

(No Model.)

A. E. DEIBERT.

TRACE OR HAME TUG BUCKLE.

No. 310,390.

Patented Jan. 6, 1885.

Fig. 1.

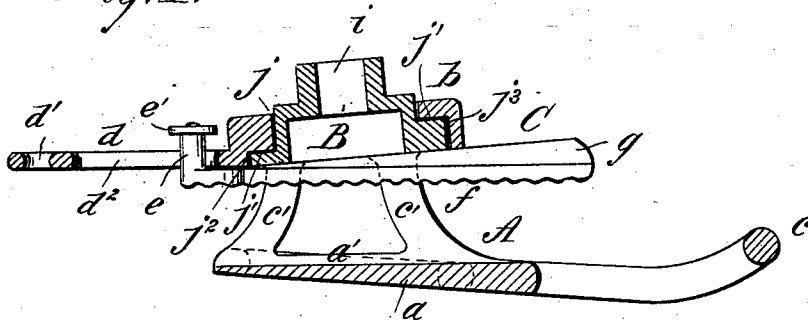


Fig. 2.

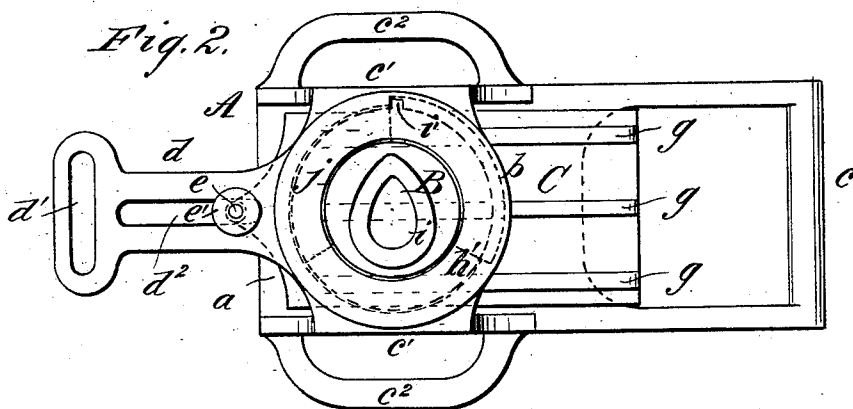


Fig. 3.

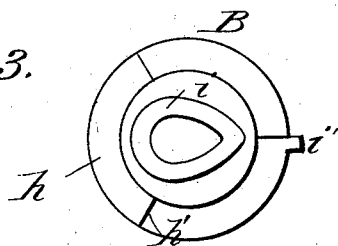


Fig. 5.

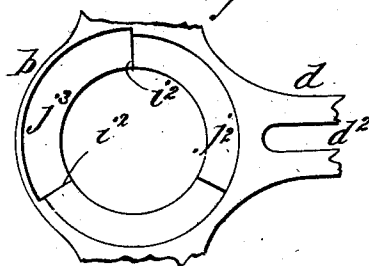
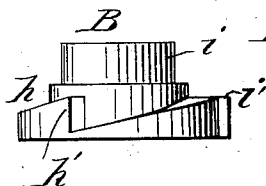


Fig. 4.



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TRACE OR HAME-TUG BUCKLE.

SPECIFICATION forming part of Letters Patent No. 310,390, dated January 6, 1885.

Application filed June 2, 1884. (No model.)

To all whom it may concern:

Be it known that I, AMBROSE E. DEIBERT, of Kansas City, in the county of Jackson and State of Missouri, have invented a new and Improved Trace or Hame-Tug Buckle, of which the following is a full, clear, and exact description.

This invention consists, principally, of a trace or hame-tug buckle wherein a clamping plate or wedge and key are employed for grasping and holding the trace, thus avoiding the necessity of making holes in the trace, as with ordinary buckles, and facilitating, also, the adjustment of the trace.

The invention also consists of the special construction and arrangement of the parts of the buckle, all as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional elevation of my new and improved buckle. Fig. 2 is a plan view of the same. Fig. 3 is a plan view of the circular cam or tug used for causing the clamping plate or jaw to grasp the trace. Fig. 4 is a side elevation of the cam or key; and Fig. 5 is an inverted plan view of the outer part or face-plate of the buckle-frame.

