

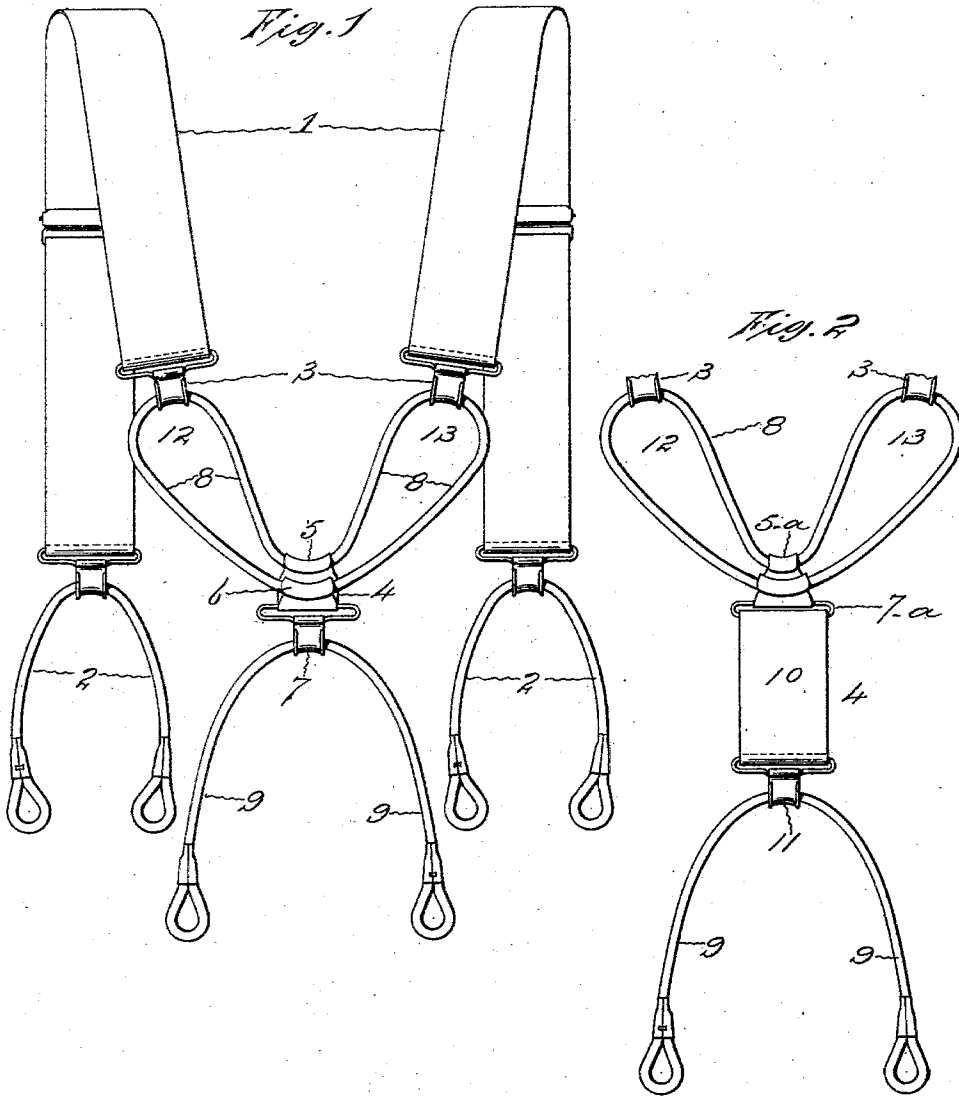
No. 633,973.

Patented Sept. 26, 1899.

W. C. FISHER.
SUSPENDERS.

(Application filed July 19, 1899.)

(No Model.)



Witnesses:
E. Sherman
C. E. Buckland.

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UNITED STATES PATENT OFFICE.

WILLIAM C. FISHER, OF MIDDLETOWN, CONNECTICUT, ASSIGNOR TO THE
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SUSPENDERS.

SPECIFICATION forming part of Letters Patent No. 633,973, dated September 26, 1899.

Application filed July 19, 1899. Serial No. 724,391. (No model.)

To all whom it may concern.

