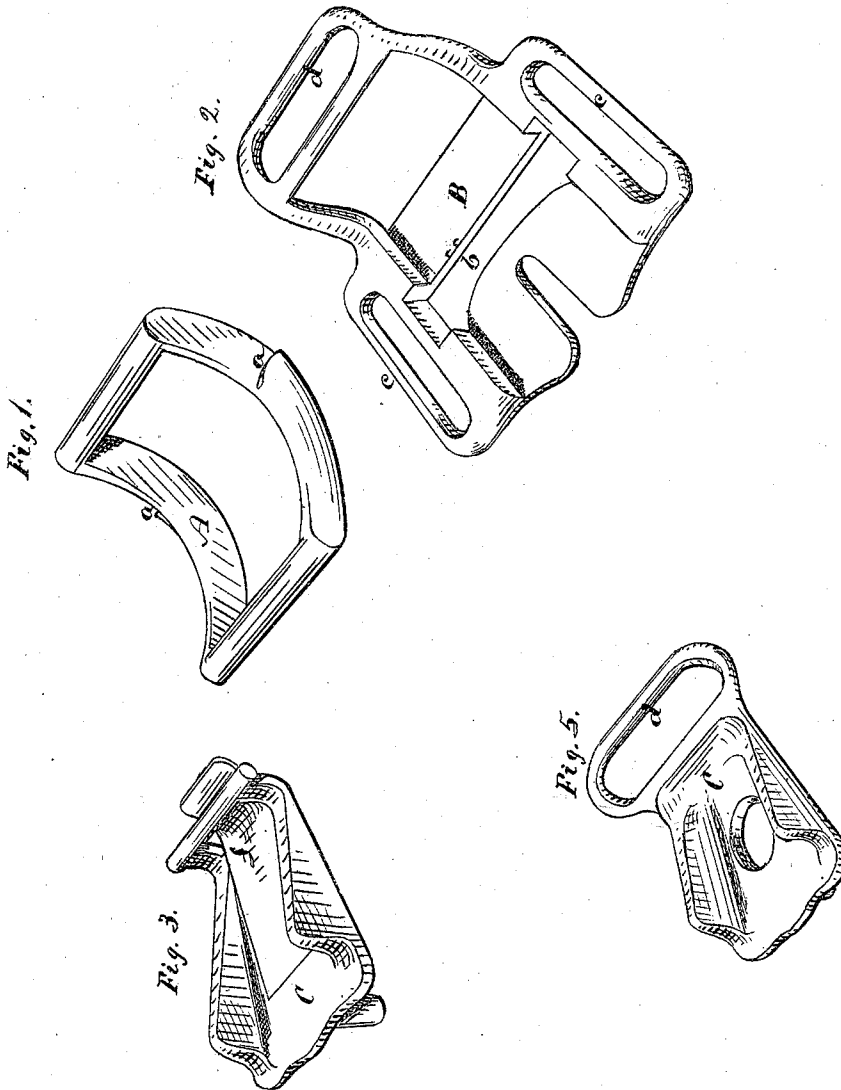


SAMUEL S. SARGEANT.

Harness-Buckle.

No. 126,649.

Patented May 14, 1872.



Witnesses,

S. W. Wood
R. D. Smith

Inventor,

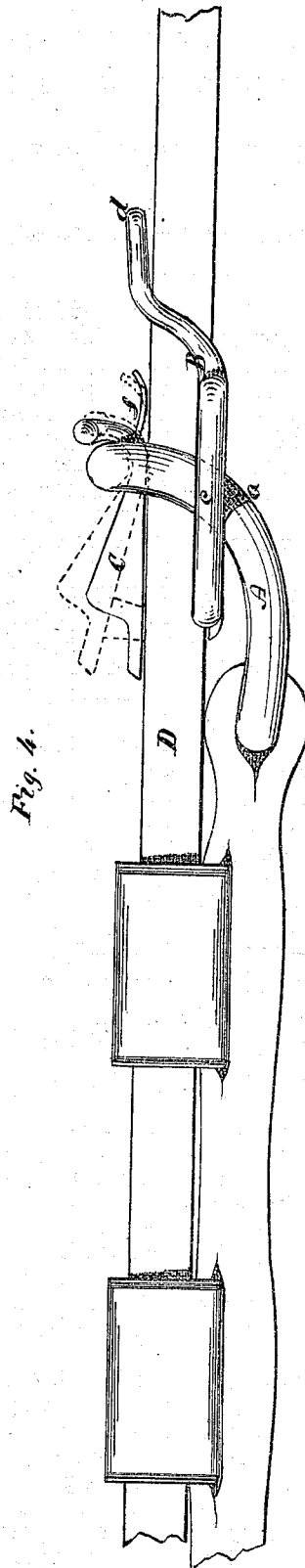
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UNITED STATES PATENT OFFICE.

