T. BYRD, Jr. & I. BYRD.

Improvement in Apparatus for Detaching Horses from Carriages.

No. 124,790. Patented March 19, 1872.

Fig. 1.

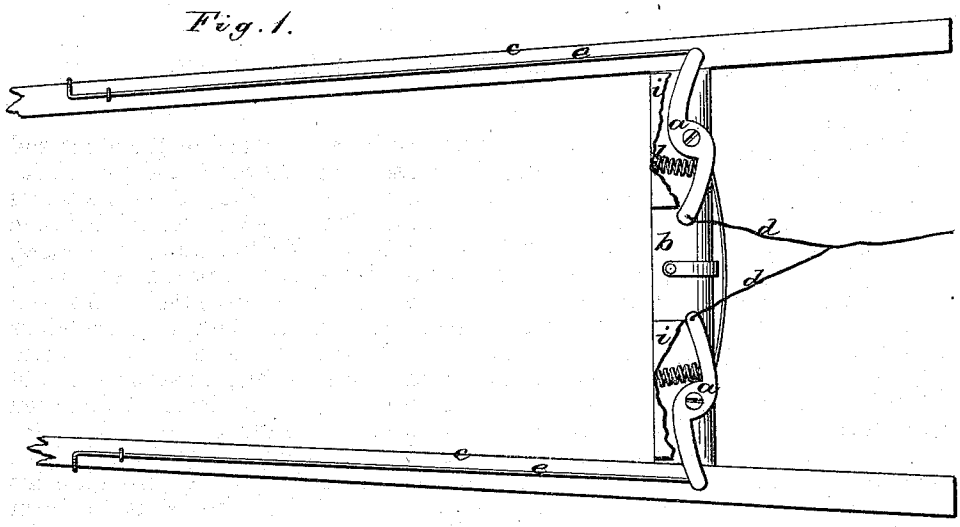


Fig. 2.

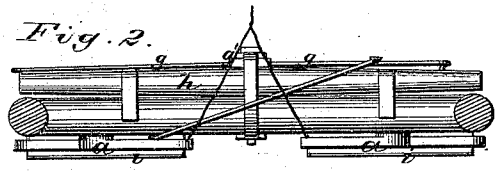


Fig. 3.

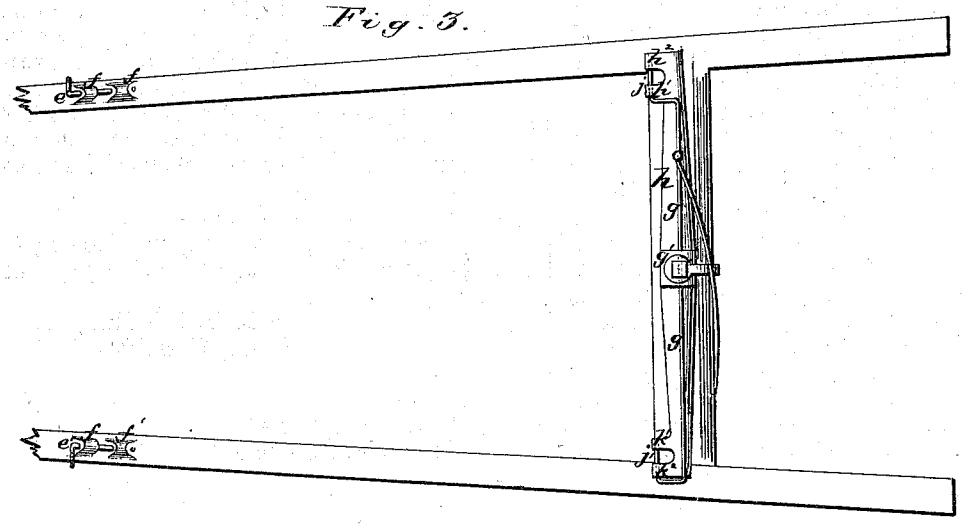
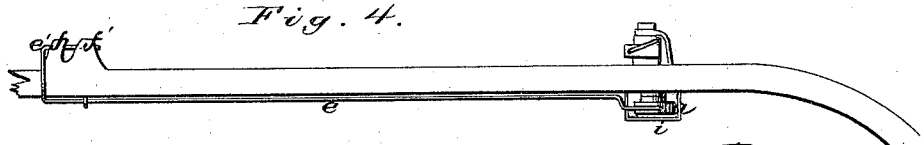


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

TURNER BYRD, JR., AND ISAIAH BYRD, OF WILLIAMSVILLE, MICHIGAN.

