

J. A. MACKINNON.

HORSE DETACHER.

No. 176,328.

Patented April 18, 1876.

Fig. 1.

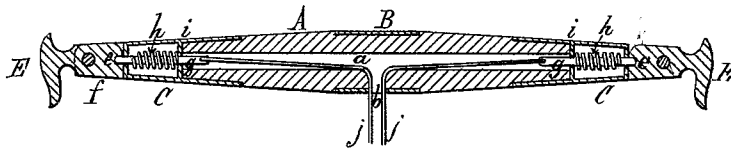


Fig. 2.

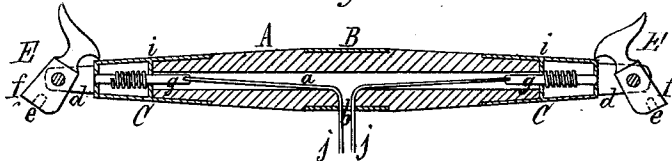
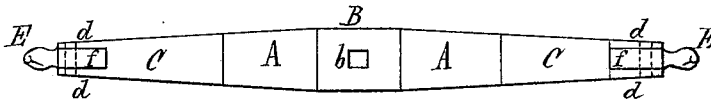


Fig. 3.



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UNITED STATES PATENT OFFICE

JOHN A. MACKINNON, OF CALEDONIA, NEW YORK.

IMPROVEMENT IN HORSE-DETACHERS.

Specification forming part of Letters Patent No. **176,328**, dated April 18, 1876; application filed March 7, 1876.

To all whom it may concern:

Be it known that I, JOHN A. MACKINNON, of Caledonia, in the county of Livingston and State of New York, have invented certain Improvements in Whiffletrees, which improvements are fully set forth in the following specification, reference being had to the accompanying drawing.

My invention relates to that class of whiffletrees which are provided with pivoted hooks, which can be released by a suitable mechanism, so as to disengage the traces therefrom and detach the horse from the vehicle in case of a runaway or other accident.

My invention consists in the peculiar construction of the whiffletree, so as to inclose the locking and releasing mechanism within the whiffletree, whereby said mechanism is fully protected, and a strong and reliable whiffletree produced, as will be hereinafter more fully set forth.

In the accompanying drawing, Figure 1 is a sectional view of a whiffletree provided with my improvements, with the hooks locked in position. Fig. 2 is a similar view with the hooks released. Fig. 3 is a back view of the whiffletree.

Like letters of reference refer to like parts in each of the figures.

A represents the wooden main portion of the whiffletree, provided with a narrow axial bore, *a*, and at the center with an opening, *b*, extending rearwardly from the bore *a* to the outside of the whiffletree. B represents a metallic sleeve, preferably constructed of malleable iron, arranged around the central portion of the whiffletree for strengthening the same. C C represent the end portions of the whiffletree, consisting of two hollow metallic casings or sleeves, preferably constructed of malleable iron, and provided at their inner ends with a socket, in which the ends of the wooden portion A are inserted and secured in any suitable manner. The outer ends of the sleeves C are formed by two jaws, *d d*, between which are pivoted the hooks E, with which the cockeyes of the traces are engaged. The hooks E are formed, on the inner side of their pivots, with an arm, *f*, fitting between the jaws *d*, and provided on its inner end with a recess, *e*, in which

engages the end of a locking-bolt, *g*, arranged axially in the sleeve C. *h* is a spiral spring surrounding the bolt *g*, and secured thereto with its outer end, while its inner end abuts against a diaphragm or partition-plate, *i*, formed in the sleeve C, so as to bear against the end of the wooden portion A of the whiffletree. To the inner end of each locking-bar *g* is secured a cord or rope, *j*, running through the bore *a*, and out at the central opening *b*, whence it runs to the dash-board, in convenient reach of the driver.

The pull of the cockeyes on the hooks E tends to swing the latter forward on their pivots, which is, however, prevented by the locking-bolts *g* engaging in the recesses *e* of the inner arms of the hooks, the locking-bolts being securely held in this position by the springs *h*. Upon pulling on the cords *j* the locking-bolts *g* are withdrawn from the recesses *e*, thereby releasing the hooks E, which are now free to be swung forward by the strain of the traces, whereby the cockeyes of the latter are disconnected from the hooks E, and the horse detached from the vehicle.

The forward corner of the arms *f* is slightly rounded off, so as to enable the same to press the locking-bolt *g* out of the way in being swung back to their normal position. The metallic casings or sleeves C C protect the working parts from moisture, dirt, &c., thereby insuring the proper working of the parts at all times, and present a smooth unbroken surface, which improves the appearance of the whiffletree, the whole forming a strong and reliable whiffletree, which is produced at comparatively small expense.

I claim as my invention—

The combination, with the wooden portion A, provided with the bore *a*, and the metallic end portions C C, provided with jaws *d d*, of the pivoted hooks E, locking-bolts *g*, and releasing-cord *j*, all inclosed within the sleeves C C and portion A, substantially as and for the purpose hereinbefore set forth.

JOHN A. MACKINNON.

Witnesses:

EDWARD WILHELM,
CHAS. J. BUCHHEIT.