

F. W. SCHAFER.

BUCKLES.

No. 187,237.

Patented Feb. 13, 1877.

FIG 2.

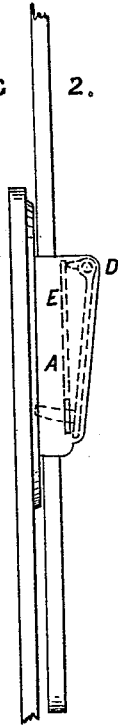


FIG 1.

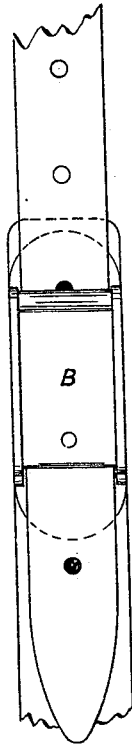


FIG 3.

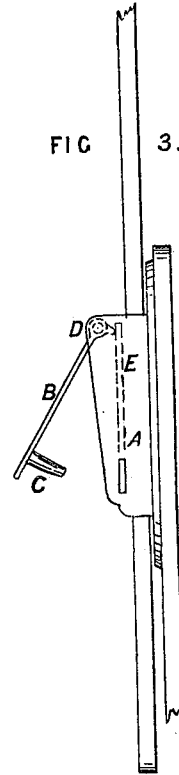


FIG 5.

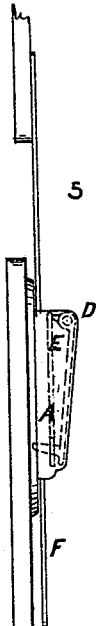


FIG 4.

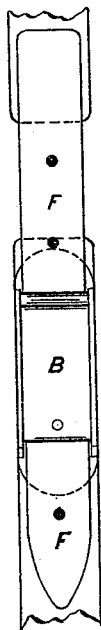
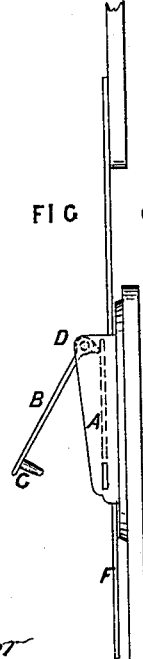


FIG 6.



Witnesses.

*George Smith*  
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Inventor

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per *W. Sledge*

# UNITED STATES PATENT OFFICE.

FREDERICK W. SCHÄFER, OF LONDON, ENGLAND.

## IMPROVEMENT IN BUCKLES.

Specification forming part of Letters Patent No. 187,237, dated February 13, 1877; application filed August 24, 1876.

*To all whom it may concern:*

Be it known that I, FREDERICK WILLIAM SCHÄFER, of Piccadilly and Golden Square, London, England, have invented a Buckle or Fastening for Straps and Bands, of which the following is a specification:

The object of my invention is the production of a buckle whereby a strap or band may not only be tightened with facility, but may be loosened without first increasing the strain, which is a great defect of the ordinary buckle.

My buckle is formed by the combination of a hinged plate or tongue with another plate, to be attached to the strap, band, or article to which the buckle is to be applied, in such a manner that the movable end of the strap or band being passed between the fixed plate or tongue or body and an intermediate spring-plate, is held securely within the buckle by a tooth on the hinged plate or tongue passing through a perforation in the strap or band.

On the accompanying sheet of drawing, Figures 1 and 2 represent a front and side view of my buckle as generally constructed; Fig. 3 being a similar view to Fig. 2, but having the tongue or hinged plate raised; and Figs. 4, 5, and 6 are similar views to the above, but illustrate a buckle with the addition of a metal slide.

A is the fixed plate or body of the buckle, by which it is attached to the strap, band, or other article to which it is to be applied. B is the hinged plate or tongue. This plate need not necessarily be of the breadth shown, but may be simply a hinged tongue or bar with the tooth C at its end. C, tooth for holding moveable end of strap or band; D, hinge; E, intermediate plate supporting hinge. This plate may extend the length of the buckle, as shown, or be simply a cross-bar or plate forming a fulcrum to hinge D. F, metal slide attached to the end of strap, and into the perforations of which enters the tooth C on the hinged plate or tongue B.

Among the innumerable applications of my novel buckle, that which I deem the most invaluable is its application to surgical bandages.

Surgeons, and more particularly army surgeons, while compelled to use the ordinary buckle for securing splints or bandages upon a broken limb, or a wounded soldier upon a litter, have exclaimed against the barbarous

expedient which necessitated an increase of pressure upon the limb or upon the body of the sufferer, and therefore increased agony, before too tight a bandage could be loosened; and, further, which left the sufferer in the impossibility, in most cases, of obtaining this relief without assistance.

Assuming a strap or band to be securing splints to a broken limb by means of the ordinary buckle, and it is desirable to relieve the pressure on the limb, this can only be done by first increasing the tension by pulling the strap farther through or into the buckle until the prong comes from the hole in the strap, and probably needs more strength than the sufferer can exert.

Now, with my novel buckle all that is necessary to relieve the pressure is to lift the hinged plate or tongue either with the finger and thumb, or by lifting the movable end of the strap, and to let the strap run, or pull it farther out of the buckle, and when the pressure on the limb is sufficiently relieved, the buckle will either refasten by the stopping of the run of the strap, so that the tooth will not pass over the holes, or by simply letting go the hinged plate, or pushing it down into the strap until the tooth enters one of its perforations, the exertion required in the loosening and fastening being so slight that any patient not utterly exhausted will be capable of it, and the action being such that it is not necessary that the patient should shift his position to look at the buckle during this operation.

The facility of loosening the strap or band without first pulling it tighter, and the flat form of my buckle, render it very applicable to saddlery and harness.

The addition of the metal plate F, Figs. 4, 5, and 6, will be found desirable when applying my buckle as a fastening for pocket-books, gloves, garters, and wherever a very thin or very flexible band is used.

I claim as my invention—

A buckle composed of a fixed plate or body, A, a hinged tongue plate, B, and a spring-plate, E, all combined as shown and described, and for the purpose specified.

FREDERICK W. SCHÄFER.

Witnesses:

ALBERT VERNON JOHNSON,  
JOHN REYNOLDS.