Be it known that I, WILLIAM C. FISHER, of Middletown, in Middlesex county, State of Connecticut, have invented certain new and useful Improvements in Suspenders, which improvements are described in the following specification and are illustrated by the accompanying drawings.

My invention relates to that class of trouser supports or braces wherein the shoulder-straps and a central back member have an automatically-variable connection with each other by means of a sliding cord. Suspenders of this kind as heretofore constructed have been characterized by a complexity of mechanism disproportionate to the mechanical results sought to be attained. Accordingly it is the object of my invention to obtain in mechanism of this kind the necessary distribution of strain and ease of operation in a simple and convenient manner and without unnecessary multiplication of parts. To accomplish this result, I connect the central back member of the apparatus with the shoulder-straps by means of an endless double loop, which is formed of flexible material and runs in holes, permitting either branch of the loop to enlarge itself at the expense of the other branch, according to the requirements of the wearer's movements and comfort.

The best manner in which I have contemplated applying the principles of my invention is illustrated in said drawings, in which—

Figure 1 is a rear elevation of a pair of suspenders constructed in accordance with those principles. Fig. 2 is a detail showing a modified form of the central back member with its connections.

In the views the numeral 1 denotes a pair of ordinary shoulder-straps provided with sliding loops 2, which are adapted to be buttoned to the front of the trousers in the usual manner. These straps are also provided at the rear end with the metallic eyes 3. The central back member 4, as shown in Fig. 1, consists of a metallic plate having an upper clamp 5, an eye 6, and a lower eye 7. Having no fixed position nor positive motion nor unvarying attachment, this is the floating member of the combination. Through the eyes 3 and 6 is passed the independent

cord 8, whose ends are made fast in the clamp 5, so forming the duplicate interacting loops 12 and 13, as shown in Fig. 1. Through the lower eye 7 passes the sliding cord 9, which is adapted to be buttoned to the back of the trousers in the usual manner.

In the alternative construction shown in Fig. 2 a flexible or elastic band 10 is made part of the central back member 4, being inserted between the attachments of cords 8 and 9. In this case the upper end of band 10 is attached to the plate of the floating member by means of an eye 7^a, which is duly widened for that purpose, while the lower end of that band is provided with an eyelet 11 for the accommodation of said cord 9. In the same construction the looped cord 8 is made without end and slides freely not only in eyes 3 and 6, but also in the eye 5^a, which takes the place of clamp 5 of Fig. 1.

In the use of my improved suspenders the cord 8, sliding in the eyes 3 and 6 or in the eyes 3, 5^a, and 6, as the construction may require, cooperates with the cords 2 and 9, sliding in their respective eyelets, and so adapts the form and position of the device to the different movements of the wearer without strain or discomfort.

Such being the construction and operation of my improved suspenders, I claim as my invention—

1. In a pair of suspenders, a pair of shoulder-straps, which are provided each with a terminal eye, in combination with a floating back member, which is provided with a clamp and with an eye, and a cord, which runs loosely in all said eyes, and has its ends held fast in said clamp, substantially as and for the purpose specified.

2. In a pair of suspenders, two shoulder-straps, which are provided each with a terminal eye, and a floating back member, which is provided with two eyes, in combination with an independent endless cord, running through such terminal eyes, and intermediately through the said eyes of the floating back member, substantially as and for the purpose specified.

3. In a pair of suspenders, a pair of shoulder-straps, and a floating back member, in combination with an endless cord, which has

not only a sliding engagement and a fast engagement with said floating member, but also an intermediate sliding engagement with each of said shoulder-straps, substantially as and for the purpose specified.

4. In a pair of suspenders, two shoulder-straps, provided each with a terminal eye, in combination with a floating back member, and a sliding cord, which forms two reciprocally-interacting loops, working in said eyes respectively, and has two intermediate loops, separately engaging said floating member only, substantially as and for the purpose specified.

5. In a pair of suspenders, two shoulder-straps, which are provided each with a terminal eye, in combination with a floating member and an endless cord, which works in said terminal eyes, and between them engages said floating member only, substantially as and for the purpose specified.

In testimony whereof I hereunto set my name in the presence of two witnesses.

WILLIAM C. FISHER.

Witnesses:

WILLARD EDDY,

EDWARD M. YEOMANS.