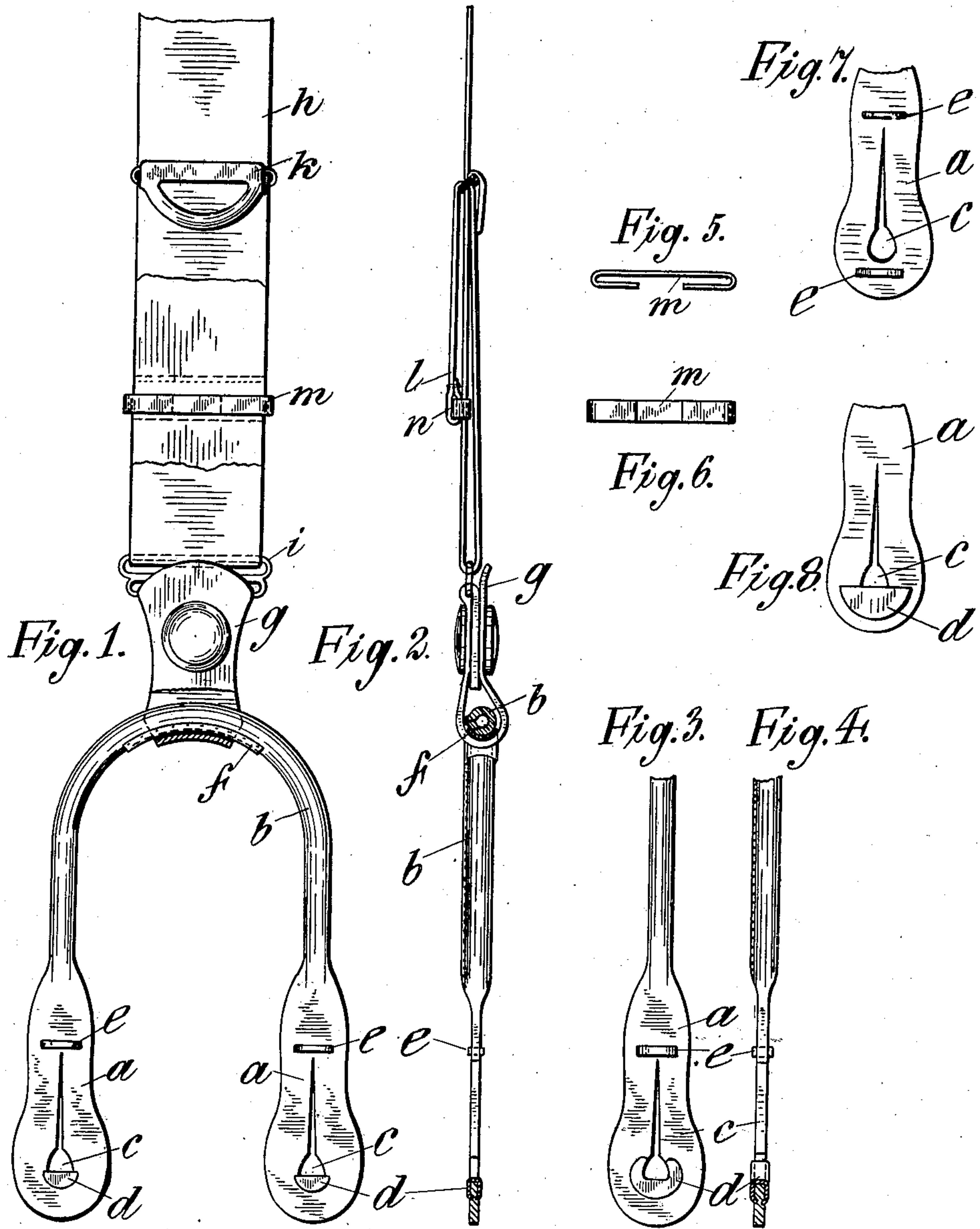


No. 862,331.

PATENTED AUG. 6, 1907.

H. S. HEINEMAN.
SUSPENDERS.

APPLICATION FILED JAN. 27, 1906.



Witnesses
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HERBERT S. HEINEMAN, OF LOS ANGELES, CALIFORNIA.

SUSPENDERS.

No. 862,331.

Specification of Letters Patent.

Patented Aug. 6, 1907.

Application filed January 27, 1906. Serial No. 298,268.

To all whom it may concern:

Be it known that I, HERBERT S. HEINEMAN, a citizen of the United States, and a resident of the city and county of Los Angeles and State of California, have invented certain new and useful Improvements in Suspenders, of which the following is a specification, reference being had to the accompanying drawing, forming a part hereof.

