(No Model.)

J. F. MOLLOY.

FASTENING DEVICE FOR SUSPENDERS.

No. 492,222. Patented Feb. 21, 1893.

Fig. 1

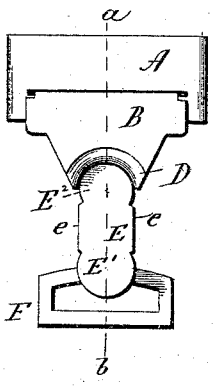


Fig. 2

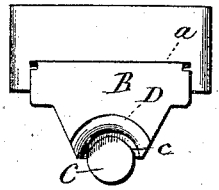


Fig. 3

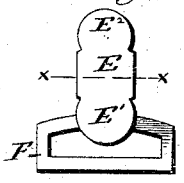


Fig. 4

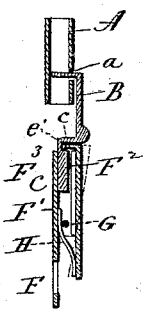


Fig. 6

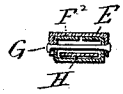
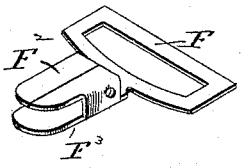


Fig. 5

Fig. 7



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES F. MOLLOY, OF NEW HAVEN, CONNECTICUT.

FASTENING DEVICE FOR SUSPENDERS.

SPECIFICATION forming part of Letters Patent No. 492,222, dated February 21, 1893.

Application filed December 23, 1892. Serial No. 456,169. (No model.)

To all whom it may concern:

Be it known that I, JAMES F. MOLLOY, of New Haven, in the county of New Haven and State of Connecticut, have invented new Improvements in Fastening Devices for Suspenders; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a front view of a fastening device for suspenders, constructed in accordance with my invention. Fig. 2, a similar detached view of the buckle-member of the said device. Fig. 3, a similar view of the spring-hook forming the other member of the device. Fig. 4, a view of the device in vertical central section on the line *a*—*b* of Fig. 1. Fig. 5, an end view of the spring-hook. Fig. 6, a view thereof in transverse section on the line *x*—*x* of Fig. 3. Fig. 7, a detached view of the cast-off of the said hook.

This invention relates to an improvement in fastening-devices for suspenders, the object being to produce a simple, convenient, attractive and effective article, which although adapted to be readily connected and disconnected, and accommodating itself perfectly to movements of the wearer, will not of itself become disconnected in use.

With these ends in view, my invention consists in the combination, in a fastening device for suspenders, with a member or part having a circular projection or stud, of a spring-hook having a jaw adapted at its outer end to fit over the said stud or projection, and to turn thereon, and a cast-off which receives the said stud between its two members.

My invention further consists in certain details of construction and combinations of parts as will be hereinafter described and pointed out in the claims.

As herein shown, my improved fastening device comprises a suspender-buckle and a spring-hook, the said buckle consisting of a flat tube A, and a lever B hung in a long narrow horizontal slot *a*, formed in the front of the same. The lower end of the said buckle is constructed with a circular projection or stud C, which is set inward, back of the outer face of the main-portion of the lever, as well shown by Fig. 4 of the drawings, and for a purpose which will appear later on. Directly above and concentric with this stud, a segmental rib D, is located, the function of this being to prevent the garments from being caught on the edge of the jaw of the spring-hook. The said rib may be formed integral with the lever, or applied thereto, as found most convenient.

It will be noticed by reference to Fig. 3 of the drawings, that between the inner edge of the rib and the upper edge of the stud, a narrow segmental channel or groove *c*, is formed.

