

No. 731,707.

PATENTED JUNE 23, 1903.

W. H. PUTNAM.  
COUPLING FOR TRACTION ENGINES.

APPLICATION FILED OCT. 11, 1902.

NO MODEL.

Fig. 1.

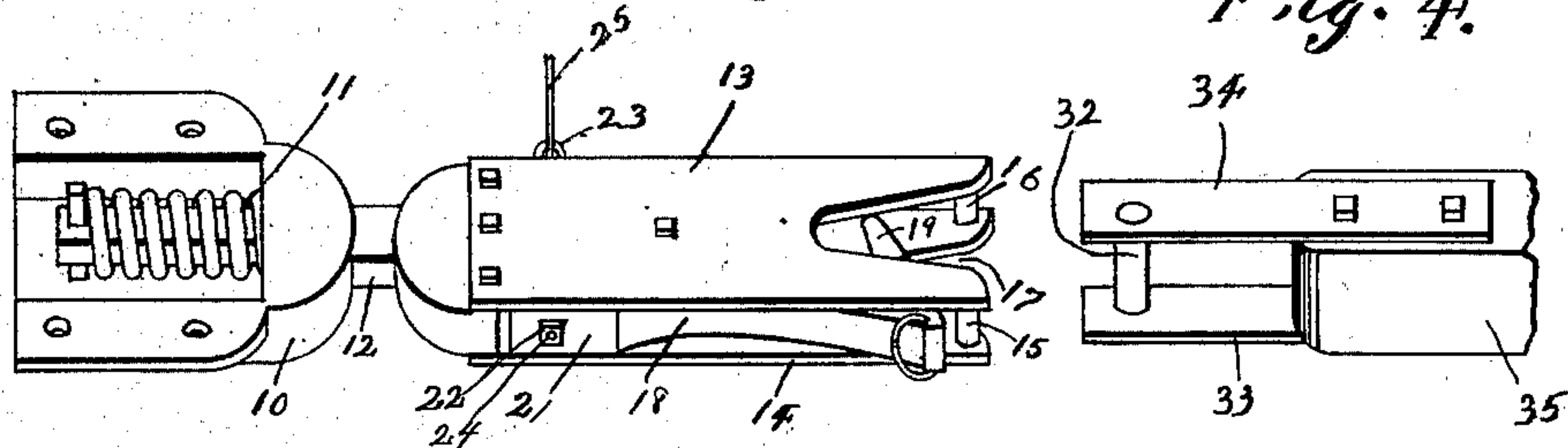


Fig. 4.

Fig. 2.

