

C. A. MURRAY.

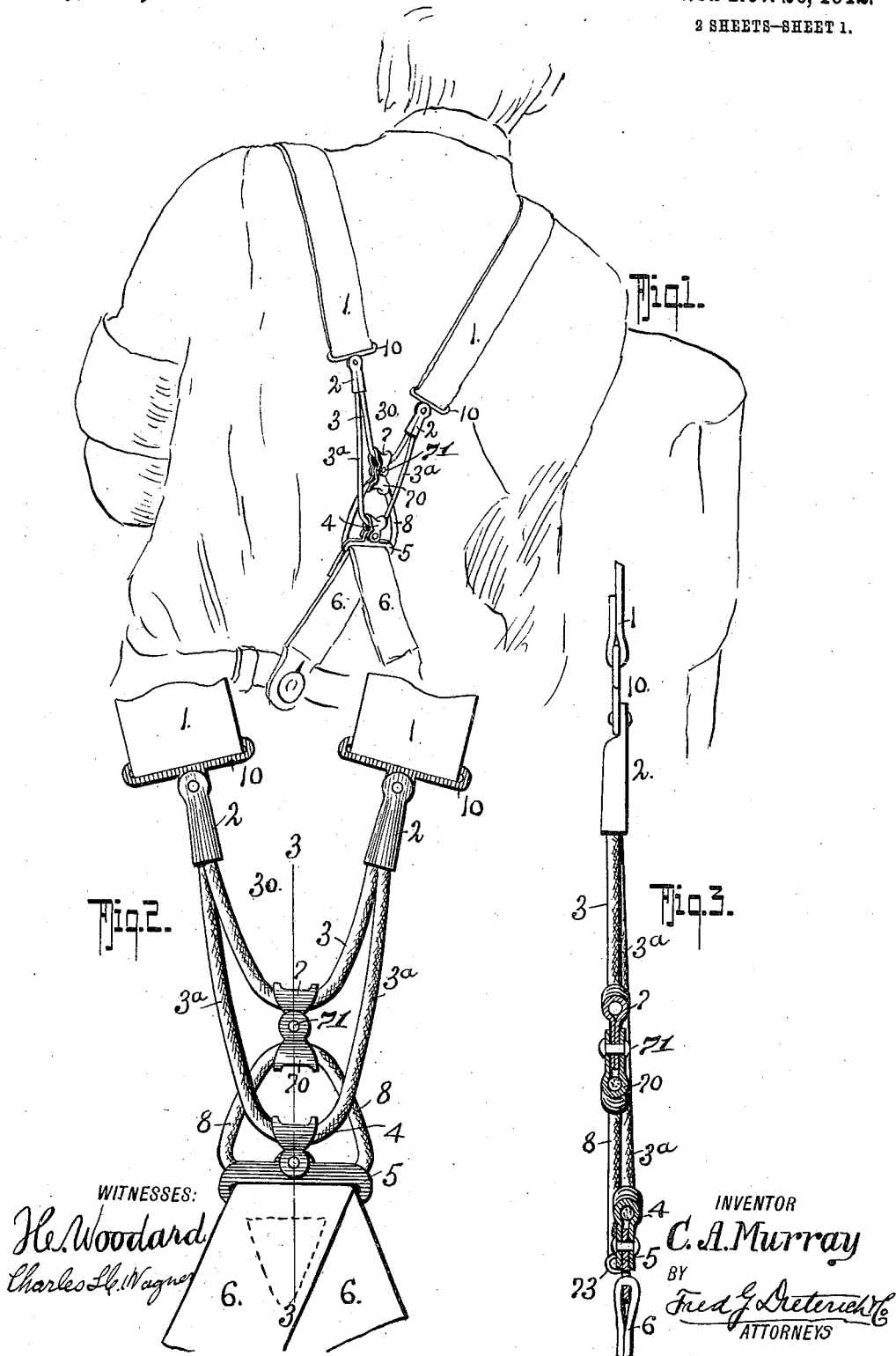
SUSPENDERS.

APPLICATION FILED MAY 17, 1910.

1,045,427.

Patented Nov. 26, 1912.

