(No Model.)

R. G. HENRY.

BUCKLE.

No. 447,070. Patented Feb. 24, 1891.

Fig. 1.

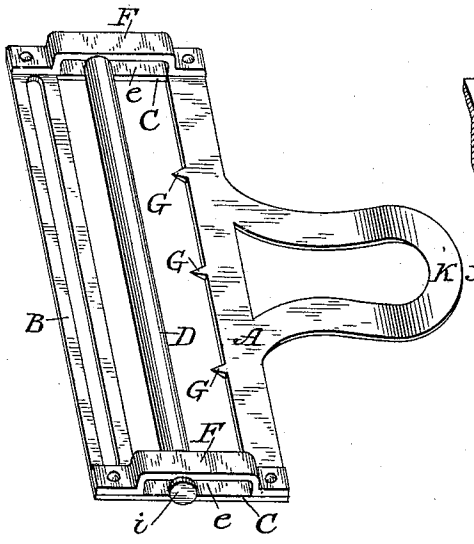


Fig. 2.

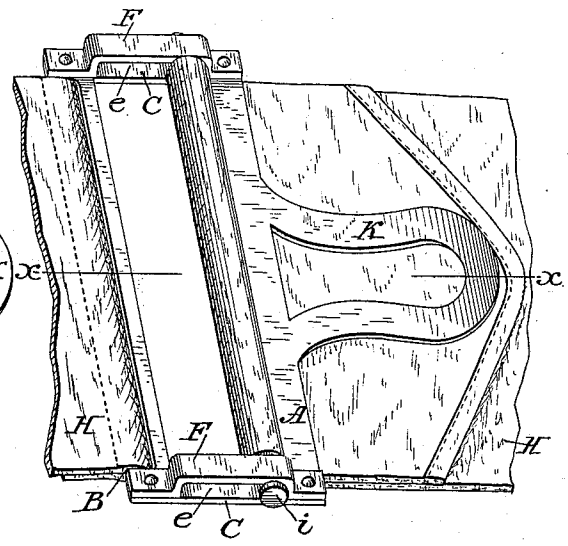
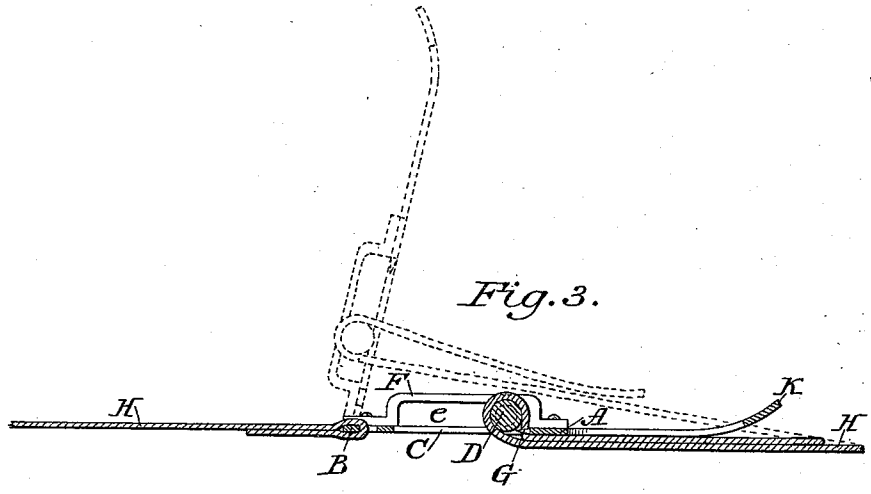


Fig. 3.



Attest:

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UNITED STATES PATENT OFFICE.

ROBERT G. HENRY, OF WATERBURY, CONNECTICUT, ASSIGNOR TO THE CONSOLIDATED SAFETY PIN COMPANY, OF BLOOMFIELD, NEW JERSEY.

BUCKLE.

SPECIFICATION forming part of Letters Patent No. 447,070, dated February 24, 1891.

Application filed January 25, 1890. Serial No. 338,045. (No model.)

