(No Model.)

C. R. HARRIS.

SUSPENDER BUCKLE.

No. 562,531. Patented June 23, 1896.

Fig. 2.

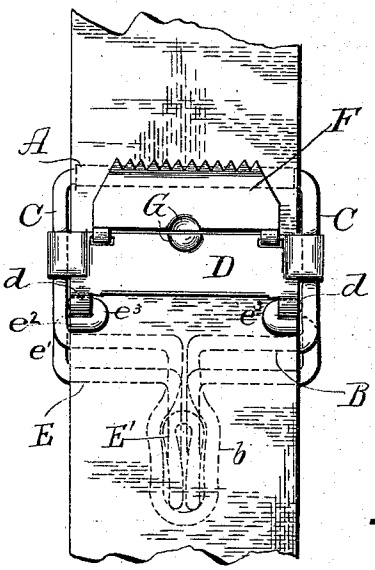


Fig. 3.

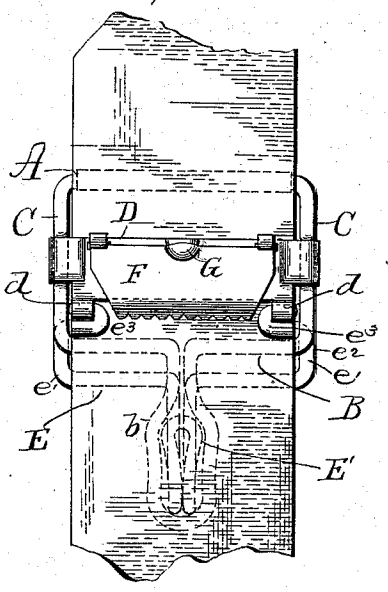
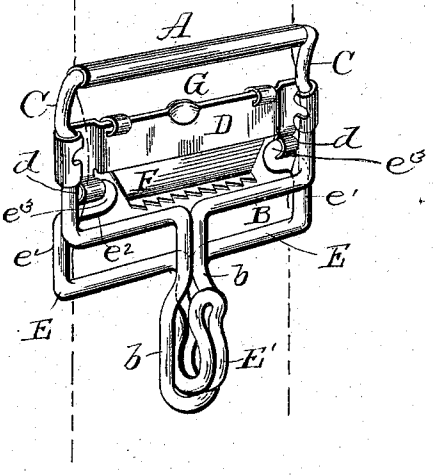


Fig. 1.



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UNITED STATES PATENT OFFICE.

CHARLES R. HARRIS, OF WILLIAMSPORT, PENNSYLVANIA.

SUSPENDER-BUCKLE.

SPECIFICATION forming part of Letters Patent No. 562,531, dated June 23, 1896.

Application filed October 11, 1893. Serial No. 487,871. (No model.)

To all whom it may concern:

Be it known that I, CHARLES R. HARRIS, of Williamsport, in the county of Lycoming and State of Pennsylvania, have invented certain new and useful Improvements in Suspender-Buckles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in suspender-buckles; and it consists in certain novel features of construction and combinations of parts, which will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective of my improved buckle. Figs. 2 and 3 are rear views of my improved buckle.

A represents the top cross-bar, B the bottom cross-bar, and C C the end bars of a wire buckle, and *b* is a loop depending from the bottom cross-bar B of the frame. The upper ends of the end bars C C are preferably bent forwardly a trifle to allow for the thickness of the web, so the latter is not forced backward or inwardly unduly.

D is a cross-bar or plate rigidly secured at its ends around the end bars C C, and at the point where this cross-bar or plate is secured to the end bars the end bars are preferably offset slightly or restricted in size, or otherwise constructed to prevent the cross bar or plate from slipping from its proper place. The cross bar or plate is provided at or near its lower edge with bearings *d d*, and in these bearings the swing-frame E is hinged or pivoted by means of pintles *e e*, which extend into and are pivoted in the bearings. This hinged frame is furnished at its lower end with a hook E′, which enters the loop and by so doing locks the swing-frame in position.

In forming the pintles *e e* the ends *e′ e′* of the swing-frame are first bent inwardly toward each other, as at e^2 e^2, approximately parallel with the lower cross-bar B of the buckle, and then the wire is bent upwardly, as at e^3 e^3, and then outwardly to form the two pintles, so that the portion e^2 e^2, being approximately parallel and in proximity to the cross-bar B of the buckle-frame, coöperates with the latter to form a clamp when the parts are in their normal position, in which the outer edges of the web are held fast.

In addition to the clamps above described, the clamping-jaw F is employed. This jaw is preferably hinged to the upper edge or to some part of the cross bar or plate D, and this clamp is furnished with teeth or a clamping edge of which engages the web and prevents the web from being pulled upward through the buckle when the clamping-jaw is in its closed or normal position. A cam G or other suitable spring-locking device is formed on or between the clamping-jaw and cross bar or plate D to hold the jaw in its closed or operative position.

The web is passed down in rear of the top cross-bar A of the frame, in front of cross bar or plate D, and thence back of the lower cross-bar B, and finally through the swing-frame, so that its edges are caught and clamped when the latter is closed. The clamping-bar is then swung into position and the buckle is secured fast to the web or suspender-strap. Then to adjust the buckle it is simply necessary to release the clamps in the usual fashion and slide the buckle in either direction.

It is evident that slight changes might be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I do not wish to limit myself to the exact construction herein set forth; but,

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

1. In a suspender-buckle, the combination with the main frame of the buckle, and a cross bar or plate secured at its ends to the ends of the buckle-frame, of a clamping-jaw hinged to the buckle, said jaw located in rear of the cross bar or plate and having a forwardly-projecting biting edge at its free end in position to engage the web of the suspender between the lower edge of the cross bar or plate and the lower end of the buckle-frame, substantially as set forth.

2. In a suspender-buckle, the combination with the frame of the buckle, and a cross bar or plate secured at its ends to the ends of the buckle-frame, of a clamping-jaw hinged to the upper edge of the cross bar or plate and located behind the latter, its free edge bent forward and constructed to bite or engage the

web of the suspender between the lower edge of the cross bar or plate and the lower end of the frame, whereby the cross bar or plate constitutes a stop to limit forward movement of the clamping-bar and the contact of the jaw against the wearer's body tends to prevent the jaw from swinging in the opposite direction, substantially as set forth.

3. In a suspender-buckle, the combination with the frame of the buckle, and a cross bar or plate secured at its ends to the ends of the buckle-frame and having a cam-lock located at or near its upper edge, of a clamping-jaw hinged at its upper edge to the upper edge of the cross bar or plate and adapted to be engaged at this point by the cam on the cross bar or plate whereby to lock the jaw against the plate, the jaw of greater width than the cross bar or plate and constructed at its free edge to grip the suspender-web, substantially as set forth.

4. In a suspender-buckle, the combination with the frame of the buckle, comprising top, bottom and end bars, and a cross bar or plate secured at its ends to the ends of the frame, said cross bar or plate having bearings at its lower edge in proximity to the bottom of the frame, of a swing-frame bent inwardly parallel with the bottom of the frame to form clamping portions between which and the bottom of the frame the edge of the web is adapted to be clamped, said frame provided with pintles which enter the bearings in the lower edge of the cross bar or plate and means for locking the free end of the swing-frame to the main frame, substantially as set forth.

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

CHAS. R. HARRIS.

Witnesses:
GEO. F. DOWNING,
VERNON E. HODGES.