

(No Model.)

2 Sheets—Sheet 1.

T. MAURY & E. ROUBINET.

HORSE DETACHER.

No. 383,742.

Patented May 29, 1888.

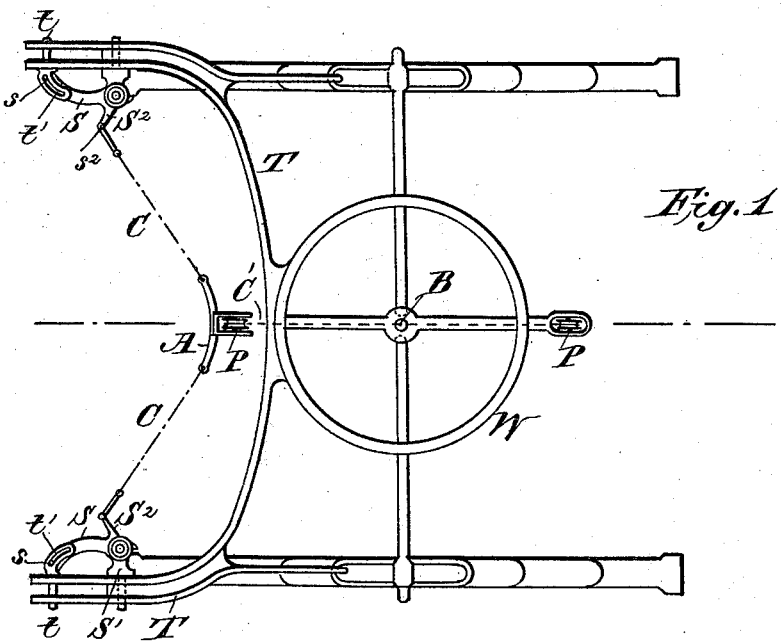


Fig. 1.

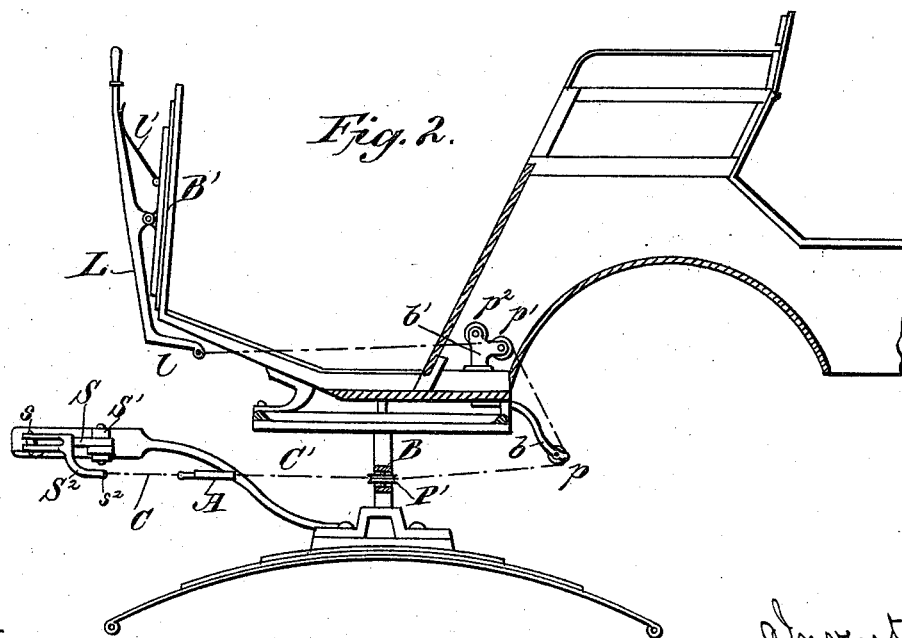


Fig. 2.

Witnesses.
C. M. Hallahan.
A. U. Weaver.

