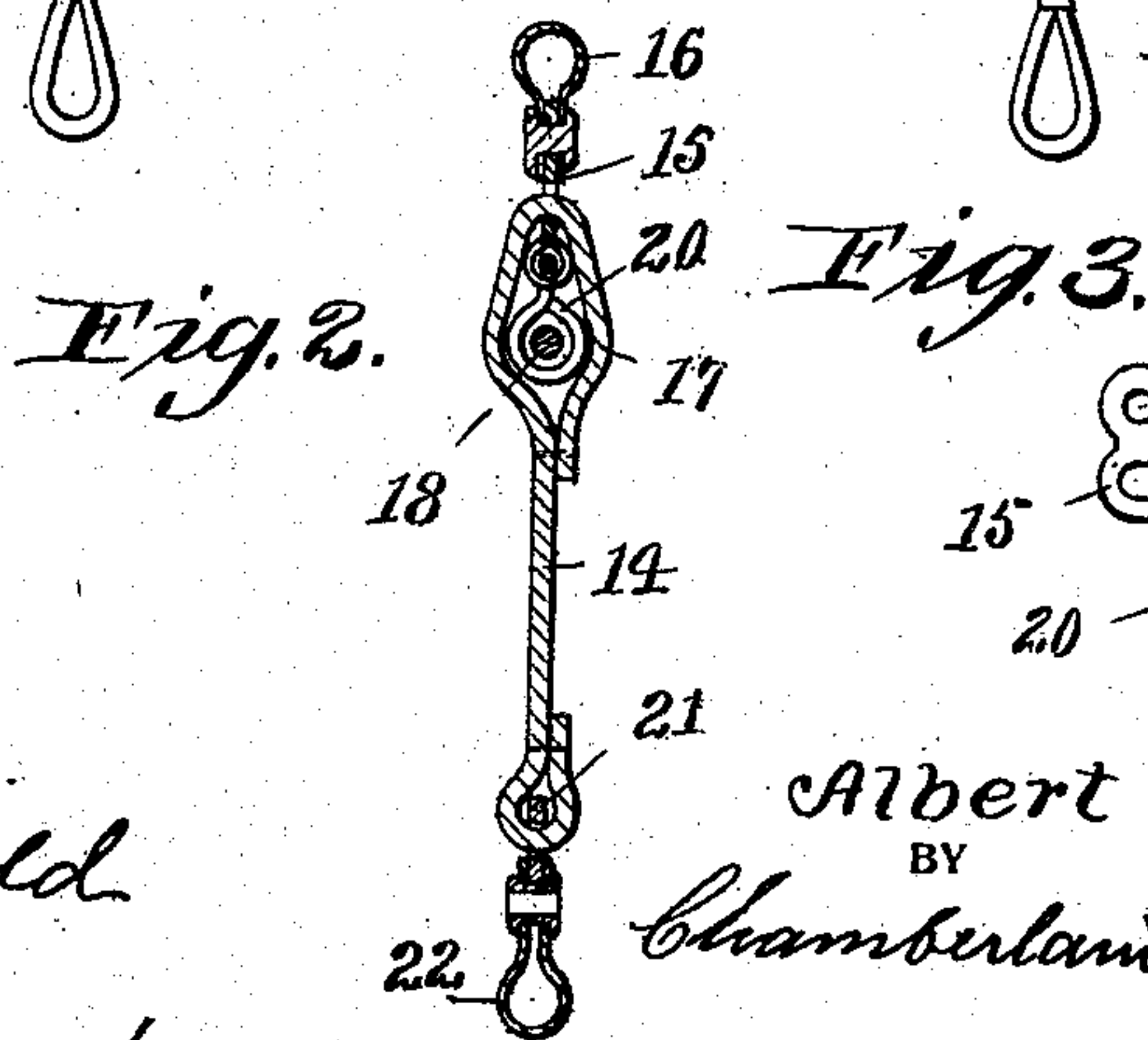
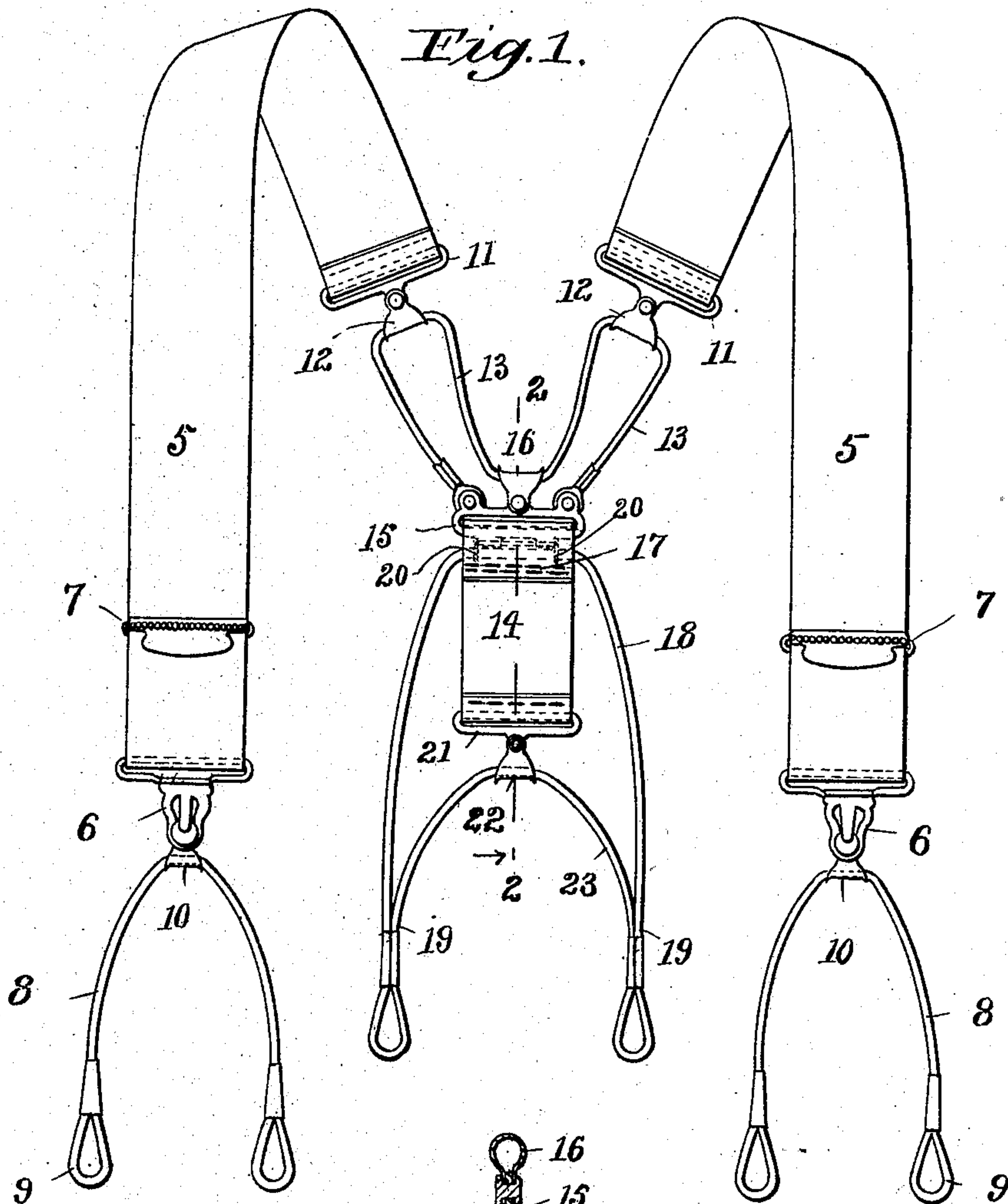


