

UNITED STATES PATENT OFFICE.

JOHN EMORY BERKSTRESSER, OF SYLACAUGA, ALABAMA.

HORSE-DETACHER.

SPECIFICATION forming part of Letters Patent No. 609,194, dated August 16, 1898.

Application filed April 20, 1898. Serial No. 678,260. (No model.)

To all whom it may concern:

Be it known that I, JOHN EMORY BERKSTRESSER, a citizen of the United States, residing at Sylacauga, in the county of Talladega and State of Alabama, have invented certain new and useful Improvements in Horse-Detachers, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to detaching devices for releasing a horse from a carriage or other vehicle; and the object thereof is to provide an improved device of this class whereby a horse may be quickly and easily released from a vehicle whenever necessary or when the horse becomes vicious and kicks or attempts to run away.

The invention is an improvement on that described and claimed in United States Patent No. 554,905, granted to me February 18, 1896, and is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a plan view of one of the shafts of a vehicle and showing my improved detaching device connected therewith; Fig. 2, a longitudinal section of the detaching device; Fig. 3, a plan view thereof, and Fig. 4 a section on the line 4 4 of Fig. 3.

In the drawings forming part of this specification the separate parts of my improvement are designated by the same numerals of reference in each of the views, and in the practice of my invention I provide a plate 5, which may be secured to the upper side of the shaft 6 of a vehicle in any desired manner and which in practice is preferably secured to the shaft about twenty inches in front of the cross-bar 7 by means of which the two shafts are connected, and it will be understood that one of these devices is secured to each shaft.

The plate 5 is provided about centrally thereof with a rectangular hole 8, formed vertically therein, and the rear portion of said plate is cut out longitudinally to form a central longitudinal groove 9, which communicates with the hole or opening 8, and secured in the top of said groove is a plate-spring 10, the free end of which projects across said

hole or opening and is bent upwardly, as shown at 11.

Secured to or formed on the upper side of the plate 5, rearwardly of the hole or opening 8, are two uprights or bearings 12, through which is passed a longitudinally-movable bolt 13, and wound on said bolt between said uprights or bearings is a spiral spring 14, the front end of which bears on a disk or plate 15, secured to said bolt, and the rear end of which bears on the rear upright or bearing 12. This spring is intended to force the bolt 13 forwardly, and the forward end of said bolt projects in its normal position over the hole or opening 8 at a predetermined distance above the plate 5.

The disk 15, secured to the bolt 13, is not essential and may be dispensed with, all that is necessary in this connection being to secure the front end of the spring 14 to the bolt, so that it will project said bolt forwardly, and connected with said bolt inside of the forward upright or bearing 12 is a link or similar attaching device 16 with which in practice the detaching-line is connected.

I also provide a longitudinal casing 17, which is flat on the under side and preferably circular in cross-section on the upper side, and the longitudinal chamber 18 in said casing opens forwardly, and the rear end thereof is preferably closed, and secured to or formed on the bottom of the rear end of said casing is a backwardly-directed arm 19, which is provided at its rear end with a downwardly-directed head 20, which in practice enters the hole or opening 8, so that the inner side thereof will engage with the upper inner wall of the hole or opening 8, as shown at 21.

The casing 17 is provided at one side with a staple, link, or similar device 22, which serves as means for attaching the breechstraps of the harness, and this link or staple is provided with two parallel arms 23, which are passed through the end of the casing and secured therein, and passing between said arms 23 of the staple 22 is a longitudinally-movable shaft 24, the inner end of which is provided with a head 25, which operates as a plunger and is free to move in the casing 17, and between said head and the arms 23

of the staple 22 is a strong spiral spring 26. The outer end of the shaft 24 is provided with a head 27, which may be of any desired form and is intended as a trace-attaching device, and in practice the traces on the opposite sides of the harness are connected with the shafts 24 or with the heads 27 thereof, as will be readily understood, and with this form of construction the springs 26, one of which is mounted in each of the detachable devices or the casings 17 thereof, serve to relieve the shank of the rigid pull or jerk by the horse, thereby giving an easier motion to the vehicle.

The plate 5 is provided at its forward end and at the opposite sides with projecting lugs 28, and secured to the bottom of the casing 17, near the forward end thereof, is a transverse plate 29, and, as will be understood, the casing 17 may be connected with the plate 5 by drawing back the bolt 13 and then passing the ends of the projecting plate 29 under the lugs or projections 28 and depressing the rear end of said casing 17 until the head 20 of the arm 19 enters the angular hole or opening 8 in said plate. In this position of the parts the head 20 strikes the forward end of the spring 10 and depresses it, and the bolt 13 is then released, and the forward end thereof passes over the arm 19, as shown in Figs. 1 and 3, and the casing 17 is secured to the plate 5.

Whenever it is necessary to detach the horse, the detaching-lines, which in practice are connected with the links 16 and which are not shown, are pulled. This operation draws backwardly the bolts 13, and the spring 10 throws up the arm 19 until the head 20 thereof is raised above the upper surface of the plate 5 and the casings 17 are drawn off of said plates.

The plate 5 is also provided on the upper surface thereof and at each side of the hole or opening 8 with upwardly-directed shoulders or projections 30, between which the arm 19 projects; but these lugs or projections are not absolutely essential and may or may not be employed, and other changes in and modifications of the construction herein described may be made without departing from the spirit of my invention or sacrificing its advantages.

My improved detaching device is simple in construction and operation and perfectly adapted to accomplish the result for which it is intended, while being also comparatively inexpensive.

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

1. A horse-detaching device, comprising a plate which is adapted to be secured to the shaft of the vehicle, said plate being provided

centrally thereof with an angular hole or opening, at the rear of which is a longitudinal groove which communicates therewith, a spring mounted in said groove and the forward end of which projects across said hole or opening, a spring-operated bolt mounted over the rear end of said plate and adapted to be projected over said hole or opening, and a detachable longitudinal casing provided at its rear end with a backwardly-directed arm on which is formed a downwardly-directed head, and a spring-operated trace-attaching device mounted in said detachable casing, substantially as described.

2. A horse-detaching device, comprising a plate which is adapted to be secured to the shaft of the vehicle, said plate being provided centrally thereof with an angular hole or opening, at the rear of which is a longitudinal groove which communicates therewith, a spring mounted in said groove and the forward end of which projects across said hole or opening, a spring-operated bolt mounted over the rear end of said plate and adapted to be projected over said hole or opening, and a detachable longitudinal casing provided at its rear end with a backwardly-directed arm on which is formed a downwardly-directed head, and a spring-operated trace-attaching device mounted in said detachable casing, said plate being provided at the opposite side of its forward end with projecting lugs, and said detachable casing with a transverse plate which is secured to the bottom thereof, substantially as described.

3. A horse-detaching device consisting of a plate which is adapted to be secured to the shaft of the vehicle, said plate being provided centrally thereof with an angular hole or opening, and the rear end of said plate being provided with a spring which projects across said hole or opening, a spring-operated bolt mounted longitudinally over the rear end of said plate and adapted to be projected over said hole or opening and provided with means for connecting the detaching-line therewith, and an oblong detachable casing provided at its rear end with a projecting arm having a downwardly-directed head, said casing being provided with a longitudinally-movable spring-operated shaft which is mounted therein, and with which a trace may be connected, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 14th day of April, 1898.

JOHN EMORY BERKSTRESSER.

Witnesses:

STEPHEN DOUGLAS LOGAN,
JNO. P. KENNEDY.