No. 610,484. Patented Sept. 6, 1898.

R. L. GAUNTNER.

HORSE DETACHER.

(Application filed Mar. 30, 1898.)

(No Model.)

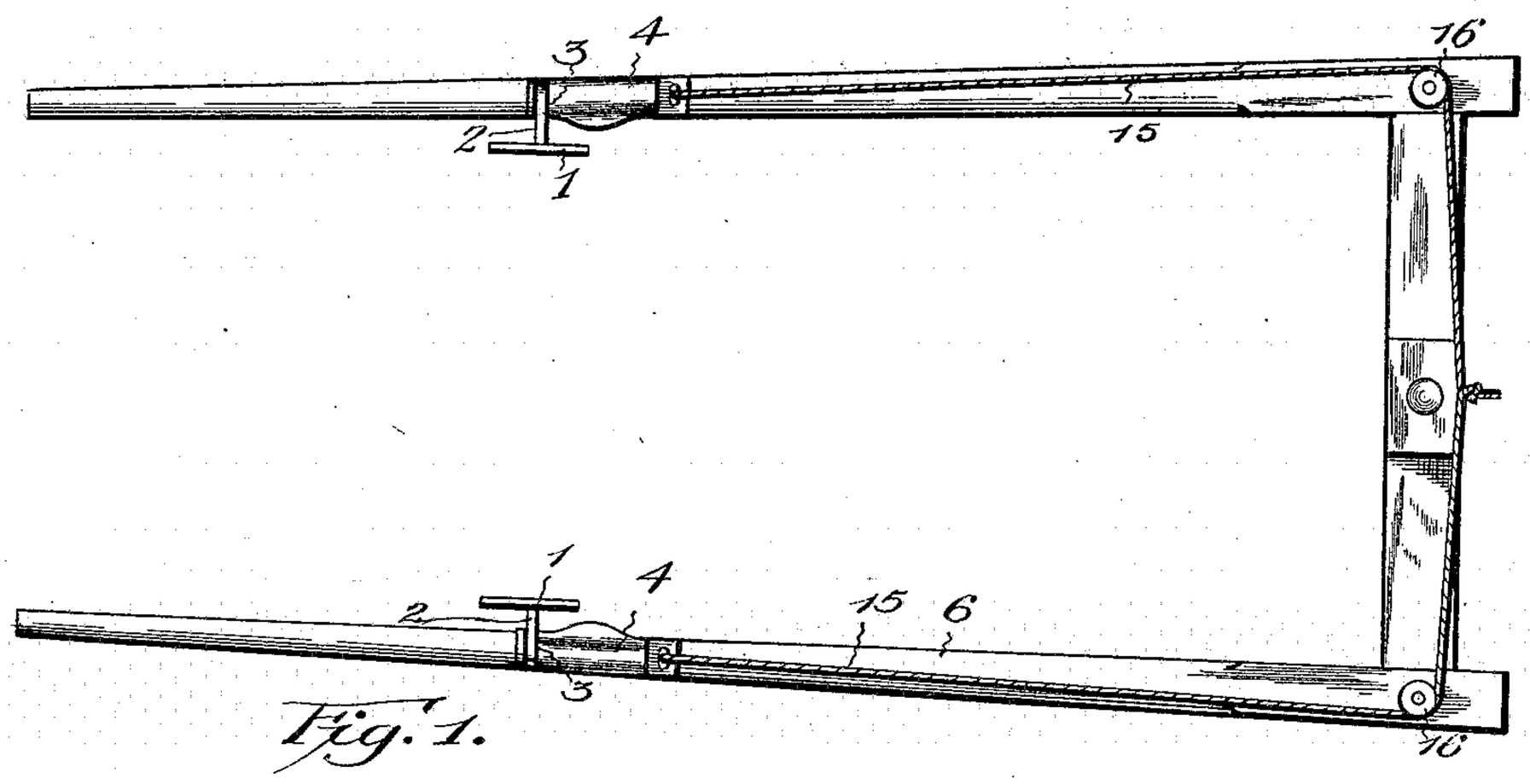

Fig. 1.

