

(No Model.)

2 Sheets—Sheet 1.

G. RILEY.
HORSE DETACHER.

No. 491,815.

Patented Feb. 14, 1893.

Fig. 1

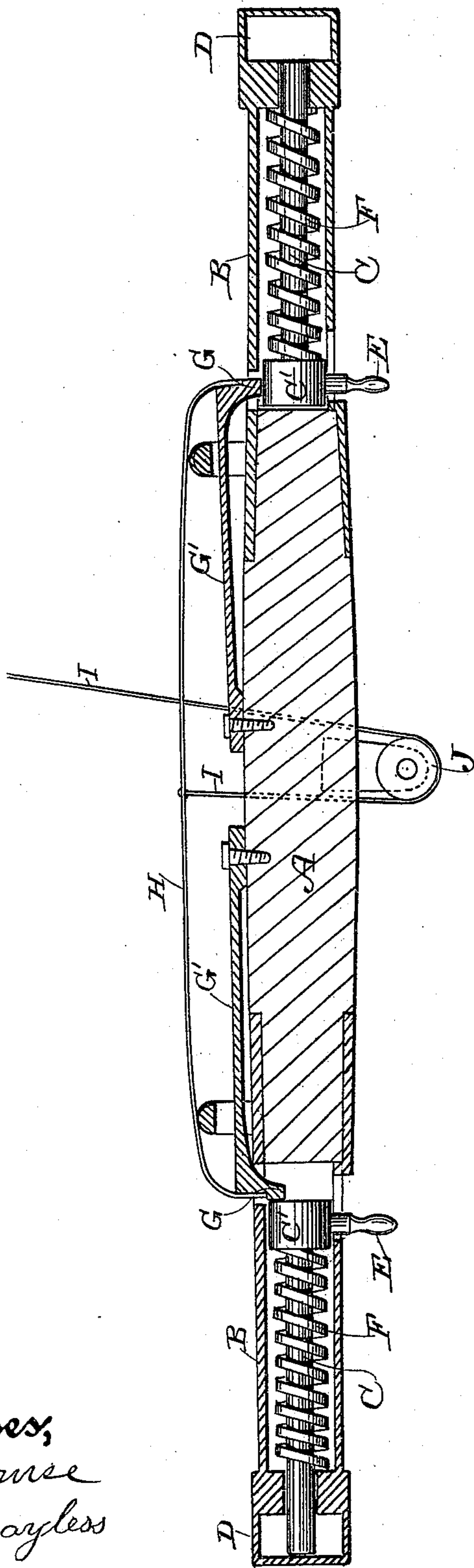
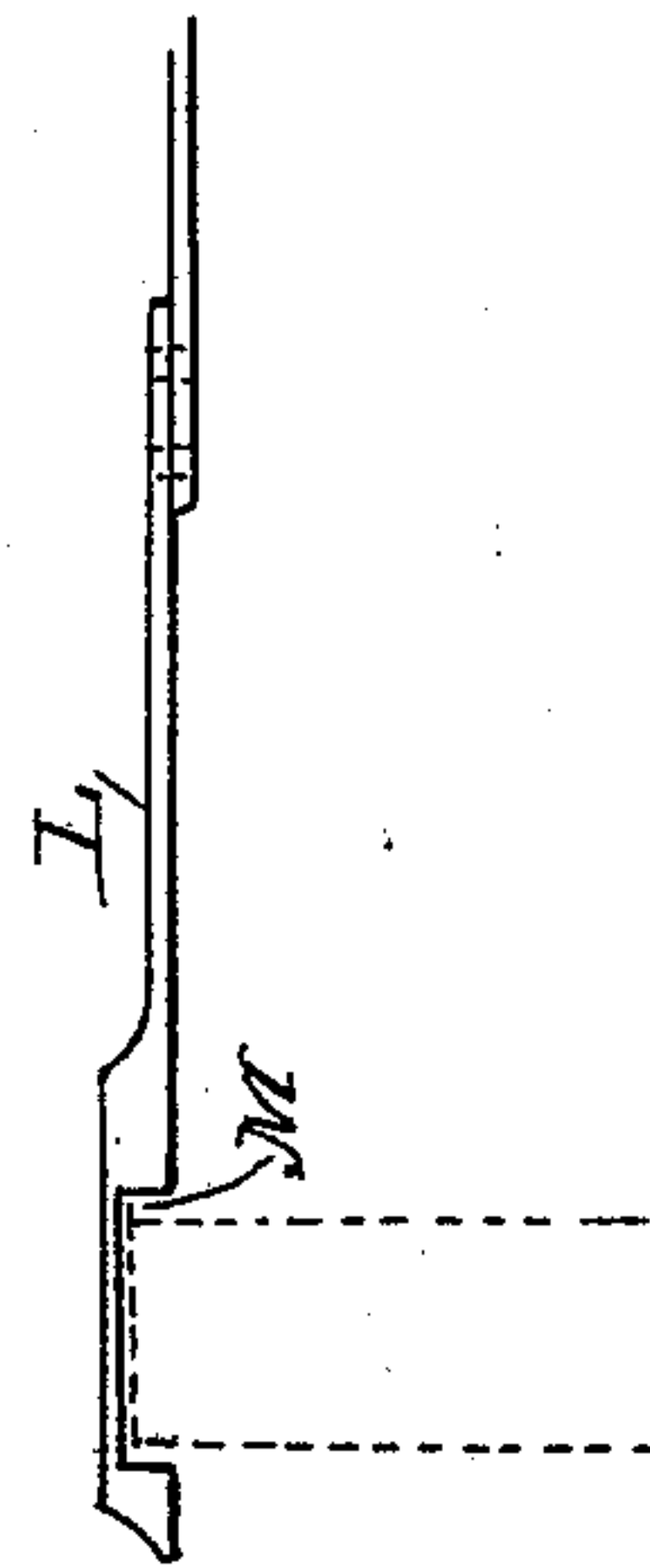