Inventors.
Theodore Maury.
Edis Roubinet.
Maury & Co. Attys

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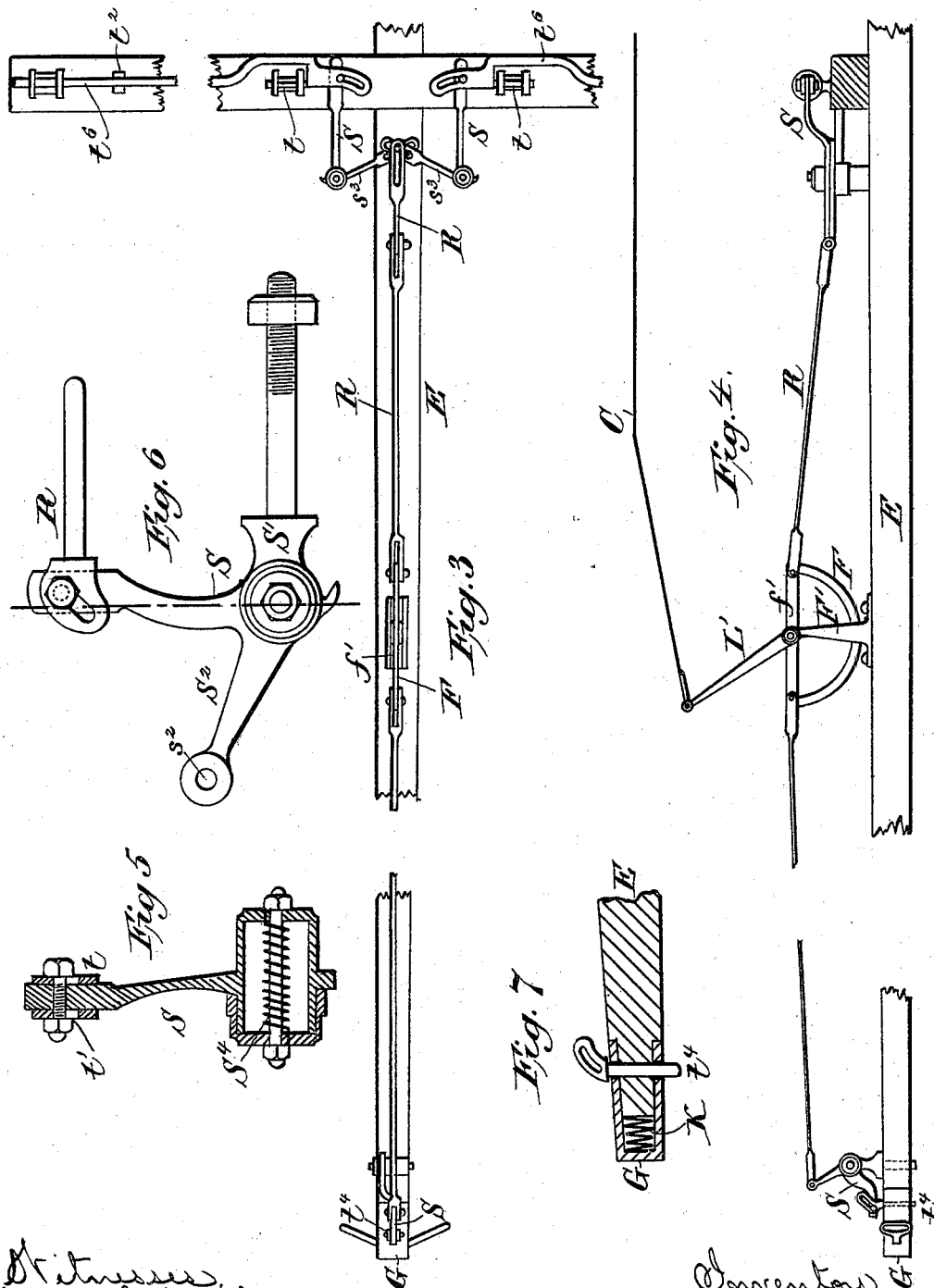
2 Sheets—Sheet 2.

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Witnesses.
C. M. Gallahue
A. N. Weaver.