SAMUEL S. SARGEANT, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN HARNESS-BUCKLES.

Specification forming part of Letters Patent No. 126,649, dated May 14, 1872.

To all whom it may concern:

Be it known that I, SAMUEL S. SARGEANT, of Newark, in the county of Essex and State of New Jersey, have invented Improvements in Harness-Buckles; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing making part of this specification—

Figures 1, 2, and 3 being separate views in perspective of the parts composing the buckle; Fig. 4, a side view of the buckle as in use, showing a part of a hame-tug and of a trace to which it is applied; Fig. 5, a view in perspective of a modification of the tongue-plate or pressure-plate.

Like letters designate corresponding parts in all of the figures.

These improvements are specially applicable to the Cole wedge-tongue-plate buckle, patented October 10, 1868; and the Cole bail and tongue pressure-plate trace-buckle, patented May 9, 1871; the principle of that invention being retained, with a modification of the construction thereof.

Instead of making the whole body of the buckle a swinging bail, as in that patent, I employ a simple bail, A, without loops, and add another part B, consisting of a central plate with side loops *c c*, and a hold-back loop, *d*, thereon. In the middle of the plate is a transverse aperture, *b*, through which the swinging end of the bail A is inserted as far as shoulders or stops *a a* on the sides thereof will permit. On these shoulders or stops the plate B rests or bears, and forms a back-pressure plate to the trace D, while the tongue-plate C presses upon the upper or opposite side of the trace, which is passed through the bail A over the said plate B, and under the tongue-plate C, also admitted under the cross-bar of the bail.

The use and advantages of this separate intermediate plate B forming the main body of the buckle, are: First, it allows the buckle to release the wedge-tongue plate freely, even after long use in one position on the trace; whereas, the wedge-tongue-plate buckle referred to, if left in one position a long time, is liable to rust, and the tongue-plate thereof to stick fast under the rigid and unyielding cross-

bar or end of the bail, rendering it difficult to unbuckle. Second, the plate forms a fulcrum to the bail where the shoulders *a a* thereof bear against it, so that the bail becomes and acts as a lever, and the pressure produced by the swinging thereof is increased thereby, and the leather of the trace is relieved of the pressure as soon as the draft on the trace ceases. Thus, not only does it combine the bail-buckle and the wedge-pressure buckle, but the principle of a lever-pressure buckle is added. Third, by transferring the side loops to this independent plate, which always maintains a position parallel with the trace, they are never swung out of their proper direction.

The tongue-plate C is somewhat liable to slide forward when the draft on the trace ceases at any time, as in going down hill, and thereby to allow the tongue to work out of its hole in the trace, and possibly thus to permit unbuckling. To obviate this liability I attach a spring, *f*, to the back end of the tongue-plate, substantially as represented, so as to rest or bear on the surface of the trace. In lifting the tongue from its hole in the trace this spring has to bend, as indicated by dotted lines in Fig. 4. This spring is strong enough to prevent the tongue from lifting out accidentally, but not to offer inconvenient resistance to lifting it out by hand when required.

A modification of this device, to prevent the sliding forward of the tongue-plate, is shown in Fig. 5, where the hold-back loop *d* is formed on the tongue-plate, instead of being on the intermediate plate B, as above described. It is obvious that the hold-back when attached to the tongue-plate will prevent its sliding forward in situations when the draft is taken from the trace, as in descending hills.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The separate plate B in combination with the bail A and tongue-plate C, all being arranged and operating together, substantially as and for the purposes herein specified.

2. The stops or shoulder *a a* on the bail A, operating in combination with a pressure-plate, B, and a tongue-plate, C, substantially as and for the purposes herein specified.

3. The trace-buckle herein described, composed of a bail, A, having stops or shoulders

a a thereon, a center or back pressure-plate, B, provided with side loops *c c*, and a sliding tongue-plate, C, with a hold-back loop, *d*, thereon, (or on the plate B,) all substantially as herein specified.

4. The spring *f*, in combination with the sliding tongue-plate C of a trace-buckle, sub-

stantially as and for the purpose herein specified.

SAMUEL S. SARGEANT.

Witnesses:

C. H. POND,
N. G. POND.