting straps, and 4 any preferred form of clasp for connecting the hose with said straps. The arrangement of these parts is precisely the same as embodied in the form of brace and supporter disclosed in my previous application hereinbefore mentioned.

As before premised, it is the object of the present invention to maintain the shoulder supporting loops 2 in a definite or approximately fixed relation both when the supporter is upon the body of the wearer, as well as when removed therefrom. To the accomplishment, therefore, of this end, a single length of tape 5 is arranged at the central portion of the webbing 1 which crosses the back of the wearer beneath the shoulder blades, the central portion of said tape lying in parallel relation to the webbing and forming a horizontally-disposed main guide loop 6 through which both of the ends of the webbing 1, at their points of crossing, are designed to pass, and thus be prevented moving away from the portion of the webbing 1 which crosses the back.

The tape 5 is folded back upon itself at the ends of the guide loop 6, a line of stitching 7 passing through the portions so folded to attach the guide loop 6 to the webbing 1, and the ends of the tape 5 are thus deflected at an angle, or diagonally, to the loop 6, and cross each other at the lower edge of the webbing 1 immediately beneath the loop 6, the extremities of the tape 5 being then stitched, as at 8, to the webbing 1 at the side thereof opposite to that whereon the

guide loop 6 is positioned. A pair of auxiliary guide loops 9 is thus formed, one for each of the ends of the webbing 1, and these auxiliary guides in turn hold the ends individually upon the webbing 1, but permit a free movement of said ends to enable the shoulder supporting loops 2 being regulated in size to conform to the persons of the users, as well as to enable a free movement of the webbing under the influence of the movement of the body.

In Fig. 5 is disclosed the construction of the connecting loop employed for attaching the hose supporting straps to the ends of the webbing 1. These ends are provided with any desired form of clasp 10, through the medium of which the length of the webbing may be regulated in conformity with the size of the wearer. The connecting loop comprises an upper bar 11 from which depend the sides of the loop, each of said sides including an inwardly-bent V-shaped section 12, and between said V-shaped sections 12 and the bar 11 is provided a space which receives the webbing 1, said inwardly-bent V-shaped sections 12 acting as guards and preventing the webbing 1 from coming in contact with the coil 13, hereinafter described, thus obviating wear of the webbing by said coil. Connected to the ends of the sides of the loop is a coil 13, which coil receives the hose supporting straps 3 in an obvious manner, and permits the latter readily moving therein. It will be noted that the coil 13 and the sides of the loop are formed of a single piece of wire, the extremities of the sides being seated in the upper bar 11. By the use of the coil 13 a neat appearance is presented, and a durable construction is likewise provided, so that the movement of the hose supporting straps 3 within said coils will have no wearing effect upon the webbing 1. The coil 13 is also bent or curved, as clearly seen in the drawings, and thus when the hose supporting straps are under tension the coil presents no straight or sharp surfaces which would cause unnecessary wear upon the hose supporting straps in their movement through the coils.

In the use of the invention the loops 2 are caused to receive the shoulders of the wearer, by which the webbing is positioned upon the body, and by reason of the tape 5 arranged to form the guide loops 6 and 9, it is obvious that the relation of the loops 2 will be a definite or approximately fixed one, so that whether the device be upon or removed from the person, it will be unnecessary to reform the loops when the device is again required for use. Furthermore, the guide loops 6 and 9 enable a very free movement of the parts of the webbing 1 at the points where the same overlap, thereby permitting the device to readily conform to the movements of the body, as well as enabling a ready adjustment when a variation of the size of the loops is desired.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is:

In a device of the class described, the combination with a webbing folded to provide shoulder supporting loops, the portion of the webbing adjacent to said loops being designed to occupy a position at the back of the body when the device is in applied position, and thereby brace the latter, the ends of the webbing being crossed at a point in proximity to said portion, of a guiding tape including a horizontally-disposed main loop folded upon itself at each side of its center and attached to the webbing at said points, the ends of the tape being convergent and disposed in angular relation to the main guide loop, said ends being crossed in close proximity to their extremities, said extremities being attached to the webbing at a point intermediate to the fixed points of the main guide loop, said ends forming auxiliary guide loops which receive the ends of the webbing, and hose supporting straps arranged at the ends of the webbing.

In testimony whereof, I affix my signature in the presence of two witnesses.

LOUISA J. KNOWLES.

Witnesses:

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