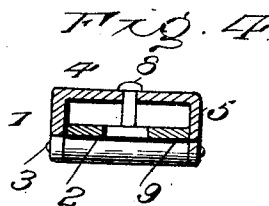
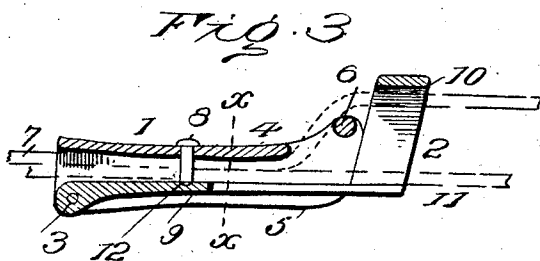
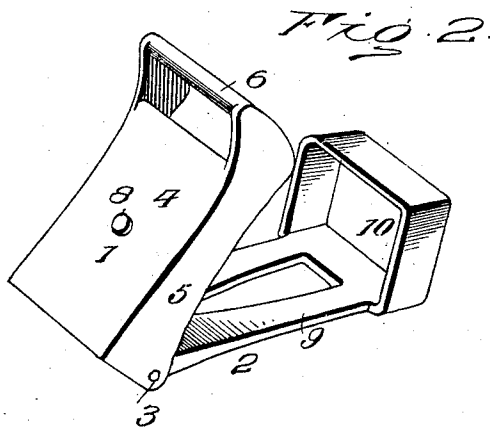
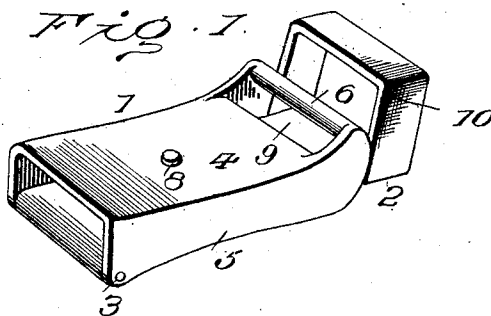


No. 857,864.

PATENTED JUNE 25, 1907.

H. A. BOWYER.
CROSS LINE BUCKLE.
APPLICATION FILED NOV. 26, 1906.



Witnesses

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UNITED STATES PATENT OFFICE.

HORACE A. BOWYER, OF WINDSOR, OHIO.

CROSS-LINE BUCKLE.

No. 857,864.

Specification of Letters Patent.

Patented June 25, 1907.

Application filed November 26, 1906. Serial No. 345,136.

To all whom it may concern:

Be it known that I, HORACE A. BOWYER, a citizen of the United States, residing at Windsor, in the county of Ashtabula and State of Ohio, have invented certain new and useful Improvements in Cross-Line Buckles, of which the following is a specification.

This invention provides a harness buckle of novel form especially adapted for the driving lines of double harness to admit of adjusting the short line with reference to the main line without necessitating the removal of the buckle to admit of such adjustment.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result, reference is to be had to the following description and accompanying drawings.

While the invention may be adapted to different forms and conditions by changes in the structure and minor details without departing from the spirit or essential features thereof, still the preferred embodiment is shown in the accompanying drawings, in which:

Figure 1 is a perspective view of a cross line buckle embodying the invention. Fig. 2 is a perspective view of the buckle with the parts thrown open to show more clearly the precise construction. Fig. 3 is a central longitudinal section of the buckle, the dotted lines indicating the main and cross lines. Fig. 4 is a transverse section of the buckle on the line $x-x$ of Fig. 3.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The buckle comprises two members 1 and 2 which are pivotally connected at one end, as shown at 3, in any accustomed way. The member 1 comprises a plate 4 and longitudinal flanges 5 at the edges of said plate, said flanges projecting at one end beyond the plate and having their upper corners connected by means of a cross-bar 6 to form a loop, or space, through which the main line 7 passes when the buckle is in position. The projecting ends of the longitudinal flanges 5 extend upward, thereby throwing the cross-bar 6 in a plane beyond the plate 4. A stud 8 projects inward from the plate 4 and is adapted to pass through openings in the

main and cross lines to hold the same in proper adjusted position.

The member 2 consists of a plate 9 of a width to fit between the longitudinal flanges 5 of the member 1, said plate having a box loop 10 at its free end to project upward in front of the member 1. The box loop 10 inclines with reference to the plate 9 and its upper cross-bar is in a higher plane than the cross-bar 6. The end of the plate 9 pivoted to the member 1 curves downward slightly to provide a flare to the opening formed between the members 1 and 2 at their pivoted ends. The longitudinal flanges 5 curve downward slightly at their outer ends to conform to the downwardly curved end of the plate 9.

A buckle constructed substantially as herein set forth, when fitted to the lines of double harness, has the main line 7 passed through the box loop 10, thence over the cross-bar 6 and beneath the plate 4 through the space formed between the members 1 and 2 and engaged by stud 8 which passes through a selected opening of said main line. It will be observed that when the main line is under tension, it exerts an upward movement on the cross-bar of the box loop and a downward movement on the cross-bar 6 of the member 1 with the result that the members 1 and 2 are pressed together at their free ends. The short line 11 passes through the box loop 10 and into the space formed between the members or plates 4 and 9 and is likewise engaged by the stud 8 which passes through an opening thereof. The inner or lower end of the stud 8 enters an opening 12 formed in the plate 9 and its free end engages with said plate with the result that the stud is supported at its ends by both members 1 and 2 of the buckle.

Having thus described the invention, what is claimed as new is:

1. A buckle of the character specified, comprising complementary members spaced apart and pivotally connected at one end, each member having a loop at its opposite, or free end, one of the loops being approximately in the plane of a member of the buckle, and the other loop extending across the space formed between the two members and arranged in front of the first mentioned member.

2. A buckle of the character specified, comprising complementary members, one of the members consisting of a plate, having longi-

tudinal flanges and the other member comprising a plate arranged to come between the aforesaid longitudinal flanges and pivoted at one end thereto and having a loop projected
5 from the opposite end of said plate and located in front of the first mentioned member.

3. The herein described buckle, comprising complementary members, one of the members comprising a plate and longitudinal
10 flanges, the latter having end portions extended and curved away from the plane of the plate and connected by a cross-bar to form a loop, the opposite ends of said longitudinal flanges being downwardly curved
15 and said plate having an inwardly extended

stud and the other member comprising a plate of a width to come between said longitudinal flanges and pivoted at one end to the downwardly curved members of the aforementioned longitudinal flanges, and a box
20 loop projected from the opposite end of said plate to extend across the buckle and in front of the first mentioned member thereof.

In testimony whereof I affix my signature in presence of two witnesses.

HORACE A. BOWYER. [L. s.]

Witnesses:

H. A. TERRELL,

F. J. NOBLE.