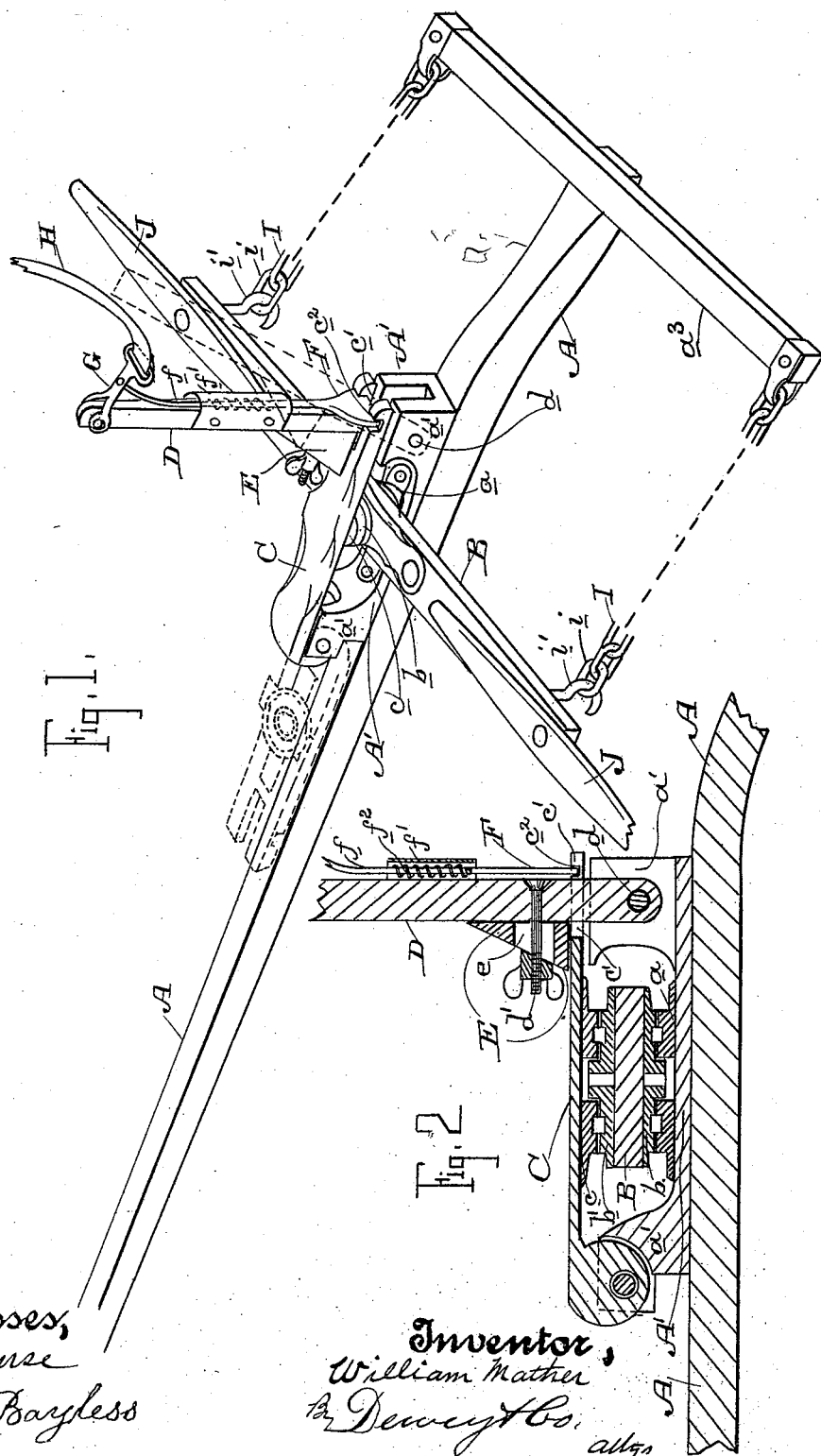


(No Model.)

W. MATHER.  
HORSE DETACHER.

No. 490,610.

Patented Jan. 24, 1893.



Witnesses,  
Attest  
J. H. Bayless

Inventor,  
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# UNITED STATES PATENT OFFICE.

WILLIAM MATHER, OF SEBASTOPOL, CALIFORNIA.

## HORSE-DETACHER.

SPECIFICATION forming part of Letters Patent No. 490,610, dated January 24, 1893.