2 SHEETS—SHEET 1.

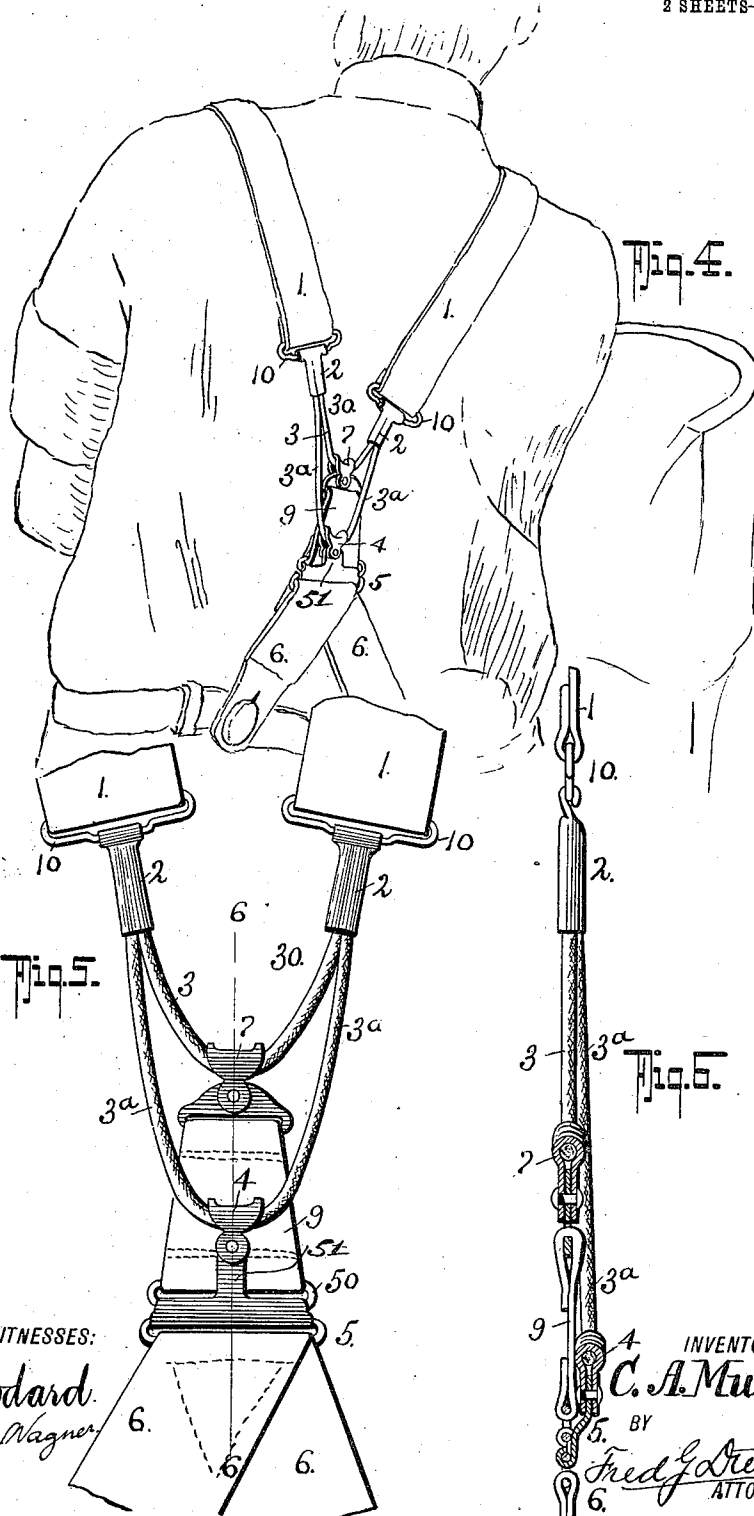


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WITNESSES:

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CHAUNCEY ANIAS MURRAY, OF CUMBERLAND, WYOMING.

SUSPENDERS.

1,045,427.

Specification of Letters Patent.

Patented Nov. 26, 1912.

Application filed May 17, 1910. Serial No. 561,832.

To all whom it may concern:

Be it known that I, CHAUNCEY A. MURRAY, residing at Cumberland, in the county of Uinta and State of Wyoming, have invented certain new and useful Improvements in Suspenders, of which the following is a specification.

This invention, while relating to improvements in suspenders, more particularly has reference to that class of suspenders wherein the back straps having running cord connections for joining with the rear trousers buttons, and the main object of the invention is to produce an improved arrangement of the running cord connections which provides for securing an easily working and durable suspender, and of economical manufacture.

