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SUSPENDERS.

APPLICATION FILED AUG. 7, 1912.

1,067,028. Patented July 8, 1913.

Fig. 1.

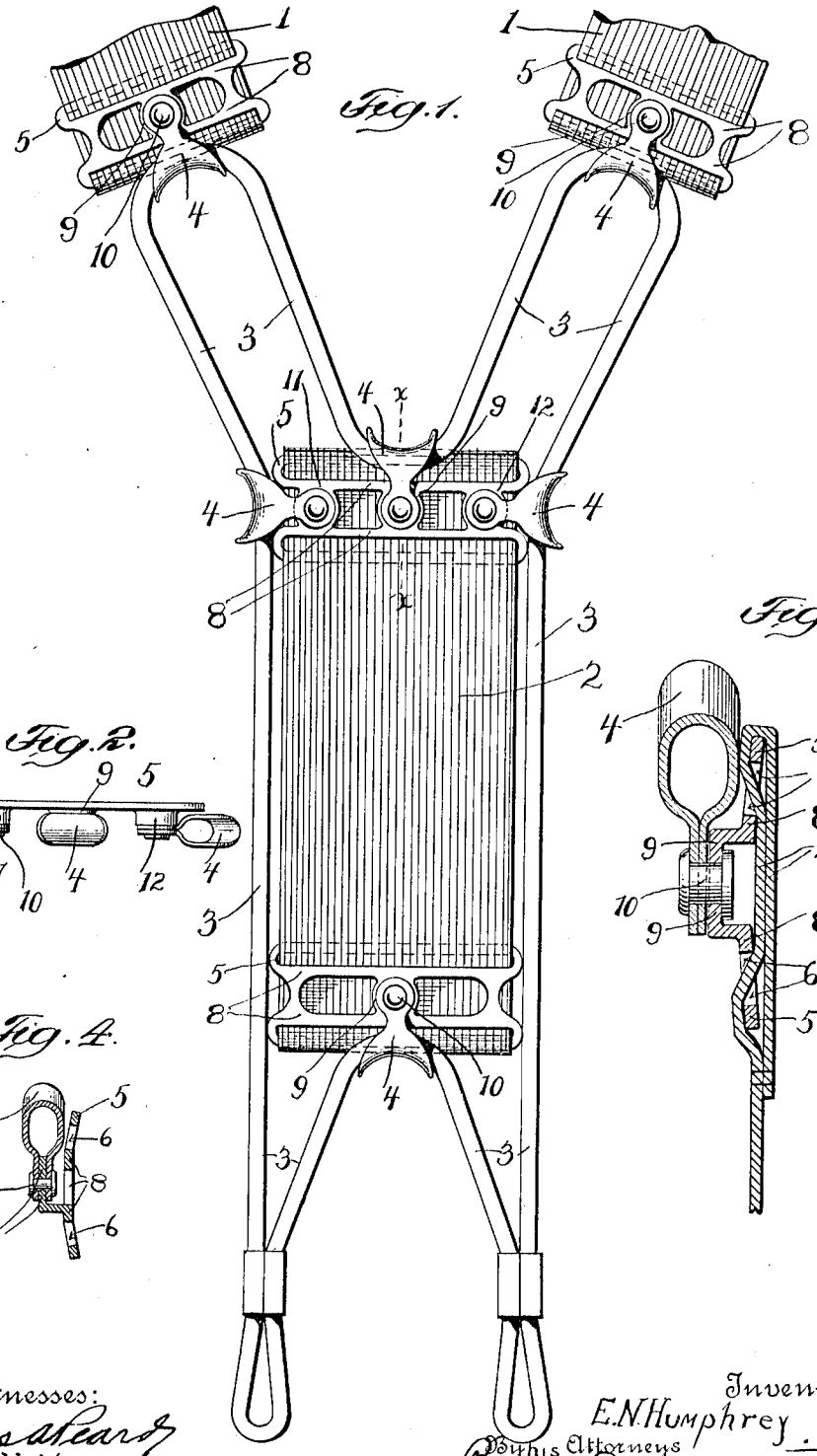


Fig. 2.

Fig. 3.

Fig. 4.

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SUSPENDERS.

1,067,028. Specification of Letters Patent. Patented July 8, 1913.

Application filed August 7, 1912. Serial No. 713,709.

To all whom it may concern:

Be it known that I, ERNEST N. HUMPHREY, a citizen of the United States, residing at New Britain, county of Hartford, State of Connecticut, have invented certain new and useful Improvements in Suspenders, of which the following is a full, clear, and exact description.

This invention relates to the construction of suspenders and the like and is designed to provide a form of cord guide support which will prevent contact of the metal parts with the body or garments of the wearer. In the ordinary suspender whose parts are constructed to move with the movements of the wearer's body, the movable metal parts rub against the body or garments of the wearer, causing discomfort and at times infection where they contact with the body, and wearing out and ofttimes discoloring the fabric of garments when worn thereover.

It is the object of my present invention to provide a form of support for such movable metal parts that will not be subject to the disadvantages enumerated. These and other advantages will be apparent from the more detailed description following and from the accompanying drawings forming part thereof and illustrating a preferable embodiment of the invention.

