

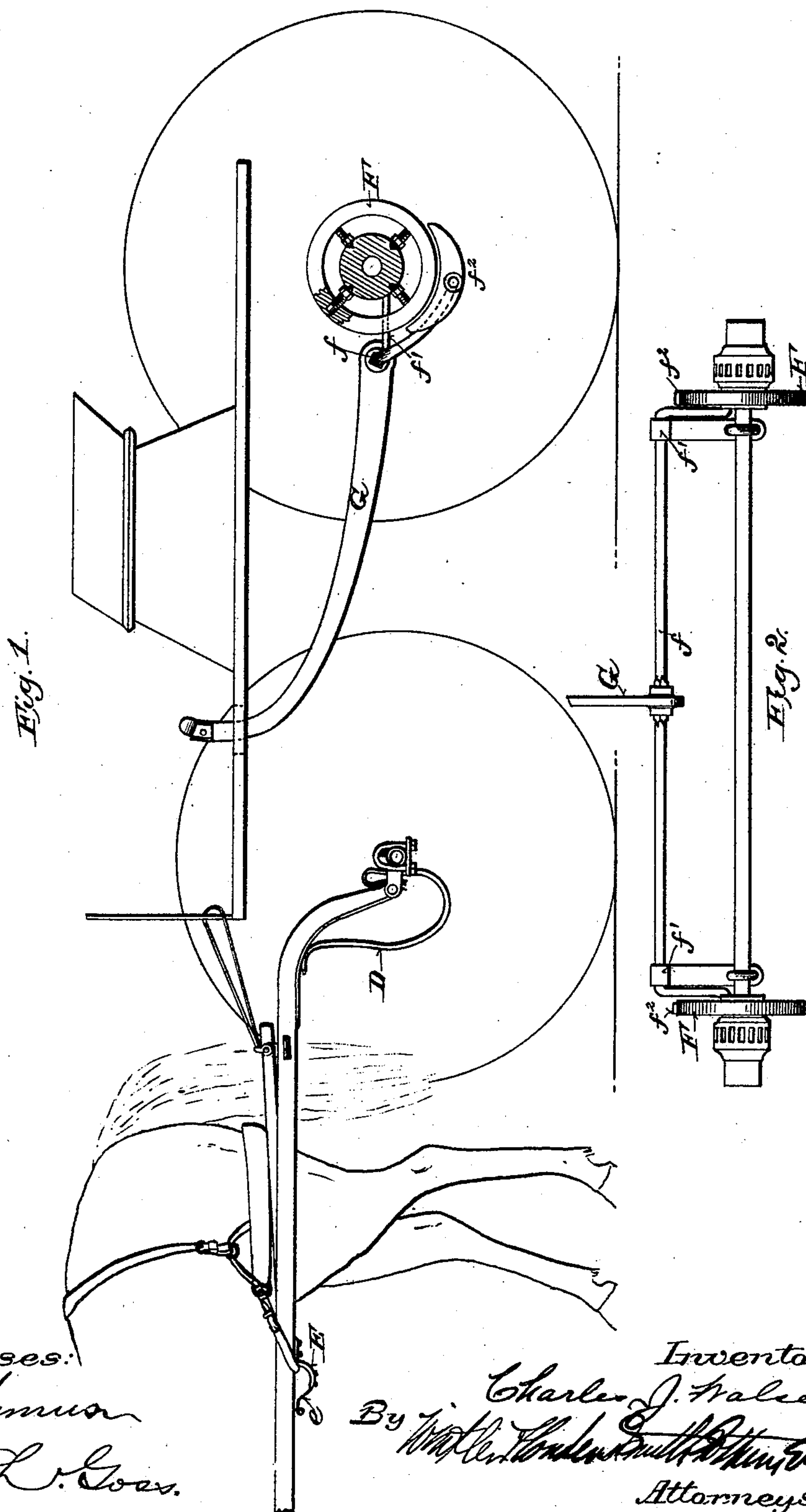
(No Model.)

2 Sheets—Sheet 1.

C. J. WALSER.
HORSE DETACHER FOR VEHICLES.

No. 448,897.

