(No Model.)

W. STANDING & F. J. SWAINE.

TRACE HOLDER.

No. 303,676. Patented Aug. 19, 1884.

Fig. 1.

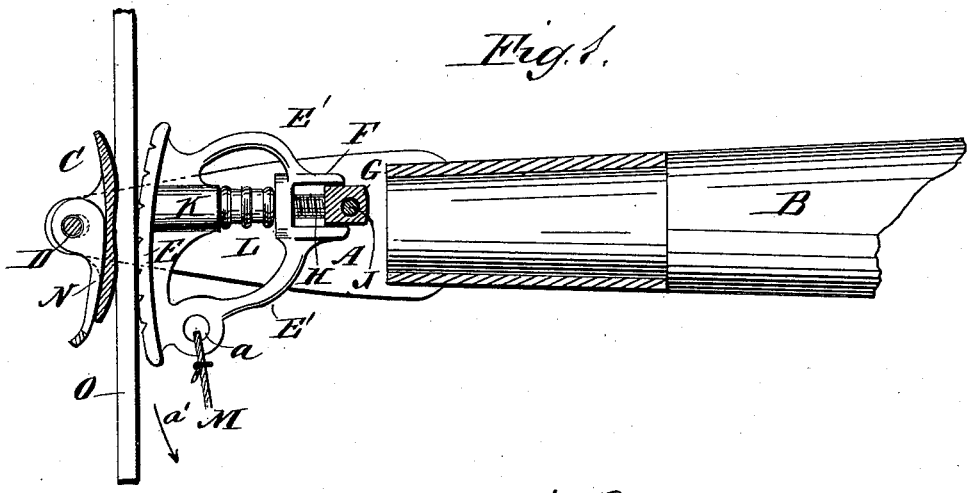


Fig. 2.

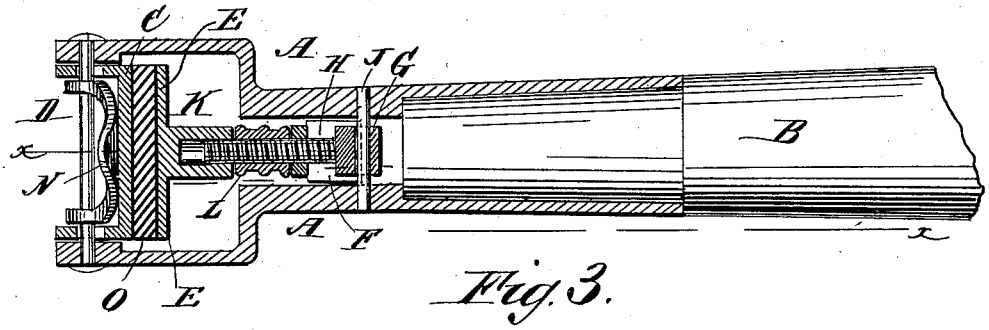
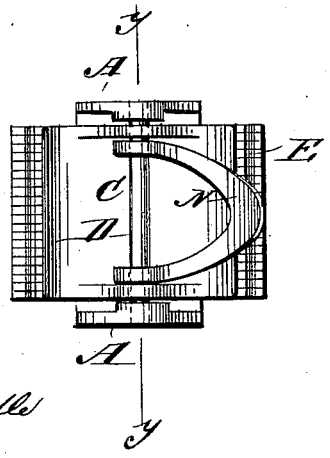


Fig. 3.



WITNESSES:

Francis McArdle

C. Sedgwick

INVENTOR:

W. Standing

F. J. Swaine

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM STANDING AND FREDERIC J. SWAINE, OF ST. LOUIS, MISSOURI.

TRACE-HOLDER.

SPECIFICATION forming part of Letters Patent No. 303,676, dated August 19, 1884.

Application filed September 19, 1883. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM STANDING and FREDERIC J. SWAINE, of St. Louis, Missouri, have invented a new and Improved Trace Holder and Detacher, of which the following is a full, clear, and exact description.

The object of our invention is to provide a new and improved device for fastening a trace to a single-tree at any desired part of the trace and releasing the said trace easily and readily when the vehicle is at rest or in motion.

This invention, which is an improvement on the trace holder and detacher for which United States Letters Patent No. 276,919, were granted to William Standing on the 1st day of May, 1883, consists in shanks secured to and projecting from the ends of the single-tree, between which shanks two plates are pivoted, between which the traces can be clamped, one of the plates at each end of the single-tree being provided with a screw for adjusting it.

The invention also consists in various parts and details and combinations of the same, as will be fully set forth hereinafter.

