

No. 754,368.

PATENTED MAR. 8, 1904.

S. GREGORY.  
DRAFT APPLIANCE FOR VEHICLE SHAFTS.

APPLICATION FILED FEB. 16, 1903.

NO MODEL.

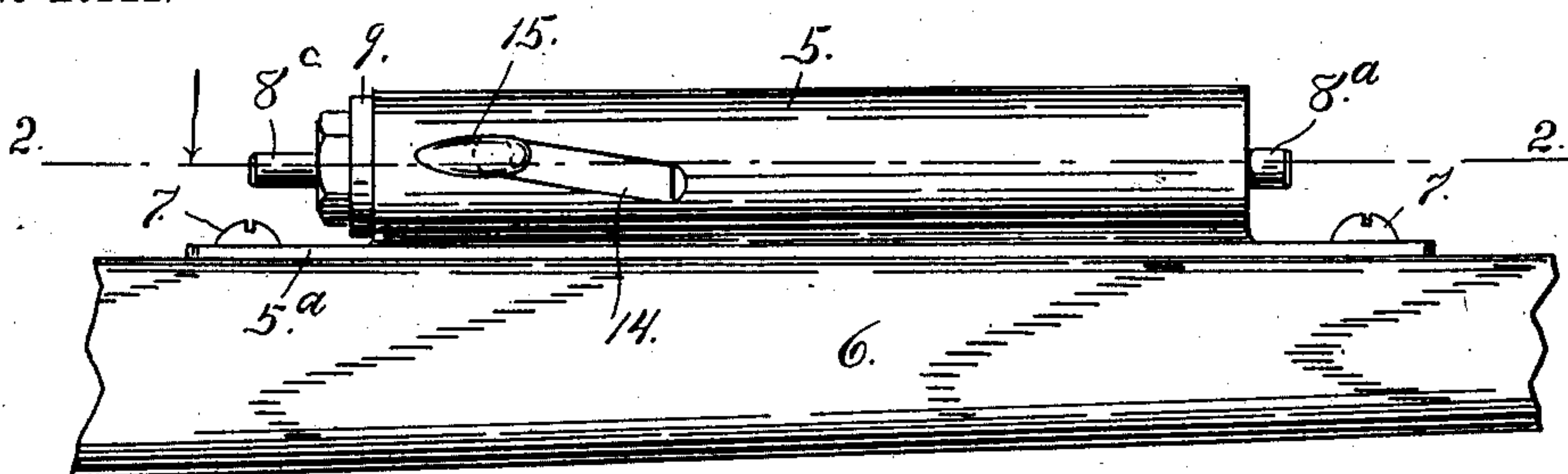


Fig. 1.

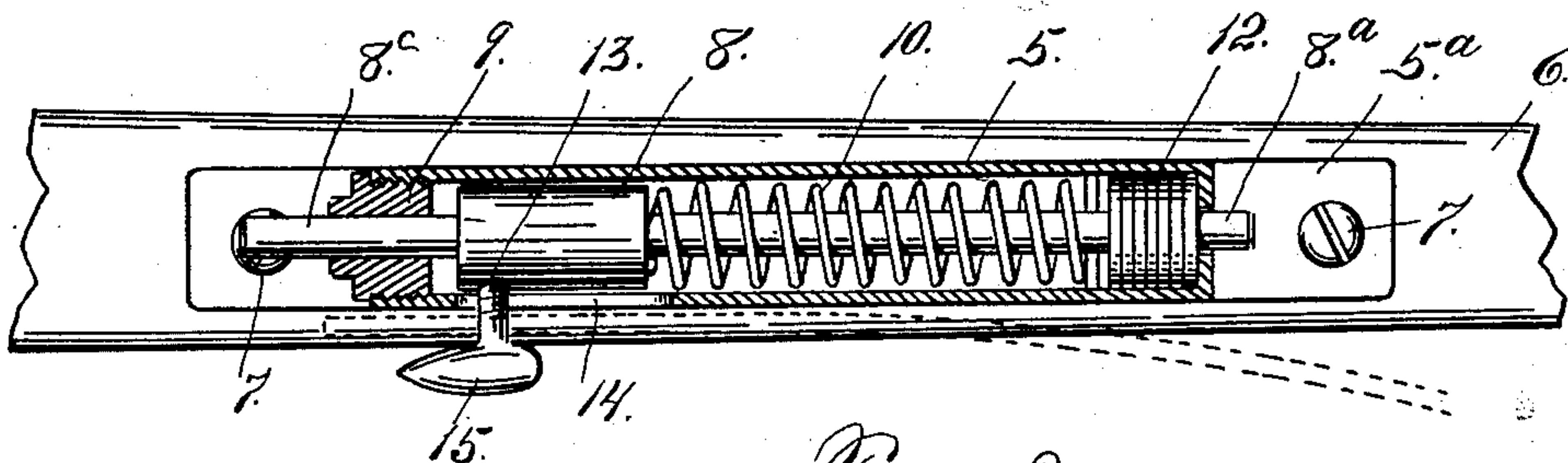


Fig. 2.

