

M. R. & J. W. HULL.
Horse-Detacher.

No. 217,944.

Patented July 29, 1879.

Fig. 1.

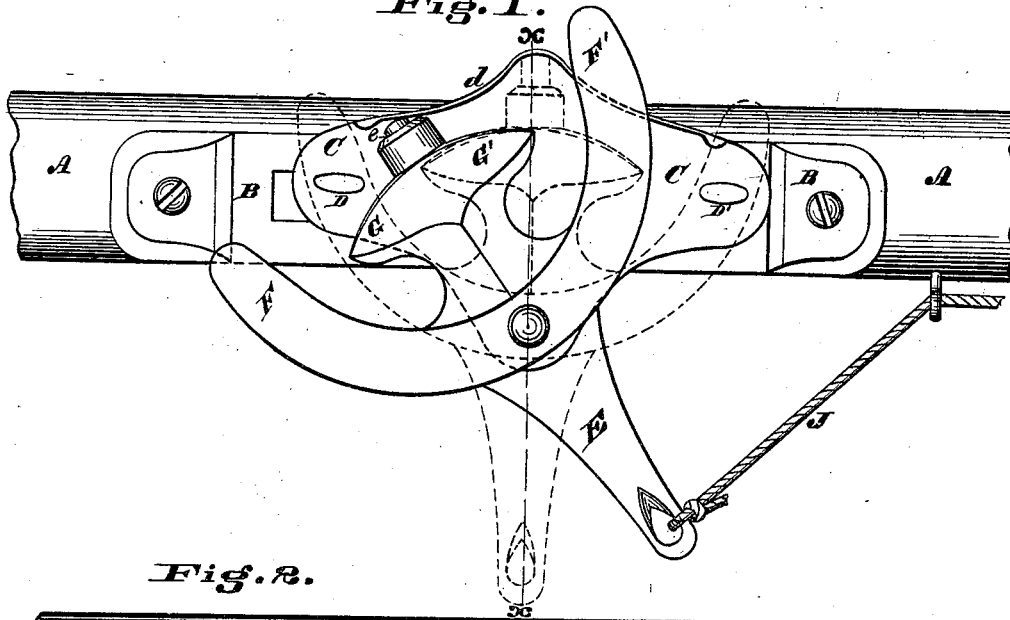


Fig. 2.

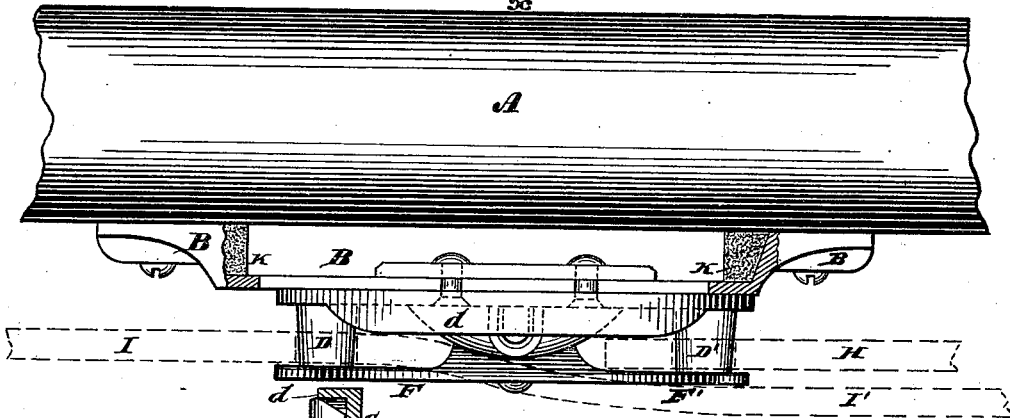
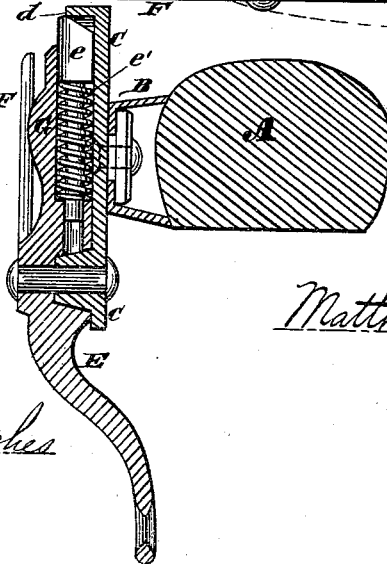


Fig. 3



Attest

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UNITED STATES PATENT OFFICE.

MATTHEW R. HULL, OF CINCINNATI, OHIO, AND JOHN W. HULL, OF ALQUINA, INDIANA; SAID J. W. HULL ASSIGNOR TO SAID M. R. HULL.

