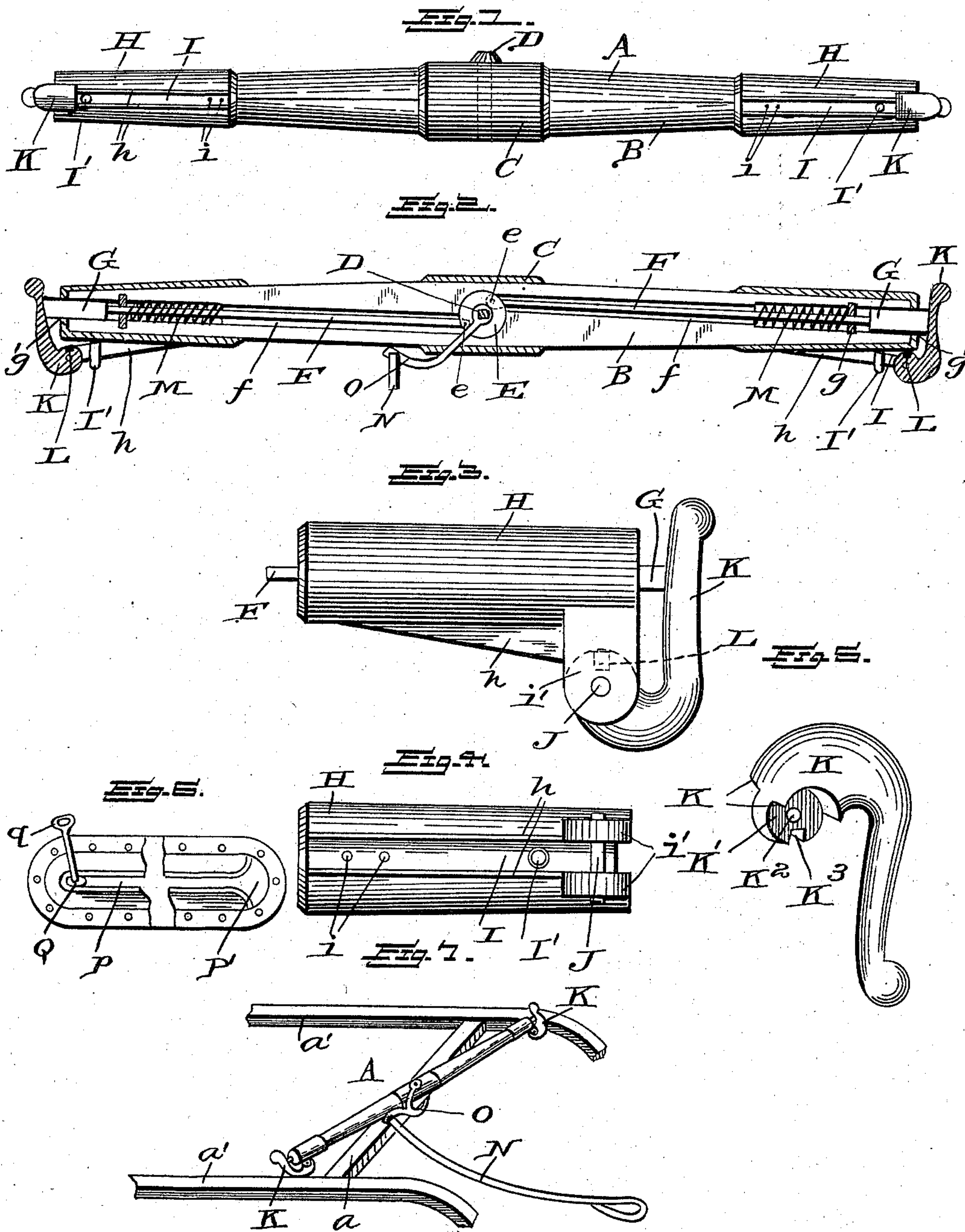


(No Model.)

W. A. O'BAR.
WHIFFLETREE.

No. 574,071.

Patented Dec. 29, 1896.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM A. O'BAR, OF EVERETT, WASHINGTON.

WHIFFLETREE.

SPECIFICATION forming part of Letters Patent No. 574,071, dated December 29, 1896.

Application filed April 18, 1896. Serial No. 588,113. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. O'BAR, a citizen of the United States, residing at Everett, in the county of Snohomish and State of Washington, have invented certain new and useful Improvements in Whiffletrees; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain new and useful improvements in whiffletrees; and it has for its objects, among others, to provide a simple, cheap construction, whereby the traces may be readily released by the occupant of the vehicle in case of runaway or other accident. I aim also at improvement in the details of construction, whereby the device is rendered capable of manufacture and application at minimum cost and not liable to get out of order, and yet positive and reliable in its operation. This device is applicable to double as well as to single vehicles and will be of great convenience to the user, as well as a safeguard against runaway accidents.

