

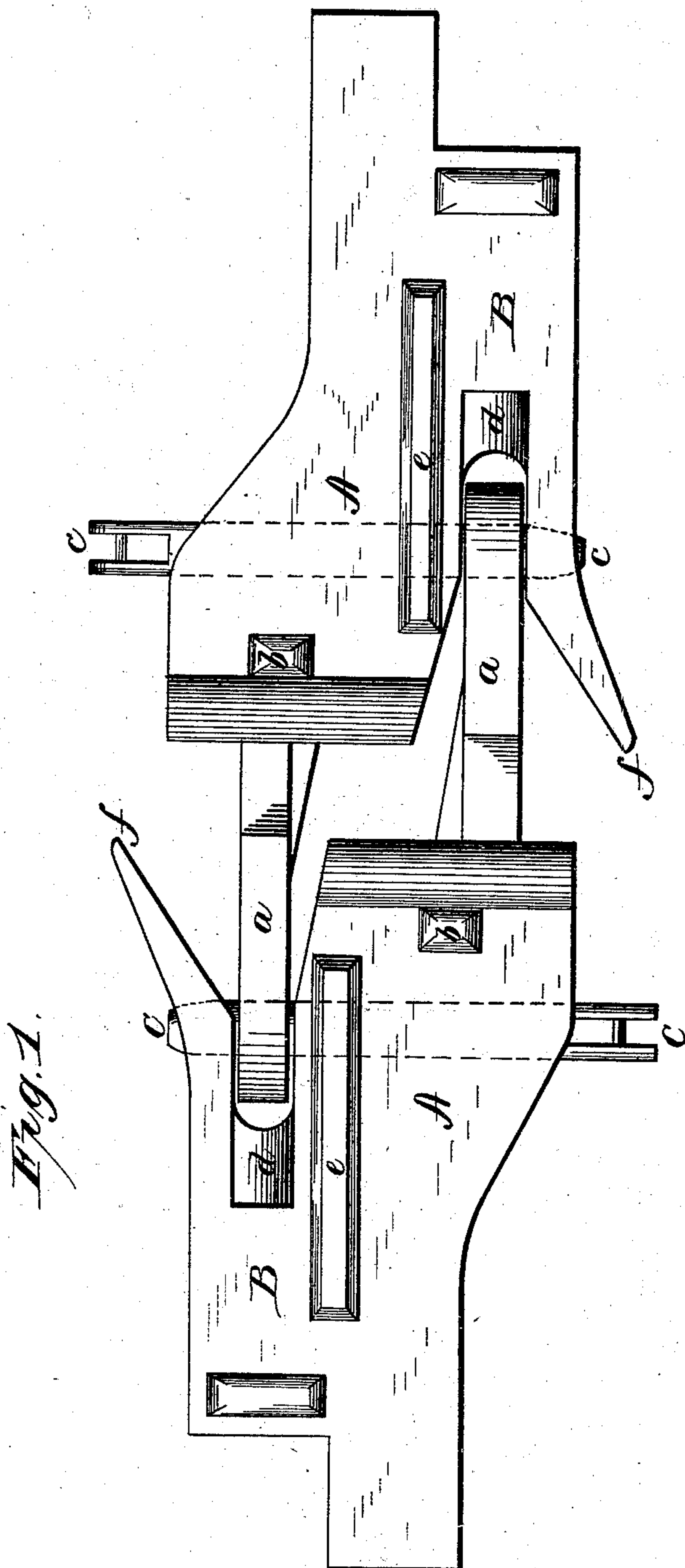
(No Model.)

3 Sheets—Sheet 1.

R. B. EUBANK, Jr.
Car-Coupling.

No. 229,241.

Patented June 29, 1880.