IMPROVEMENT IN HORSE-DETACHERS.

Specification forming part of Letters Patent No. 217,944, dated July 29, 1879; application filed April 30, 1879.

To all whom it may concern:

Be it known that we, MATTHEW R. HULL, of Cincinnati, in the county of Hamilton and State of Ohio, and JOHN W. HULL, of Alquina, in the county of Fayette and State of Indiana, have invented certain new and useful Improvements in Devices for Attaching and Detaching Horses, of which the following is a specification.

The invention may be applied to any kind of a wagon having shafts; and its object is to provide an improved method of attaching the horse thereto so that he may be readily detached therefrom under ordinary circumstances, and in case of danger from kicking, running away, or any other cause, may be released by devices under the control of the occupant.

The invention consists in the arrangement on the inner side of each shaft of the attaching and detaching device shown in the drawings and hereinafter described.

Figure 1 is a front elevation of the device in place on the right-side shaft. Fig. 2 is a top view of the same; and Fig. 3 is a cross-section through line *x x*, Fig. 1.

A represents an ordinary shaft, to which the improvement is secured at about the point where the breeching-strap is usually wrapped by means of the slotted box-plate B.

C is a plate secured to the box-plate B so that it may slide in the slot thereof. The face of this sliding plate is provided with two studs, D and D', to which sections of the trace are attached, and also with a lock-flange, *d*, on its upper edge. To the lower side of the sliding plate is pivoted the lever E, which carries and operates the spring-lock *e*, safety-guards F and F', and detaching-wedges G and G'.

I represents a trace buttoned over the stud D, the rear end, I', extending back and being connected to the breeching. The stud D' is connected to the whiffletree by a strap, H, which is made to button over the stud.

Any ordinary trace may be severed, and one section used to connect the breast-collar with the stud D, and the other to connect the stud D' with the whiffletree.

It is not necessary to remove the strap H when the horse is detached, it being designed to always be in position, and removable only

for repairs or cleaning; and instead of being held in position on the stud D' by the guard F', that guard may be cut off and a nut or other fastening substituted.

The whiffletree should be centrally pivoted in the usual manner, as the draft is through it.

When the horse is put within the shafts the device is thrown open, as shown in Fig. 1. The traces are then buttoned over the studs D, and the lever E drawn forward, so as to throw the device into the position represented by dotted lines in Fig. 1, in which the guards F F' cover the studs D D' and lock the trace, as shown in Fig. 2. At the same time the spring *e'* (shown in Fig. 3) forces the plunger *e* into a recess in the flange *d*, as shown in dotted lines in Fig. 1, and secures it, remaining locked until force is applied to the lever E to unlock it. When it is desired to detach the horse the lever E is drawn backward, which moves the upper end forward. The point of the wedge G entering between the trace and the plate B, as it advances presses the trace off the stud D; and when the traces are released from the studs it is obvious that there is no obstruction to the horse moving out of the shafts, as the breeching is attached to the ends of the traces. It is also obvious that this is a very expeditious mode of attaching and detaching.

J is a cord connected to the lever E, and passing along the shafts through guides to within reach of the occupant, or to a hand or foot lever in the vehicle, and it is obvious that the occupant, by drawing on the cord, can instantly detach the horse.

An important feature of the invention is the provision for compensating for the natural movement of the body of the horse, as indicated by the oscillating movement of the single-tree, and to secure this ease of draft the slot in the shaft-plate B is made sufficiently long to allow the sliding plate to reciprocate with the alternate side movement of the horse; and to prevent noise and shock in case of the sliding plate striking at either end, rubber bumpers K K are provided.

The wedge detacher G' may be dispensed with entirely, as it is obvious the other detacher, G, might be, and yet the invention be useful for all purposes except releasing the

horse by the occupant of the vehicle, as the traces can, under ordinary circumstances, be readily disengaged from the studs by hand.

What we claim is—

1. The sliding plate C, having trace-studs D D' and suitable trace-locks, in combination with the slotted plate for attachment to the shaft of a vehicle.

2. In combination with a sliding trace-connecting plate, the pivoted detacher G.

3. In combination with the trace-connecting plate C, the pivoted lever E, having guard F and spring-plunger e, for locking the trace, substantially as set forth.

4. The pivoted lever E, having guards or prongs F F', wedges G G', and spring plunger e, in combination with plate C, having studs D D' and flange d, the whole operating to lock and release the trace, substantially as described.

In testimony whereof we have hereunto set our hands this 3d day of April, 1879.

MATT. R. HULL.
JOHN W. HULL.

Witnesses:

P. D. HARRIS,
J. F. UPDEGRAFF.