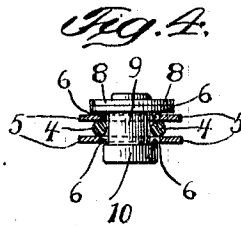
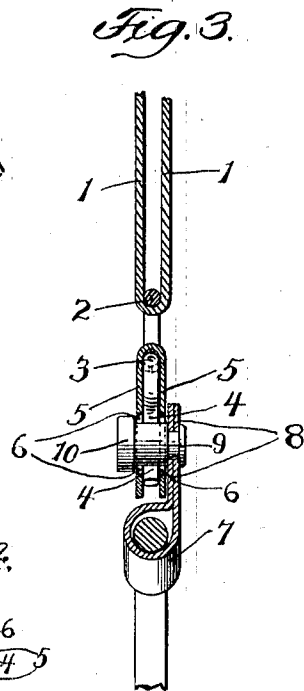
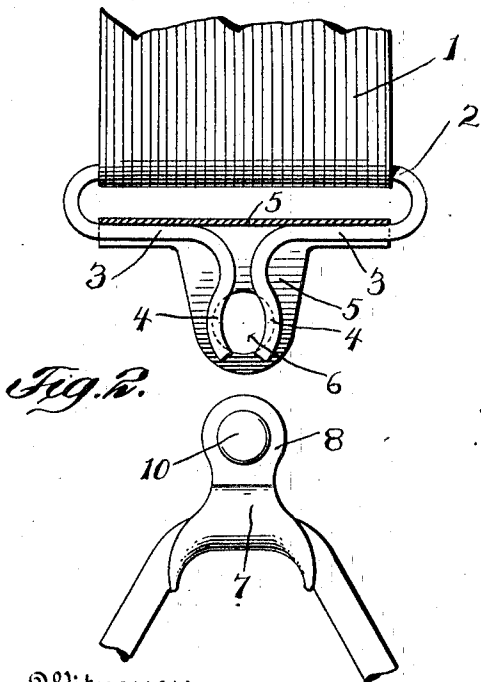
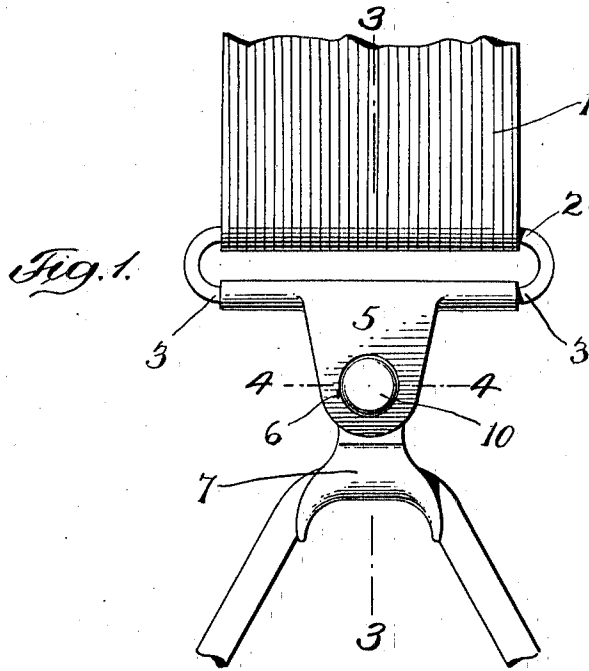


E. N. HUMPHREY.
 SUSPENDER CAST-OFF.
 APPLICATION FILED AUG. 7, 1912.

1,059,331.

Patented Apr. 15, 1913.



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UNITED STATES PATENT OFFICE.

ERNEST N. HUMPHREY, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO THE TRAUT & HINE MANUFACTURING COMPANY, OF NEW BRITAIN, CONNECTICUT, A CORPORATION OF CONNECTICUT.

SUSPENDER CAST-OFF.

1,059,331.

Specification of Letters Patent.

Patented Apr. 15, 1913.

Application filed August 7, 1912. Serial No. 713,710.

To all whom it may concern:

Be it known that I, ERNEST N. HUMPHREY, a citizen of the United States, residing at New Britain, county of Hartford, State of Connecticut, have invented certain new and useful Improvements in Suspenders Cast-Offs, of which the following is a full, clear, and exact description.