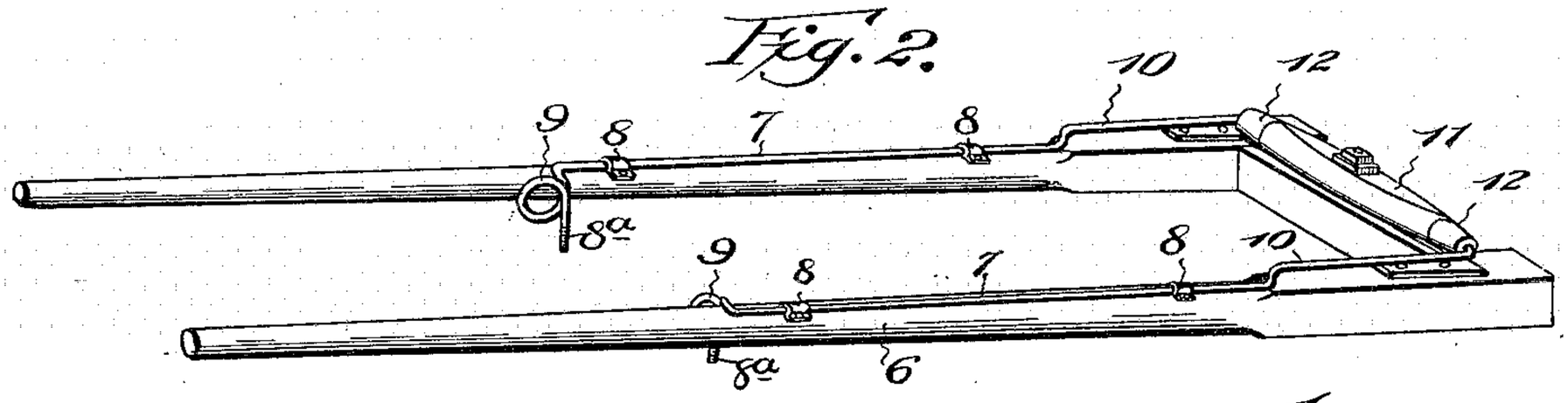

Fig. 2.

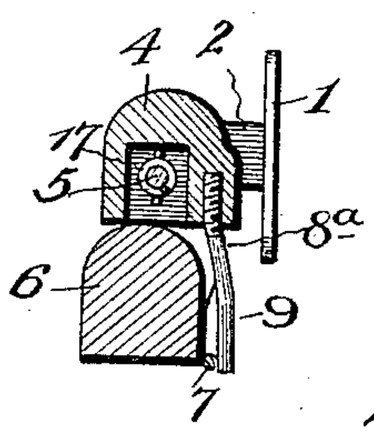

Fig. 3.

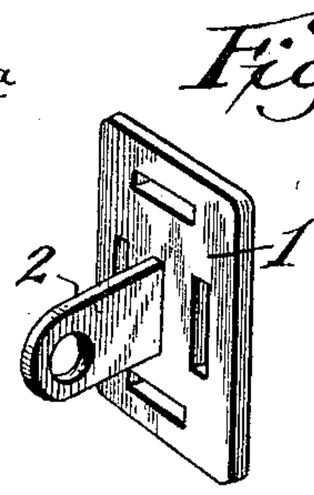

Fig. 6.

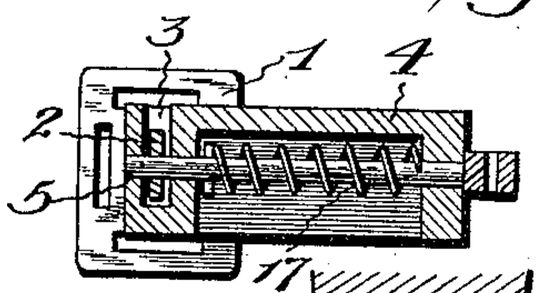

Fig. 4.

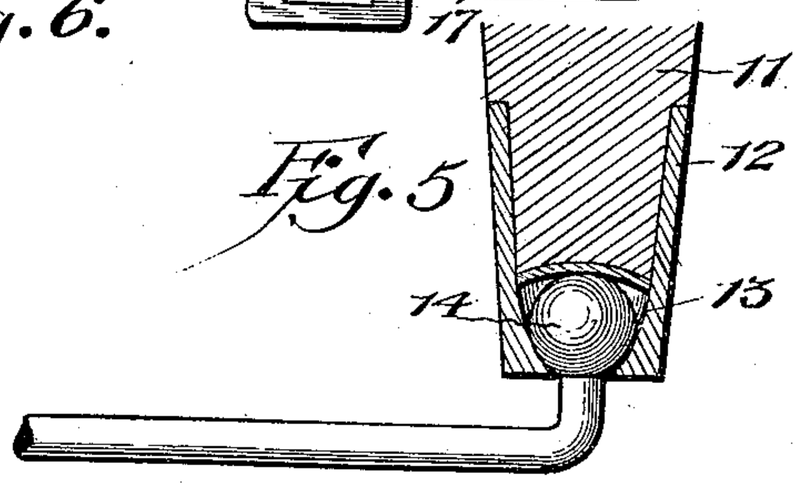

Fig. 5

Witnesses
A. Roy Appleman
H. J. Riley

Rudolph L. Gauntner, Inventor.
By his Attorneys,
Church & Co.

UNITED STATES PATENT OFFICE.

RUDOLPH LAWRENCE GAUNTNER, OF ASHVILLE, PENNSYLVANIA, ASSIGNOR OF TWO-FIFTHS TO GEORGE A. MYERS AND M. H. BURGET, OF SAME PLACE.

HORSE-DETACHER.