Fig. 2.



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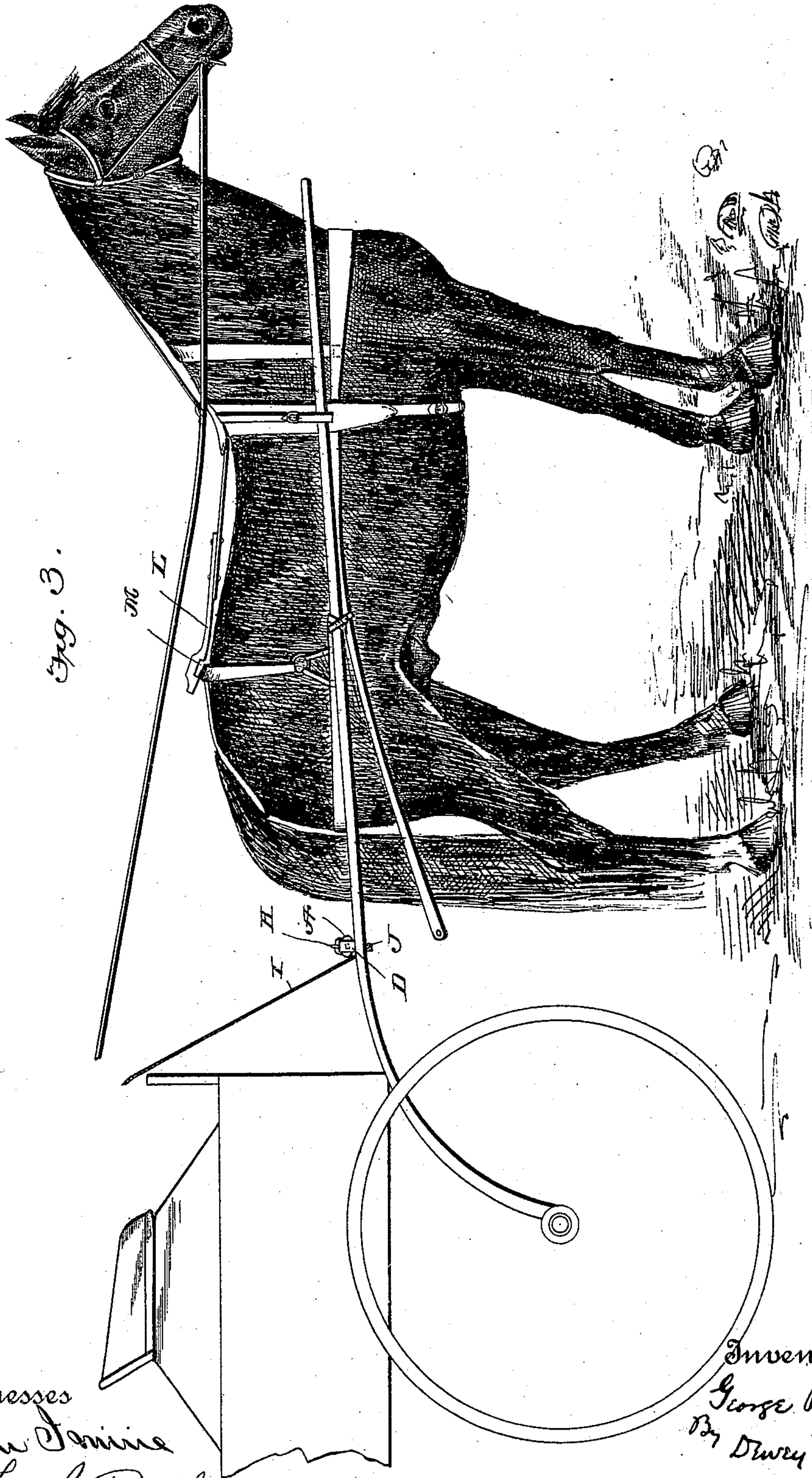
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2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

GEORGE RILEY, OF VALLEJO, CALIFORNIA.

HORSE-DETACHER.

SPECIFICATION forming part of Letters Patent No. 491,815, dated February 14, 1893.

Application filed September 27, 1892. Serial No. 447,060. (No model.)

To all whom it may concern:

Be it known that I, GEORGE RILEY, a citizen of the United States, residing at Vallejo, Solano county, State of California, have invented an Improvement in Horse-Detaching Apparatus; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a novel device for disengaging animals from vehicles which they are hauling, in order to prevent accident occurring by reason of the animal's becoming frightened or running away.

It consists in certain details of construction which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a sectional elevation of my device showing its attachment to the ends of a whiffletree. Fig. 2 shows the spring to be attached to the harness. Fig. 3, is a view representing the device at the moment the traces are detached, and showing the hip strap in the act of being released from the spring.

A is the whiffletree having fixed upon each end a metal tube B. The outer end of this tube is closed, having a hole made through it of sufficient diameter to admit the pin C which slides loosely in or out through the opening.

D D are keepers extending over the outer ends of the parts B and having sufficient space between them and the ends of the tubes, and also vertically, to admit the traces.

When the pin C is drawn back a trace may be introduced into the space within the keeper, and when the pin is forced out through the hole in the trace it holds the latter in place.

