T. G. Bailey,

Buckle.

No. 48503. Patented July 4, 1865.

Fig. 3.

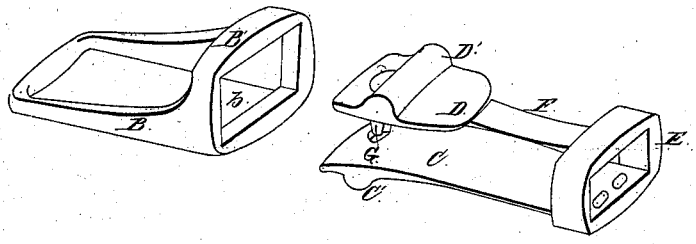


Fig. 2.

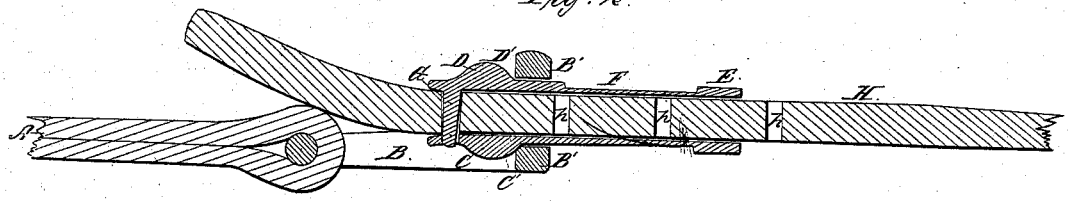
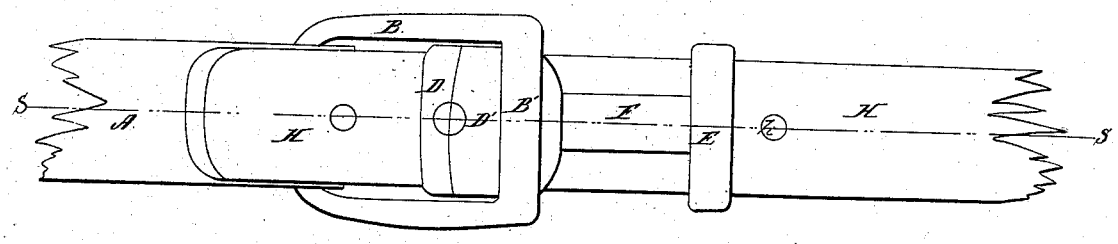


Fig. 1.



Witnesses:
Thomas D Stetson
D W Stetson

Inventor:
Truman G Bailey

UNITED STATES PATENT OFFICE.

TRUMAN G. BAILEY, OF AMENIA, NEW YORK.

IMPROVED BUCKLE.

Specification forming part of Letters Patent No. **48,503**, dated July 4, 1865.

To all whom it may concern:

Be it known that I, TRUMAN G. BAILEY, of Amenia, in the county of Dutchess, in the State of New York, have invented a certain new and Improved Buckle or Clasp for Use in Harnesses and Analogous Situations; and I do hereby declare that the following is a full and exact description thereof.

The accompanying drawings form a part of this specification.

Figure 1 is a plan view of the buckle complete as applied to a trace. The trace and the hame-tug are represented in place. Fig. 2 is a section on the line S S in Fig. 1. Fig. 3 represents the metal parts detached from the leather and from each other.

Similar letters of reference indicate like parts in all the figures.

My invention is intended to obviate some of the serious difficulties incident to the use of ordinary buckles, more especially the trace-buckles of heavy harnesses. In such situations the great strain on the tongue is liable to tear the leather, and the severe bending to which the stiff mass of leather is subjected makes it difficult to change the position of the parts so as to shorten or lengthen the trace, an also leaves indentations and bends in the leather, which impair the appearance of the harness, especially after the buckle has stood any considerable time in one position. My buckle takes a large portion of the strain by compression of the leather, dividing the strain between a tongue which is employed to penetrate the leather, passing through one of a series of holes punched in their ordinary positions, and a clamp or pair of compressing-jaws, which are forced together by a wedge-like action proportioned to the strain on the trace.