IMPROVEMENT IN APPARATUS FOR DETACHING HORSES FROM CARRIAGES.

Specification forming part of Letters Patent No. 124,790, dated March 19, 1872.

We, TURNER BYRD, Jr., and ISAIAH BYRD, of Williamsville, Cass county, Michigan, have invented an Improved Apparatus for Detaching Horses from Carriages, of which the following is a specification:

This invention consists of an apparatus whereby the occupant of a carriage, when the horse becomes unmanageable, or at any other time, can, by simply pulling a string, effect the separation of the traces and holdbacks from the whiffletree and thills, respectively, thus enabling the horse to free himself immediately from the carriage, and insuring the safety of the person riding by the stopping of the carriage.

Referring to the drawing, in which Figure 1 is a plan view of the under side of the apparatus, Fig. 2 a rear elevation, Fig. 3 a top view, and Fig. 4 a side elevation—

a a are two curved levers pivoted to the under side of the cross-bar *b*, that connects the thills *c*. Strings *d*, fastened to the inner ends of the levers *a*, lead thence to the carriage-seat. To the outer ends of the levers *a* are jointed the rear extremities of rods *e* that extend forward along the under sides of the thills as far as the front ends of lugs *f*, that spring from the upper sides of the thills at the proper points for the attachment thereto of the holdbacks. Lugs f^1 project from the thills in rear of the lugs *f*, and at sufficient interval therefrom to admit the holdbacks between the lugs. The rods *e* turn upward around the outsides of the thills to points immediately in front of the lugs *f*, and are thence bent downward and backward so as to form arms *e'*, which pass through holes in the lugs *f* f^1. Between each pair of lugs *f* f^1 one of the holdbacks is inserted, the arm *e'* keeping it in place. A guide, *g'*, is bolted to the middle of the upper side of the whiffletree *h*, through which guide passes a rod, *g*. The whiffletree *h* has at one end a pair of lugs, h^1 h^2, and at the other end lugs k^1 k^2 extending forward, and placed far enough apart to receive the ends of the traces between them. The rod *g* extends straight in one direction as far as the inner side of the lug h^1, where the rod is bent at right angles forward, extending to a point opposite holes that run transversely through the lugs h^1 h^2 near their outer ends, at which point the rod is again bent at right angles, so as to pass through said holes, as shown at *j*. In the opposite direction the rod *g* extends straight as far as the outer side of the lug k^2, where it is bent similarly as at its other end, finally passing through holes in the lugs k^1 k^2 near their outer ends, as shown at *j'*. The arms *j j'* connect the traces with the lugs. Whenever the inner ends of the levers *a* are both pulled backward together by means of the cords *d* the arms *e'* are moved forward far enough to release the holdbacks from the lugs *f* f^1, and at the same time the arms *j j'* are moved endwise far enough to release the traces from the lugs h^1 h^2 k^1 k^2. The horse is then free to separate himself from the carriage. On letting go the strings *d* the levers *a* and arms *j e' j'* are at once returned to their places by counter-springs *l*. This arrangement also furnishes a ready means for attaching the holdbacks and traces to the carriage. The levers *a* are inclosed in covers *i* so as to prevent mud from getting upon them and obstructing their operation.

We claim as our invention—

The levers *a*, combined with the rods *e g k*, springs *l*, arms f^3, and lugs h^1 h^2 k^1 k^2 f^1 f^2, as specified.

TURNER BYRD, JR.
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Witnesses:
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