

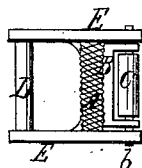
*R. E. Frye*

*Buckle.*

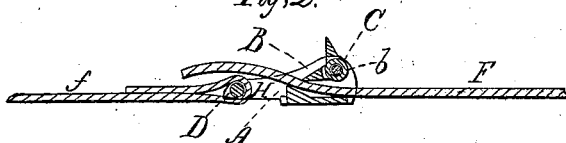
*N<sup>o</sup> 52,154.*

*Patented Jan. 23, 1866.*

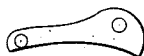
*Fig: 1.*



*Fig: 2.*



*Fig: 3.*



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# UNITED STATES PATENT OFFICE.

R. E. FRYE, OF MANCHESTER, NEW HAMPSHIRE.

## IMPROVED BUCKLE.

Specification forming part of Letters Patent No. 52,154, dated January 23, 1866.

*To all whom it may concern:*

Be it known that I, R. E. FRYE, of Manchester, in the county of Hillsborough and State of New Hampshire, have invented a new and Improved Buckle; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 in the accompanying drawings shows a top view of my improved buckle. Fig. 2 is a vertical longitudinal section; and Fig. 3 is a side view, showing a modification in the form of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a novel construction of the biting or jamming parts of buckles; and it consists in jamming the running part of a strap against a cross-bar or bed-plate by means of a pawl, the face of which may be serrated or otherwise; and also in combining with such jamming-pawl a friction-roller, which comes into action as the pawl is elevated and reduces the friction on the passing strap when it is being tightened or drawn through the buckle.

Having thus described the nature of my invention, I will proceed to describe its construction and operation.

The frame-work of the buckle is formed by two side pieces, E E, Fig. 1, and by two or more cross pieces or rods, D A, the latter rod or cross-bar being so placed or located as to sustain the running part F of the strap against the pressure of the pawl B, and thereby form a part of the biting or holding part of the buckles, at the same time acting as a portion of the frame-work of the buckle. The pawl B is of a U form, as shown in top view, Fig. 1, and is suspended to the frame-pieces E E

by a pin or pivot, b. The space between the ears of the pawl or between the legs of the U is occupied by a friction-roller, C, the said roller being also pivoted on the pin b in common with the pawl B.

The red lines in Fig. 2 show the position of the different parts of the strap with relation to the buckle, and also the position of the pawl B when raised and when the friction-roller C is acting.

Fig. 3 shows a modification for using on rounded surfaces and when used for such purposes as shoe-buckles and for like purposes.

In Fig. 2 the standard or fixed part f of the strap is sewed over the cross-rod D and the running part of the strap is shown by red lines F.

In operation there is but little or no backward movement of the part F of the strap before the jamming parts of the buckle take hold of and secure the same. The holding-surfaces of the pawl or of the cross-bar may be plain surfaces, or one or both may be slightly roughened or serrated. By this mode of holding the strap it is not necessary to puncture the strap with holes; but it is left at its full strength.

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

1. The combination of the frame E E D and sustaining-bar A with the pawl B, substantially in the manner and for the purpose set forth.

2. The combination of the sustaining-bar A, the pawl B, and friction-roller C, substantially in the manner and for the purpose described.

R. E. FRYE.

Witnesses:

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