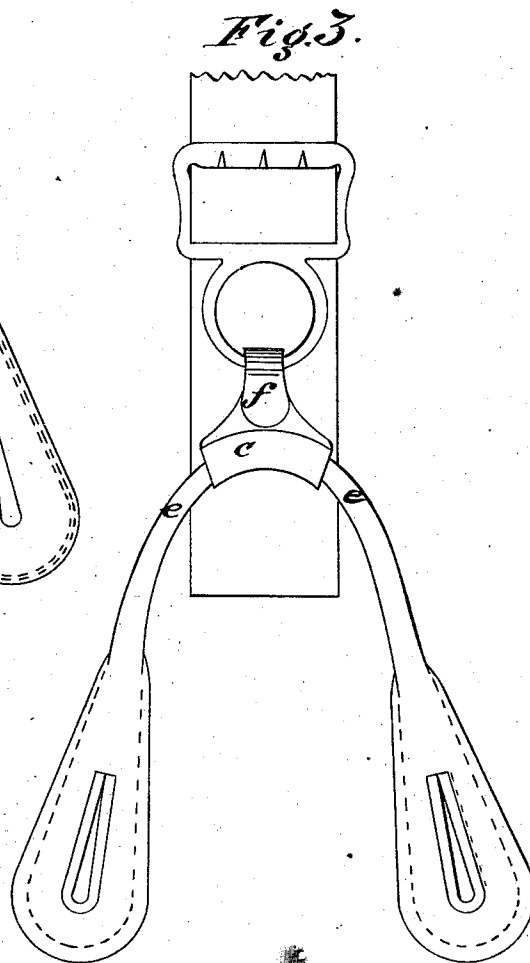
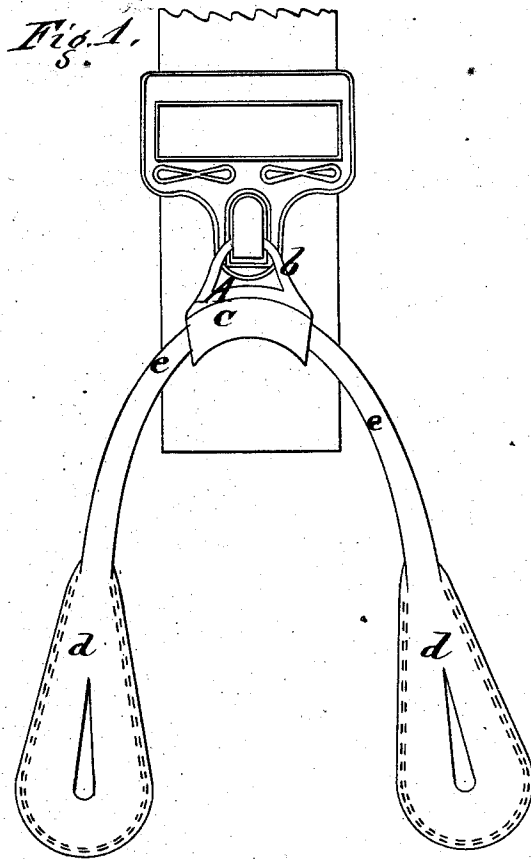


S. W. FISK.
Cast-Off for Suspenders.

No. 161,111.

Patented March 23, 1875.



Witnesses
W. L. Bennett.
W. H. Isaacs.

Inventor
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by his atty.
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UNITED STATES PATENT OFFICE.

STEPHEN WILBUR FISK, OF NEW YORK, N. Y., ASSIGNOR TO FISK, CLARK
& FLAGG, OF SAME PLACE.

IMPROVEMENT IN CAST-OFFS FOR SUSPENDERS.

Specification forming part of Letters Patent No. **161,111**, dated March 23, 1875; application filed
January 12, 1875.

To all whom it may concern:

Be it known that I, STEPHEN WILBUR FISK, of the city, county, and State of New York, have made an invention of a new and useful Cast-off for Suspenders; and that the following is a full, clear, and exact description and specification of the same.

This invention relates to the implement by means of which the front suspender ends of a pair of suspenders are connected with the buckle of the shoulder-strap, with the capacity of rapid disconnection and reconnection therewith. This implement is technically known as a cast-off, and the object of the present invention is to enable the suspender ends to adjust themselves readily to the peculiarities of the pantaloons of the wearer, and at the same time to be readily connected with and disconnected from the shoulder-strap. To these ends my invention consists of a cast-off, constructed of metal or other rigid material, with a fixed curved tubular passage for the connecting-strap of the suspender ends, so that the strap may slide to and fro freely and without injury.

In order that the invention may be fully understood, I have represented in the accompanying drawing, and will proceed to describe, the modes in which I have embodied my invention with success.

Figure 1 represents a face view of the cast-off, the suspender ends, and the buckle of one of the shoulder-straps of a pair of suspenders. Fig. 2 represents a transverse section of the cast-off and strap. Fig. 3 represents a face view of another style of cast-off.

The cast-off represented at Figs. 1 and 2 has the form of a plate, A, with a loop, b, to engage with the hook of the buckle. At the lower side of this plate there is a tubular passage, c, curved longitudinally, as represented

in the drawing, fixed permanently to the plate, and of suitable size for the strap e of the front suspender ends d d to play freely through its bore. This cast-off, being made of brass, is perfectly rigid, so that it cannot change its form, and thereby obstruct the movement of the strap e. Its passage c also, being curved longitudinally, prevents the strap e from bending at a sharp angle, and maintains it in an easy curve, while the movement of the strap to and fro in the bore maintains it in a polished state, so that the strap glides freely to and fro without material wear, and permits the ends to adapt themselves to the strains upon them.

If the buckle for the shoulder-strap be made with a loop, instead of a hook, the cast-off should have a hook, as at f, Fig. 3, in place of the loop b, Fig. 1, the loop and the hook being common substitutes for each other in this class of implements, for the purpose of connecting and disconnecting the suspender ends simultaneously with and from the buckle.

If deemed expedient, the cast-off may be applied to connect the rear suspender ends with the shoulder-straps or the yoke formed by them, and in such case it may be permanently fastened to the junction of the rear ends of the shoulder-straps, or to the yoke formed by them.

I claim as my invention—

The rigid tubular cast-off for suspender ends, having a fixed longitudinally-curved tubular passage for the strap of the suspender ends to slide in, substantially as before set forth.

Witness my hand this 11th day of January, A. D. 1875.

STEPHEN WILBUR FISK.

Witnesses:

T. F. GIBBONS,
J. EMRICH, Jr.