WITNESSES
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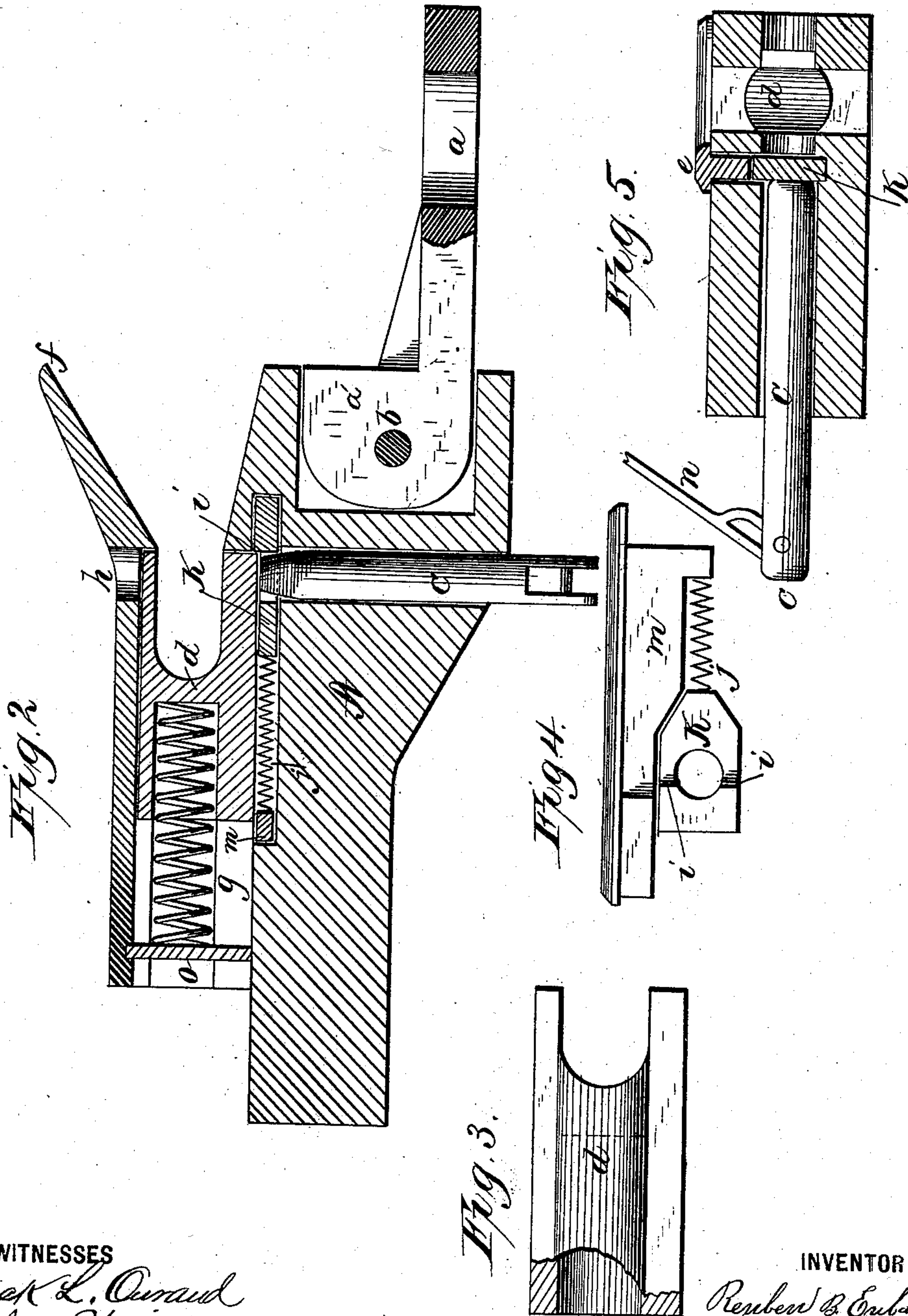
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3 Sheets—Sheet 2.

R. B. EUBANK, Jr.
Car-Coupling.

No. 229,241.

Patented June 29, 1880.



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(No Model.)