I will describe my buckle as applied to connect a hame-tug and trace, it being understood that its construction and arrangement are the same in other positions and for other uses, the parts being of course made lighter or heavier, according to the strains for which they are intended.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation by the aid of the drawings and of the letters of reference marked thereon.

A is the hame-tug, connected in the ordinary manner to a hame. (Not represented.)

B is a strap of malleable cast-iron, wrought-iron, steel, or other suitable material, made in the form represented, with a rectangular aperture, *d*, inclosed within a loop or strap, B′.

C and D are a pair of jaws, which may be roughened on the inside, if preferred, in order to take a more firm hold on the outer and inner surfaces of the trace when they are compressed together. I prefer them smooth. Both are connected to the loop or strap E by rivets or otherwise, and the connection between the outer jaw, D, is formed by the slender steel spring F, so as to afford sufficient elasticity to allow the jaws to open and close to a proper extent. The jaw D is armed with a stout spur or tongue, G, which may be cast or forged thereon, or may be secured by riveting, screwing, or any ordinary means. This support G is of sufficient length to extend quite across the space between the jaws when in use, and to stand in a corresponding hole, *c*, in the opposite jaw, C. The outer faces of the jaws C and D are beveled or wedge-like, as represented at C′ and D′.

The trace H, made up of one or more thicknesses of material, is provided with holes *h*, as usual; but the holes may be considerably smaller than is necessary with the ordinary trace-buckle, and consequently will weaken the trace to a less degree than usual. To introduce the trace the movable part C D E F G is pushed toward the left hand in the drawings, which liberates the jaws C and D from their confinement within the strap B′ and allows them to be opened easily by the yielding of the spring F. On opening the jaws with the fingers, so as to pull the tongue G out of the way, the end of the trace H may be readily introduced by passing it through the strap E and thrusting it endwise to a sufficient extent to cause one of the holes, *h*, to come opposite to the point of the tongue G. The jaws may now be allowed to spring together, compressing them with the hand if they exhibit any reluctance to do so, and on sliding the movable part back to the position represented the trace will be found securely fixed. Any strain applied to the trace H to pull it backward in the ordinary manner brings the inclined parts or wedge-faces C′ D′ of the jaws C D into such relation with the confining-strap B′ that the jaws are compressed tightly together with a force proportioned to the pull on the trace. The tongue G provides

against a possibility of slipping or displacement of the parts when the trace is slacked, and also takes a portion of the strain when the trace is pulled forcibly, the whole strain being divided as above intimated, a part being exerted on the tongue G with an effect tending to tear the leather, but not in sufficient force to endanger such accident, while another portion is borne by the friction or adhesion of the punching-surfaces on the insides of the jaws C and D.

When it is desired to shorten or lengthen the trace the operation is similar to that just described, the movable parts being slid forward, or to the left in the drawings, and the jaws opened so as to liberate the trace, after which it can be shifted to any desired new position, it being presumed that the holes *h* are properly located to allow of the adjustment required.

It is not essential that the communication F between the jaw D and strap E be a spring. A flexible hinge or movable joint of any suitable character may be employed in lieu of the spring. The jaw C may be made movable instead of the jaw D, if desired; or both jaws may be connected to the strap E by elastic or other movable connections.

The part B may be elongated, if desired, so as to extend along and steady and support the parts C D E, &c., to form a connection for the breeching or holdback strap; but I do not believe such addition to the weight and expense of the construction desirable for most purposes. I prefer usually to extend a strap from the inside of the hame-tug, to form a connection for the breeching, in a manner which will be obvious.

My buckle or clasp may be plated with precious metal and made in various ornamental shapes, which I do not deem it necessary to represent.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is as follows:

The jaws C D, with their inclined faces C′ D′, and tongue or spur G, arranged relatively to the inclosing-strap B′ and parts B, E, and F, or their equivalents, substantially in the manner and for the purpose herein set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

TRUMAN G. BAILEY.

Witnesses:
THOMAS D. STETSON,
D. W. STETSON.