In these drawings Figure 1 is a view in elevation of the back portion of a suspender provided with cord guide supports constructed in accordance with my invention. Fig. 2 is a top plan view of a support detached. Fig. 3 is a vertical sectional view on an enlarged scale taken on the line *x*—*x*, Fig. 1. Fig. 4 is a vertical sectional view of a modified form of support.

Referring to the drawings by numerals, 1—1 indicates the main or shoulder straps of a suspender and 2 the rear or back strap thereof. The rear ends of the shoulder straps and the upper and lower ends of the back strap are connected by a continuous cord structure 3 which runs through the tubular cord guides 4 carried at such ends of the straps. These cord guides are usually pivotally carried by loop plates or other strap end attaching devices, so that when the body of the wearer moves, these guides swing on their pivots and rub against the body or garment. The rear face of the strap end attaching device or part thereof also usually contacts with the body or garment of the wearer.

In my improved construction, I provide loop plates 5 provided with transversely extending strap slots 6 adjacent their upper and lower ends, these plates having an intermediate portion 8, preferably of skeleton form, and provided with outwardly offset brackets 9 forming seats for the tubular cord guides 4 whose inner ends are journaled upon the outer face of these bracket seats by suitable headed pivots 10. The ends of the fabric of the strap members extend through the strap slots 6 and under the intermediate body portions 8 and offset brackets 9, and are brought over the rear faces of the loop plates and sewed or otherwise secured to the main body of the strap as shown in Fig. 3 of the drawings, thereby covering the rear face of said plate and preventing contact thereof with the body or garment.

Where it is necessary to employ more than one tubular cord guide on a single loop plate as at the upper end of the back strap in the specific form of suspender construction illustrated, similar brackets may be provided on the intermediate portion 8 of the plate at the points desired. In Fig. 2 of the drawings I have indicated such additional offset brackets at 11 and 12 respectively, these brackets being located adjacent the ends of the intermediate body portion and in line with the central bracket 9. Tubular guides 4 are pivotally mounted on these offset brackets 11 and 12 in the manner previously described and as illustrated in Fig. 3 of the drawings.

The bracket 9 shown most clearly in Fig. 3 bridges the opposite ends of the intermediate section 8. I may use a construction illustrated in Fig. 4 of the drawings in which an offset arm 13 is employed, the upper end of this arm being unconnected with the main body of the loop plate thereby permitting insertion of one end of the tubular guide between the outer face of the loop plate and the under face of the offset arm 13, the other end of the tubular guide being seated over the outer face of the arm 13 and the two ends being journaled on this arm by means of the headed pivot 14.

As I have before stated the fabric of the strap end extends around over the outer face of the loop plate and over its rear face

preventing contact of the loop plate with the body or garment. The brackets forming the guide seats are spaced sufficiently far from the outer faces of the loop plate as to afford a clearance between the inner face of the tubular cord guides and the outer face of the fabric looped over the plate. The thickness of the fabric at the rear of the plates spaces the plate sufficiently far from the body of a garment to prevent any possibility of contact therewith of the end tubular guides carried by the loop plate at the upper end of the back strap. As I before stated there is a clearance between the inner faces of the tubular guides and the outer or front face of the strap end, so that the inner faces of these tubular guides all lie out beyond the planes of the outer faces of said plate and strap.

While I have herein described and illustrated a specific embodiment of my invention various structural changes are possible within the spirit of the invention and the scope of the appended claims.

What I claim therefore, and desire to secure by Letters Patent is:—

1. In a device of the character described, in combination, a supporting plate and a cord guide pivotally carried by said plate, said plate having a portion extending in rear of the rear face of said guide whereby the opposing relatively moving faces of said plate and guide are spaced apart and out of contact.

2. In a device of the character described, in combination, a loop plate having strap slots therein adjacent opposite ends and having an outwardly offset seat formed intermediate said ends, a strap end extending through said slots and under said seat and over the rear face of said plate, and a cord guide secured to said seat and spaced from the outer faces of said loop plate and strap.

3. In a device of the character described, in combination, a loop plate having transversely extending strap slots formed therein adjacent opposite ends and having an outwardly offset bracket formed intermediate said ends and slots, a strap end extending through said slots and under said bracket and over the rear face of the loop plate, and a cord guide pivoted on said bracket and spaced from the outer faces of said loop plate and strap.

4. In a device of the character described, in combination, a loop plate having transversely extending strap slots formed therein adjacent opposite ends thereof and having a plurality of outwardly offset brackets formed intermediate said ends and slots, a strap end extending through said slots and under said brackets and over the rear face of said loop plate, and a tubular cord guide pivoted on each of said brackets and having its rear face lying out beyond the planes of the outer faces of said loop plate and strap end.

5. In a device of the character described, in combination, a loop plate adapted for connection to a supporting strap and a cord guide pivotally carried by said plate, said plate having a portion extending in rear of the rear face of said guide, said guide being mounted upon said plate to space its rear face from the opposing face of said plate extension relative to which it moves.

6. In a garment support trimming, a supporting plate, a cord guide pivotally supported by said plate, said plate having a guard member extending therefrom and located in rear of the rear face of said cord guide, the opposing relatively moving faces of said plate and guide being positioned in relatively offset planes and out of contact.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."