

(No Model.)

O. LEUZINGER & A. A. BLOM.

HARNESS BUCKLE AND TRACE ATTACHMENT.

No. 559,900.

Patented May 12, 1896.

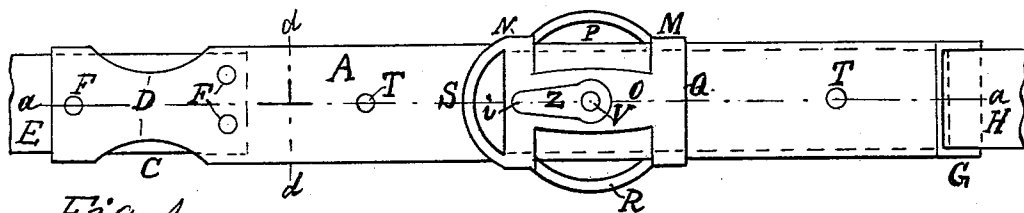


Fig: 1.

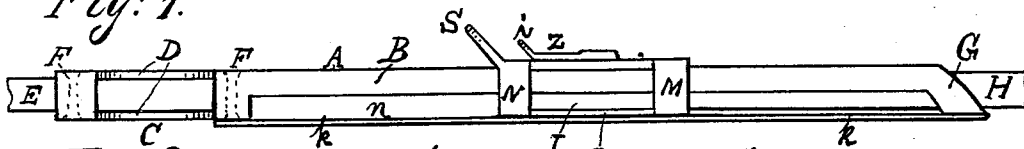


Fig: 2.

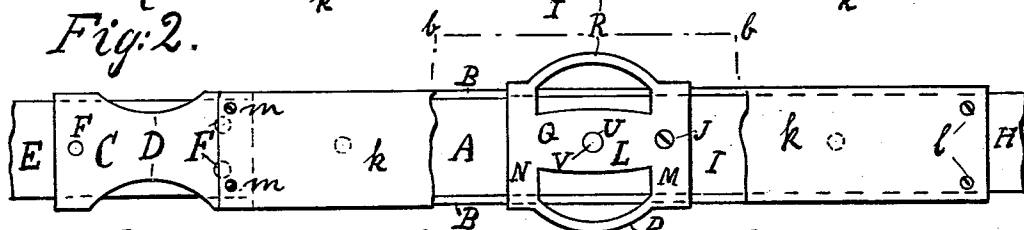


Fig: 3.

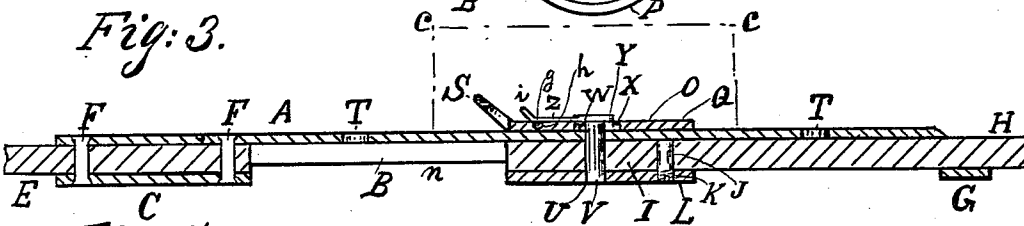


Fig: 4.

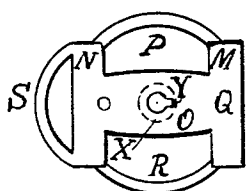


Fig: 5.

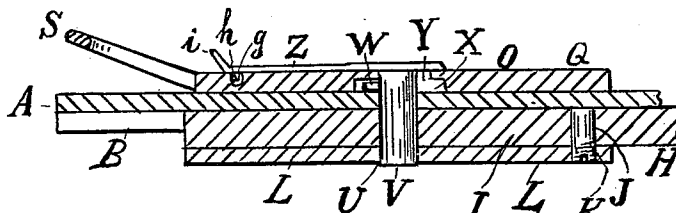


Fig: 6.

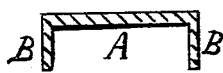


Fig: 7.

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# UNITED STATES PATENT OFFICE.

OTTO LEUZINGER AND AXEL A. BLOM, OF ANNANDALE, MINNESOTA, ASSIGNORS OF ONE-THIRD TO SAMUEL H. MCGUIRE, OF SAME PLACE.

## HARNESS-BUCKLE AND TRACE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 559,900, dated May 12, 1896.

Application filed September 26, 1895. Serial No. 563,807. (No model.)

*To all whom it may concern:*

Be it known that we, OTTO LEUZINGER and AXEL A. BLOM, citizens of the United States, residing at Annandale, in the county of Wright and State of Minnesota, have invented certain new and useful Improvements in Harness-Buckles and Trace Attachments; and we do declare the following to be a full, clear, and exact description of the invention; such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Our invention relates to improvements in harness-buckles and trace attachments or harness-buckles of the kind to which several parts of the harness may be attached.

The objects of our invention are, first, to provide a harness-buckle by which the hame-tug and the trace of the harness may be adjustably connected without the usual wear and tear to the leather at the point of connection; second, to provide a durable, easily-operated, and adjustable harness-buckle to which a plurality of parts of the harness may be connected. These and other objects we attain by the novel construction and arrangement of parts illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of our buckle, viewed from the "outer side," which term in this specification refers to the side of the buckle turned away from the horse, while the side next to the horse will be termed the "inner side." Fig. 2 is a view of the lower edge of Fig. 1. Fig. 3 is a side elevation of the inner side of the device or a bottom view of Fig. 2 with a portion of the shield *k* cut away between *b* and *b*. Fig. 4 is a central sectional view on the line *a a* in Fig. 1 and with the shield *k* omitted. Fig. 5 is a detail outside view of a part of the buckle as shown in Fig. 1. Fig. 6 is an enlarged portion of Fig. 4, as between *c* and *c*. Fig. 7 is a detail cross-section of the main body of the buckle.

