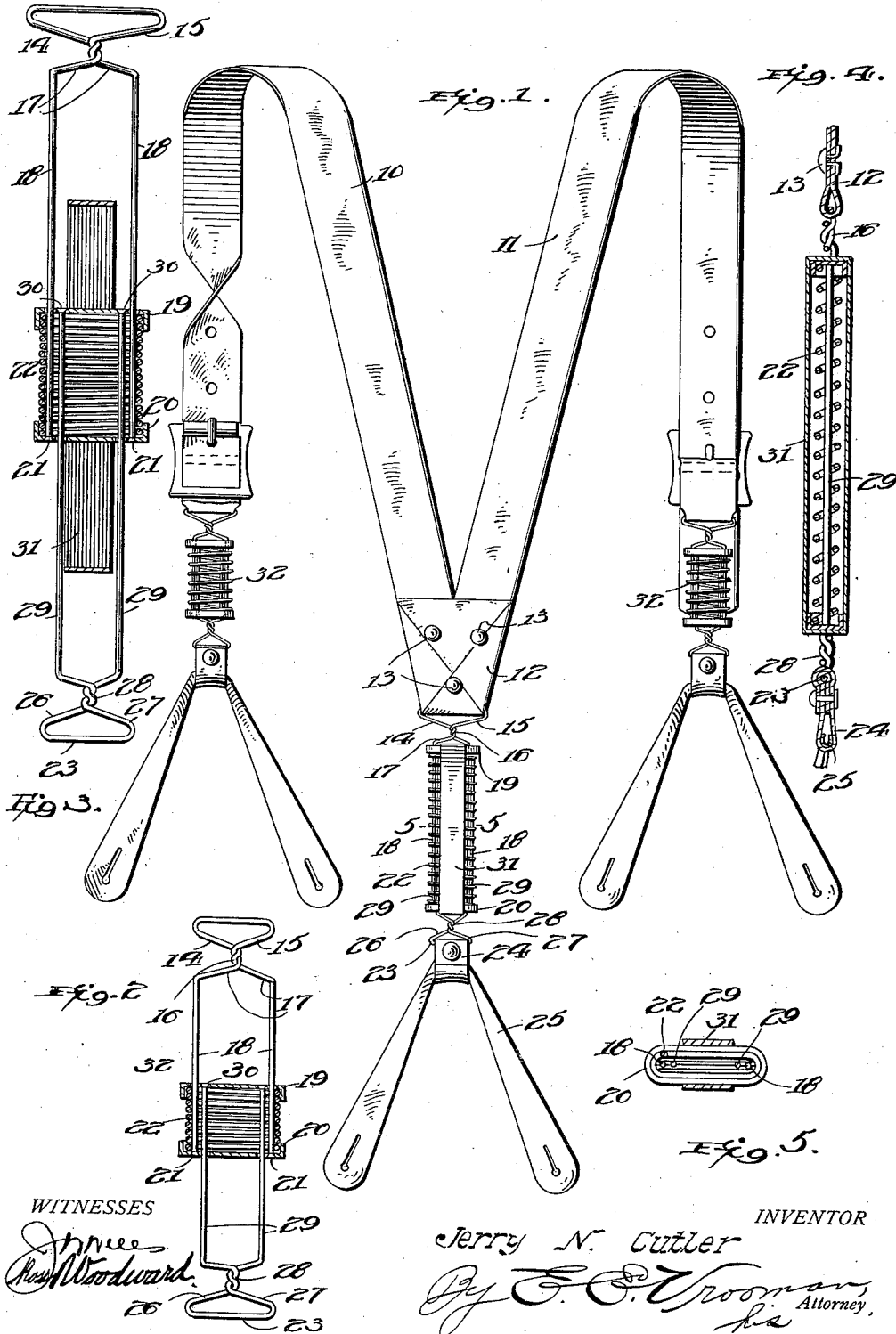


J. N. CUTLER.
ELASTIC CONNECTING DEVICE.
APPLICATION FILED JULY 6, 1911.

1,026,566,

Patented May 14, 1912.