A represents the main frame or skeleton of the buckle; B, the circular cam or key, and C represents the clamping plate or wedge for holding the trace. The main frame A is composed of the back plate, *a*, front or face plate, *b*, forward extension or loop, *c*, for receiving the hame-tug of the harness, side loops, *c'* *c'*, for receiving the back-strap and belly-band of the harness, and the rear extension, *d*, which latter is formed with the loop *d'* and slot *d'*, the former for receiving the breeching-strap of the harness, the latter for receiving the stud *e* of the clamping plate or wedge C. The face-plate *b* is spaced from the back plate, *a*, to receive the trace by the arms or side plates, *e'*, and the inner surface of the plate *a* is by preference slightly inclined backward and inward, as shown at *a'*, and the inner surface of the face-plate *b* is by preference made slightly diagonal or slanting forward and outward from the inclined surface of the back plate, *a*,

thus making the space between the two surfaces wedge-shaped, as shown in Fig. 1, for causing the clamping-plate C to the more effectually grasp the trace. The clamping plate or wedge C is attached to the buckle by the above-mentioned stud *e* passing through slot *d'*, and the washer *e'*, riveted upon the end of the stud, so that the plate is free to have a longitudinal movement to grasp traces of different thicknesses, and the inner surface of the plate C is by preference corrugated, as shown at *f*, and by preference has the wedge-ribs *g* formed upon its outer surface, which act against the inner surface of the cam or key B to grasp the trace against the back plate, *a*. The cam or key B is made circular, and is formed with the cam-flange *h* and head *i*, and works in the countersunk aperture or recess *j*, made through and in the face-plate *b*, in which aperture or recess the key B is adapted to be turned by a wrench applied to the head *i*, the distance of movement of the key being limited to about one-third of a complete revolution by the lug *i'* acting against two stop-shoulders, *i''*, made in the countersink *j'*, made in the plate *b*, and this countersink *j'* has a wedging or cam surface—that is, it is made shallow at one side and deep at the other, as shown at *j''* *j''*—to correspond with the surface of the cam-flange *h* of the key B, so that when the key B is turned to bring the toe *h'* of the cam-flange *h* to the shallow portion *j''* of the countersink *j'* the key B will be forced inward against the clamping-plate C, causing it to grasp the trace, and when turned to bring the toe *h'* to the deep portion *j''* of the countersink the key B will be free to move outward, causing the clamping-plate C to release the trace. By preference the head *i* is made heart-shaped, like the loop or eye of an ordinary cockeye, and of a size to permit the loop or eye of a cockeye to be placed over it, so that a cockeye may be used as the wrench for turning the key B for grasping or releasing the trace.

Constructed in the manner described, it will be seen that the wedging action of the clamping-plate C, when pressed down upon the trace by the key or cam B, will hold the trace with great security without injuring the trace, and that, owing to the freedom of longitudinal

movement of the clamping-plate C, the wedging action will increase according to the draft upon the trace, and it will be seen that the buckle is adapted for quick and easy operation, so that the trace may be easily adjusted. Besides, the buckle is strong, durable, practical, and cheap.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a buckle, the combination, with the main frame thereof, of a clamping plate or wedge and key, arranged substantially as described, for causing the clamping plate or wedge to grasp and release the trace, substantially as set forth.

2. The revolving cam-key B, combined with the clamping-plate C and main frame A of the buckle, substantially as described.

3. In a buckle, the clamping plate or wedge C, adapted to have a longitudinal movement, in combination with a key for forcing it inward to bind the trace against the frame, substantially as described.

4. The revolving cam-key B, fitted in a corresponding cam-recess made in the face-plate *b*, in combination with the back plate, *a*, and clamping-plate C, substantially as and for the purpose set forth.

5. The main frame A, formed with the inclined back plate, *a*, and the face-plate *b*, having the aperture *j* and cam countersink or recess *j'* and stops *i''*, in combination with the revolving key B and sliding clamping plate or wedge C, the key B being formed with the stop *i'*, substantially as described.

6. In a buckle, the revolving cam-key B, formed with the head *i*, and placed in a recess made in the face-plate *b*, so that the key may be turned for causing the clamping plate or wedge C to grasp and release the trace, substantially as and for the purposes set forth.

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Witnesses:

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