Inventors.
Theodore Maury.
Edie Roubinet
per *Maury & Co.* Attys

UNITED STATES PATENT OFFICE.

THEODORE MAURY AND ELIE ROUBINET, OF TERRASSON, FRANCE.

HORSE-DETACHER.

SPECIFICATION forming part of Letters Patent No. 383,742, dated May 29, 1888.

Application filed February 23, 1888. Serial No. 264,942. (No model.) Patented in France August 17, 1887, No. 185,355.

To all whom it may concern:

Be it known that we, THEODORE MAURY and ELIE ROUBINET, citizens of the French Republic, residing at Terrasson, in the Department of Dordogne, France, have invented certain new and useful Improvements in Devices for Detaching Horses from Vehicles, (for which we have obtained Letters Patent in France, dated August 17, 1887, No. 185,355;) and we 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 pertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a top plan view of so much of the running-gear of a vehicle for a single horse as is necessary to illustrate our invention. Fig. 2 is a longitudinal sectional elevation of a portion of such a vehicle for two or more horses. Fig. 3 is a top plan view of a portion of the running-gear of a vehicle for two or more horses. Fig. 4 is a sectional side elevation thereof; and Figs. 5, 6, and 7 are detail views.

The invention relates to devices for releasing or detaching a horse or horses from a vehicle in case of a runaway, or in case of such horse or horses becoming unmanageable.

The invention has for its object to provide means applicable to all classes of vehicles whereby the draft animal or animals may be readily unhitched or detached; and the said invention consists in structural features and combinations of parts whereby the desired results are obtained, substantially as hereinafter fully described, and as set forth in the claims.

Referring to Figs. 1 and 2, W indicates the fifth-wheel, and T the thill, to which the shafts are secured by means of a hitching-pin, *t*. The pins *t*, as shown, are provided with a forked extension or head, in which are formed segmental slots *t'*. Within the forked end of said pins or bolts lies the end of a lever, S, so as to move freely in said fork, and said lever end is connected with the pin *t* by a bolt, *s*, that passes loosely through the slots *t'*, and by means of suitable retaining-nuts. The lever is fulcrumed on a standard, S', secured in proper positions to the thill, and is actuated by a spring, S^t, Fig. 6, the stress of which is ex-

erted to hold the lever, with the bolt *s*, pressed against the outer end of the slots *t'*, so as to firmly hold the hitching-bolts in their proper positions in the thill arms.

From the tubular fulcrum of the lever S projects a radial arm, S², in the outer end of which is formed an eye, *s*², as more plainly shown in Fig. 5, to which eye is secured one end of a chain or cord, or a connecting-rod, R, and a chain, C, the other end of the latter passing through an eye in the end of a segment-arm, A, pivoted to a bearing in which is mounted a pulley, P, which bearing is secured about centrally to the thill T. The two cords C, attached to the connecting-rods R, or to the lever-arms S², after passing through the eyes in the segmental arm A, unite and the single cord C' passes over the pulley P, thence over a pulley, P', that has its bearings in a suitable bracket mounted on or secured to the king-bolt B of the vehicle, thence over guide-pulleys *p*, *p'*, and *p*², mounted in suitable brackets, *b* and *b'*, respectively secured to the vehicle-frame. From the pulley *p*² the cord C' passes to the rearwardly-projecting arm *l* of a spring-actuated hand lever, L, that has its fulcrum on the dash-board B'. It is obvious that when the lever L' is moved rearwardly against the stress of its spring *l'* the horizontal arm *l* thereof will move forward, drawing on the cord C' and its branch cords C, and lever-arm S², to move the levers S inwardly against the stress of their springs S^t, Fig. 6, when a further movement of the hand-lever L will cause said bolts to withdraw the hitching-pins, *t*, and release the vehicle-shafts, thereby detaching the animal from the vehicle. This principle may be applied to vehicles having a pole and double or whiffle tree, whether two or more animals are hitched thereto, as illustrated in Figs. 3 and 4. In this case the hitching-pins are constructed as shown, a short pin, *t*, projecting laterally from the slotted head for the pole-trace, and a long pin, *t'*, extending along the upper face of the whiffletree and sliding in guides *t*², Fig. 3, for the off trace, such an arrangement being provided on each side of the pole E. The levers S are here connected by links *s*³ to a draft-rod, R', which latter is pivoted to a segment, F, that has its fulcrum on a standard, F', bolted to the pole. To the shaft or journal

