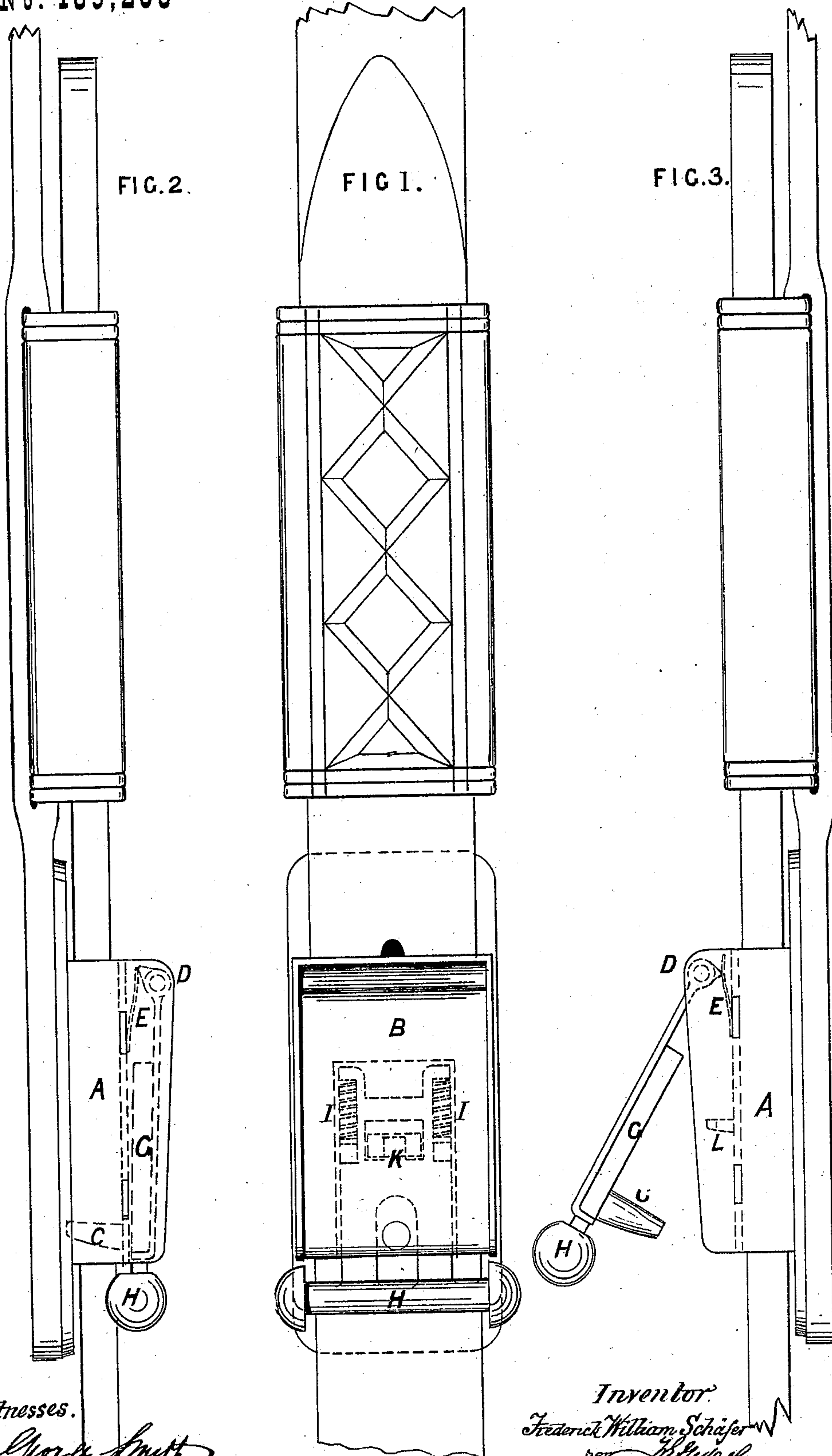


F. W. SCHÄFER.
BUCKLES.

No. 189,268

Patented April 3, 1877



Witnesses.

George Smith
Joseph Whittlesary

Inventor
Frederick William Schäfer
per *H. H. H. H.* Attorney

UNITED STATES PATENT OFFICE.

FREDERICK W. SCHÄFER, OF LONDON, ENGLAND.

IMPROVEMENT IN BUCKLES.

Specification forming part of Letters Patent No. **189,268**, dated April 3, 1877; application filed December 26, 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 Lock-Buckle or Fastening for Harness and for other straps and bands, of which the following is a specification:

The object of this invention is to form a buckle which, while securely holding a trace or other part of harness, or saddlery, or any strap or band, may instantly release it, in whatever position the buckle may be placed and whatever the degree of tension upon the trace or band, by the combination, with a fixed and a hinged plate, of a lock for keeping the tooth of the hinged plate in the trace or band until released by pulling upon a draw-bar.

Figure 1 of the accompanying drawing is a front view of a buckle embodying my invention closed and fastening a trace. Fig. 2 is a side view of same, also closed; and Fig. 3 is a side view of same with hinged plate raised, releasing the trace.

Similar letters indicate similar parts in each of these figures respectively.

A is the body or fixed plate of the buckle, by which it is attached to the trace, strap, or band. B is the hinged plate. C is the tooth of hinged plate B. D is a spring-hinge, which throws the tooth C out of the trace or band, when not held down by the lock; E, hinge-spring. K is a lock-bolt; L, catch-holding bolt, when buckle is closed; I I, springs keeping bolt in catch; H, the draw-bar by means of which the trace, band, or strap is released.

To fasten the loose end of a trace or other strap or band in this buckle, it is passed through the body A, the hinged plate B being raised by its spring-hinge, as at Fig. 3. The plate B is then pressed down. Its tooth C passes through one or other of the holes in the trace or band. The bolt K on the plate B is pressed against the catch L, by the springs

I I, until it enters the catch, and the hinged plate B and the body A of the buckle are thus securely locked together with the tooth C, holding the fastening end of the trace.

To release the trace or loosen the band or strap, it is only necessary to pull on the draw-bar H, whereby the springs I I are compressed, the bolt K drawn out of the catch L, and the plate B, thus released, is forced away from the body A by its spring-hinge D. The loose end of the trace, strap, or band, being now no longer held by the tooth C, may be drawn out of the buckle; and the greater the strain upon the trace or strap the more certainly and rapidly will it be released when the draw-bar is pulled.

A trace fastened by an ordinary buckle cannot be released except by first pulling it tighter, which is a very difficult matter when, for example, a horse has fallen and one or other of the traces is certainly under great tension, and, further, a certain liberty of action is necessary to bring a pull upon the loose end of the trace upon which the horse may even be lying. Now, with my improved buckle the draw-bar H will free the trace when the buckle can be reached by the hand, there being no counter-pull to be overcome, only sufficient power being required to compress the springs I I.

I claim as my invention—

In a buckle, the combination of the tubular base-plate A, having a perforation near its upper front portion, and provided with the slotted lug L and spring E, in combination with the top plate B, having the cam-hinge D, stud C, and locking mechanism adapted to be operated by a draw-bar, all constructed as and for the purpose specified.

F. W. SCHÄFER.

Witnesses:

GEO. J. B. FRANKLIN,
E. KINGCOMBE, Jr.