I. B. SHAW.

Horse-Detacher.

No. 224,614. Patented Feb. 17, 1880.

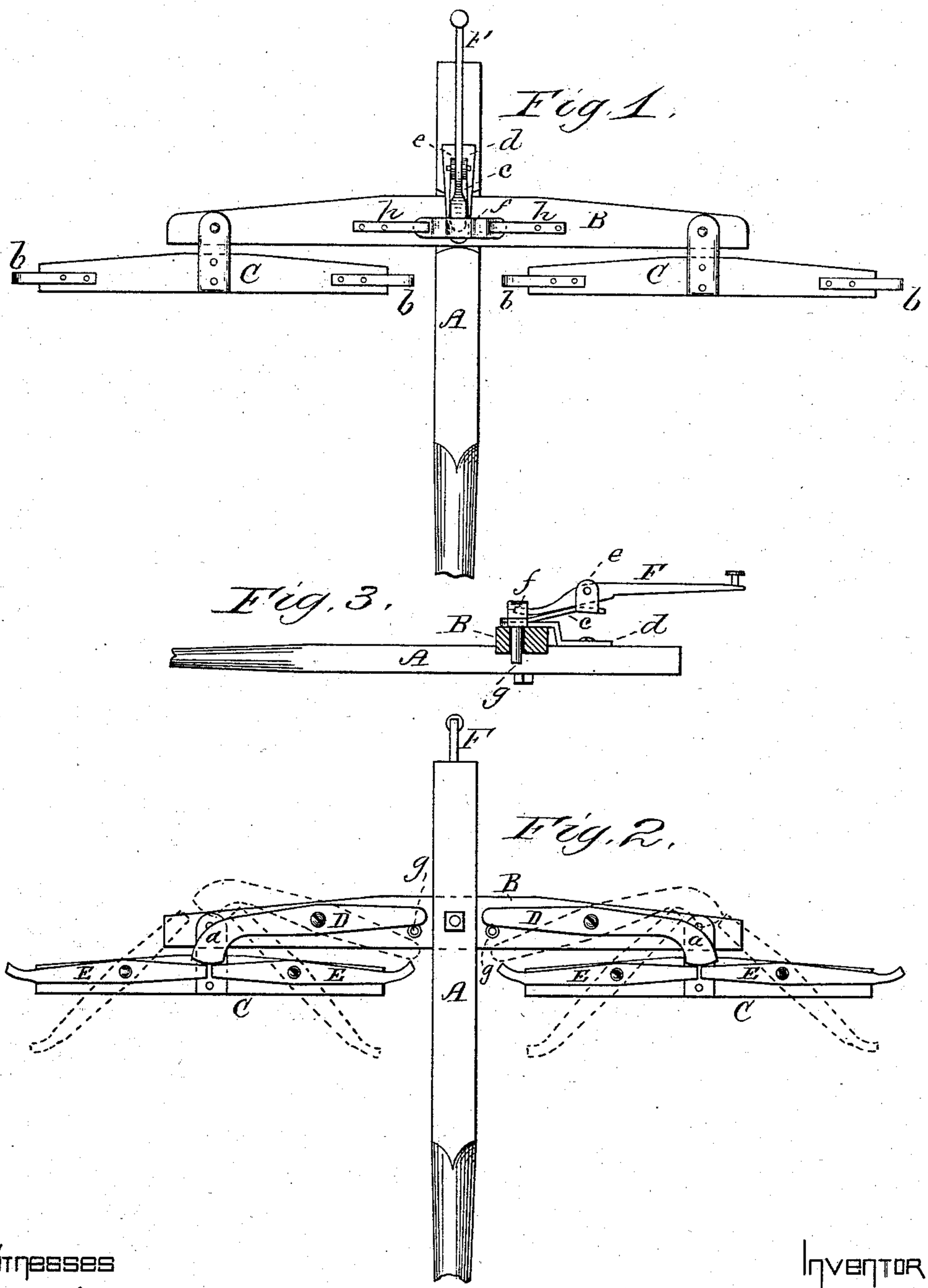

Fig. 1.

Fig. 3.

Fig. 2.

Witnesses

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ISOM B. SHAW, OF SMITHFIELD, ILLINOIS.

