

No. 642,365.

Patented Jan. 30, 1900.

H. POWERS.
HORSE DETACHER.

(Application filed July 12, 1899.)

(No Model.)

Fig. 1.

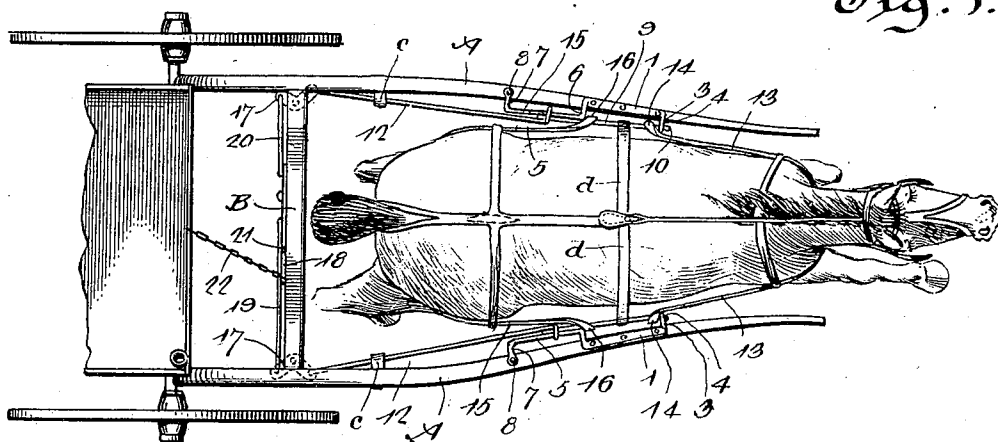


Fig. 2.

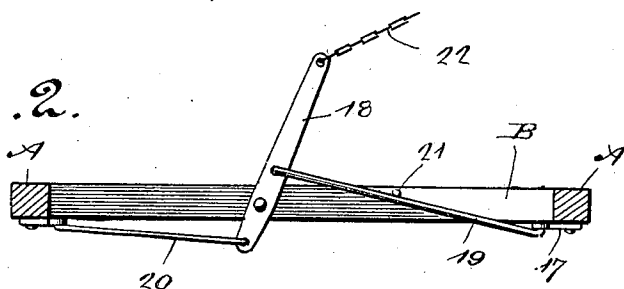
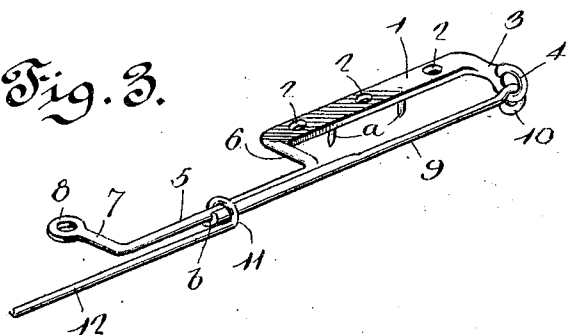


Fig. 3.



Witnesses

J. Frank Culverwell.

By

his

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Homex Powers, Inventor.

[Signature]

[Signature]

UNITED STATES PATENT OFFICE.

HOMER POWERS, OF FORT STOCKTON, TEXAS.

HORSE-DETACHER.

SPECIFICATION forming part of Letters Patent No. 642,365, dated January 30, 1900.

Application filed July 12, 1899. Serial No. 723,547. (No model.)

To all whom it may concern:

Be it known that I, HOMER POWERS, a citizen of the United States, residing at Fort Stockton, in the county of Pecos and State of Texas, have invented a new and useful Horse-Detacher, of which the following is a specification.

This invention relates to horse-detachers, and has for its object to provide an improved device which is applied to each thill intermediate of the ends thereof, so as to dispense with the usual singletree and place the draft directly upon the thill, thereby giving the horse a better control of the vehicle.

A further object is to provide improved means for operating the device without the necessity of moving from the seat in the vehicle, whereby the horse may be entirely freed from the vehicle and the thills may be held in an elevated position, so as to prevent the same from dropping down and being driven into the ground, thereby preventing damage both to the vehicle and the occupants thereof.

To these ends the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and the minor details of construction may be made within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the present invention.

In the drawings, Figure 1 is a top plan view of the forward portion of a vehicle and the thills thereof, showing the invention in its operative position. Fig. 2 is a transverse sectional view taken in rear of the usual cross-bar which connects the thills and showing the means for releasing the device. Fig. 3 is an enlarged detail perspective view of that portion of the device which is mounted upon one of the thills.

Corresponding parts in the several figures of the drawings are designated by like characters of reference.