Referring to the drawings by letters of reference, *A* designates the main body of the buckle, which consists of an elongated plate with angularly-bent stiffening edges *B* and

has its rear end provided with an inwardly-projecting box or socket *C*, which in order to lighten the material is cut away, as at *D*. This box entirely encircles the front end of the trace *E*, which is secured therein by the three rivets *F*. The front end of the plate *A* is provided on the inner side with a guiding-loop *G*, through which is guided the hame-tug *H*, of which the rear end portion *I* is permanently secured on the pin *J*, of which the head end is screw-threaded, as at *K*, into the inner bar *L* of a secondary buckle-body *Q*, which slides upon the plate or main body *A* and may be interlocked therewith at predetermined points, as will presently be more fully described. Said secondary body *Q* comprises the two loops *M* and *N*, encircling the body-plate *A*, and the longitudinal inner bar *L* and outer bar *O*, formed integrally with and connecting together said loops. It further comprises the upper loop *P*, adapted for securing the back-band thereto, the lower loop *R*, to which the belly-band may be secured, and the rear loop *S*, to which the holdback-strap may be secured. Through the center of the bars *O* and *L* and through either one of the holes *T* in the plate *A* and through the hole *U* in the portion *I* of the hame-tug *H* we insert the pin *V*, which is kept in place by a peg *W*, secured in its side and taking hold inside of the bar *O* in the annular groove *X* thereof. As will be seen in Fig. 5, the hole in bar *O* is provided with a notch *Y*, through which the peg *W* may slip in and out when the pin *W* is turned in a forward-pointing position with its thumb-lever *Z*, which is secured on the outer end of said pin and is provided with a projection or peg *g*, engaging the cavity of hole *h* in the outer bar *O* and has its free end *i* turned outwardly, so as to form a finger-catch by which the spring-arm *Z* may be sprung outward till the peg *g* is freed. The pin *V* may then be turned till the peg *W* registers with the notch *Y*, when the pin *V* may be removed and inserted in another one of the holes *T*, thus shortening or lengthening the trace, which, together with the plate *A*, moves and is adjustable in the buckle portion *Q* by means of the said removable interlocked pin *V*.

*k* is a shield, preferably made of leather,

and secured by the screws *l l* and *m m* in a stretched position upon the inner side of the buckle, so as to cover up the gap *n* and make the buckle smooth and soft upon its inner side where it may touch the animal. In making a cheap grade of the buckle the said shield may be dispensed with.

From the above description the construction and operation will clearly appear, and it will be seen that we provide a harness-buckle to which five different straps of the harness may be secured, and in which the main parts connected are made adjustable toward each other by means of the single one hole *U* in one of the parts and two metallic bodies secured one to each part and sliding one within the other and being adjustably secured together by an interlocked pin extending there-through. It will further be observed that when it is desired to actually shorten the tug or the trace all there is to be done is to remove the screw-pin *J*, cut new holes in the tug *H* for the pins *J* and *V*, cut away the surplus of the tug, and replace the pins. Instead of the rivets *F* screws may be used.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The harness-buckle and trace attachment having an elongated metallic body-plate, provided with holes as *T*, and having one of its ends secured to the trace and its other end provided with a guiding-loop for the hame-tug to pass through, a secondary metallic body slidingly encircling the main body and being secured to the end of the hame-tug, a removably-interlocked pin passed through a single hole in the outer metallic body and in turn through either of the several holes in the elongated body, substantially as shown and described and for the purpose set forth.

2. The harness-buckle and trace attachment, comprising an elongated metallic body or plate having its edges bent angularly with the plate and one of its ends provided with a socket encircling the end of the trace, which is secured therein by screws or rivets passed

through the trace and the inner and outer walls of the socket; the opposite end of said plate being provided with a guiding-loop as *G*, for the hame-tug to pass through; a secondary metallic body as *Q*, slidingly encircling the elongated body and having in its inner wall provided a screw-pin as *J*, extending with its unthreaded portion into the hame-tug, between the inner wall of the secondary body and the main plate, the interlocked pin *V*, inserted transversely and substantially centrally through the secondary body and being adapted for insertion in either of the holes *T*, in the main plate, said secondary body of the buckle being formed with the loops *P*, *R*, and *S*, at its upper, lower and rear edges respectively, and with the annular recess *X*, notch *Y*, and the cavity *h*, the said pin *V*, being provided with the peg *W*, adapted to slip through the notch *Y*, and engage the groove *X*; the spring-arm *Z*, secured on the outer end of the pin *V*, and having the peg *g*, adapted to engage the cavity *h*, when the peg *W*, is away from the notch *Y*, substantially as and for the purpose set forth.

3. In a harness-buckle and trace attachment, the combination with the elongated metallic body *A*, having the inwardly-projecting socket *C*, in which to secure the end of the trace, and the inwardly-projecting loop *G*, for the hame-tug to be guided in; the secondary metallic body *G*, encircling the main body and having the hame-tug secured to it at the inner side of the main body, and a pin for securing it at various points upon the main body, of the permanently-stretched flexible shield *k*, secured to the main body near its ends and covering, substantially the entire inner side of the buckle, substantially as and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

OTTO LEUZINGER.  
AXEL A. BLOM.

Witnesses:  
ALLEN G. SEXTON,  
LEROY RITCHIE.