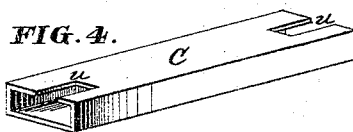
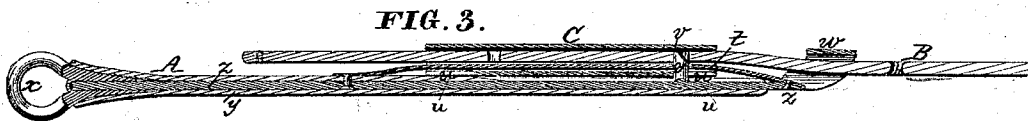
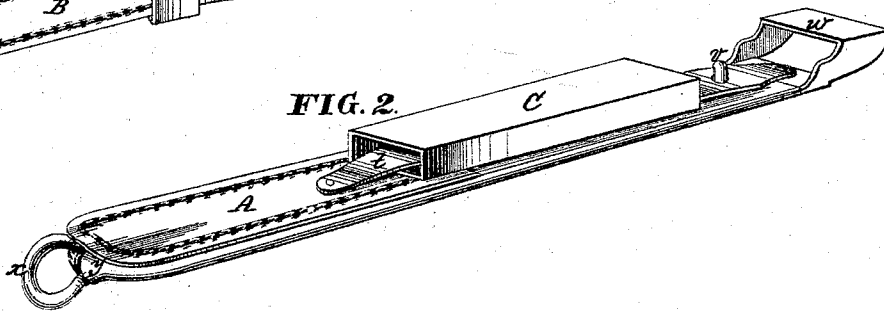
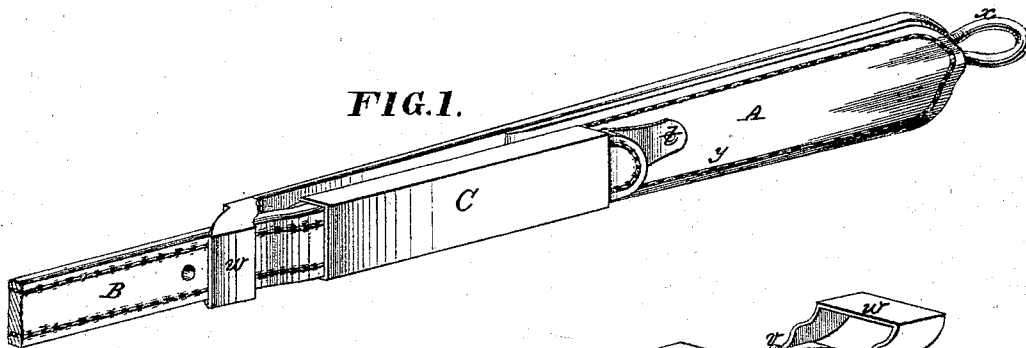


C. W. ADAMS.

Tug Buckles for Harness.

No. 135,744.

Patented Feb. 11, 1873.



Witnesses
Geo. L. Quinn
Walter Allen

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UNITED STATES PATENT OFFICE.

CHARLES W. ADAMS, OF WHEELING, WEST VIRGINIA.

IMPROVEMENT IN TUG-BUCKLES FOR HARNESS.

Specification forming part of Letters Patent No. 135,744, dated February 11, 1873.

To all whom it may concern:

Be it known that I, CHARLES W. ADAMS, of Wheeling, in the county of Ohio, West Virginia, have invented a certain Combined Tug and Buckle for Harness, of which the following is a specification:

Nature and Objects of the Invention.

This invention relates to a metallic tug and peculiar buckle of superior construction for use in connection with leather traces in any kind of harness, either with hames or breast strap, the invention being also applicable in part to other harness-buckles. The tug terminates at its front end in a loop or eye, and is perforated to facilitate sewing on a leather covering. At its rear end a loop is formed to receive the trace-strap. The buckle consists of a rigid tongue or spike projecting from the tug, a box slide or sliding keeper to secure the strap on the tongue and to protect the same, and a metallic spring or strap to attach this slide and to prevent its accidental displacement.

Description of the Drawing.

Figure 1 is a perspective view of the tug end of a trace illustrating this invention. Fig. 2 is a perspective view of the tug and buckle detached, illustrating the open condition of the buckle. Fig. 3 is a longitudinal section of the tug and buckle as applied to a trace-strap. Fig. 4 is a perspective view of the box-slide detached and inverted.

General Description.

In carrying out this invention a tug, A, is formed by inclosing a flat metallic plate, z, in a leather covering, y, the plate being perforated to receive the stitching where necessary. This tug terminates at its front end in an eye, x, by which it is attached to the hames or breast strap, and at its other extremity in a loop, w, to receive the end of a leather trace-strap, B. A stud or spike, v, projects from the outer side of the tug to form the tongue of the buckle. The movable part of the buckle is a metallic box-slide or sliding-keeper, C, shown detached and inverted in Fig. 4. This has a deep notch, u, in one or

both ends of its bottom to receive the tongue v in the projected position of the keeper. A bowed spring or metallic strap, t, riveted at both ends to the tug A, serves to attach this keeper and to press on its bottom so as to hold it from accidental displacement.

The sliding keeper C serves to securely lock the strap on the tongue, and at the same time covers the perforated portion and protects the same from the weather, thus preserving the strap and improving the appearance of the fastening. Another advantage of the buckle over those commonly used is that it obviates permanent bends in the strap, which operate to open the pores of the leather, and to strain the perforations, and thus to cause premature failure at the used points.

The strap in this buckle is held in a perfectly-straight line. The invention as a whole is believed to possess simplicity and neatness, combined with strength and utility in a superior degree.

The metallic portions of the tug and buckle may be of iron (plated where exposed) or of brass, or of both combined. The metallic plate z of the tug may be made in one part with its eye x, loop w, and tongue v, or of several parts united by rivets.

The tug and buckle may be used either with hames or neck strap in any harness, or the invention may be applied to harness-buckles for use at other points.

The operation of the buckle is as follows: To introduce the strap B slide the keeper C forward, as in Fig. 2, to expose the tongue v, then introduce the end of the strap through the loop w and into the keeper C by bending it slightly over the tongue, then slide the strap through the proper distance and engage a perforation over the tongue v, then slide back the keeper, and the buckle is locked.

To detach the strap, slide forward the keeper and push the strap forward until it is released from the tongue, when it may be readily withdrawn.

The employment of a metallic tug in combination with a harness-buckle is known to be old, and is, therefore, disclaimed. It is known further that a buckle of different construction, but combining a rigid tongue and a box-slide,

as in this, is the subject-matter of Bingham's expired patent, dated December 10, 1850. This combination also is therefore disclaimed. The combination of a box-slide, a rigid tongue, and a spring-plate engaging with the slide so as to retain it, (the same not being employed in combination with a metallic tug to support the tongue and to attach the buckle,) and the said spring-plate not serving to attach and guide the slide, as in Topham's "strap slide," for sword-slings, patented April 22, 1862, is also disclaimed.

Claim.

The following is claimed as new, namely:
The combination of the metallic tug A, supporting a rigid tongue or spike, *v*, and the box-slide or keeper C applied to the face of said tug, and attached, guided, and held by a spring or metallic strap, *t*, as herein shown and described, for the purpose specified.

CHARLES W. ADAMS.

Witnesses:

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