SPECIFICATION forming part of Letters Patent No. 610,484, dated September 6, 1898.

Application filed March 30, 1898. Serial No. 675,745. (No model.)

To all whom it may concern:

Be it known that I, RUDOLPH LAWRENCE GAUNTNER, a citizen of the United States, residing at Ashville, in the county of Cambria and State of Pennsylvania, have invented a new and useful Horse-Detacher, of which the following is a specification.

This invention relates to improvements in horse-detachers.

The object of the present invention is to improve the construction of horse-detachers and to provide a simple, inexpensive, and efficient one adapted, should a horse attempt to run away, to enable it to be readily disconnected from the shafts and the singletree to prevent the vehicle or its occupants from being injured.

The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a plan view of a horse-detacher constructed in accordance with this invention and shown applied to a pair of shafts. Fig. 2 is a perspective view of the shafts, illustrating the manner of mounting the singletree and the resilient rods thereon. Fig. 3 is a detail sectional view illustrating the manner of connecting the catches with the reciprocating resilient draft-rods. Fig. 4 is a similar view taken longitudinally of one of the catches. Fig. 5 is a detail sectional view illustrating the manner of connecting the reciprocating draft-rods to the singletree. Fig. 6 is a detail perspective view of one of the harness-plates.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 1 designate metal plates provided with perforated ears or flanges 2 and designed to be mounted on a harness at opposite sides of a horse, at points between the girth and the saddle-strap, and provided with slots or openings to facilitate their attachment to the harness. The plates may be stitched or otherwise secured to the harness, and the perforated flanges or ears 2 extend into slots or openings 3 of catches 4, which are provided with spring-actuated bolts 5, extending across the slots or openings 3 and detachably securing the plates to the catches. The catches, which are mounted on shafts 6, are secured to the front terminals of reciprocating draft-rods 7, extending longitudinally of the lower faces of the shafts and arranged in suitable guides 8. The front terminals of the reciprocating draft-rods are bent upward to form arms 8^a and are threaded to fit in corresponding sockets of the catches, whereby the latter are mounted on the rods. The rods are coiled at the lower ends of the arms 8^a to form springs 9, which render the rods resilient and provide a yielding connection between a horse and the shafts to relieve the former of strains in starting a vehicle. The rear portions 10 of the rods are offset from the shafts by angular bends to bring them in the same plane as the ends of a whiffletree 11, which is provided at its terminals with cuffs or sleeves 12, having sockets 13 for the reception of balls 14 on the rear ends of the rods. The rear ends of the rods are bent inward at right angles and enter the cuffs or sleeves 12 of the whiffletree from the outer ends thereof, as clearly illustrated in Fig. 5 of the accompanying drawings, and the ball-and-socket connection between the rods and the whiffletree permits the parts to play freely on the thills or shafts. The rear ends of the spring-actuated bolts of the catches are enlarged to form eyes and are connected with a releasing cord or strap 15, extending rearward from the bolts and passing around pulleys 16. Any suitable connection may be employed for enabling the occupants of the vehicle to operate the releasing strap or cord. The spring 17, which holds the bolt in engagement with the harness-plate, is of spiral form and holds the bolt against accidental rearward movement and is housed within the casing of the catch. When the releasing cord or strap is pulled, the bolts are retracted and withdrawn from engagement with the perforated flanges or ears of the harness-plates and the shafts are caused to fall, thereby releasing the horse.

The invention has the following advantages: The horse-detacher, which is simple and comparatively inexpensive in construction, is ap-

plicable to all one-horse vehicles and is capable of ready operation to release an animal in event of a runaway, so that the vehicle and its occupants will be prevented from being injured. The device is adapted to yield to horse motion, and it provides a yielding or elastic connection between a horse and the thills and relieves the former of strains incident to the sudden starting of a load and the like.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

1. In a device of the class described, the combination with a pair of shafts, of a whiffletree provided at its ends with sockets, and the rods extending along the shafts and having their rear ends projecting inward and provided with balls fitting in the sockets of the whiffletree, said rods being designed to be connected at their front ends with a harness, substantially as described.

2. In a device of the class described, the combination with a pair of shafts provided with guides, a whiffletree, and the reciprocating rods arranged in the guides and having their rear ends connected with the whiffletree, said rods being provided at their front ends with arms disposed in substantially a vertical plane at right angles to the rods and provided with spring-coils and having means for connecting them to a harness, substantially as described.

3. In a device of the class described, the combination of a pair of shafts, a whiffletree, rods extending along the shafts and connected to the whiffletree, vertical arms arranged at the front ends of the rods and provided with spring-coils, catches mounted on the ends of the arms, plates designed to be mounted on a harness and adapted to be engaged by the catches, and means for operating the catches to release the plates, substantially as described.

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

RUDOLPH LAWRENCE GAUNTNER.

Witnesses:
GEO. A. MYERS,
D. G. MYERS.