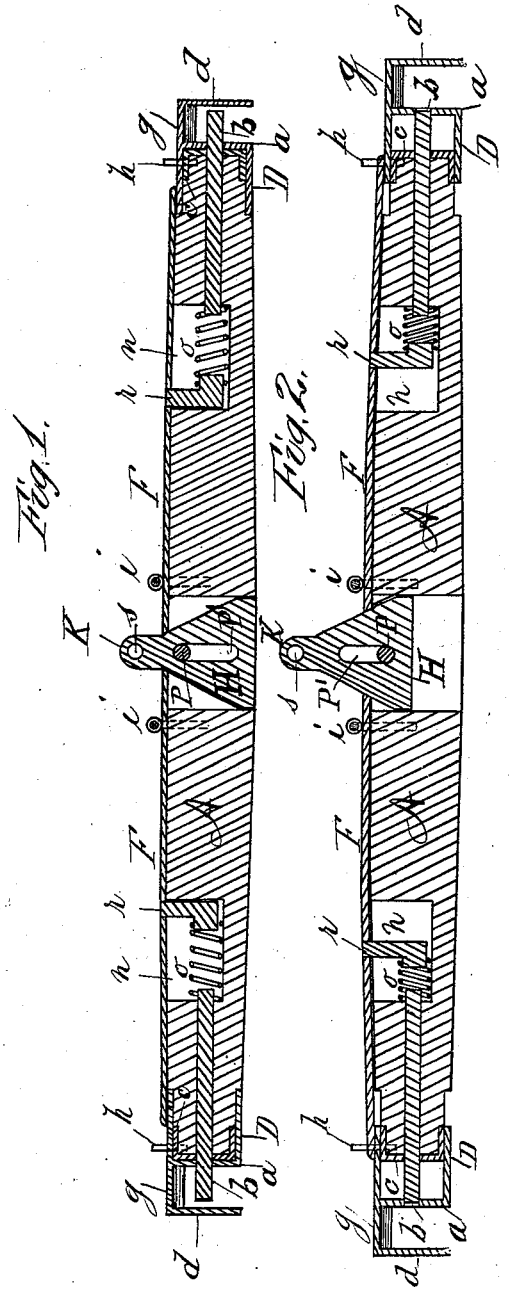
L. H. REED.
Horse-Detacher.

No. 210,212. Patented Nov. 26, 1878.



Witnesses
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UNITED STATES PATENT OFFICE.

LAFAYETTE H. REED, OF BRATTLEBOROUGH, VERMONT.

IMPROVEMENT IN HORSE-DETACHERS.

Specification forming part of Letters Patent No. **210,212**, dated November 26, 1878; application filed April 27, 1878.

To all whom it may concern:

Be it known that I, LAFAYETTE H. REED, of Brattleborough, county of Windham, and State of Vermont, have invented new and useful Improvements in Safety-Whiffletrees, which improvements are fully set forth in the annexed specification and in the accompanying drawing.

The object of my invention is to provide a whiffletree for use upon carriages from which both of the traces of a harness can be simultaneously and easily detached by a person riding in the carriage, in case of accident or when a horse runs away, and which is at the same time as useful and practicable for ordinary use as one of ordinary construction.

Referring to the drawing, which consists of two figures, Figure 1 is a longitudinal section showing my improved whiffletree with the parts in the positions they would occupy when the harness-traces are attached thereto. Fig. 2, also a longitudinal section, shows the said parts as they appear when operated to detach the traces therefrom.

A is the whiffletree proper. *b b* are trace-pins inserted in each end of A. *d d* are disk-shaped guards covering the ends of pins *b b*. D D are metallic tubes arranged to slide longitudinally on the ends of A, a section, *g*, of which projects out beyond the ends of A, to the ends of which sections the guards *d d* are fixed. *a a* are heads in the outer ends of tubes D D, in each of which is a center hole, through which pins *b b* pass. *c c* are metallic heads or ferrules on the ends of A, inside of tubes D D. *h h* are two pins inserted in heads *c c*, through longitudinal slots in tubes D D. F F are two bars attached to tubes D D, and extending from them nearly to the center of the whiffletree. *i i* are two bar-guides or staples inserted in A, astride of bars F F, near their ends. *n n* are two chambers formed in A, in which are placed two springs, *o o*, to operate longitudinally. *r r* are two arms attached to the under side of bars F F, which extend into chambers *n n*, and against the ends of which springs *o o* press. H is a metallic wedge, operating rearward, transversely of the whiffletree, and inserted in A, and an end thereof, K, projects backwardly toward the carriage, and has a chain or hook hole, *s*, therein. The whiffletree-pin P passes through a slot, P′, in wedge H.

The operation of my improved whiffletree is as follows, viz: Being properly attached to the carriage-shafts by pin P, either of tubes D can be slid outwardly on the ends of A, and the perforated end of a trace may be inserted in the chamber formed between head *a* and guard *d*, and, upon letting go of tube D, spring *o*, pressing against arm *r* on bar F, draws disk-shaped guard *d* against the side of the trace, causing it to slip onto pin *b*, where it is held by said spring acting to draw the guard *d* against it. In this way each trace is separately attached to the whiffletree, the fastening devices at each end acting independently of each other.

Pins *h h*, inserted in ferrules *c c* on the ends of the whiffletree, through longitudinal slots in tubes D D, prevent said tubes from being drawn too far off the end and keep them in proper position.

The two staples *i i* hold the ends of bars F F down against the lifting action of wedge H, and keep said bars in position on the whiffletree.

When it becomes desirable to detach both traces simultaneously from the whiffletree and let the horse go free, wedge H is drawn backward by a chain or rod hooked into the end K, and the other end of said chain or rod is attached to a lever or other convenient device arranged to be operated by a person in the carriage. Wedge H being so drawn back, its edges press against the ends of bars F F, causing them to slide outwardly from said wedge, carrying with them tubes D D and pressing heads *a a* against the sides of the traces, and so pushing the latter quite off from pins *b b* and freeing them from the whiffletree.

A modification of my whiffletree might be constructed by which the trace-pins *b b* might be withdrawn within the ends of the whiffletree by reversing the action of the wedge; but if there were much lateral strain against said pins when it became necessary to draw them back, it would be more difficult to oper-

ate them than to disengage the traces therefrom in the way provided for by my devices.

I am aware that longitudinally-operating devices arranged to disengage the traces from a whiffletree by pushing them off from pins set in the ends thereof are not new, and I do not broadly claim them; but

What I claim as my invention is—

The combination, with the longitudinally-operating detaching devices D D *a a* on the ends of whiffletree A, of bars F F, retracting-springs *o o*, bar-guides *i i*, and wedge H, substantially as and for the purpose set forth.

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