Application filed September 19, 1892. Serial No. 446,331. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM MATHER, a citizen of the United States, residing at Sebastopol, Sonoma county, State of California, have invented an Improvement in Horse-Detachers; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to the class of devices for attaching or releasing horses from the vehicle to which they are hitched, when, for any purpose, as by reason of running away or other intractable, ungovernable or dangerous conduct, it becomes necessary, for the safety of the occupant, to release the animal.

My invention consists in connection with the whiffletree and its support, of a detachable connection between them and means for holding said whiffletree normally in place and tripping it when required.

My invention also consists in the novel construction and arrangement of the detachable connection between the whiffletree and its support, and of the means for holding and tripping it as I shall hereinafter fully describe and specifically point out in the claims.

The object of my invention is to provide a simple, economical and effective detachable connection whereby the horse may at any time be released from the vehicle, thus preventing accidents.

Referring to the accompanying drawings for a more complete explanation of my invention,—Figure 1 is a perspective view of my horse detacher, the dotted lines showing the released position of the latch-plate C. Fig. 2 is a longitudinal vertical section through the latch-plate C, bracket A' and holding lever D.

A represents a pole of a vehicle. Upon this is mounted the whiffletree B. The connection between the two may be a direct one, but I prefer to effect it through the intervention of a bracket A' bolted to the pole and having upright end arms *a'*. Upon the bracket the whiffletree rests and the connection between them is formed by the socketed bearing iron *a* secured to the bracket and the tongued bearing iron *b* secured to the under side of the whiffletree, the two irons fitting together and forming a pivotal connection between the parts, which can be readily separated when the whiffletree is released.

Pivoted to the front arm *a'* of the bracket A',

at a point in front of the whiffletree, is the latch-plate C which extends backwardly over the top of the whiffletree and holds the latter to its place. The connection between the plate and whiffletree consists of the bearing irons *b'* and *c* forming a detachable pivotal connection as do the bearing irons below. The rear end of the latch-plate C is slotted as shown at *c'* and said rear end finds a seat upon the rear arm *a'* of bracket A'. Pivoted at *d*, in this rear arm, is the holding lever D which passes upwardly through the slotted rear end of the latch-plate C, and has secured to its forward side the locking catch E which, when the lever is vertical, bears above the latch-plate C and holds it down.

Mounted on the back of the lever D is the stem *f* of the trip pawl F. This pawl engages a suitable notch *c'* in the rear end of latch-plate C, and its shank is confined in a suitable housing *f'* on the back of the lever D within which is a spring *f'*<sup>2</sup> serving to hold the pawl down to its engagement with the notch. The upper end of the shank is backwardly bent, and to it is secured the handle G which is pivoted to the top of the lever D. The lever D may, if desired, rise high enough so as to carry the handle G into convenient position to be reached by the occupant of the vehicle, or said lever D may be very much shorter and connection made with the handle G by means of a strap H which may be supposed to extend to within reach of the occupant of the vehicle.

Carried by the ends of the whiffletree are the usual singletrees J to which the horses are hitched.

The operation of these parts, as far as described, is as follows:—When the latch-plate C is in a horizontal position it holds the whiffletree to its connection with its support, the latch-plate itself being held by the lock catch E, bearing upon its rear end and carried by the lever D, said lever being locked by the spring-controlled pawl F engaging the notch *c'*. All the parts are thus rigidly held in position and the whiffletree is adapted to receive and bear the strain of the horses. When, however, it becomes necessary to detach the horses the occupant of the vehicle, by pulling up on the handle G, releases the pawl F from its notch and then by a slight backward

pull which is practically simultaneous with the upward pull the lever D is drawn backwardly so that its lock catch E is released from the latch-plate C. The plate C being  
 5 now free, the strain on the whiffletree will instantly pull it forwardly and free of its detachable pivotal connection, the plate being at the same time swung forwardly by the whiffletree in disengaging itself. This effect  
 10 is insured by reason of the strain of the traces being as usual on a slight upward inclination. Thus the whiffletree is pulled wholly from its connection with its support and the horses are released.

15 In order to provide for taking up of the wear which may occur between the bearing plates of the whiffletree connection, I provide initially that these plates shall have a thickness sufficient to prevent the rear end of the  
 20 latch-plate from coming down snugly on the rear arm of the bracket. Now, as these plates wear, the latch-plate may gradually come down on to the top of said arm, and to hold it and the whiffletree tight, at all times, I provide that the lock catch E shall be adjustable  
 25 on the lever D. This is done by slotting said catch, as shown at *e* over a set screw or bolt *d'* in the lever D. By loosening this screw or bolt, the catch may be set down to bear tightly  
 30 on the latch-plate wherever the latter may be adjusted. The connection between the handle G and the stem *f* of the pawl F is such that both the upward and backward pull necessary to release the pawl and throw the  
 35 lever back may be conveniently and easily exerted.