Other objects and advantages of the invention will hereinafter appear and the novel features thereof will be particularly pointed out in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is an elevation of the improved whiffletree. Fig. 2 is a horizontal section through the same. Fig. 3 is an enlarged detail of one of the end caps. Fig. 4 is a top plan thereof with the hook removed. Fig. 5 shows the hook detached. Fig. 6 is an enlarged view showing the plate with its elongated slot. Fig. 7 is a detail of the thills, showing the application of the invention.

Like letters of reference indicate like parts in the several views.

Referring now to the details of the drawings by letter, the whiffletree is formed in two parts A and B, and preferably at its center is surrounded by the band C, through which passes the bolt D, the said band serving as a clamp to hold the two parts of the whiffletree together, and the bolt serves to pivot the whif-

fletree on the cross-bar *a* of the thills *a'*, as shown best in Fig. 7. This bolt is rectangular in form, as seen best in Fig. 2, and passes through the disk E, which has the pins *e* extending at right angles therefrom, on which are pivotally connected the rods F. These rods extend in opposite directions and work through slots or grooves or channels *f* in the body portion of the whiffletree, these rods F, near their outer ends, passing through the guide-plates *g*, held within the whiffletree, and their outer ends are flattened, forming the bolts or locking-pins G, which are adapted to pass through openings *g'* in the outer ends of the metallic caps H. These caps surround the ends of the whiffletree, and these caps on their under faces are provided with the flanges *h*, between which is arranged the spring I, held at one end, as at *i*, within said recess, and near its free end carrying a stud or projection *I'*, while in the ears *i'* is held the pivot or pin J, on which is pivotally mounted the hook K, which has the shoulders *k*, which limit its movement in one direction, and the lug *k'*, having the opening *k''*, as seen in Fig. 5, through which the pin J passes, and this lug has the notch *k'''*, in which fits the lug L, carried by the outer end of the spring, as seen best in Fig. 3. These hooks are pivoted so that they may be thrown out when desired, so as to disengage the traces therefrom or to connect the same therewith without actuation of the rods.

M are springs arranged around the rods F, one at the outer end of each rod, the inner end of each spring secured to its rod and the outer end fastening to the guide-plate *g*, all as clearly shown in Fig. 2.

The operation will be apparent. Normally the bolts G are forced outward by their springs and the traces or chains are held in the hooks. When it is desired to release the same, all that is necessary to do is to turn the disk on its pivot, when the two rods will be simultaneously drawn inward and the bolts drawn within the casings, when the whiffletree and the traces will be disengaged. In order to accomplish this, I provide the strap N, which is connected at one end with the lever or arm O, which is fast upon the rectangular portion of the king-bolt D, so that when the said strap is pulled upon the disk will be turned on its pivot

and the rods drawn inward, and when pressure on the strap is released the springs automatically force the rod again outward. This arm O is forked at one end and acts as a clevis to span the whiffletree and the cross-bar of the thills on the back side, and this clevis is provided with a square hole for the square bolt D, and the disk E has also a square hole to engage on said square bolt, as shown.

10 In order to render the device a perfect automatic unhitching device or detaching device, I provide the plate P, as seen in Fig. 6, which has a slot p , closed at one end and open at the other, as shown at p' , the entrance thereto being tapered or flared, as indicated. 15 This plate is to be attached to the inside of the thills at the required distance forward of the breeching of the harness, and the ball Q is provided, which travels within the space 20 beneath the flanges, with its shank working through the slot p' thereof, and having an arm q , by which it is attached to the breeching of the harness. This ball enters the open end of the slot, which is of course forward, and 25 then the tugs are hooked. This slot and ball are designed to take the place of the breeching-strap which is in general use, and which is also wrapped around and securely buckled to the thills. All that it is necessary to do is 30 to pull on the strap N and the horse is left free to detach himself from the thill.

Modifications in details may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

35 Having thus described the invention, what is claimed as new is—

1. The combination with a whiffletree having longitudinal passages, of a disk mounted on the king-bolt, rods connected with the

disk and extended through openings in the 40 ends of the whiffletree and forming locking-bolts, and springs acting on said rods to force them outward, and pivoted hooks on the ends of the whiffletree, with springs attached thereto, substantially as described. 45

2. The combination with a whiffletree having longitudinal passages, of a disk mounted on the king-bolt, rods connected with the disk and extended through openings in the ends 50 of the whiffletree and forming locking-bolts, and springs acting on said rods to force them outward, and pivoted hooks on the ends of the whiffletree, and a spring bearing on the hook near its pivot, substantially as described. 55

3. The combination with the whiffletree formed in two parts having longitudinal slots and an encircling band, of a bolt passed through the same and rectangular in form, a disk mounted within the whiffletree on said 60 bolt, rods connected to opposite sides of the disk and extending through the longitudinal slots of the whiffletree, with their ends forming bolts working through openings in the ends of the whiffletree, springs around said 65 rods, guide-plates for the rods, a lever mounted on the bolt, a strap connected with the lever, end caps on the ends of the whiffletree and hooks pivotally mounted on said caps, substantially as described. 70

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILLIAM A. O'BAR.

Witnesses:

EDWARD C. MONY,
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