Patented Mar. 24, 1891.



Witnesses:

E. E. Ames

Chas. L. Goes.

Inventor:

Charles J. Walser

By

Attorneys.

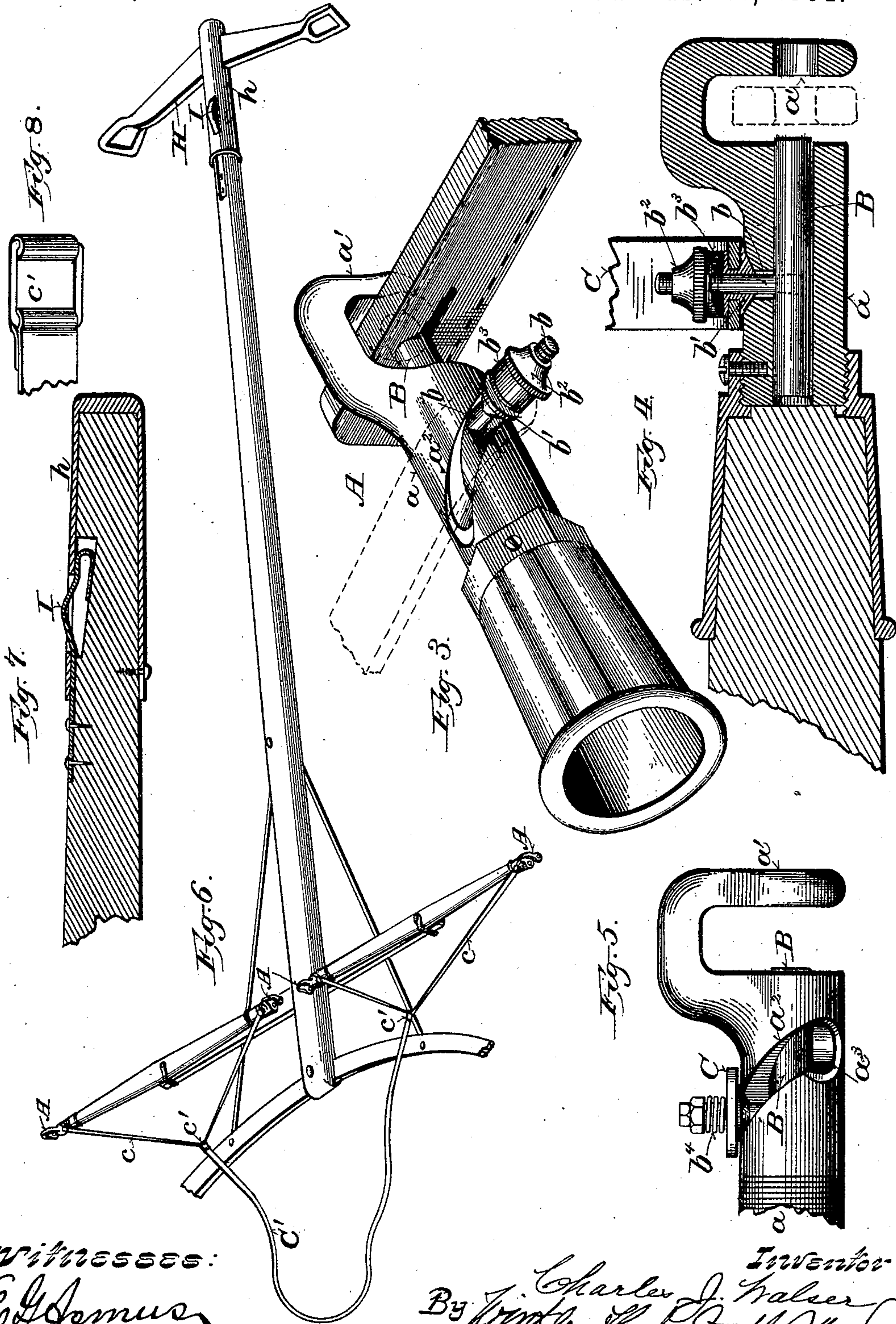
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UNITED STATES PATENT OFFICE.