A. OPPENHEIM.  
SUSPENDERS.  
APPLICATION FILED MAY 7, 1908.

911,903.

Patented Feb. 9, 1909.



WITNESSES

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# UNITED STATES PATENT OFFICE.

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## SUSPENDERS.

No. 911,903.

Specification of Letters Patent.

Patented Feb. 9, 1909.

Application filed May 7, 1908. Serial No. 431,305.

*To all whom it may concern:*

Be it known that I, ALBERT OPPENHEIM, a citizen of the United States, and resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Suspenders, of which the following is a specification.

This invention relates to gentlemen's suspenders, such as are employed for supporting trousers and it is the object of the invention to more particularly improve the construction of the backs of suspenders of the above class, that is, that portion which connects the shoulder straps and the rear suspender ends, with a view of producing a comfortable and substantial device at a low cost of manufacture.

As constructed my suspender is composed of the usual shoulder straps formed of flat suspender webbing, a back piece and cord with proper metal trimmings, and cord suspender ends, all of which will be later described in detail in connection with the accompanying drawings forming a part of this specification, upon which similar characters of reference denote like or corresponding parts throughout the several figures and of which,

Figure 1, shows a front perspective view of a pair of suspenders embodying my improvements. Fig. 2, is an enlarged central vertical longitudinal section taken on line 2-2 of Fig. 1, showing the short connecting back piece and attached cord guides for rear suspender cords, and Fig. 3, is an enlarged detailed front elevation of a metal plate and attached guides through which the upper cord of rear suspender ends are connected, and as shown in the preceding figures.

