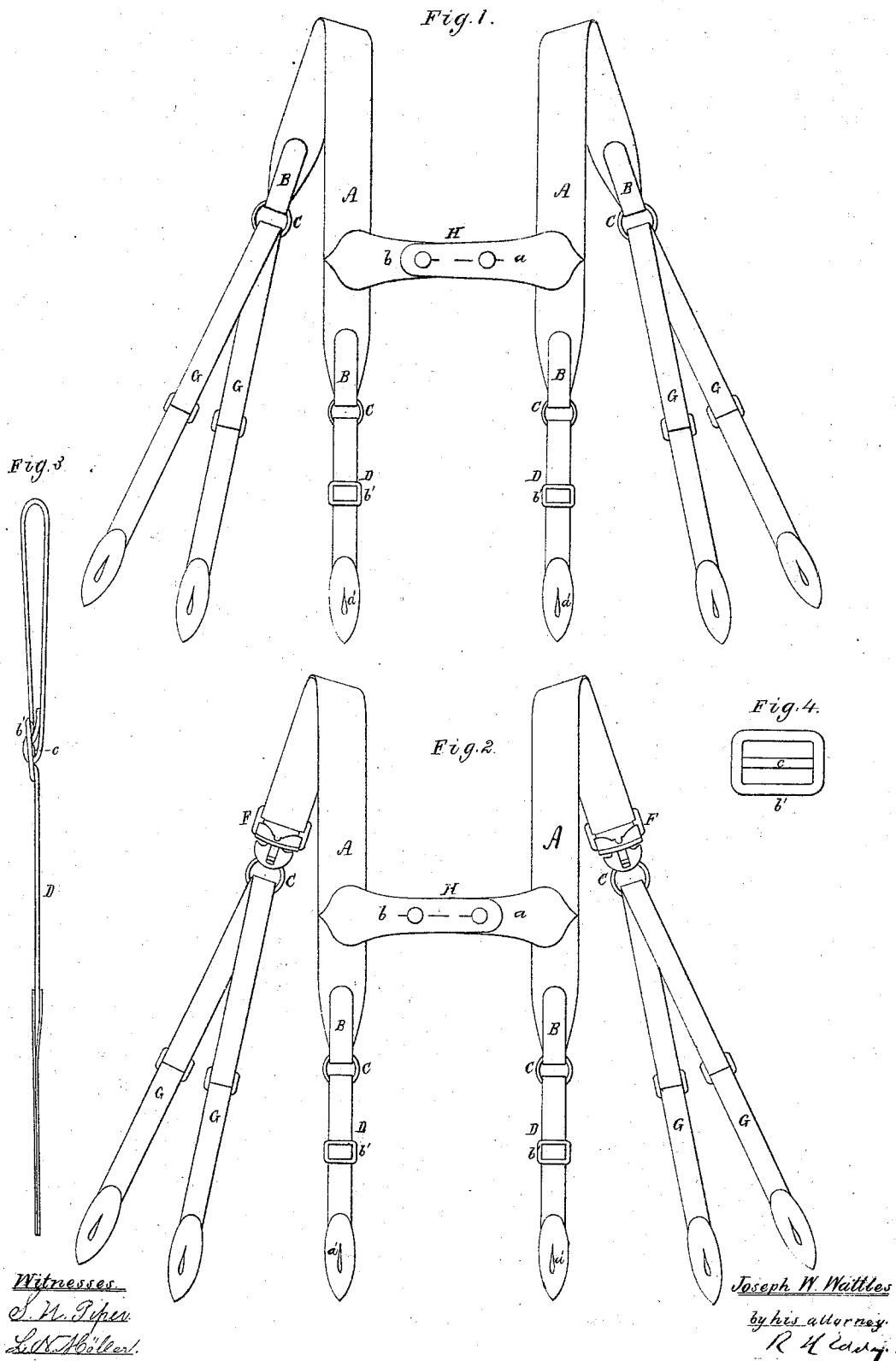


J. W. WATTLES.
Suspenders.

No. 147,582.

Patented Feb. 17, 1874.



Witnesses
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UNITED STATES PATENT OFFICE.

JOSEPH W. WATTLES, OF CANTON, MASSACHUSETTS.

IMPROVEMENT IN SUSPENDERS.

Specification forming part of Letters Patent No. **147,582**, dated February 17, 1874; application filed January 3, 1874.

