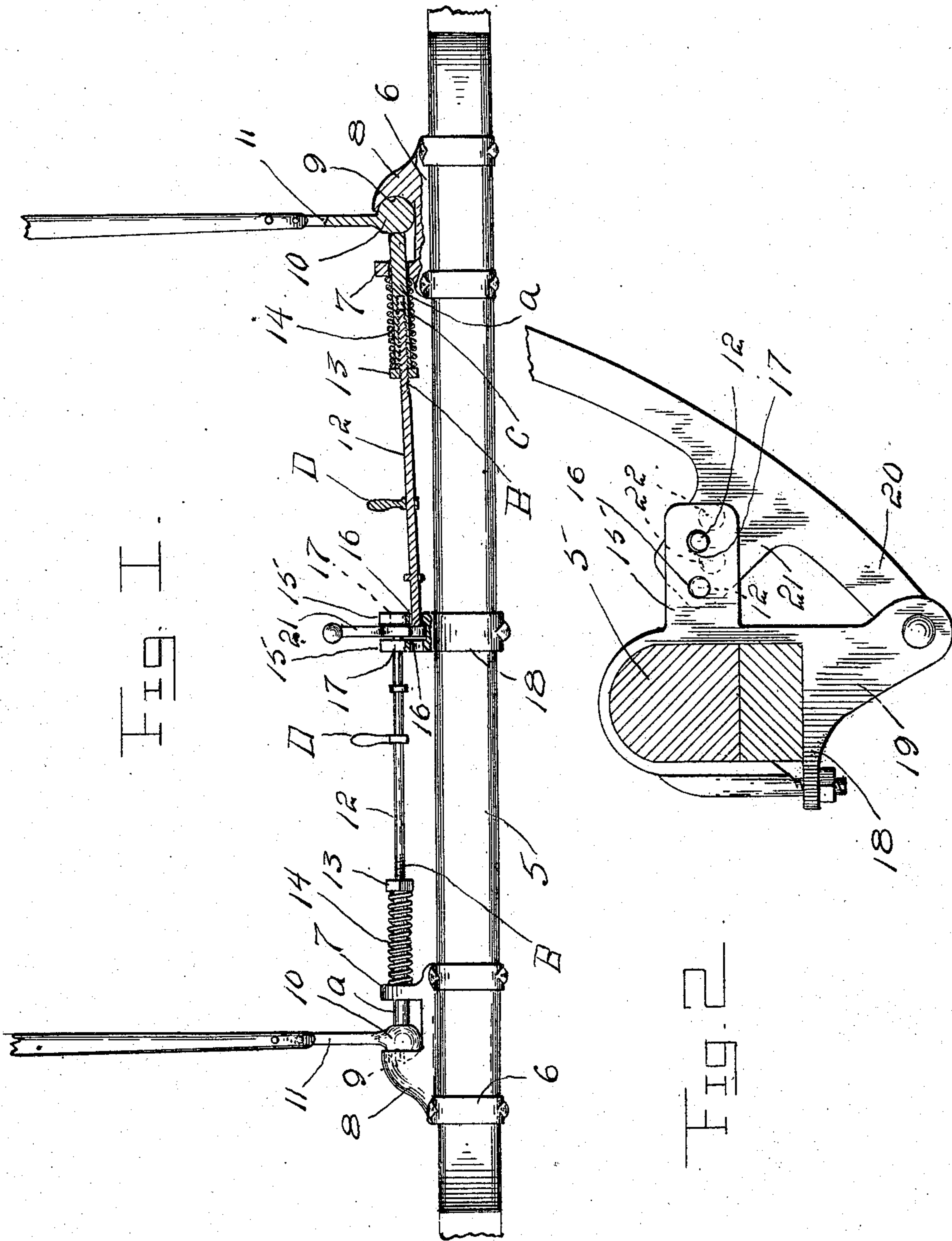


No. 840,691.

PATENTED JAN. 8, 1907.

A. E. FROMMEL.
HORSE RELEASER.

APPLICATION FILED DEC. 4, 1905.



Witnesses
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By

Handwritten signature of the attorney

Attorney S.

UNITED STATES PATENT OFFICE.

ALBERT E. FROMMEL, OF GROTON, SOUTH DAKOTA.

HORSE-RELEASER.

No. 840,691.

Specification of Letters Patent.

Patented Jan. 8, 1907.

Application filed December 4, 1905. Serial No. 290,243.

To all whom it may concern:

Be it known that I, ALBERT E. FROMMEL, a citizen of the United States, residing at Groton, in the county of Brown, State of South Dakota, have invented certain new and useful Improvements in Horse-Release-
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ing to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to vehicles, and more particularly to horse-releasers therefor, and has for its object to provide means for quickly and easily detaching a horse from a vehicle when desired.

