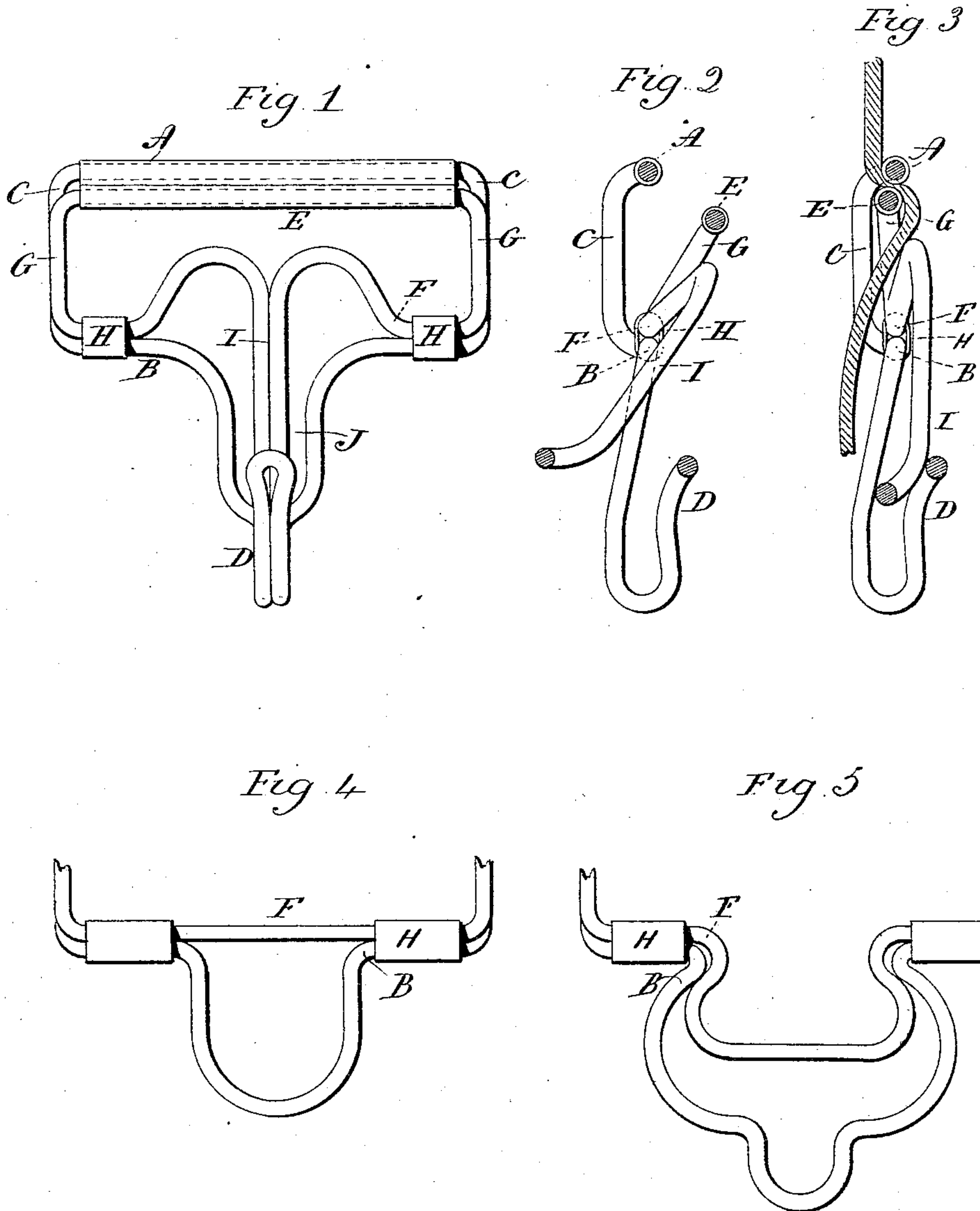


(No Model.)

J. C. & A. M. HYDE.
BUCKLE.

No. 454,170.

Patented June 16, 1891.



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES C. HYDE AND ALPHONSO M. HYDE, OF WEST HAVEN, CONNECTICUT.

BUCKLE.

SPECIFICATION forming part of Letters Patent No. 454,170, dated June 16, 1891.

Application filed February 3, 1891. Serial No. 379,998. (No model.)

To all whom it may concern:

Be it known that we, JAMES C. HYDE and ALPHONSO M. HYDE, of West Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Buckles; and we 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 the preferred form of buckle; Fig. 2, a vertical central transverse section of the buckle, showing the clamp as turned forward for the introduction of the strap; Fig. 3, the same section representing the strap as introduced and the clamp thrown into position to engage the strap; Figs. 4 and 5, modifications.

This invention relates to an improvement in that class of buckles in which the frame is in the form of a parallelogram, combined with a clamping-lever hung to the frame and so as to grasp the strap.

The object of the invention is to construct the buckle from wire and produce an interlocking of the clamp with the frame, so as to prevent the accidental change of position of the buckle upon the strap, as well as to make a cheap, strong, and durable buckle; and the invention consists in the construction as hereinafter described, and particularly recited in the claims.

