

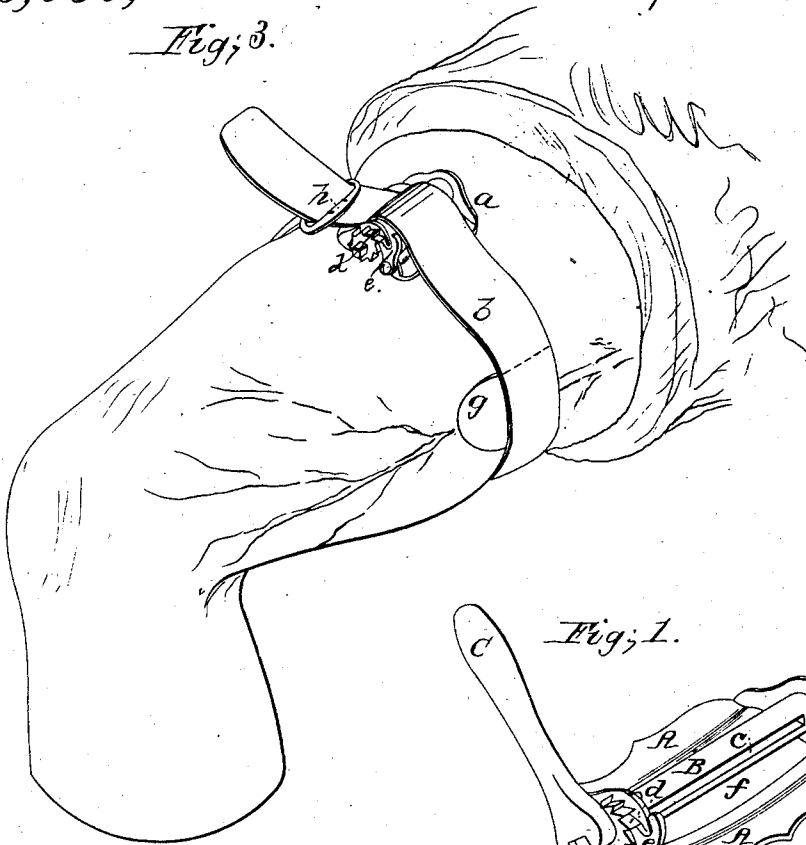
*E. A. Pierce,*

*Buckle,*

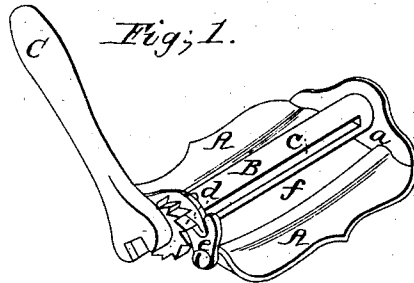
*No. 35,038,*

*Patented Apr. 22, 1862.*

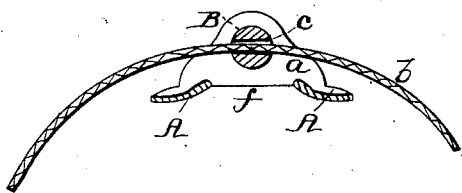
*Fig; 3.*



*Fig; 1.*



*Fig; 2.*



*Witnesses:*

*Wm. R. Roush  
Edmund Mason*

*Inventor;  
E. A. Pierce*

# UNITED STATES PATENT OFFICE.

EDWARD A. PIERCE, OF BRIGHTON, MASSACHUSETTS.

## IMPROVEMENT IN BUCKLES.

Specification forming part of Letters Patent No. 35,038, dated April 22, 1862.

*To all whom it may concern:*

Be it known that I, EDWARD A. PIERCE, of Brighton, in the county of Middlesex and State of Massachusetts, have invented a new and Improved Buckle, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a view of the buckle with the wrench for operating it applied thereto; Fig. 2, a transverse section. Fig. 3 shows the application of my buckle to a surgeon's tourniquet for arresting the bleeding of a wounded limb.

The object of my present invention is to produce a buckle for securing and tightening straps, by which the strap may be drawn tighter and with less expenditure of physical force than with a buckle of the ordinary construction having a tongue which penetrates the strap; and my invention consists in a buckle having a roller to which the strap is attached, so that by turning the roller by means of a key or wrench the strap may be tightened, a ratchet and pawl holding the roller.

That others skilled in the art may understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A is the body of the buckle, from each end of which rises a standard, *a*, which serve as bearings for a roll, B, which has a slot, *c*, cut longitudinally through it to receive the strap *b*, Fig. 2, and has formed on its end which extends beyond one of the standards a square shoulder to receive a key or wrench, C, Fig. 1, and a ratchet, *d*. A pawl, *e*, is pivoted to the side of the standard of the buckle and engages with the ratchet *d*.

A spring may be employed to hold the pawl in contact with the ratchet.

The body A of the buckle is open in the center at *f* to give more room to the strap to be wound upon the roll B.

When used simply as a buckle to secure and tighten up a strap, (a skate-strap, for example,) both ends of the strap are passed through the slot *c*, and the roll B is turned by means of the wrench C until the strap is sufficiently tight. The teeth of the ratchet *d* being small, the strap does not "give back" and lose part of what has been gained by drawing it up, as it does when inserting the tongue of an ordinary buckle, while more power can be applied through the wrench C and the strap can be drawn up tighter than it can when the end of the strap is grasped by the hand.

In Fig. 3 is shown the application of my buckle to a surgeon's tourniquet, in which the strap *b* is passed through the slot in the roll B, then around the limb to which it is to be applied, and the two ends of the strap are buckled together or tied at *h*, when by turning the roll B, as before stated, a sufficient pressure may be applied to the limb. A pad, *g*, is generally attached to the strap when used for this purpose.

What I claim as my invention, and desire to secure by Letters Patent as a new article of manufacture, is—

A buckle constructed substantially as described, with its frame A, slotted roll B, and ratchet and pawl *d e*, for the purpose described.

E. A. PIERCE.

Witnesses:

THOS. R. ROACH,  
EDMUND MASSON.