Another object is to provide a detach-
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Other objects and advantages will be apparent from the following description.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a top plan view of the present invention. Fig. 2 is a vertical section through the central portion of the structure shown in Fig. 1 at one side of the releasing-lever.

Referring now to the drawings, there is shown the axle 5 of the vehicle, adjacent to each end of which there is secured a forwardly-extending casting 6, each including inner and outer members 7 and 8, respectively, which are spaced from each other longitudinally of the axle and which extend forwardly. In the inner faces of the members 8 there are formed concave recesses 9, which receive correspondingly-formed enlargements 10, carried by the lower ends of thills 11.

Slide-rods 12 are engaged in the members 7 for longitudinal movement therein, extending longitudinally of the axle 5, and are thus arranged for engagement of the inner portions of the enlargements 10 to hold them in the recesses 9. Inwardly of the members 7 the slide-rods 12 are threaded and have engaged therewith nuts 13, which are operable upon the threads for movement toward and away from the castings 6 to vary the tension of helical springs 14, which are engaged with the slide-rods between the nuts and the members 7. The springs are thus arranged to hold the slide-rods normally out of engagement with the enlargements 10 and in inoperative position.

Each slide-rod consists of an inner section A, having a threaded recess C in its outer end, and an outer section B, which is threaded at its inner end and engaged in the recess C. The threaded portion of the section B extends outwardly beyond the section A, and it is with this threaded portion that the nut 13 of each slide-rod is engaged.

Longitudinally-spaced forwardly-extending brackets 15 are secured to the axle 5 at approximately the center of the latter, thus lying between the castings 6, and these brackets each have a pair of horizontally-spaced openings 16 and 17, respectively, therein, the corresponding pairs of openings of the two brackets registering, as shown. The two slide-rods 12 are laterally offset, and the arrangement is such that one of the slide-rods lies with its inner end portion normally in the registering openings 16 of the two brackets, while the other slide-rod is similarly engaged in the registering openings 17. When in their normal positions, in which they are held by the springs 14, it will be understood that these slide-rods are out of operative position.

The brackets 15 are carried by a casting 18, which includes a downwardly-extending portion 19, to which is pivoted the lower end of a lever 20, which extends above the axle. This lever carries a finger 21 and is movable to bring its finger into and out of the space between the brackets 15. The finger has a pair of horizontal openings 22 formed therethrough, which are arranged for registration with the pairs of openings 16 and 17, though the finger is movable to lie at times with its solid portions between these pairs of openings and to receive thereagainst the inner ends of the slide-rods 12, when the latter will be held in operative position, as will be readily understood.

When it is desired to release the team from the vehicle, it is but necessary to move the finger out of the paths of movement of the slide-rods, when they will be brought into inoperative position by the springs 14 and the enlargements 10 will be disengaged from the sockets 9, the thills being sufficiently resilient to permit of inward movement of the enlargements.

Handles D are carried by the slide-rods for movement of the latter against the action of the springs and into operative position.

What is claimed is—

1. In a horse-releaser, the combination

with a support, of castings carried by the support in spaced relation, rods slidably engaged in the castings for movement into and out of operative position and extending inwardly toward each other, springs arranged to hold the rods yieldably at their inward limits of movement, a casting carried by the support between the members and including spaced ears in which the rods are slidably engaged, and a lever pivoted to the casting and having a finger movable into and out of the space between the ears to receive the inner ends of the rods thereagainst.

2. In a horse-releaser, the combination with a support, of members carried by the support, a casting carried by the support between the members and including spaced ears, said ears having openings therein, rods slidably engaged in the members and in the openings of the ears, springs arranged to hold the rods yieldably projected into the space between the ears, a lever pivoted to the casting and a finger carried by the lever and movable therewith into and out of the space between the ears, said finger when in the space receiving the inner ends of the rods thereagainst, to hold said rods against the action of the springs.

3. In a horse-releaser, the combination

with a support, of members carried by the support and having recesses therein, members having enlargements engaged in the recesses, slide-rods engaged in the first members at their opposite sides from the recesses and arranged to hold them in the latter, said slide-rods being movable out of operative position, means for holding the slide-rods yieldably in inoperative position, and means for holding them at times in operative position.

4. In a horse-releaser, the combination with a support, of members carried thereby in spaced relation, rods slidably engaged in the members, spaced brackets carried by the supports between the members, said slide-rods being movably engaged at their inner ends in the brackets, springs arranged to hold the rods yieldably at the inward limits of their movements, and a finger movable to lie at times between the brackets and in position to receive the inner ends of the rods thereagainst to hold them against the action of the springs.

In testimony whereof I affix my signature in presence of two witnesses.

ALBERT E. FROMMEL.

Witnesses:

WM. ASHLEY,
JOHN ALLEN.