It will be understood that the present invention is duplicated upon the respective thills, so that a description of one of them is deemed sufficient. Therefore reference is

had particularly to Fig. 3 of the drawings, in which it will be seen that each device comprises a flat strap 1, forming an attaching-bracket having suitable openings 2 formed therethrough for the reception of fastenings, whereby the device may be connected to a thill. Also pointed prongs *a* are formed integral with the bracket and project from the under side thereof and intermediate of the openings 2 to provide an additional fastening means. At the forward end of the bracket there is provided a lateral arm 3, having a ring or eye 4 provided at the outer end thereof, the opening of which is disposed longitudinally of the bracket. Extending rearwardly from the opposite end of the bracket is an offset bar 5, which is connected to the rear end of the bracket by means of a lateral arm 6, and the rear end of the bar 5 is also provided with a lateral arm 7, extending outward into alignment with the bracket, and is provided with an attaching eye or perforate ear 8, adapted to receive a suitable fastening, so as to secure the rear end of the device to the thill. It is preferable to form the device from a single piece of metal, the attaching-bracket being flattened out into a substantially broad strap, while the offset bar and the lateral arms are in the form of cross-sectionally-round bars and the opposite eyes 4 and 8 being disposed in planes at substantially right angles.

It will be understood that the device may be attached to either the upper or under side of the thills, and in Fig. 1 of the accompanying drawings it will be seen that the attaching-bracket 1 is applied to the upper side of the thill A at a suitable point intermediate of the ends thereof, and suitable fastenings are passed through the openings in the bracket and the attaching-eye 8, whereby the device is firmly fixed to the upper side of the thill, the offset rod 5 and the eye 4 being located inward from the thill.

Hinged to the offset eye 4 is a rod 9, having its forward end bent into a hook or eye 10, which is received loosely in the eye 4, so as to provide a hinged or pivotal connection therewith, and the rear free end of the rod extends alongside of the outer side of the offset bar 5. The free end of this hinged rod 9 is normally locked to the offset bar 5 by means

of a link or eye 11, which embraces both the bar 5 and the rod 9 and is carried at the forward end of a longitudinally-movable rod 12. It will be understood that the rear free end of the hinged rod 9 terminates intermediate of the offset bar 5, and the link 11 is slidable upon said bar and rod, whereby the link may be moved rearwardly beyond the free end of the hinged rod, so as to release the same.

Thus it will be seen that the offset bar 5 forms a traveler for the link 11, whereby the latter is always in position to automatically engage with the free end of the hinged rod. Also the inner side of the hinged rod contiguous to the offset bar 5 is grooved or concaved, as indicated at *b*, so as to snugly embrace the latter bar, and thereby prevent lateral movement of the hinged rod. As the connecting-rods 12 are comparatively light and liable to bend, it is preferable to provide guides therefor in the shape of opposite loops *c*, formed of leather, fastened to the under sides of the thills between the bracket and the cross-bar B and loosely receiving said rods.

To accommodate the harness to the present device, the tugs or traces 13 are suitably shortened, and each rear end thereof is provided with a loop 14, through which the hinged rod 9 is passed, so that the loops bear against the rear sides of the lateral arms 3, and the draft is therefore applied directly to the thills near the forward ends thereof. The forward ends of the holdback 15 are also provided with loops 16, which receive the respective hinged rods 9 and bear against the forward sides of the respective lateral arms 6. Also the respective straps *d*, which depend from the harness-saddle, are provided with loops at their lower ends, which receive the bar 9, whereby the horse is connected solely to the present device. Thus it will be seen that the usual singletree is dispensed with, and the horse may be readily and effectively hitched to the thills, the holdbacks, the saddle-straps, and the traces being firmly held thereto by means of the hinged rods 9 and the links 11, which lock said rods to the respective travelers 5.

In order that the rods 9 may be quickly released by the occupant of the vehicle, the respective rods 12 extend rearwardly to the cross-bar B, which connects the rear ends of the thills, and are connected to the forward ends of suitable bell-crank levers 17, pivoted near the opposite ends of said cross-bar B. As best illustrated in Fig. 2, it will be seen that an operating-lever 18 is pivoted intermediate of its ends to the rear side of the cross-bar B, and the rear ends or arms of the bell-crank levers are connected to the operating-lever at points at opposite sides of the pivot thereof by means of connecting-links 19 and 20, whereby the slidable rods 12 may be simultaneously operated. By reason of this arrangement it will be understood that the operating-lever 18 is normally folded downward alongside of the rear side of the cross-

bar B, whereby the forward arms of the bell-crank levers are turned forward, thereby holding the links 11 in engagement with the respective hinged rods 9, so as to lock the latter, and thereby connect the traces, the saddle-straps, and the holdback to the thills. The upper longer end of the lever is held in its folded position by means of a suitable catch-pin 21, which projects rearwardly from the cross-bar B and is adapted to engage over the upper edge of the lever.

