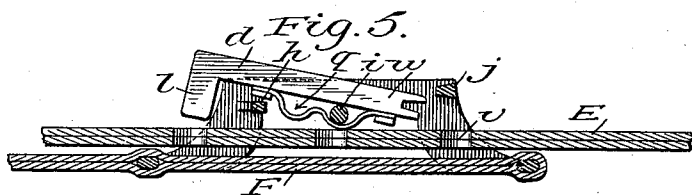
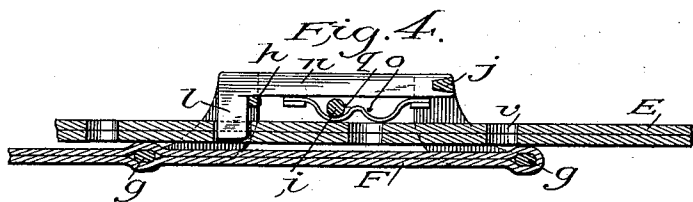
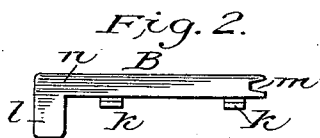
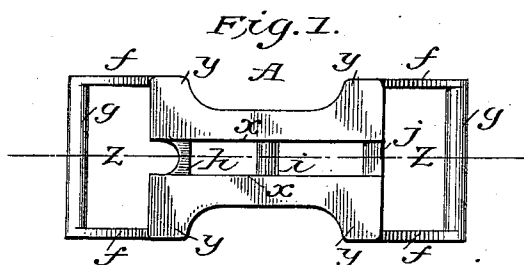


(No Model.)

H. J. KRAUS.
BUCKLE.

No. 539,521.

Patented May 21, 1895.



Witnesses.

Wm. M. Sutton

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UNITED STATES PATENT OFFICE.

HENRY J. KRAUS, OF NORTH TONAWANDA, NEW YORK.

BUCKLE.

SPECIFICATION forming part of Letters Patent No. 539,521, dated May 21, 1895.

Application filed December 9, 1893. Serial No. 493,284. (No model.)

To all whom it may concern:

Be it known that I, HENRY J. KRAUS, a citizen of the United States, residing at North Tonawanda, in the county of Niagara, State of New York, have invented an Improved and Unique Trace or Tug Buckle, of which the following is a specification.

My invention relates to improvements in trace or tug buckles, the objects of which are, first, to combine simplicity with rapidity of movement; second, to secure durability, neatness, and security. I attain these objects by the mechanism illustrated in the accompanying drawings, of full size, in which—

Figure 1 is a horizontal view of the body or main portion of the trace or tug buckle as it would appear sewed or fastened in hame-tug or breast-collar in position in harness on a horse; Fig. 2, the slide-tongue, and Fig. 3 a spring, both of which work in conjunction with Fig. 1 in line Z Z. Fig. 4 is a combination of Fig. 1 in sectional outlines, side view, as sewed or fastened in hame-tug or breast-collar, and Figs. 2 and 3 in their proper working position, thus forming a whole or closed buckle-holding trace or tug; and Fig. 5, as a whole, the same as Fig. 4, except buckle being open, in which position an adjustment of the trace or tug is made.

Similar letters refer to similar parts throughout the several views.

The body A in Fig. 1, the slide-lever B in Fig. 2, and the spring C in Fig. 3, go to make up the trace or tug buckle as a whole.

The body A is cast or made in one piece of any good metal, in which the portions Y—X—Y run on a parallel plane joined by the cross-pieces *h—i—j*, and extended from points *y* in a downward and circular course to the right and left, to a distance to allow the free passage of trace or tug between points *y—j—y—f—g—f* and *y—h—y—f—g—f*, constituting arms *f*, which are extended on a parallel plane with *x—x* to a suitable distance to give form and joined by *g—g* which constitute the base-bars to which hame-tug is fastened, as hereinafter described.

The slide-tongue B is one whole piece, cast or otherwise made, in which *n* forms the slide, *l* the tongue, *k—k* the ears and *m* the jaw which in position lie in plane *z—z* as shown in Fig. 4; the slide *n* resting on cross pieces

h—i and beveled cross-piece *j* fitting in jaw *m* and tongue *l* resting against concave surface on front side of cross-piece *h* and at a right angle to line *z—z* as shown in Fig. 4, and hereinafter more fully described. On the lower and opposite side of slide-tongue are two ears *k—k* cast or otherwise formed at an angle of forty-five degrees, which are partially cold-shut, bringing ends on a face with slide *n*, leaving an open space sufficient to admit the spring C.

The spring C is about five thirty-seconds of an inch wide, one thirty-second of an inch thick with two corrugations or impressions *q—o*, and ends *p—p* bent at an angle of forty-five degrees from the plane; which in position is placed underneath slide *n*, as shown in Fig. 4, points *p—p* resting in ears *k—k*; *s—s* against slide *n* and *t* likewise or nearly so.

In Fig. 4 I have the buckle mounted on a harness, buckled or closed, in which F constitutes hame-strap or breast-collar into which body A (heretofore described) is sewed or fastened in the following manner: Strap is passed over *g* to the right parallel with *x—x* over and around *g* and back on the same plane and fastened by stitching or rivets on each side of *g—g*. E constitutes the trace or tug (sectional view) with the holes *v* to receive the tongue *l* which securely holds tug at such length as may be adjusted. When thus buckled the tongue rests against and in concave surface of cross-piece *h* and jaw *m* of slide-tongue bearing against cross-piece *j* thus sustaining force or tension brought on tug E when fastened or hooked, as power in opposite direction on hame-tug is produced by a horse or other force, same being held in position by cross-piece *i* resting in impression of spring at point *s*.

In Fig. 5 I have buckle open or unbuckled, same being accomplished by placing left hand up under and around buckle and with tug in right hand push forward or to the left (and vice versa with opposite buckle) with a force sufficient to drive tongue out of tug hole *v* and at same time impression *o* of spring receiving cross-piece *i*. At this juncture place the thumb of left hand on slide *n* at point *w* and with a light pressure hold tongue *l* from tug E, thus allowing a free movement of tug forward or backward for the pur-

pose of shortening or lengthening; which done, press thumb on slide *n* at point *d* and move tug in such direction as will be necessary to admit tongue *l* in desired hole *v*; then pull on
5 tug and slide-tongue B will snap in position as shown in Fig. 4.

Having described my invention in detail, what I claim, and desire to secure Letters Patent on, is—

10 A buckle comprising a main frame pro-

vided with three cross-pieces and end loops and a slide-tongue member carrying a spring of two corrugations inclosing the center cross-piece on the main frame, and means for holding the two parts of the buckle in adjustment, 15 substantially as described.

HENRY J. KRAUS.

Witnesses:

WM. M. SUTTON,

GEO. M. ALDRICH.