3 Sheets—Sheet 3.

R. B. EUBANK, Jr.
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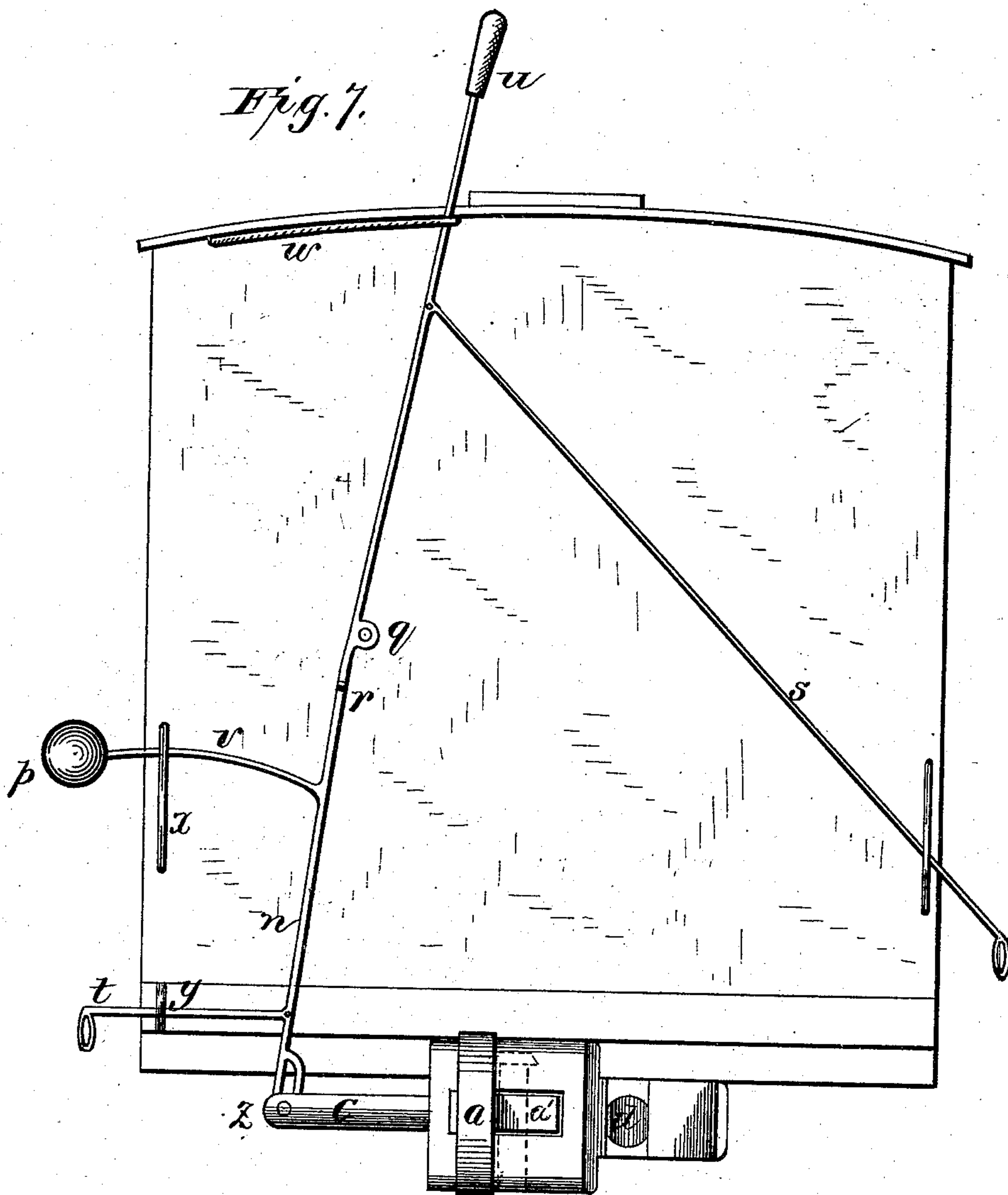
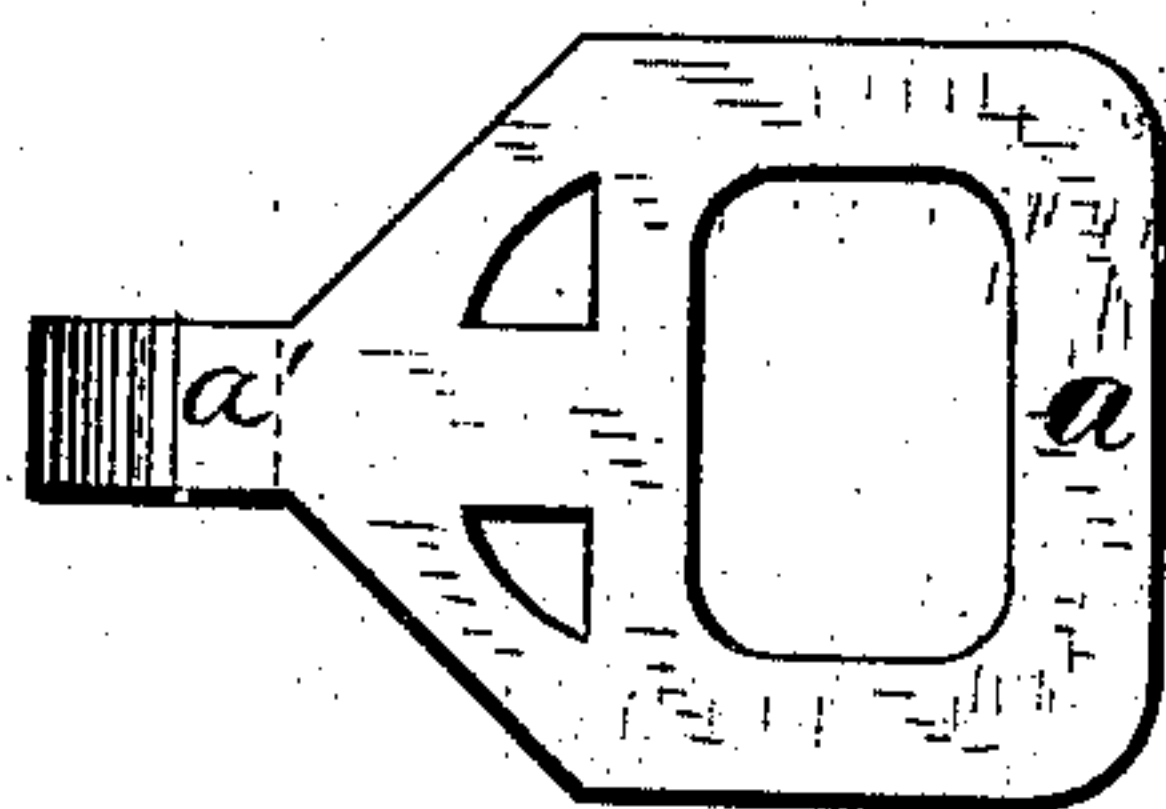