Referring in detail to the characters of reference marked upon the drawings 5-5 indicates the shoulder straps which obviously may be formed of the usual suspender webbing, and are each provided at their forward ends with a cast-off 6 which is adjustably attached to the webbing through the medium of a buckle 7.

8 represents the front suspender ends which may be formed of woven cord and provided with the usual button loops 9, and a guide 10 to which it is slidably connected, and bearing a stud for the engagement of the cast-offs 6. The back end of the shoulder straps are each provided with a metal

loop 11 to which a suitable cord guide 12 is pivotally connected.

13 indicates a top cord which forms the connection between the rear ends of shoulder straps and the short back piece 14. This cord is first passed through a guide 16 pivotally connected to the intermediate portion of a transverse metal plate 15 and then disposed upward and threaded through the before mentioned guides 12 pivotally connected to the loops 11 attached to the suspender ends, after which the two ends of the cord are secured to eyes that in turn are pivotally connected to the outer end portions of the transverse metal plate 15, which construction permits the cord to freely draw through respective guides 12 and 16 with the movement of the shoulder straps. The back piece 14 is preferably formed of elastic webbing and is attached to the before mentioned plate 15 by being threaded through its slot and then folded over and stitched down as indicated by dotted lines, in a way to form a long loop 17 in the webbing through which the upper cord 18 of the rear suspender end 19 passes. A pair of suitable metal guides 20 are secured to the plate 15 and suspended within the loop 17 to support the said upper cord 18 of the rear suspender ends and in a way to allow the same to freely draw backward and forward there-through. This guide may be formed of either wire or sheet metal as preferred.

To the lower end of the central back piece 14 is connected a loop 21 to the central portion of which a guide 22 is pivotally connected. Said guide serving to support the lower cord 23 of the rear suspender end 19 which like the front suspender ends is formed with the usual button loops for the proper engagement of a trouser button.

A suspender constructed in accord with the foregoing description readily allows the wearer to comfortably assume various positions and it will adjust itself thereto in a way to equalize the strain upon the several buttons and respective parts of the suspender, and insure comfort and ease to the wearer, as for instance the upper cord 13 will readily draw through the loops 12 and 16 to let out one of the shoulder straps and simultaneously draw in upon the other shoulder strap, while the cords 18 and 23 of the rear suspender ends will also readily slide through their respective guides 20 and



22 to lengthen either of the ends of the said rear cord as the case may require.

Having thus described my invention what I claim is:

5 1. In a suspender of the class described, the combination with shoulder straps provided with front suspender ends, of a short back piece of webbing having a long loop formed in its upper end portion, a plate  
10 secured in said loop portion and having a cord guide pivoted to its intermediate upper portion, a cord threaded through said guide and having its two ends pivotally connected to the end portions of the said plate, a cord  
15 guide pivotally connected to the lower end of the back piece, and an endless cord one portion of which is threaded through the upper loop in back piece and another portion threaded through the cord guide at-  
20 tached to lower end and having button loops formed therein.

2. The combination with shoulder straps provided with front suspender ends, cord guides connected to their rear ends, a metal  
25 plate having a cord guide connected thereto, a cord the ends of which are connected to the outer portions of said plate and loosely threaded through the guides of the suspender ends and that of the plate, a short back  
30 piece having a long loop formed at its upper end connecting it with the plate, an

endless suspender cord comprising an upper part which is threaded through the upper loop of the short back piece and a lower portion which is threaded through the guide at- 35  
tached to the lower end of back piece and having loops to engage buttons.

3. The combination with shoulder straps provided with front suspender ends, cord guides connected to their rear ends, a metal 40  
plate having a cord guide connected thereto, a cord the ends of which are connected to the outer portions of said plate and loosely threaded through the guides of the suspender ends and that of the plate, a short back 45  
piece having a long loop formed at its upper end connecting it with the plate, a metal cord guide suspended from the plate within the loop, an endless suspender cord comprising an upper portion which is threaded 50  
through the metal cord guide attached to the plate and a lower portion which is threaded through the guide attached to the lower end of back piece, and having loops  
55 to engage buttons.

Signed at Bridgeport in the county of Fairfield and State of Connecticut this 5th day of May A. D., 1908.

ALBERT OPPENHEIM.

Witnesses:

C. M. NEWMAN,  
RUTH RAYMOND.