To all whom it may concern:

Be it known that I, JOSEPH W. WATTLES, of Canton, in the county of Norfolk and State of Massachusetts, have invented a new and useful Improvement in Suspenders; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figures 1 and 2 are back views of two suspenders, with my invention applied to each. Fig. 3 is an edge view of one of the adjustable back-straps.

In Figs. 1 and 2 the shoulder-straps A A are exhibited as parallel, and joined by a connection, H, composed of two straps, *a b*, provided with button-holes and studs. Instead of such, a single band sewed or fastened to the two shoulder-straps, is sometimes used. In Fig. 1, each shoulder-strap terminates at each end in a leather clasp, B, furnished with a ring, C; but in Fig. 2, the front ring C is shown as connected with a buckle, F, through which the front end of the shoulder-strap is run. Each of the buckles or the front rings has applied to it a pair of adjustable front button-straps, G G.

The suspenders to which my improvement relates are those described in the United States Patent No. 115,722, dated June 6, 1871, reissued December 24, 1872, my invention being designed to overcome difficulties resulting from the stretching of the shoulder-straps; also, to effect the proper adjustment of the front buckles or rings, and the back connection relatively to the shoulders of a wearer of the suspenders. Taking up the shoulder-straps in front has a tendency to draw the back connection too far upward on the shoulder-blades, as well as to raise too high up on the shoulders the front rings or buckles connecting the shoulder-straps with the adjustable front-button straps.

With my additions these difficulties are completely obviated, and the suspenders can be readily adjusted or fitted to most, if not all, persons, however they may vary in size; some requiring the back connection higher than others, or at a greater distance from the waist-band of the pantaloons.

In carrying out my invention, I combine with the shoulder-straps A A the back connec-

tion H, and the two pairs of extensile adjustable front-button straps, G G, connected with the shoulder-straps by a buckle or ring, or both, and a pair of extensile or adjustable back-button straps, D D. Each of the extensile or adjustable fore or back button straps, as shown in the drawings, is of a character to enable it to be taken up or let out, so as to vary the distance of the button-hole thereof from the back connection or the shoulder-strap. The pair of back straps are separate from each other, and run through separate rings; but each pair of front-button straps is represented as applied to one ring, and they may be separate from each other or be combined, in manner and so as to operate as described in the United States Patent No. 144,042, granted to me October 26, 1873. Each of the back-straps D is run through the ring at the rear terminus of its shoulder-strap A.

In the drawings each extensile strap D is shown as provided, at or near one end, with a button hole, *a'*, and at its other end with a friction-slide, *b'*, formed as shown in Fig. 4, the strap being carried twice through the slide and over the cross-bar *c* thereof, and next passed through the ring C, and finally fastened to the bar *c* of the slide, all being as represented. By moving the slide along the strap, either toward the ring or the button-hole, the distance of the latter from the ring may be either increased or diminished, so as to bring the connection of the shoulder-straps higher or lower on the back, as occasion may require.

I do not confine my invention to the mode of applying the auxiliary back-strap to the shoulder-strap, and to a slide, as there are other ways by which a strap may be so confined with the shoulder-strap as to be capable of being taken up or let out, so as to either diminish or increase the distance of the button-hole from the point of connection of the two straps, or from the back connection; as, for instance, the same may be, by a buckle, fixed to the back strap, the shoulder-strap being run through such buckle.

I do not claim a combined shoulder-brace and suspenders, made as represented in reissue patent No. 5,593, or in patent No. 124,913, as in my suspenders, extensile adjustable fore-button straps G G, a back connection, H,

two shoulder-straps, and two extensile back straps, all arranged and combined as described and represented, are necessary; whereas, in neither of the said shoulder-braces are the fore straps extensile—that is, neither strap can be taken up or let out so as to vary the distance of the button-hole from the buckle of the strap, such being an essential matter with the fore straps of my suspenders.

In my said suspenders, as the connection H of the parallel shoulder-straps A A is fastened firmly to each of them, the straps D D are extensile, in order not only to admit the part H to its proper height on the back of a person, especially as the straps A A may become stretched by wear, but to adjust it to persons

who may have one shoulder higher than the other. It will thus be seen that my suspenders, although analogous to the shoulder-braces mentioned, contain elements not found therein.

I therefore claim as my invention—

Suspenders, substantially as described, consisting of the shoulder-straps A A, the back connection H, the pairs of extensile adjustable front-button straps G G, and the auxiliary back straps D D, extensile or adjustable, as and for the purpose specified, all being constructed and arranged essentially as set forth.

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Witnesses:

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