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 plan view of our improved trace holder and detacher on the line *x x*, Fig. 2. Fig. 2 is a longitudinal sectional view of the same on the line *y y*, Fig. 3. Fig. 3 is an end view of the same.

Two shanks, A A, with a socket, are fastened to and project beyond each end of a single-tree, B, the shanks preferably being bent outward at an angle at the end of the single-tree, so as to increase their distance apart. A clamp-plate, C, provided with slotted ears, swings on a cross-pin, D, passed through the ends of the shanks A, the surface of the clamp-plate C facing the end of the single-tree being preferably curved or recessed slightly at the middle. A segmentally-curved clamp-plate, E, the curved surface of which faces the plate C, is provided with two arms, E′, or a frame made integral with or secured to a fork, F, in which a squared head, G, of a screw, H, is held loosely, which head is adapted to swing on a pin, J, passed through the two shanks A near the end of the single-tree. The screw H passes through an aperture in the end of the fork F, and its end is passed into a smooth socket, K, on the inner surface of the clamp-plate E. Between the socket K and the cross-piece of the fork F a ribbed or square milled nut, L, is screwed on the screw H. One of the arms E′ is provided with a loop, *a*, for fastening a cord, chain, or strap, M, which cord, &c., passes around each side of the dash-board from each end of the single-tree. A cam-lever, N, is pivoted on the pin D between the slotted ears of the plate C, but can be dispensed with if desired. The outer surface of the plate E can be ribbed or corrugated transversely or roughened in any other suitable manner. The screw-head G is preferably pivoted slightly in advance of the center of the shank A. The curved recess in the plate gives it a longer bearing to hold the trace O securely.

The operation is as follows: By turning the nut L the plate E is adjusted a greater or less distance from the plate C, according to the thickness of the trace. If the cam-lever N is turned down, it forces the plate C more firmly against the plate E. The plate E is swung back in the direction of the arrow *a′*, the plate swinging on the pin J, the trace O is placed between the plates C E, and the plate E is swung back in the inverse direction of the arrow *a′*, which clamps the trace firmly between the plates C E. As the strain on the trace increases the pressure with which the plate E is clamped against the trace, and the latter against the plate C, also increases as the trace draws the plate E in the inverse direction of the arrow *a′*. If the horses are to be detached while the vehicle is in motion—for instance, in case the horses run away—the plates E are swung in the direction of the arrow *a′* by pulling on the cord, chain, or strap M. The cord, chain, or strap, being fastened to each end of single-tree, passes over the dash-board, or is secured within reach of the driver.

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

1. In a trace holder and detacher, the com-

bination, with two shanks adapted to be secured to the ends of a single-tree, of two swinging clamping-plates, one of said plates being pivoted between the outer and the other between the inner ends of said shanks, substantially as herein shown and described.

2. In a trace holder and detacher, the combination, with two shanks adapted to be secured to the ends of a single-tree, of two swinging clamping-plates, one of the said plates being pivoted between the outer and the other between the inner ends of said shanks, and the one between the inner ends being adjustable, substantially as herein shown and described.

3. In a trace holder and detacher, the combination, with a single-tree, of two shanks secured to each end of the same, two clamp-plates pivoted between the shanks, and a cam adapted to act on the outer plate, substantially as herein shown and described.

4. In a trace holder and detacher, the combination, with a single-tree, of two shanks secured to each end of the same, two clamp-plates pivoted between the shanks, and a screw and nut for adjusting the inner clamp-plate, substantially as herein shown and described.

5. In a trace holder and detacher, the combination, with a single-tree, of two shanks projecting from each end of the same, the pin D, uniting the outer ends of the shanks, the swinging clamp-plate C, pivoted on the same, the clamp-plate E, having arms E′ terminating in a fork, F, the screw H, having a squared head, pivoted between the shanks by a pin, J, and the nut L on the screw H, substantially as herein shown and described.

6. In a trace holder and detacher, the combination, with a single-tree, of the shanks A, the pin D, the plate C, swinging on the same, the plate E, provided with a socket, K, and arms E′, terminating in a fork, F, the screw H, provided with a squared head, G, pivoted on a pintle, J, and the nut L on the screw H, substantially as herein shown and described.

7. In a trace holder and detacher, the combination, with a single-tree, of two shanks secured on each end of the same, two clamp-plates pivoted between the shanks, and cords attached to each inner clamp-plate, substantially as herein shown and described.

WILLIAM STANDING.
FREDERIC J. SWAINE.

Witnesses:
A. R. HARTMAN,
I. ESCKHAMMER.