CHARLES J. WALSER, OF MILWAUKEE, WISCONSIN.

HORSE-DETACHER FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 448,897, dated March 24, 1891.

Application filed April 24, 1890. Serial No. 349,236. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. WALSER, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Horse-Detachers for Vehicles; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The main objects of my invention are to facilitate attaching and detaching horses from vehicles and to prevent accidents resulting from runaways.

It consists of certain novel features of construction and arrangement hereinafter particularly described, and pointed out in the claims.

In the accompanying drawings like letters designate the same parts in the several figures.

Figure 1 is a side elevation of a vehicle shown in diagram to which my improvements are applied. Fig. 2 is a plan view of the brake employed in connection with my improvements. Fig. 3 is a perspective view, on an enlarged scale, of the detachable trace-fastening constituting a part of my improvements. Fig. 4 is a vertical longitudinal section of the same. Fig. 5 is a front elevation of a modified form of the fastening. Fig. 6 is a perspective view illustrating the method of applying my improvements to a pole for a double vehicle. Fig. 7 is a vertical longitudinal section, on an enlarged scale, of the front end of the pole, showing the detachable neck-yoke fastening; and Fig. 8 is a detail of the connections for operating the trace-fastenings employed with the pole.

Referring to Figs. 1 to 4, inclusive, A represents a detachable trace-fastening attached to the ends of the whiffletree. It consists of a sleeve *a*, attached in any suitable manner at one end to the whiffletree and formed at the outer end with a hook *a'*, which extends over the trace, as shown in Fig. 3, and is perforated in its overhanging end in line with the axial opening in the sleeve *a*, and of a cylindrical pin B, inserted and movable length-

wise in said sleeve *a*, as shown in Figs. 3 and 4. In this pin B is screwed or otherwise secured a transverse stud *b*, which projects outwardly through a spiral or inclined slot *a*², formed in the upper and front side of the sleeve *a*. Upon this stud *b* is placed a tapering or cone-shaped washer *b'*, which bears against the outer edges of the slot *a*². It is also screw-threaded at the end and provided with a nut *b*², between which and said washer *b'* is interposed an elastic washer *b*³, of rubber or other suitable material. By this means the pin B is prevented from being too easily moved in and out in the sleeve *a*, and the nut *b*² serves to adjust the pressure or tension of the spring *b*³, so as to cause the washer *b'* to exert more or less pressure against the edges of the slot *a*². The front outer and lower end of the slot *a*² is formed with a depression or seat *a*³, with which the conical washer *b'* engages when the pin B is in its extreme outward position with its outer end in the perforation in hook *a'*, thereby holding said pin in place to retain the trace thereon and preventing it from being accidentally withdrawn, so as to release the trace. The whiffletree is provided at each end with one of these fastenings, and a strap C is attached at the ends to the studs *b* of the fastenings, as shown in Fig. 4, and passes thence around the dashboard of the vehicle, as shown in Fig. 1, so as to be readily accessible to the driver or occupant of the vehicle. By pulling rearwardly on this strap C the studs *b* of the fastenings are drawn rearwardly and inwardly through the spiral slots *a*², and the pins B are thereby withdrawn from the hooks *a'* into the sleeves *a* of the fastenings, as shown in Fig. 4. By this means a person in the vehicle can instantaneously release both traces. The strap C also serves when the horse is detached from the vehicle to guide the vehicle until it comes to a standstill.

The shafts of the vehicle are held up from the ground by springs D, as shown in Fig. 1, thereby facilitating hitching the horse therein, preventing him from stepping upon and breaking the shafts, and holding them up from the ground clear of obstructions when the horse is detached in case of accidents or runaway. The rear ends of the springs D are bent to form loops, which are inserted and

held in the shaft-couplings, as shown in Fig. 1, and serve as anti-rattlers therefor.

The shafts of the vehicle are provided on the under side with fastenings E E for the holdback-straps, which are permanently adjusted for the vehicle and slipped between the shafts and the spring ends *ee* of the fastenings. When the traces are unfastened and the horse is detached from the vehicle, the spring or elastic ends *ee* of the fastenings E allow the holdback-straps to be readily withdrawn from the shafts.