The spring-hook forming the other member of my improved device, consists, as herein shown, of a finger-piece, and a cast-off. The said finger-piece is made from a single piece of sheet-metal, and consists of a body E, corresponding flanges *e e* turned inward from its sides about midway the length thereof, a tail-piece E′, and a rounded end E^2, furnished with a segmental flange *e′* extending inward at a right angle from its extreme end. The said rounded end and flange correspond in size and curvature to the projection or stud C, and the segmental groove *c*, of the lever B, of the buckle before described, whereby the said finger-piece is adapted at its outer end to fit over the said stud or projection, to turn freely thereon in the plane of the buckle, and to be connected therewith against longitudinal disconnection by means of the flange *e′*. The cast-off of the hook is formed, as herein shown, of a single piece of sheet-metal, shaped and bent to form an eye F, for the attachment of the suspender-ends, which are not shown, a tubular body F′, and two corresponding fingers or members F^2, F^3, located in the plane of the said stud or projection, and having their inner ends rounded in conformity with the curvature of the end E^2, and the flange *e′* of the finger-piece under which they extend, so that the finger F^2, just clears the inner face of the said flange. A pin G, passing through the flanges *e*, of the finger-piece and through the tubular body F′ of the cast-off, pivotally connects the said parts, while a spring H, interposed between the same, is arranged to exert a constant effort to throw their outer ends together. In order to couple the said two members forming the

fastening device, the inner ends of the finger-piece and cast-off are pressed together, whereby their outer ends are separated to expose the opening between the two members or fingers F^2 F^3 of the cast-off, the stud or projection of the lever of the buckle being then inserted into the said opening, after which the spring of the hook is allowed to recover, and enter the flange e' of the finger-piece into the groove c in the said lever. The two main members of the device are now coupled together, and although free to swivel in the plane of the buckle, cannot be twisted apart, or otherwise separated except by closing the inner ends of the finger-piece and cast-off together, whereby the cast-off will exercise its casting-off function, and positively clear the stud or projection from the flange e' of the finger-piece of the spring-hook.

By reference to Fig. 4 of the drawings, it will be observed that when the two members of the device are connected, the outer faces of the lever and finger-piece are in the same plane, that result being secured by setting the projection or stud C, inward, as before referred to.

By means of my improved construction, I secure a device which is not only very easy to operate, on account of its employment of the true cast-off principle, but which is also very effective, because any twisting which may naturally be thrown upon the parts when they are in use, cannot disconnect them.

While I have shown a buckle as forming one of the two main members of the device, I would have it understood that my improvement is not limited to the use of a buckle, but that that member of the device might consist of any other part corresponding in a general way to it, and adapted to be applied to suspenders, the only limitation which my invention comprehends in that respect, being that the said part shall be furnished with a circular stud or corresponding projection.

As herein shown and described, the jaw of the spring-hook which has its inner end furnished with a segmental flange, is called the finger-piece, but obviously the finger-piece so called and the cast-off might be reversed in position, in which case the cast-off would perform the function of the finger-piece. I would therefore have it understood that I do not limit myself to the exact construction herein shown and described, but hold myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, in a fastening device for suspenders, with a member or part having a circular projection or stud, of a spring-hook having a jaw adapted at its outer end to fit over the said stud or projection, and to turn thereon, and a cast-off which receives the stud between its two members and extends under the said jaw, substantially as described.

2. The combination, in a fastening device for suspenders, with a member or part having a circular projection or stud, of a spring-hook having a jaw constructed at its outer end with an inwardly projecting segmental flange, conforming in curvature to the curvature of the said stud or projection, and a cast-off having two fingers constructed to extend under the said jaw, and receiving the said stud or projection between them, substantially as described.

3. The combination, in a fastening device for suspenders, of a member or part having a circular projection or stud, and a segmental rib located concentric with and above the same, with a narrow groove or channel between them; of a spring-hook having a jaw constructed at its outer end to fit over the said stud or projection, and a cast-off having two fingers constructed to extend under the said jaw, and receiving the said stud or projection between them, substantially as described, and whereby the said rib prevents the garment from being caught on the jaw of the spring-hook.

4. The combination, in a fastening device for suspenders, of a part or member constructed with a circular stud or projection set inward back of its face; of a spring-hook having a jaw constructed at its inner end to fit over the said stud or projection, and to turn thereon, and a cast-off having two fingers constructed to extend under the said jaw, and receiving said stud or projection between them, the outer face of the finger piece and member or part being flush, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JAS. F. MOLLOY.

Witnesses:
ROBERT LYNN,
LUDWIG W. HARCKE.