My invention, in its more complete nature, embodies an improved arrangement of the back cord connections of suspenders, and includes a supplemental attachment for joining the running cords with the back button straps that insures such connection of the parts that they will positively respond to the varying strains on the shoulder straps, and at the same time allow for full play of the connections within the limits of effective action and in a manner that all danger of the parts becoming displaced or tangled is overcome and consists of a suspender embodying the peculiar construction, arrangement and combination of parts, all of which will be hereinafter described, specifically pointed out in the appended claims and illustrated in the accompanying drawing, in which:

Figure 1, is a view that illustrates a preferred form of my improved suspenders as applied for use. Fig. 2, is an elevation of the running cord connections that form the essential features of my invention. Fig. 3, is a vertical section thereof on the line 3—3 on Fig. 2. Fig. 4, is a view of a modified form of my invention as applied for use. Fig. 5, is an elevation or face view of the running cord connections. Fig. 6, is a section thereof on the line 6—6 on Fig. 5.

The shoulder straps 1—1 of my suspenders are of the conventional kind and have any approved means for attaching to the front trousers buttons.

The back ends of the straps 1—1 have metal hangers 10—10 and to each of said hangers is pivotally secured a metallic clip 2—2 in which the ends of the running cord

connection 30 are fixedly clamped or secured.

The cord connection 30 in my construction, consists of two bights or loops 3—3^a of different lengths and these, except at their connection with the clips 2 have no fixed connection with any of the other parts.

In the preferred form, the longest loop 3^a passes through a lever guide or yoke 4 that pivotally connects with a metal hanger 5 to swing in the longitudinal plane of the cords 3—3, the said hanger 5 being joined with the connected ends of the back suspender end or button straps 6—6, as clearly shown in Fig. 2, from which it will be readily apparent that any pull strain on the yoke 4 is equalized on the straps 6—6.

In the preferred form, the shorter running cord loop 3 passes through a double lever yoke or bearing, consisting of an upper guide yoke 7, a lower guide yoke 70 and a pivotal joint 71 that connects the two yokes 7—70 so each can swing independently of the other.

The double yoke member, in the preferred form, is joined to the hanger 5 by a third or supplemental cord loop 8 that passes freely through the guide yoke 70 and has its ends fixedly clamped or otherwise secured to bent over or eye portions 73 of the yoke 70 as is best shown in Fig. 3.

So far as described, it will be seen that the running cord connection has two distinct pull bearings relatively to the back strap and at each of said bearings the cord loops ride freely through the said bearings and in either direction corresponding with the various strains transmitted from the back or shoulder straps. It will also be readily understood by reference to Fig. 1 of the drawings that by reason of making the cord bearings as stated, that no matter in which direction the back strap strains are applied the two loop bearings remain in perfect alinement with respect to their relation to the back button strap guide 5, thereby transmitting, as it were, an equalized pulling strain on the said back button straps.

The advantage in making the double yoke guide bearing and the supplemental attaching means that connects the smaller cord loop with the guides 5 in the nature of a third cord loop is that it gives the double yoke guide ample freedom to move bodily in either direction on the cords and yet provide for the desired knuckle or pivotal joints

between the larger loop and the guide and a similar joint between the smaller loop and the supplemental cord connection that attaches the shorter cord loop 3 with the guide 5.

In Figs. 4 to 6 is illustrated a slightly modified form of my invention, the difference of structure between it and the preferred form being that instead of using a third cord loop for joining the pivotal yoke bearing for the larger cord loop to the guide 5, I use a more rigid connection in the nature of a strap hanger 9, the lower end of which is secured to a loop 50 on the hanger 5, the latter, in this form having an extension 51 to which the yoke guide 4 is pivotally joined. In this latter form the action of the connection cords is the same as in the other form except that the guide yoke for the shortest cord loop is fixedly held with respect to the supplemental connection or hanger 9.

From the foregoing description, taken with the drawings, the advantages of my invention will be readily apparent. Among the advantages it should be mentioned that under the varied directions of strain on the shoulder straps at different bendings of the body of the wearer a free and easy adjust-

ment of the cord connections is obtained with a minimum rubbing or wearing thereof since in my construction the yoke guides as well as the cords that engage therewith have a sliding movement.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is:—

In a suspender, a pair of shoulder straps and button straps, a hanger carried by each shoulder strap, a clip pivoted to each hanger, a long and short loop having their ends secured to said clips, a hanger carried by said button straps, a yoke eye member pivoted to said button strap hanger and through which said long loop passes, a supplemental connecting member secured to said button strap hanger, and a double yoke member consisting of two eye sections pivoted together, said short loop passing through one of said eye sections, and said supplemental connecting member passing through the other of said eye sections, all being arranged substantially as shown and for the purposes described.

CHAUNCEY ANIAS MURRAY.

Witnesses:

FRANK PFEIFFER,
ROY A. MASON.