of the segment is secured an arm, or lever *L'*, which arm or lever may form an integral part of the cord *f'* of the segment, and to the said arm is connected the draft-cord *C*, that is operated
 5 from the driver's seat. The breast chains or straps are likewise released by a connecting-rod pivoted to the front end of the segment *F* and a releasing-lever, *S*, that draws the pin or bolt *t'* out of the pole to release the breast-
 10 strap ferrule *G*, or the breast-strap ferrule *G* may be provided with a hook for the doubletree of the leaders where four draft animals are used.

It will be observed that where three or four draft animals are used, and it becomes necessary to detach the same from the vehicle by
 15 the means described, the single or double tree to which the leader or leaders are hitched can not fall to and drag on the ground, as it will be held up by the breast straps or chains of
 20 the wheel or pole horses, which remain attached to the ferrule *G*.

In practice we arrange within the ferrule *G* a strong coiled spring, *K*, Fig. 7, the tension of which tends to throw the ferrule off the end
 25 of the pole, so that as soon as the coupling-bolt *t'* is released the spring will throw the ferrule off. A pull on the cord *C* will therefore simultaneously release both pole or wheel horses, or the latter, and a leader or leaders,
 30 as will be readily understood, the hitching-pins being by this operation drawn inward toward the pole out of the rings at the ends of the traces.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a horse-detaching device, the combination, with the thill or whiffletree and a hitching-pin provided with a forked head
 40 having a segmental slot formed therein, of a rocking lever connected to the fork of the pin by a bolt passing loosely through the segmental slots in the ears of the fork, and means for rocking the lever, to move the pin out of
 45 its bearings, substantially as and for the purposes specified.

2. In a horse detaching device, the combination, with the thill or whiffletree and a hitching-pin having its bearings on or in said

thill or whiffletree, said pin being provided
 50 with a forked head having a segmental slot formed therein, of a spring-actuated rock-lever connected to the fork of the pin by a bolt passing loosely through the segmental slots in the
 55 ears of said fork, the stress of the spring being exerted to hold the pin in its bearings, and means for rocking the lever against the stress of its spring to move the pin out of its bearings, substantially as and for the purposes
 60 specified.

3. In a horse-detaching device, the combination, with the double or whiffle tree and the pole of the vehicle provided with a detachable breast-strap ferrule, of a pin or bolt to
 65 lock said ferrule to the pole, hitching-pins arranged in pairs on opposite sides of the pole and working in bearings secured to the whiffletree, said pins being provided with a forked
 70 head having a segmental slot formed in the ears thereof, levers connected to the fork of the pins by means of a bolt passing loosely through said segmental slots, a rocking segment and links and connecting-rods connect-
 75 ing the levers of the hitching-pins and the retaining-bolt for the breast-strap ferrule with said rocking segment, and a draft rod or chain for rocking the segment to simultaneously withdraw the retaining-bolt and hitching-pins
 80 from their bearings, substantially as and for the purposes specified.

4. The combination, with the pole of a vehicle, of a detachable breast-strap ferrule, a bolt for locking the ferrule to the pole, said
 85 bolt having a forked head, in which is formed a segmental slot, a rock-lever connected with the fork of the bolt by a bolt passing loosely through the segmental slots in the ears of the fork, and a cord or rod for rocking the lever
 90 from the driver's seat, substantially as and for the purposes specified.

In testimony that we claim the foregoing we have hereunto set our hands this 2d day of February, 1888.

T. MAURY.
 E. ROUBINET.

Witnesses:

CAMILLE CHARROPPIN,
 VICTOR ROMEIN.