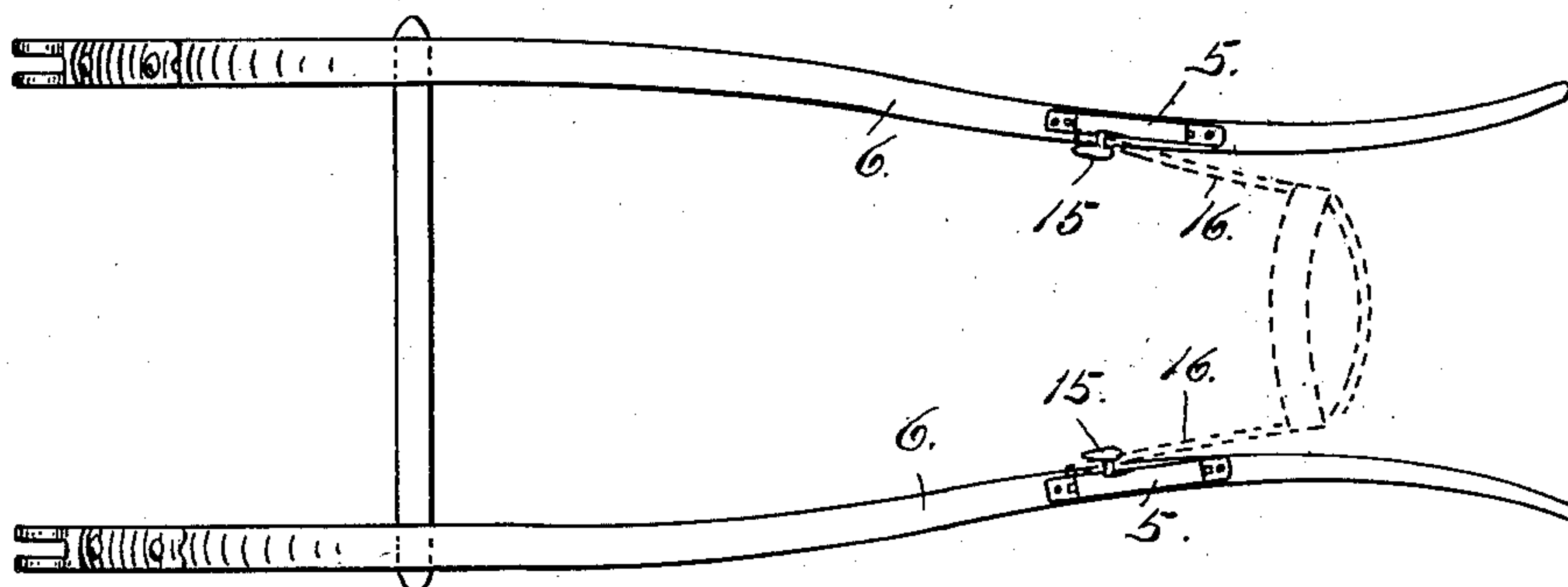


Fig. 3.  
S. Gregory.  
Inventor

Witnesses  
Otto E. Hoddick.  
Dena Nelson.

By *W. H. Mear*  
Attorney

## UNITED STATES PATENT OFFICE.

STEPHEN GREGORY, OF TRINIDAD, COLORADO.

## DRAFT APPLIANCE FOR VEHICLE-SHAFTS.

SPECIFICATION forming part of Letters Patent No. 754,368, dated March 8, 1904.

Application filed February 16, 1903. Serial No. 143,711. (No model.)

*To all whom it may concern:*

Be it known that I, STEPHEN GREGORY, a citizen of the United States of America, residing at Trinidad, in the county of Las Animas and State of Colorado, have invented certain new and useful Improvements in Draft Appliances for Vehicle-Shafts; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to a yielding draft appliance adapted to be attached to the shafts of vehicles and with which the tugs of the harness may be connected, thus obviating the use of whiffletrees and long tugs, since with my improved device the tugs may be made much shorter than are required under ordinary conditions, and the tugs being connected directly with the devices on the shafts the whiffletree is dispensed with altogether.

The device consists of a metal casing or chamber in which is located a spring-held piston provided with a pin which passes through a slot formed in the wall of the casing, its outer extremity being shaped to receive the eye of a tug. The piston has a stem projecting from each end, which stem parts take bearing in the extremities of the casing through which they pass. The spring is inserted between the piston and the forward extremity of the casing and preferably consists of a coil of suitable strength surrounding the piston-stem. Washers may be placed upon the stem forward of the spring to regulate the tension of the latter, whereby the device may be adapted for use with loads of varying weight.