To all whom it may concern:

Be it known that I, ROBERT G. HENRY, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Buckles; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

My invention relates to an improvement in the construction of buckles specially adapted for belts or girths; and it consists in an improvement in the construction and arrangement of the device for clamping and fastening the free end of the belt, substantially as hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a view in perspective of my improved buckle; Fig. 2, a similar view thereof when it is attached to a belt or girth to secure its ends, and Fig. 3 is a central section of same in line *x x* of Fig. 2.

The frame of the improved buckle may be of any approved style or pattern having cross-bars A B, connected by side or end bars C C. Lateral ways or longitudinal openings or slots *e e* are formed upon or above the side bars C C of the frame in a plane parallel with the face of the device to receive and guide the ends of a rolling bar or roller D, fitted to travel freely in said lateral ways, whereby the roller is made to move over the frame in parallelism therewith, but with its axis wholly above the face thereof. The ends of the lateral ways *e e* proximate to the front bar A of the buckle extend to said bar or overlap it more or less, so that the periphery of the roller may come into contact with the inner edge of the bar. Preferably the body of the roller D, intermediate the side bars C C, is made somewhat larger in diameter than its journal ends which travel in the slots, and the ends of these journals are left to project outwardly through the ways or slots *e e*, and are enlarged, as at *i*, to prevent a longitudinal movement of the roller.

The longitudinal ways or bearings *e e* for the roller may be simply produced by securing upon the side bars C C of the frame longitudinal straps F F, bent at each end to rest upon the frame and thereby support the body of the strap at a suitable distance from the frame parallel therewith to form an intervening opening to receive the journal of the roller, as illustrated in the drawings.

The front bar A of the buckle is formed or fitted with a projecting offset, handle, or lever K to facilitate the opening of the buckle.

The hold of the buckle upon the free end of the belt H, when it is confined by the roller, may be rendered more secure by serrating the inner edge of the front bar A or arming it with retaining-points G G. (See Fig. 1.)

It will be observed that under the construction described there is formed a lever-buckle having a sliding roller which is brought into a locking and also into an unlocking position by merely moving the frame, the roller being in its locking position when lowered, as shown by full lines in Fig. 3, and unlocked when lifted to the position shown by dotted lines in the same figure.

In the use of my invention one end of the belt or girth H to be fastened is secured to the rear cross-bar of the frame. The opposite free end of the belt is then carried from the opposite direction under the opposite front bar A, then under the roller D, and back over it and again under the front bar. When thus adjusted, since the axis of the roller is above the plane of the front bar, any tension upon the belt operating to draw the roller and with it the overlapping fold of the belt toward the front bar, will cause the belt to become so tightly clamped between the roller and the inner edge of the front bar as to hold it securely from slipping, its hold being rendered more positive when required by means of the teeth or pins G G on said edge.

When it is desired to loosen the buckle, it may be readily done by turning up the front end thereof, as illustrated by the dotted lines in Fig. 3, whereupon the roller will run back from the binding-edge and the end of the belt clasped thereby will be left free.

This improved buckle may be used not only in securing the two ends of a girth, but in uniting the proximate ends of two independent straps or bands extending therefrom in opposite directions for any purpose.

The body of the rolling bar D need not necessarily be cylindrical, but may be polygonal in cross-section.

I claim as my invention and desire to secure by Letters Patent—

The combination, in a roller-buckle, with the frame constructed of the parallel cross-bars A and B, connected by the side bars C C, the front one of said cross-bars having a toothed or serrated edge, of the lever K, projecting from the front bar, the longitudinal ways *e e*, formed upon the side bars above the outer face thereof, and the roller D, having its ends fitted movably in said ways, so as to travel parallel with the face of the frame on the outer side thereof, said cross-bar A and roller D, arranged as described, constituting the two jaws of a clamp for clamping a belt or strap between them, and to have their pressure on the belt relieved when the bar A is lifted, substantially as and for the purpose described.

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

ROBERT G. HENRY.

Witnesses:
A. N. JESBERA,
E. M. WATSON.