One object of this invention is to provide a suspender in which the ends are constructed or re-inforced so as to increase materially the durability of the suspender.

As is well known, the ends of the suspender are the first to wear out, and in the large majority of cases this wearing out is due to the ripping or tearing of one or more of the suspender ends. In accordance with the present invention the suspender ends are re-inforced in such a way as to prevent this tearing and ripping and thus to prolong considerably the life of the suspender.

The invention will be more fully described with reference to the accompanying drawing, in which,

Figure 1 is a view in elevation of the front web of a suspender with the suspender ends attached thereto, Fig. 2 is a similar view in side elevation, the suspender end and connecting piece being shown partly in section. Figs. 3 and 4 are respectively plan and sectional views of one suspender end, showing a modification, Figs. 5 and 6 are respectively views in elevation and plan of a slide for the front web to which the end of the front web is attached, and Figs. 7 and 8 are plan views of one suspender end, showing further modifications.

In the drawing, most of the parts of the suspender are shown conventionally. In Fig. 1, the two suspender ends *a* are connected as usual by the connecting piece *b*, and each of the suspender ends are reinforced preferably above and below the slit *c*. At the lower end of the slit a piece *d*, which may be of metal or of any other durable substance, is secured around the lower edge and forms the lower part of the slit. This piece *d* is preferably substantially disk shaped and is bent around the lower edge of the slit, and made to bite or grip the same tightly. In this way, the strain on the suspender end is divided throughout the end, and the material in each end is more firmly united about the slit than heretofore.

In order to reinforce the suspender end above the slit, a staple or the like *e* may be inserted into the suspender end and, as will be obvious, this staple will tend to unite the material in the suspender end more firmly around the top of the slit.

The connecting piece *b*, which joins the suspender ends, is preferably provided with a short metallic strip *f* at the point where the connecting piece rests upon the cast-off *g*. In this way, the wearing away of the connecting piece at this point may be effectively prevented.

Between the connecting piece *g* and the front web *h* is the usual connecting piece *i*. In the present case the front web passes freely through the piece *i* and up through the buckle *k*, the end *l* of the web being free of both the buckle and the connecting piece *i*. In order to make it more difficult for the web to slide through the buckle after the web has been adjusted, the free end *l* of the web is secured to a slide *m* upon the web. This slide consists preferably of a band which, as shown in Fig. 5, is bent in the form of the letter C, and the end *l* of the web is formed with a loop *n* which is slipped over the free ends of the slide *m*. It will be clear that, with this disposition of the web, the suspender may be lengthened or shortened without necessarily bringing the buckle in any particular position. It will also be clear that if it is not desirable to have three strands of webbing, as shown in Fig. 2, the buckle may be raised so as to bring the slide *m* on a level therewith.

Referring to Figs. 3, 4, 7 and 8, in which modifications of the reinforcement pieces are shown, it will be seen that these pieces may assume different forms or shapes and be disposed in different ways. In Fig. 7 the suspender end is reinforced above and below the slit by means of a staple. In Fig. 8 the reinforcing means above the slit is omitted while the metal piece in the bottom of the slit is relatively much larger than as shown in Fig. 1.

In Figs. 3 and 4 the reinforcement in the bottom of the slit is shown as coming up much higher upon the slit than in Fig. 1.

It will be clear that several changes may be made in the suspender shown and described without departing from the spirit of the invention, and that the invention is equally applicable to all kinds of suspenders as well as to the conventional style shown herein.

I claim as my invention,—

1. In a suspender end of flexible material having the usual button-hole slit, means to distribute the strain at the lower end, consisting of a reinforcing piece of non-flexible material extending laterally on both sides of the slit at its lower end only and secured to the suspender end.
2. In a suspender end of flexible material having the usual button-hole slit, means to distribute the strain at the lower end consisting of a stiff reinforcing piece ex-

tending laterally on both sides of the slit at its lower end only and having its edges compressed into the material of the suspender end.

3. In a suspender end of flexible material having the
5 usual button-hole slit, means to distribute the strain at the lower end consisting of a substantially disk-shaped piece bent around the lower end of the slit and extending laterally on both sides of the slit at its lower end only.
4. In a suspender end of flexible material having the
10 usual buttonhole slit, means to distribute the strain at

the lower end consisting of a reinforcing piece of non-flexible material bent around the lower end of the slit and extending laterally on both sides of the slit.

This specification signed and witnessed this 15th day of January, 1906.

HERBERT S. HEINEMAN.

Signed in the presence of—

MARJORIE ROLLINS,

A. L. STEVENS.