A device of this character is very important in starting a load, since the spring will yield before the vehicle begins to move, thus making the work easier for the draft-animal than a pull against a dead-weight without the aid of yielding devices.

Having outlined my improved construction, I will proceed to describe the same in detail, reference being made to the accompanying

drawings, in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a top view of my improved device shown applied to the shaft of a vehicle. Fig. 2 is a section taken on the line 2 2, Fig. 1, viewed in the direction of the arrow. Fig. 3 is a top view of a pair of shafts, showing the device applied and on a smaller scale.

The same reference characters indicate the same parts in all the views.

Let the numeral 5 designate a casing flattened on one side to fit the shafts 6 of the vehicle and provided with end flanges 5<sup>a</sup>, apertured to receive fastening-screws 7. The chamber of this casing is preferably cylindrical, and within it is located a piston 8, having forwardly and rearwardly projecting stems 8<sup>a</sup> and 8<sup>b</sup>. The stem 8<sup>a</sup> passes through an opening formed in the forward extremity of the casing, while the sleeve part 8<sup>b</sup> passes through an apertured screw-plug 9, threaded in the rear extremity of the casing. Forward of the piston the stem 8<sup>a</sup> is surrounded by a coil-spring 10, which normally holds it against the screw-plug 9. As shown in the drawings, a number of washers 12 are located forward of the spring for controlling its tension. By inserting and removing washers the tension of the spring may be increased and diminished as may be desired and according to the load upon the vehicle.

The piston 8 is provided with a pin 13, which passes through a slot 14, formed in the casing, of sufficient length to allow the piston the required movement in its chamber. To the outer extremity of this pin is attached a button or hook 15, adapted to engage the eye of the tug 16 or the holding device attached to the latter.

In assembling the parts the washers, if any are to be used, are placed in the casing through the opening in its rear extremity. The spring is next put in place and then the piston, after which the screw-plug 9 is inserted, whereby the parts are locked in place. The pin 13 is then passed through the slot 14 and screwed into an opening formed in the piston. The device is then applied to the shaft by the use



of the screws 7. It will be understood that one of these devices is applied to each shaft of the vehicle. (See Fig. 3.)

In order to bring the line of the slot 14 in a horizontal position, or nearly so, this slot is shown inclined to the axis of the casing 5, so that when this casing is placed on the shaft, which usually occupies an inclined position, the casing may be so adjusted that the slot shall lie in the horizontal plane.

Having thus described my invention, what I claim is—

1. A draft appliance for vehicle-shafts, comprising a casing adapted to be attached to the shafts, and a spring-held piston located therein and provided with a projection extending through a slot formed in the casing, said slot being inclined to the axis of the casing, the outer extremity of the said projection being fashioned to receive the eye of a tug or holding device.

2. A draft appliance comprising a casing adapted to be attached to vehicle-shafts, a piston located therein and having forwardly and rearwardly projecting stem parts engaging openings in the casing extremities, a coil-spring located in the casing forward of the piston, the wall of the casing having a slot forming an angle with the axis of the casing, and a piston having a projection passing through the said slot for the attachment of a tug or other device connected with the draft-animal for applying power.

3. A draft appliance comprising a casing having an opening formed in one extremity, an apertured screw-plug inserted in its opposite extremity, a piston located therein and provided with forwardly and rearwardly projecting stem parts which pass through the respective extremities of the casing, which form

guides therefor, a coil-spring surrounding the stem part forward of the piston, washers located in the casing forward of the spring, the casing having a slot forming an angle with the axis of the casing, and a projection attached to the piston and passing through said slot, its outer extremity protruding for the purpose set forth.

4. A draft appliance for vehicle-shafts, comprising a cylindrical casing having apertured end flanges to receive fastening devices, the forward extremity of the casing having an opening, and its rear extremity being provided with a screw-plug having an opening, the casing having a longitudinal slot forming an angle with the axis of the casing, a piston located in the slotted portion of the casing and having a part protruding therefrom and fashioned to engage the eye of a harness-tug, the piston having stem parts passing through the casing extremities which form guides therefor, and a coil-spring mounted in the casing forward of the piston.

5. In a device of the class described, the combination of a casing adapted to be attached to the vehicle-shaft, a piston located in said casing, the casing being provided with a slot which is inclined to the axis of the casing, and a spring-held piston located in the casing and provided with a projection passing through said slot, its outer extremity being adapted to be connected with the tug of a harness, substantially as described.

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

STEPHEN GREGORY.

Witnesses:

A. J. O'BRIEN,  
DENA NELSON.