Connected to the upper free end of the lever is a chain or other flexible connection 22, which extends into the body of the vehicle and in reach of the driver thereof, whereby the lever may be disengaged from beneath the catch-pin 21 and pulled upward, thereby drawing the links 19 and 20 inward, so as to turn the bell-crank levers 17, thereby moving the slidable rods 12 rearwardly and disengaging the links 11 from the respective hinged rods 9, whereby the latter are free to swing upward, and the horse may pass outward entirely free of the thills. It will be understood that as the driver is holding the chain 22 the thills will be held out of contact with the ground, so that the ends of the thills may not be driven into the ground, which would result in the breakage of the thills or damage to the vehicle and the occupants thereof.

Although the traveler and the attaching-bracket have been shown integral and the rod 9 hinged to the arm 3, which is also integral with the bracket, yet it will be understood that the hinged rod may be pivotally connected to a thill independent of the attaching-bracket without impairing or otherwise affecting the operation of the device and also without making any material change in the construction thereof. However, the integral construction of the attaching-bracket and traveler and the hinged rod being connected to the bracket is the preferred arrangement, as the parts are positively connected together, so as to prevent loss or displacement thereof.

What I claim is—

1. In a horse-detacher, the combination of a bracket adapted to be fitted to a thill, a traveler supported by the bracket, a hinged rod having its free end adjacent to the traveler, a link slidably embracing the traveler and hinged rod, and means for disengaging the link from the hinged rod, substantially as shown and described.

2. In a horse-detacher, the combination with a bracket adapted to be fitted to a thill, of a traveler carried at one end of the bracket, a rod hinged to the opposite end of the bracket, and having its free end located adjacent to the traveler, a link slidably embracing the latter and the hinged rod, and means for disengaging the link from the hinged rod, substantially as shown and described.

3. In a horse-detacher, the combination with an attaching-bracket, of a traveler projecting longitudinally beyond one end of the

bracket and offset laterally therefrom, an arm located at the opposite end of the bracket and projecting laterally therefrom in the same direction as the offset traveler, a rod hinged to the lateral arm, and having its free end located alongside of the traveler, a link slidably embracing the latter and the free end of the hinged rod, and means for disengaging the link from said rod, substantially as shown and described.

4. In a horse-detacher, the combination with an attaching-bracket, having an integral laterally-offset traveler extending longitudinally beyond one end thereof, an integral inwardly-extending arm provided at the outer end of the traveler, and having an attaching-eye at the outer end of said arm, an integral lateral arm projecting outwardly at the opposite end of the bracket, and provided with an eye having its opening disposed longitudinally of the bracket, a rod having a hook or eye which is loosely received in the eye of the forward lateral arm, and having its free end extending alongside of the traveler and terminating intermediate of the ends of the latter, a link slidably embracing the traveler and the free end of the rod, and means for disengaging the link from the rod, substantially as shown and described.

5. In a horse-detacher, the combination with a bracket adapted to be fitted to a thill, of a traveler, a hinged rod having its free end located alongside the traveler, of a link slidably embracing the traveler and the free end of the rod, a longitudinally-movable rod connected to the link, and an operating-lever operatively connected to the longitudinally-movable rod, substantially as shown and described.

6. In a horse-detacher, the combination with a bracket adapted to be fitted to a thill, of a traveler, a hinged rod having its free end located alongside the traveler, of a link slidably embracing the traveler and the free end of the hinged rod, a longitudinally-movable

rod connected to the link, a bell-crank lever pivoted to the cross-bar of the thill, an operating-lever pivoted to said cross-bar, and a link connecting the bell-crank lever with the operating-lever, substantially as shown and described.

7. In a horse-detacher, the combination with opposite devices fitted to the respective thills of a vehicle, and detachably receiving the traces, the saddle-straps, and the holdback, of a pair of longitudinally-movable rods connected to the respective devices and capable of releasing the latter, a pair of bell-crank levers pivoted to opposite ends of the cross-bar of the thills, and connected to the respective longitudinally-movable rods, an operating-lever pivoted intermediate of its ends to said cross-bar, and links connected to the respective bell-crank levers, and at opposite sides of the pivot of the lever, substantially as shown and described.

8. In a horse-detacher, the combination with means carried by the thills of a vehicle, and detachably receiving the traces, the saddle-straps, and the holdback, of a longitudinally-movable rod connected to the aforesaid means for receiving the traces, the saddle-straps, and the holdback, and capable of releasing the same, a bell-crank lever pivoted to the transverse bar of the thills, and connected to the longitudinally-movable rod, a lever pivoted to the rear side of said cross-bar, a link connecting the bell-crank lever to the operating-lever, and a catch carried by the cross-bar and normally holding the lever in the locked position of the device, substantially as shown and described.

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

HOMER POWERS.

Witnesses:

W. P. RATCHFORD,
R. B. NEIGHBORS.