HORSE-DETACHER.

SPECIFICATION forming part of Letters Patent No. 224,614, dated February 17, 1880.

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To all whom it may concern:

Be it known that I, ISOM B. SHAW, of Smithfield, in the county of Fulton and State of Illinois, have invented a new and valuable Improvement in Safety Double and Single Trees; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a top-plan view of my invention. Fig. 2 is an under-plan view; and Fig. 3 is a detail view of the foot-treadle and its connections.

This invention has relation to attachments to double and single trees, whereby the horse or horses may be disconnected from the vehicle in case of a runaway or for other reasons when circumstances require quick unhitching of the horse or horses from the carriage or other vehicle.

The object thereof is to provide a simple arrangement of devices whereby the driver can control and operate them without changing his position in the vehicle; and the invention consists in the arrangement and construction of the several parts constituting the attachment and the arrangement of the means employed for operating the same, as will be hereinafter described, and subsequently pointed out in the claims.

In the accompanying drawings, A represents the tongue, B the double-tree, and C the single-tree, which are connected together in the ordinary manner. To the under side of the double-tree B, and upon each side of the tongue A, are pivoted plates D, their outer ends being bent, as shown at *a*, and their faces slightly beveled. To the under side of each of the single-trees C are pivoted arms E, which form part of the single-trees C. These arms E are curved or hooked upon their outer ends to hold the ends of the traces after being connected thereto, springs *b*, secured to the ends of the single-trees, also assisting in holding the ends of the traces upon the hooked ends of the arms.

The same bolt that connects the double-tree B to the tongue A connects one end of a fulcrum-plate, *c*, to the upper side of said double-tree and to a plate, *d*, bent in such form as to be secured to the double-tree and tongue.

The free end of the fulcrum-plate *c* is formed with ears *e*, to which is pivoted a foot lever or treadle, F, the front end passing under a yoke, *f*. To the ends of the yoke are bolts *g*, secured thereto and passing down through holes in the double-tree B, and projecting out from the under side thereof, to act as stops to hold the plates D in position, which in turn hold the arms E in the same horizontal line with the single-trees C.

When the pressure is relieved from the lever or foot-treadle F suitable springs *h* force the yoke and its bolts back to their former position.

The operation of my invention will be readily understood from the following explanation: When the horses are connected to the vehicle the plates D and arms E are in position as illustrated in unbroken lines, Fig. 2, the bolts *g* being down in place upon the front side of the plates, which hold them in position against the inward pressure of the ends of the arms E upon the curved ends of the plates.

In case of a runaway or accident of any description the horses can be instantaneously unhitched from the vehicle by the driver pressing his foot upon the lever F, said lever being so formed as to pass up through the bed of the vehicle within convenient reach without the necessity of the driver changing his position.

By pressure upon the lever F the yoke *f* is raised, and with it the bolts *g*, which release the plates D, and in turn allow the arms E to be brought at an angle by the draft of the horses sufficiently to automatically disconnect the traces therefrom, as illustrated in dotted lines, Fig. 2.

I do not desire to be understood as confining myself to the mechanism employed for releasing the plates D, nor to the foot lever or treadle F, as a variety of means may be employed without departing from the principle of my invention, so long as such means or arrangement of device accomplishes its purpose—viz., that of locking and releasing the plates.

My improvement can be applied with equal effect on vehicles whether double or single, or to any attachment where a double or single tree is used.

In place of the foot lever or treadle a jerk-strap may be employed connected to the releasing mechanism, or, if desired, it may be used in connection with the lever or treadle, in which case it connects therewith directly in front of the bed of the vehicle, and passes down and under a suitable pulley, thence upward and over or inside of the dash-board or front end-gate, and hangs down just in front of the driver, where it can be plainly seen, with handle attached.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is —

1. The pivoted arms E and pivoted plates D, with curved end *a*, in combination with the bolt *g* and means for operating said bolt to lock and release the plate, substantially as and for the purpose described.

2. The pivoted plates D and arms E, in combination with the bolts *g*, yoke *f*, springs *h*, and jerk-strap or lever F, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ISOM B. SHAW.

Witnesses:
DAVID LANDES,
E. H. LANDES.