This invention relates to an improved form of cast-off device for suspenders and the like, and is especially designed to provide a device of this character combining simplicity of structure with durability and effective operation. These and other features of the invention will be apparent from the more detailed description following, taken in connection with the accompanying drawings forming part thereof and illustrating a preferable embodiment of the invention.

In these drawings: Figure 1 is a fragmentary view of parts of a suspender construction provided with my improved form of cast-off device. Fig. 2 is a view in elevation of the same parts separated, parts being shown in section to disclose the interior arrangement. Fig. 3 is a vertical section taken on the line 3—3 of Fig. 1. Fig. 4 is a transverse sectional view taken on the line 4—4 of Fig. 1.

Referring to drawings by numerals, 1 indicates the lower end of a suspender strap or analogous support which is looped under the upper bar 2 of a spring clip forming in part the upper member of the cast-off. The upper portion of the spring clip is shaped to form a strap end loop as above described, the lower bars 3 of this loop being bent at substantially right angles to the body of the loop and curved outwardly to form in effect a split spring ring 4, the ends of the bars being spaced. A casing 5, of sheet material, preferably stamped metal, is secured to the lower bars 3 of the loop and is extended therefrom to inclose between its two leaves the split ring portion of the wire clip. Circular alined openings 6 are formed in the two leaves of the casing 5, these openings being greater in diameter than the internal diameter or space between the inner edges of the split ring 4 and being in substantial alinement therewith. These parts so far described, constitute one member of the cast-off, in the present instance the upper member. The other member of the cast-off, in the present instance the lower part thereof,

comprises a tubular guide support 7 having its upper end 8 offset and joined in the plane of the rear end, these two ends being secured together by a rivet stud 9 whose forward end is enlarged to form a button or head 10 of a diameter slightly less than that of the opening 6 in the casing 5, and somewhat greater than the internal diameter of the split ring 4 and forming a locking abutment shoulder.

It will be obvious that by slightly inclining the button 10 and inserting it through the rear openings 6 of the casing 5, the ends of the spring clasp formed by the split ring 4 will be forced apart to permit the button to be inserted therethrough and to project therebeyond, the ends of the split ring, when this is done, snapping in behind the rear of the shoulder formed by the button and gripping the shank of the stud 9 thereby locking it against accidental retraction through the alined opening 6 in the casing. To withdraw the button and lower part of the cast-off, it is only necessary to pull this lower part rearwardly with its button or head 10 slightly inclined so that its edge will engage and force apart the ends of the spring ring and permit the button to be entirely withdrawn and the lower end of the suspender cast off. The edges of the casing 5 adjacent the apertures 6 therein serve to prevent the separation of the parts longitudinally, and help to relieve the split ring from strain by supporting the stud and the lower portion of the cast-off. In addition this casing serves to protect the lower part of the wire clip and its split ring against distortion; gives an ornamental finish to the device; and in addition affords a purchase for the fingers in inserting and withdrawing the button. By offsetting the ends of the cord guide, I am enabled to support the cord itself in the same vertical plane with the strap end of the suspender structure.

The specific structure of the device which I have described and illustrated is preferable, but I desire it understood that the same may be modified within the spirit of the invention and the scope of the appended claims.

What I claim therefore, and desire to secure by Letters Patent is:

1. In a suspender cast-off construction, two separate and separable parts, one of said parts embodying a loop member having in-

tegral spaced spring arms extending there-
from to form a spring clasp, a casing of
sheet material secured to said loop member
and extending therefrom to inclose said
5 spring arms from both sides, said casing
having an opening therein affording access
to said spring arms; and the other of said
separable parts having a stud adapted to be
10 inserted through said opening to engage and
be supported by said casing and constructed
for detachable interlocking engagement with
said spring arms.

2. In a suspender cast-off construction, two
separate and separable parts, one of said
15 parts embodying a supporting loop member
having its ends extended to form spaced

spring arms integral therewith and forming
a spring clasp, a casing of sheet material se-
cured to said loop member and extending
therefrom to inclose said spring arms there- 20
within, said casing having an opening therein
in alinement with said spring clasp; and the
other of said separable parts being provided
with a headed stud adapted to be inserted
25 through said casing opening to engage and
be supported by said casing and to detach-
ably interlock with said spring arms.

ERNEST N. HUMPHREY.

Witnesses:

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