It is usual to provide stay chains or straps for the whiffletree connection. To effect the detachment of these from the whiffletree  
 40 when the latter is released, I arrange them as follows:—I are these stay chains. I have here shown them as chains, though it is obvious that they may be heavy straps as are usually employed. The rear ends of these  
 45 chains are connected suitably with a cross-bar *a*<sup>3</sup> at the end of the pole, and their forward ends are provided with ring links *i* which engage open front hooks *i'* under the ends of the whiffletree. It will be seen that  
 50 when said whiffletree is released it turns forwardly over in disengaging itself from its pivotal connections. In this movement the hooks *i'* will immediately pull out from the ring-links *i* whereby the whiffletree is freed from  
 55 the stay chains.

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

1. In a horse detacher, a whiffletree and its  
 60 support, in combination with detachable pivotally connected bearing irons between the two, a latch-plate pivoted at its forward end and passing over and holding the whiffletree to its connection with its support, and a vertically disposed horizontally swinging lever  
 65 with locking catch engaging the rear end of the latch-plate whereby said plate is held and

is tripped when required to permit the whiffletree to be released from its support, substantially as herein described.

2. In a horse detacher, a whiffletree and its support, in combination with detachable pivotally connected bearing irons between the whiffletree and its support, the overlying latch-plate hinged at its forward end, the pivotally  
 75 connected separable bearing irons between said latch-plate and whiffletree, and the vertically disposed lever pivotally secured at its lower end and provided with locking catch engaging the rear end of the latch-plate, substantially as herein described.

3. In a horse detacher, a whiffletree and its support, in combination with detachable pivotally connected bearing irons between the whiffletree and its support, the overlying latch-plate hinged at its forward end, the pivotally  
 85 connected separable bearing irons between said latch-plate and whiffletree, the swinging lever with locking catch engaging the rear end of the latch-plate, and the pawl for holding and tripping the lever, substantially as  
 90 herein described.

4. In a horse detacher, a whiffletree and its support, in combination with detachable pivotally connected bearing irons between the whiffletree and its support, the overlying latch-plate hinged at its forward end, the pivotally  
 95 connected separable bearing irons between said latch-plate and whiffletree, the swinging lever with locking catch engaging the rear end of the latch-plate, the pawl for holding and tripping the lever, and the pivoted handle connected with the upper end of the swinging  
 100 lever and with the pawl, substantially as herein described.

5. In a horse detacher, the combination of the bracket having the hinged latch-plate, the whiffletree seated in the bracket, the pivotally connected bearing irons between the whiffletree and the base of the bracket and between  
 110 said whiffletree and the latch-plate, the swinging lever pivoted in the rear of the bracket, the locking catch on the lever engaging the latch-plate and the pawl for holding the lever, substantially as herein described.

6. In a horse detacher, the combination of the bracket having the hinged latch-plate, the whiffletree seated in the bracket, the pivotally connected bearing irons between the whiffletree and the base of the bracket and between  
 120 said whiffletree and the latch-plate, the swinging lever pivoted in the rear of the bracket, the locking catch on the lever engaging the latch-plate, said catch being vertically adjustable on the lever and bearing adjustably on  
 125 the latch-plate to take up the wear of the bearing irons, and the pawl for holding and tripping the swinging lever, substantially as herein described.

7. In a horse detacher, the detachable and  
 130 turnable whiffletree having the open front hooks on its lower side and mechanism for detachably securing said whiffletree, in combination with the stay chains or straps having

the link on the forward ends engaging said hooks, substantially as herein described.

8. In a horse detacher, the whiffletree and its support, in combination with a detachable  
5 pivotal connection between the two, the swinging latch plate holding said connection, the swinging lever with its locking catch for holding the latch-plate, the pawl for locking the lever, the stay chains having the links on their

forward ends and the open front hooks under the ends of the whiffletree engaging said rings, substantially as herein described.

In witness whereof I have hereunto set my hand.

WILLIAM MATHER.

Witnesses:

S. H. SHOWALTER,  
I. P. GANNON.