Fig. 6.



WITNESSES

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UNITED STATES PATENT OFFICE.

REUBEN B. EUBANK, JR., OF SLATER, MISSOURI.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 229,241, dated June 29, 1880.

Application filed April 16, 1880. (No model.)

To all whom it may concern:

Be it known that I, REUBEN B. EUBANK, Jr., of Slater, Saline county, Missouri, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

My invention relates to the combination of an automatic transverse coupling-bolt with a draw-head provided with a lateral flaring jaw, in conjunction with two links coupling vertically with a flaring jaw at one end and horizontally with a draw-head at the other. That end of the link which couples horizontally with the draw-head is provided with a single horizontal tongue adapted to the requirements of cars using other methods of coupling, and is not ordinarily to be uncoupled from its corresponding draw-head. The end of the link which couples vertically is coupled with the flaring jaw by means of the said automatic transverse coupling-bolt, as hereinafter explained.

The draw-head which I use does not differ materially in construction from that patented to Card and Stewart, only it is beveled on the side next to the flaring jaw, whereby the link is allowed to couple in the center of the opposite draw-head, or with the draw-head of any pin-and-link coupling, thus dispensing with additional links and coupling-pins.

The transverse coupling-bolt is made automatic in its operation by means of spring-actuated slides and a ball-weight, yet to be explained.

In the accompanying drawings, Figure 1 represents a top view of this method of coupling, with the ball-weight and uncoupling-lever detached from the transverse bolt. Figs. 2, 3, 4, and 5 represent the internal construction and operation of the automatic coupling arrangement; Fig. 6 the link, and Fig. 7 the adjustment of the ball-weight and uncoupling-lever to a freight-car.

Similar letters refer to similar parts in the several drawings.

In Fig. 1 A represents a draw-head constructed with a lateral flaring jaw, *f*, between which the link *a* couples vertically by means of the transverse bolt *c*. The link *a* couples with the draw-head A horizontally by means of the vertical bolt *b*. As before stated, this

bolt is not removed except for the purpose of attaching a car using the ordinary pin-and-link coupling. In that case one link only is used, and if that should be broken the ordinary link may be substituted, coupling by means of the bolt *b*. The spring-slide *d* operates, in conjunction with another spring-slide concealed in the box *e*, to accomplish the automatic coupling. These will be explained in another view.

Fig. 2 is a section of the draw-head, showing the mechanism of the automatic coupling.

The winged slide *d*, Fig. 3, U-shaped at one end for receiving the coupling-link, and cylindrical at the other for receiving the actuating-spring *g*, Fig. 2, closes the hole *h*, and while it is in that position the bolt *c* rests against it. In coupling, the slide *d* is sprung back, and the bolt *c*, by means of a ball-and-lever attachment, is forced through the hole *h*.

It is to be further observed that the slide *d*, working in the shoulder *i* of the spring-slide K, (seen better in Fig. 4,) carries the slide K to the position seen in Fig. 2. This slide K is attached to a block, *m*, by a spring, J, and inserted in a box, *e*, Fig. 5. In uncoupling, while the slide *d* is held back by contact with the link, as the bolt *c* is withdrawn, the slide K, by means of the spring *e*, is drawn back, so that the end of the bolt *c* rests against it. In this manner the bolt is locked, and when the cars are separated the slide *d* springs into position, carrying with it the slide K, while the bolt slips from the slide K and rests upon the slide *d*, as before described.

Fig. 7 represents the attachment of the automatic coupling arrangement to a freight-car.

The lever *n*, attached to the bolt *c* by the pin *z*, moves upon a pivot, *q*, and is held in place by the guide *w*, and may be moved from the top of the car by the handle *u*, or from the sides by the arms *s* and *t*. When coupled, the bolt *c* is held in position by the weight of the ball *p*, attached to the arm *v*, and held in place by the guide *x*.

The lever *n* has a hinge, *r*, allowing the lower part to move backward in such a manner as to break the usual jarring in coupling.

It is designed that a similar lever and ball-weight shall be used on passenger-cars, being attached to the platform; but the arms *s* and *t* will be left off, as unnecessary in such a case.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In combination with a vertical link-coupling between a draw-head and a lateral flaring jaw, the coupling-bolt *c*, spring-slide *d*, and spring-slide *K*, provided with the shoulder *i*, arranged and operating substantially as described.

2. In combination with the flaring jaw *f* and

beveled draw-head *A*, the link *a*, having the tongue *a'*.

3. In combination with the coupling device, the lever *n*, having joint *r*, and levers *s* and *t*, all substantially as set forth.

REUBEN B. EUBANK, JR.

Witnesses:

RUTLEDGE WILLSON,
J. J. DARLINGTON.