The best form of buckle is that represented in Fig. 1, and in which the frame is composed of an upper side A, a lower side B, connected by the ends C C, the lower side B being bent downward and returned to form a depending hook D, to which the suspender-ends may be attached. This frame is made in a single piece, the ends meeting on the upper side and that side inclosed by a sleeve, as usual, to unite the ends of the wire and strengthen the side. The upper side A is bent forward out of the plane of the ends a little more than the diameter of the side A, and, as clearly seen in Fig. 2, the lower side B is also bent forward into substantially the same plane as the upper side and so that the ends are recessed, as it were, from the plane of the front of the frame. The clamp is also made from

wire, and consists of an upper side or bar E with a lower side F, the two sides connected by the ends G G, the width of the clamp being slightly less than the distance between the upper side A and lower side B of the frame. The length of the clamp is substantially the length of the frame and so that the clamp may stand in the space between the upper and lower sides of the frame, the recessed or backward-bent sides permitting the clamp to thus lie in the frame, as seen in Fig. 3. The lower side F of the clamp is hinged to the lower side B of the frame, preferably by metal clips H H, closed around the lower sides of the two parts, as seen in Figs. 1 and 2, so that the clamp may swing freely on the frame. Preferably the lower side F of the frame is bent to form a depending finger I, which may swing backward and forward through a recess J, formed in the depending portion of the lower side B, and so that when the clamp is turned forward, as seen in Fig. 2, the hook will be open; but when the clamp is returned, as seen in Fig. 3, the finger I will come into a position to close the opening to the hook and so as to prevent the escape of the ring or loop of the suspender-ends, which may have been passed onto the hook when in the open position, as seen in Fig. 2. The clamp is made from a single piece of wire, the ends meeting in the upper side E, that side being inclosed by a sleeve or tube, so as to unite the ends of the wire and strengthen that side. This completes the buckle.

To apply the suspender or strap to the buckle the clamp is thrown forward, as seen in Fig. 2, and the strap introduced from the rear below the side A, thence out forward and over the upper side E of the clamp. Then the clamp is pressed back into the recess of the frame below the upper side A, as seen in Fig. 3, the side E being so near the side A as to compress and firmly grasp the strap, as seen in Fig. 3. Then the end of the strap is preferably passed backward through the open clamp and frame, as also seen in Fig. 3. The strain upon the strap tends to draw the clamp more firmly into its engaging position. The recess of the frame is such as to permit the clamp to pass slightly to the rear of the upper side of the frame when in the closed position, and as seen in Fig. 3. This arrangement causes

the clamp to interlock with the frame, because there is a slight let up upon the force between the frame and clamp as the clamp passes rearward beyond the plane of the upper side A of the frame, and accidental displacement of the buckle on the strap is not liable to occur. This interlocking of the clamp also holds the finger I in the position of closing the hook D, as seen in Fig. 3, so as to prevent the escape of the ring or loop of the suspender-end. The finger also serves as a convenient means for turning the clamp when readjustment is desirable, it only being necessary to press backward upon the tongue to throw the clamp forward.

The finger I may be omitted and the lower side F of the clamp made straight, as seen in Fig. 4, and the lower side B of the frame may be formed with a depending loop instead of the hook, as seen in Fig. 4; or the frame may be constructed with a depending loop, as seen in Fig. 5, and the clamp with a corresponding depending loop, as seen in that figure. The shape or formation of the lower sides of the clamp or frame for the convenience of attachment of the suspender-ends is therefore immaterial to the construction of the buckle.

In using the terms "forward" and "rearward," or analogous terms indicating the position of the buckle, we do not wish to be understood as limiting the invention to the use of the buckle in this position, as it may be applied either side outward or front. The terms used are therefore to be understood as illustrative only.

We claim—

1. The herein-described buckle, consisting of the frame made from a single piece of wire composed of the upper side A, the lower side B, connected by the ends C C, the said up-

per side bent forward and out of the plane of the ends of the frame, combined with a clamp made from a single piece of wire and composed of an upper side E and lower side F, connected by the two ends G G, the lower side F hinged to the lower side B of the frame, and the clamp of a width to swing backward into the frame below the upper side A, and whereby the said upper side A of the frame forms a clamping-bar, against which the upper side E of the clamp may grasp the strap, substantially as described.

2. A buckle-frame made from a single piece of wire composed of the upper side A and lower side B, connected by the two ends C C, the said lower side bent to form a depending hook D, and with an opening J above the hook, the upper side A of the frame bent forward out of the plane of the two ends E and so as to form a recess on the face side of the frame below the upper side A, combined with a clamp made from a single piece of wire composed of an upper side E and lower side F, connected by two ends G G, the lower side F of the clamp hinged to the lower side B of the frame and the said lower side F bent to form a depending finger I, adapted to swing backward and forward in rear of the nose of the depending hook D, and the said clamp of a width to permit the said upper side E to pass into the recessed frame and below the upper side A, substantially as described.

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

JAMES C. HYDE.
ALPHONSO M. HYDE.

Witnesses:

HARRIS G. EAMES,
JOHN T. GILL.