At the inner end of the pin C is a head or plunger C' which fills the tube B sufficiently so that it moves loosely within the tube. Through the side of the tube is made a slot or opening and a thumb-piece E passing through this slot or opening, screws into the head or plunger C' so that by means of the thumb-piece projecting outside the plunger and the pin C may be moved outward at will. Between the plunger and the outer end of the tube B is fitted a stout spiral spring F, the inner end of which presses against the plunger and the outer against the inner closed end of the tube. The tendency of this spring is to constantly withdraw the pin C from its pro-

jected position within the keeper. In order to lock it and keep it in its proper position for holding the trace, after the latter has been placed within the keeper, the pin is forced outwardly through the hole in the trace by means of the thumb-piece E previously described, and the plunger and pin being moved forward are retained by means of a spring catch or stop G, the point of which enters through a slot in the tube and drops behind the plunger, thus holding the latter in place and preventing the pin from being retracted as long as the stop is behind the plunger. The shank G' of the spring extends along the tube or whiffletree and is suitably fastened thereto, with enough projecting elastic portion, to allow the stop to be moved, as much as is necessary to lock or unlock the plunger. Above the stop is fixed a guide or direction pin which is screwed into the tube and it extends over and above the end of the stop as shown. One of these is secured at each end of the whiffletree and a wire or cord H has its opposite end connected with the stops G, and the wire passes over the guides between which it extends.

I is another wire or cord connected with the center of the cord H, passing around a pulley J and thence leading to a convenient point within the vehicle. When the wire I is pulled, it depresses the center of the wire H against the body of the whiffletree and correspondingly pulls the ends outwardly and with it lifts up the stops G until the plungers C' are released, so that the springs acting upon them, instantly withdraw the pins C from the traces, thus allowing the latter to fall and the animal to be free to go away from the vehicle.

In order to release the horse from the hold-back straps (that portion attached to the shafts) the hip strap to which the hold-back straps are connected is supported independently from the remainder of the harness by means of a spring L fixed upon the back of the animal and having a notch or depression M made in the lower part through which the hip strap passes. The spring ordinarily acts to keep the hip strap in place, but when lifted up as it would be, simultaneously with the releasing of the traces, the hip strap will remain connected through the hold-back straps

with the shafts while the animal with the remainder of the harness is free to run away.

It will be seen that so long as the parts remain in their normal condition, the hip strap
5 will be retained in place by the notch M of the elastic plate L, but if the horse is detached from the vehicle, as soon as he commences to move away from it, the hip strap will turn in the notch M as shown in Fig. 3 and as they
10 are stiff enough to raise the spring L to allow this turning, they will slip out of place and remain connected with the shafts while the horse with the remainder of the harness can go free.

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

1. A horse detaching device consisting of a whiffletree having the tubular ends, plungers
20 reciprocating within the tubes with pins projecting outwardly through the ends thereof, and adapted to engage the ends of the traces within keepers which are fixed exterior to the ends of the tubes, springs acting against the
25 inner faces of the plungers tending normally to force them inwardly, and withdraw the pins from the traces, thumb-pieces connected with the plungers whereby the latter may be forced outwardly against the tension of the
30 springs, spring latches fixed to the whiffletree and having projections which fall in behind the plungers and retain the pins in engagement with the traces, a wire connected with the ends of the spring latches passing

over guide pins, and a wire or cord connected 35 with the center of the first named wire so that a pull upon it depressing the first named wire will withdraw the latches and allow the springs to act upon the plungers and disengage the pins from the traces, substantially 40 as herein described.

2. In a horse detaching apparatus, the tubular whiffletree ends with the spring retracted pins projecting through their ends and adapted to engage and hold the traces when the lat- 45 ter are connected with the whiffletree, thumb pins by which the pins are forced outwardly against the action of the springs, and spring latches engaging and retaining the pins in place when forced out, a wire or cord con- 50 necting with said latches and actuated from the vehicle to withdraw them whereby the springs operate to disengage the traces from the whiffletree ends, and a spring catch slotted to engage the hip strap of the harness 55 upon the horse, said catch being disengaged from the hip strap simultaneously with the disengagement of the traces, whereby the hip strap and hold-back straps are disengaged from the horse and left upon the shafts, sub- 60 stantially as herein described.

In witness whereof I have hereunto set my hand.

GEO. RILEY.

Witnesses:

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I. G. SHARP.