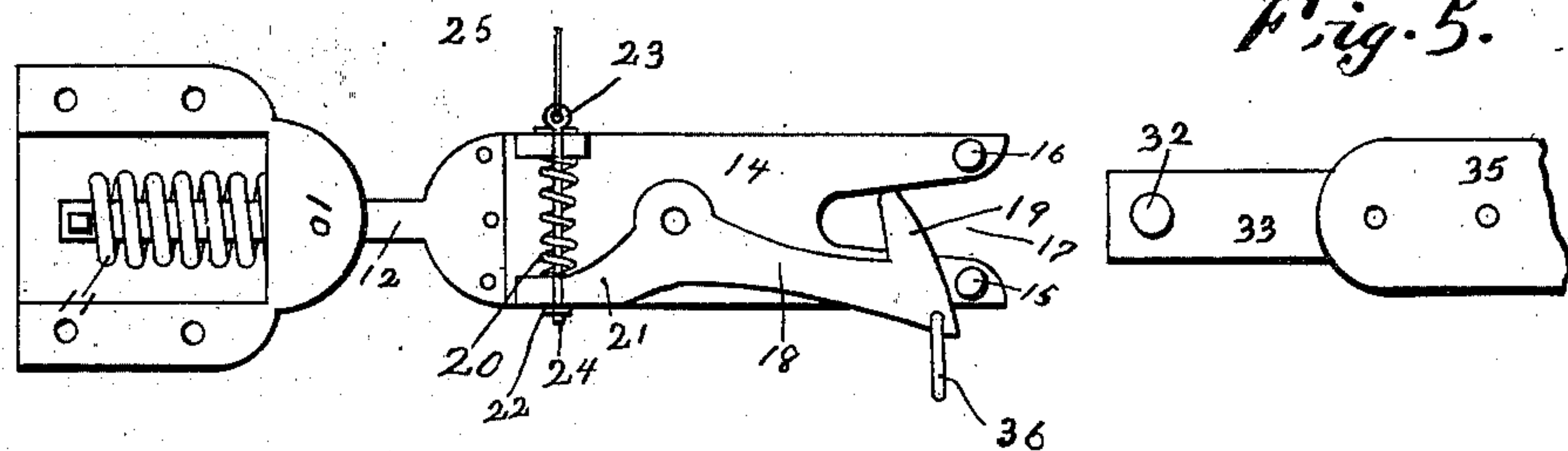
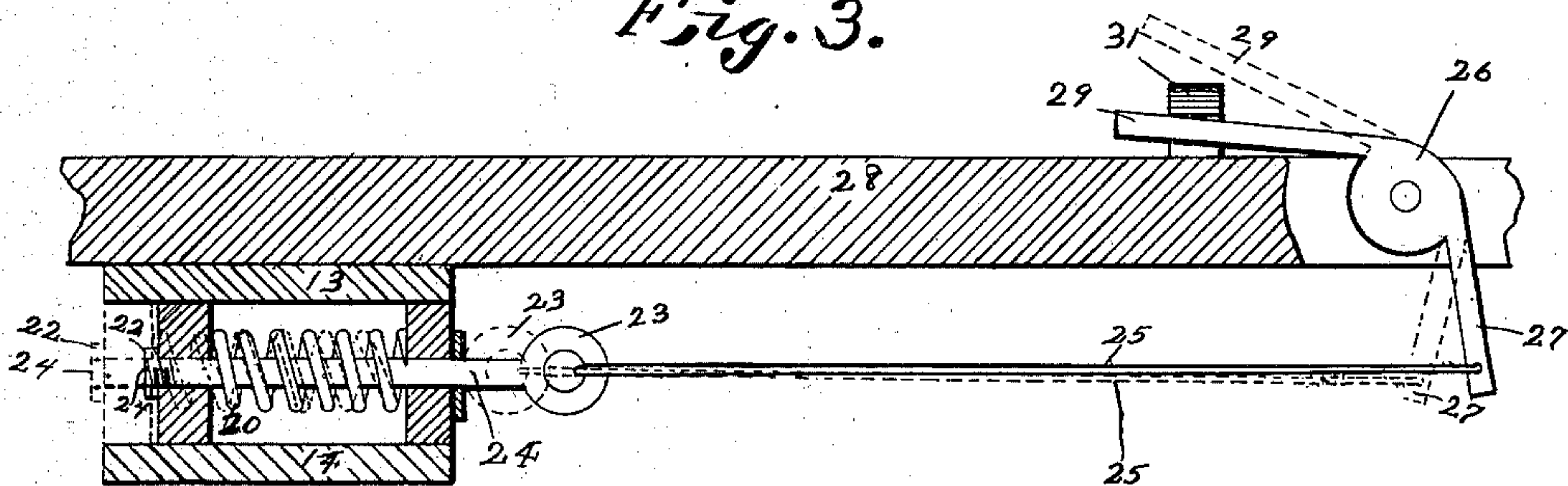


Fig. 5.

Fig. 3.



Witnesses:  
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## UNITED STATES PATENT OFFICE.

WILLIAM HERBERT PUTNAM, OF WAYNE, NEBRASKA.

## COUPLING FOR TRACTION-ENGINES.

SPECIFICATION forming part of Letters Patent No. 731,707, dated June 23, 1903.

Application filed October 11, 1902. Serial No. 126,954. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM HERBERT PUTNAM, a citizen of the United States, residing at Wayne, in the county of Wayne and State of Nebraska, have invented certain new and useful Improvements in Couplers for Traction-Engines, of which the following is a specification.

The object of my invention is to provide a simple, durable, and inexpensive coupling device for traction-engines which can be easily operated by grasping a ring which forms a portion of my coupler and by pulling the coupling-hook out, or they can be released by means of a foot-lever.

A further object is to provide means for holding the coupling-hook in position, so that the V-shaped portion at one end of my coupling device is entirely free from obstructions, and it is so arranged that the levers can be released and thus lock the coupling-hook around the coupling-pin, which is on the tender.

The most important object, however, of my invention is to provide means for operating my lever by the hand or by the foot of the operator.

My invention consists in certain details in the construction, arrangement, and combination of the various parts of the device whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 shows in perspective the complete coupling device attached to a traction-engine. This shows the rod which attaches the foot-lever broken away. Fig. 2 is a detail view of the same with the top portion of the coupling device removed. Fig. 3 shows a side elevation of a portion of a traction-engine platform with the means for operating the foot-lever which uncouples my device and also shows the device for holding the coupling-hook in a position which will not allow the hook to engage the coupling-pin. This view simply shows that portion of the coupling device which is mounted on the engine, and the main portion of the coupling device is not shown. Fig. 4 shows the complete coupling-pin, which is attached to the front end of the tender. This is a perspective view of this device, and Fig. 5 is a longitudinal sectional

view of the device shown in Fig. 4. This shows the top portion of the coupler.