WITNESSES

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UNITED STATES PATENT OFFICE.

JERRY N. CUTLER, OF TACOMA, WASHINGTON.

ELASTIC CONNECTING DEVICE.

1,026,566.

Specification of Letters Patent.

Patented May 14, 1912.

Application filed July 6, 1911. Serial No. 637,154.

To all whom it may concern:

Be it known that I, JERRY N. CUTLER, a citizen of the United States, residing at Tacoma, in the county of Pierce and State of Washington, have invented certain new and useful Improvements in Elastic Connecting Devices, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to connections and the object of the invention is to provide a connection which will be elastic so that the connection may have a limited amount of give.

Another object of the invention is to so construct the spring that it will be securely held in position and to provide it with a brace which limits the amount it can be expanded and also to prevent the spring from becoming caught in the clothing of the wearer.

In carrying out the objects of the invention generally stated above, it will be understood of course, that the essential features thereof are susceptible to changes in details and structural arrangements, one preferred and practical embodiment of the invention being shown, in the accompanying drawings, wherein:—

Figure 1 is a view of a pair of suspenders provided with the improved spring arrangement. Fig. 2 is an enlarged view of one of the front springs in the contracted position. Fig. 3 is a similar view of the rear spring. Fig. 4 is a longitudinal section through the rear spring in the normal position. Fig. 5 is a transverse section through the rear spring taken along the line 5—5 in Fig. 1.

Referring to the accompanying drawings by numerals it will be seen that the improved suspenders comprise shoulder straps 10 and 11 which are connected at their rear ends by means of the reinforcing piece 12 and secured in place by means of the rivets 13. A piece of wire is passed through the lower portion of the reinforcing piece 12 and projects to each side to form the arms 14 and 15 which are twisted together as shown at 16 and then spread apart as indicated by the numeral 17 and carried parallel to form the bars 18. A cup 19 is slidably

mounted upon the bars 18 and a second cup 20 is also mounted upon the bars 18 and is prevented from coming off of the ends of the bars by forming the ends of the bars into the heads 21. A coil spring 22 is mounted upon the bars 18 between the cups 19 and 20 and has its ends seated in the cups so that the cups will be normally held in spaced relation. A second wire 23 is mounted in the loop 24 which holds the attaching tab 25 and has its arms 26 and 27 brought together and twisted as indicated at 28 and then bent apart and carried parallel to each other to form the bars 29 which pass through openings formed in the cup 20 between the bars 18 and through the spring 22 to the cup 19, where they pass through openings and are prevented from being withdrawn by having their ends formed into the enlarged heads 30. A bracing and protecting plate 31 surrounds the spring 22 and passes through the space between the cups 19 and 20 and the ends of the bars 18 and 29. This plate not only prevents the spring from being bent when the person wearing these suspenders leans over, but also prevents the clothing being caught in the spring as the spring is contracted. It will thus be seen that the plate performs the double function of strengthening the spring and of protecting the wearer. It should also be noted that the plate is of such length that the spring cannot be expanded its full amount and therefore, the strain is taken up by the plate 31 and does not come upon the heads 21 and 30 of the bars 18 and 29.

The springs 32 which are connected with the forward portion of each of the shoulder straps 10 and 11 are constructed in a similar manner to the spring in the rear portion of the suspenders and it is therefore, not necessary to give a detail description of the springs. If desired the protecting plate 31 may be left off of the springs 32 as these springs do not receive as much strain as the rear springs. It should be noted however, that if it is desired the plate could be used with the springs 32.

What I claim is:—

A coupling of the class described comprising a pair of substantially U-shaped members, the arms of one of said members

being positioned between the arms of the
other of said members, cups mounted upon
the arms of said members, a spring po-
sitioned between said cups, and a band po-
5 sitioned between the arms of said members
and passing around said cups and partially
inclosing said spring.

In testimony whereof I hereunto affix my
signature in presence of two witnesses.

JERRY N. CUTLER.

Witnesses:

G. H. CURRY,
A. H. BASSETT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."