In connection with the instantaneous detaching devices hereinbefore described, I provide the vehicle to which they are applied with a brake for the purpose of bringing it to a standstill when the horse or team is detached. For this purpose I secure to the inner ends of the hubs of the rear wheels, in any suitable manner, rings F F, and to a cross-shaft *f*, supported in suitable bearings *f'*, I pivot brake-shoes *f*² in position to engage properly with the rings F F. A lever G, fixed upon the cross-shaft *f* and extending forwardly underneath the body of the buggy and projecting at its forward end upwardly into or at the side of the vehicle in position to be reached by the foot of the driver or occupant of the vehicle, serves to move the shoes *f*² into engagement with the rings F, and thereby quickly arrest the movement of the vehicle.

In place of the rubber washer *b*³, I may employ a spiral spring *b*⁴, as shown in Fig. 5.

Referring to Figs. 6 to 8, inclusive, illustrating detaching devices applied to a pole and adapted for use with a pair of horses, each whiffletree is provided at the ends with trace-fastenings A A, like that hereinbefore described. *cc* are straps attached at the ends to the studs *b* of the trace-fastenings of each whiffletree. The straps *cc* pass loosely through rings *c'*, like that shown in Fig. 8, attached to the ends of a strap C', which leads back into the vehicle and furnishes the means of opening the trace-fastenings and releasing the traces. The rings *c'* permit of the free and independent vibration of the whiffletrees, allowing the straps *cc* to work back and forth through them.

The neck-yoke H, employed in connection with the trace-fastenings herein described, is formed or provided with a thimble *h*, which fits over the end of the pole, and is detachably held thereon by a spring I, attached to the pole, as shown in Fig. 7, and adapted to engage with a slot or recess formed therefor in the thimble *h*.

The pole-straps are permanently fastened to the neck-yoke H, and when the traces are detached and the horses leave the vehicle the thimble *h* is withdrawn from the pole.

Various changes in the minor details of my invention may be made without departing from the spirit thereof or affecting its mode of operation.

I claim—

1. In a horse-detacher, the combination, with the whiffletree, of trace-fastenings, each consisting of a socket adapted to be secured upon the end of the whiffletree, a sleeve at the outer end of said socket provided with an overhanging hook and with an inclined or spiral slot in one side thereof, a pin movable lengthwise in said sleeve, a stud fixed to said pin and projecting through said slot, and a strap or its equivalent attached to said stud and leading back into the vehicle, substantially as and for the purposes set forth.

2. In a horse-detacher, the combination, with the whiffletree, of trace-fastenings attached to the ends thereof and each consisting of a sleeve provided with an overhanging hook, a pin movable lengthwise in said sleeve, a stud secured in said pin and projecting through an inclined or spiral slot in said sleeve, a washer placed on said stud so as to bear against the outer edges of said slot, and a spring bearing against said washer and forcing it against the edges of said slot, substantially as and for the purposes set forth.

3. In a horse-detacher, a trace-fastening composed of a sleeve provided with an overhanging hook perforated in line with the opening in said sleeve, a pin movable lengthwise in said sleeve and provided with a stud projecting outwardly through an inclined or spiral slot in said sleeve, a tapering washer placed loosely on said stud and bearing against the outer edges of said slot, an adjusting-nut on said stud, and a spring interposed between said washer and adjusting-nut, substantially as and for the purposes set forth.

4. In a horse-detacher, the combination, with the whiffletree, of trace-fastenings, each consisting of a metallic sleeve adapted to be attached to the end of the whiffletree and provided with an overhanging hook, a pin inclosed and movable lengthwise in said sleeve, a stud secured to said pin and projecting through an inclined or spiral slot in the side of the sleeve, and a strap or other flexible connection attached to the protruding end of said stud and leading back therefrom to the vehicle, substantially as and for the purposes set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

CHAS. J. WALSER.

Witnesses:

CHAS. L. GOSS,
FRANK S. KREHLA.