Referring to the accompanying drawings, I have used the reference-numeral 10 to indicate the portion of the traction-engine tender to which my coupling device is to be attached and held firmly in place by means of the spring 11, which is mounted on the supporting-rod 12, forming the portion of my coupling device and which is so arranged as to hold the coupling device springingly in position relative to the traction-engine. Mounted at the rear of said supporting-rod 12 is the body portion of my coupling device, having an upper portion 13 and a lower portion 14 therein, said portions 13 and 14 being substantially parallel with each other and held in this position relative to each other by means of the supporting-rod 12 and the bracing-rods 15 and 16, said bracing-rods 15 and 16 being at the extreme rear end of my coupling device. The upper and lower parts 13 and 14 of my coupling device have each a V-shaped opening 17 near its rear end arranged so that a coupling-pin may be readily admitted into this V-shaped opening 17.

Pivotal mounted between the parts 13 and 14 of the body portion of my coupler is a coupling-hook 18, said coupling-hook being designed to pass into the V-shaped opening in such a way that when the coupling-pin is passed into the extreme forward end of the V-shaped opening the hooked portion 19 of the coupling-hook 18 will engage the rear side of the coupling-pin, and thus lock the coupling-pin between the apex of the V-shaped opening 17 and the forward part of the hooked portion 19 of the hook 18. The rear part of the hooked portion 19 is curved forwardly, so that when the pin is passed into the V-shaped opening and against the hooked portion 19 of the hook 18 the hook will be forced away from the pin and allow it to pass farther into the V-shaped opening 17, whereupon the hook 18 will be sprung back into place at the rear of the pin, which has pushed it aside by means of the spring 20, which is mounted between the forward projection 21 on the hook 18 and one side of the body portion of the coupling device. Extending longitudinally and on the interior of this spring and transversely of the coupling device is the rod 22, having an eye-



let 23 at its outer end and a nut 24 at its other end and outside of the projection 21 of the hook 18, through which this rod 22 also passes, so that as the rod 22 is pulled in one direction the hooked portion 19 of the hook 18 will be thrown out of the V-shaped portion of the coupling device, and thus uncouple the traction-engine from the tender to which it is attached.

Attached to the ring 23 and extending substantially at right angles to the body portion of the coupling device is the rod 25, said rod being attached to the bell-crank lever 26, one of the arms 27 of the said bell-crank lever 26 extending below the platform 28 of the traction-engine and the other arm 29 extending above said platform.

It will be seen that by pressing the end of the lever 29 downwardly toward the platform the hooked portion 19 of the hook 18 will be drawn out of the V-shaped opening 17, and thus uncouple the engine. This hook can be held in a position out of the V-shaped portion 17 by means of the retaining-hook 31, which is attached to the platform of the tender.

In Fig. 4 of the drawings I have provided the most preferable form of coupling-pin 32, which is attached between the metal plates 33 and 34, which are the forward ends of my tender 35. The spring 11 is mounted on the supporting-shaft 12 in the ordinary way, so that jolting of the tender and coupling device relative to the device will be obviated to a great extent. Attached outside of the portions 13 and 14 and through the hook 18 is the ring 36, designed to be grasped when the operator desires to uncouple the coupling device with his hand, and this ring is also designed to prevent the hook portion 19 of the hook 18 from moving to a position entirely between the portions 13 and 14.

If the operator desires to attach the tender to the engine by means of my coupling device, he simply has to draw the tender forwardly and throw the pin 34 into the V-shaped portion of my coupling device and against the hooked portion 19 of the hook 18. This will force the rear end of the hook 18 out of the V-shaped portion 17, and thus allow the pin to pass

into the extreme forward portion of this V-shaped portion. The hooked portion 19 will then spring back into place at the rear of the pin which has been passed into the V-shaped portion. Thus the coupling device will couple the engine to the tender. This course is assuming that my coupling device is attached to the engine in the way above designated. If it is desired to uncouple the engine from the tender, the operator may do it either by the foot-lever or by hand in the way above mentioned.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States therefor, is—

1. In a device of the class described, the combination with a traction-engine, of a coupling device attached to said traction-engine, a body portion in said coupling device, a coupling-hook pivotally attached to said body portion, a spring for maintaining the coupling-hook in a locked position, a ring attached to one end of said coupling-hook for uncoupling said hook and for limiting the horizontal movement of said hook in one direction, rods pivotally attached to the other end of said coupling-hook, a bell-crank lever attached to said traction-engine and to said rods, for the purposes stated.

2. In a device of the class described, the combination with a traction-engine, of a coupling device springingly attached to said traction-engine, a body portion in said coupling device having a V-shaped opening at its rear end, a coupling-hook pivotally attached to said body portion and the rear end of said hook being designed to pass into said V-shaped opening, a ring at one end of said coupling-hook, a rod attached to the other end of said coupling-hook, a bell-crank lever attached to the platform of said traction-engine and to said rod, a spring for holding said coupling-hook in position relative to said body portion, for the purposes stated.

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Witnesses:

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