

(No Model.)

2 Sheets—Sheet 1.

L. SHOWALTER.
CAR COUPLING.

No. 388,792.

Patented Aug. 28, 1888.

Fig. 2.

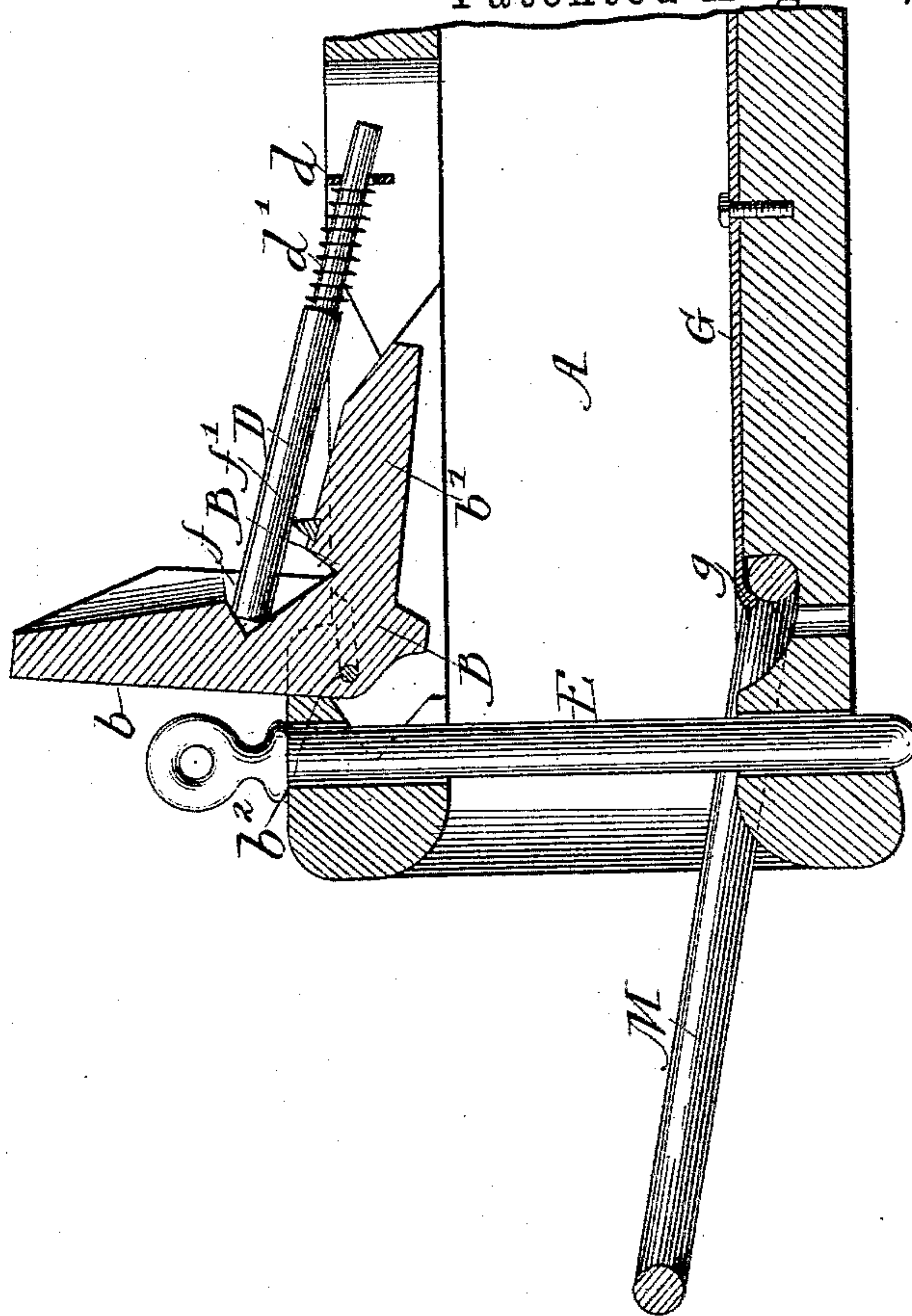
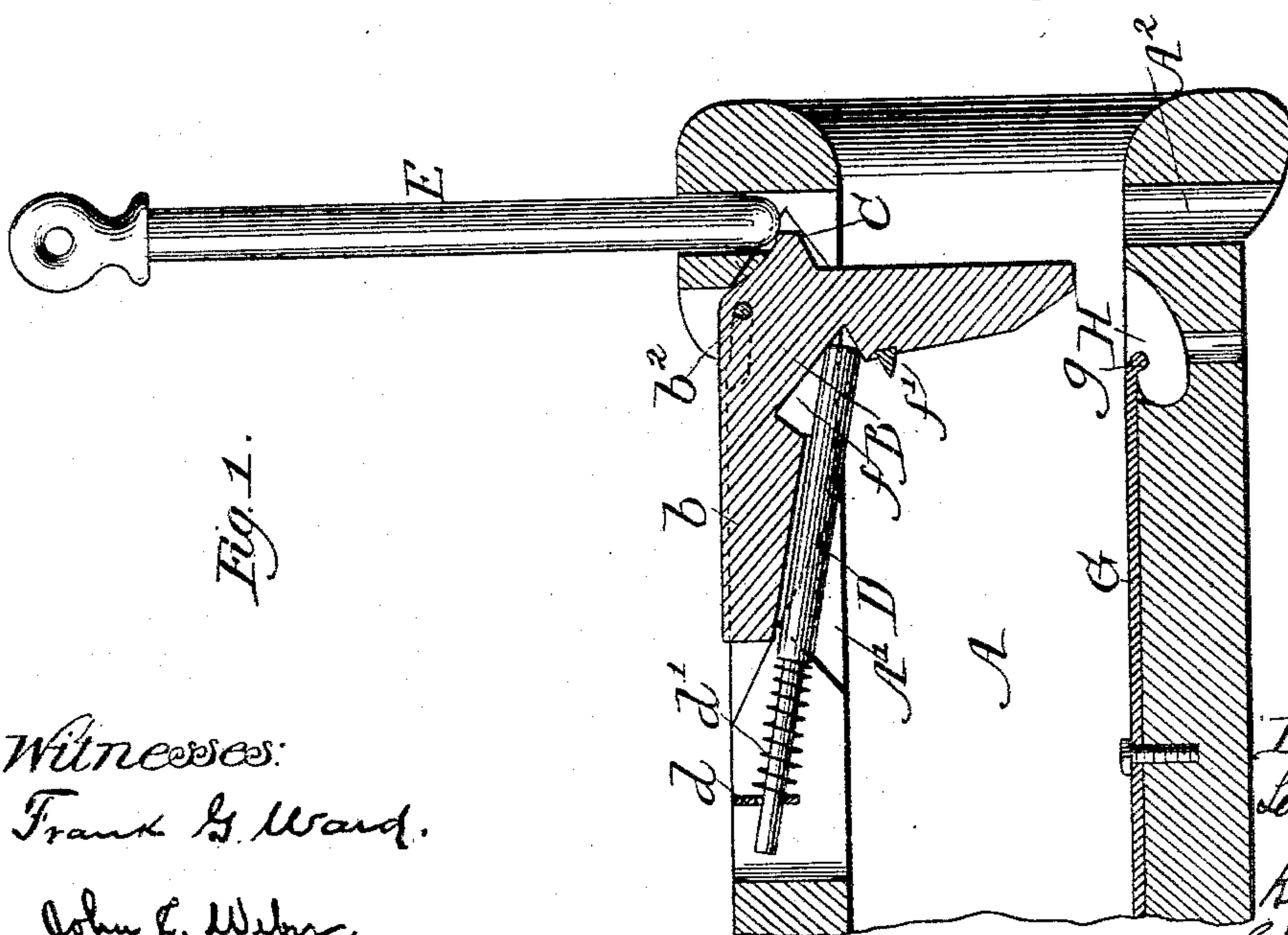


Fig. 1.



Witnesses:

Frank G. Ward.

John E. Wilson.

Inventor.
L. Showalter.

By his Attorneys
Gillson & Benjamin

(No Model.)

2 Sheets—Sheet 2.

L. SHOWALTER.

CAR COUPLING.

No. 388,792.

Patented Aug. 28, 1888.

Fig. 3.

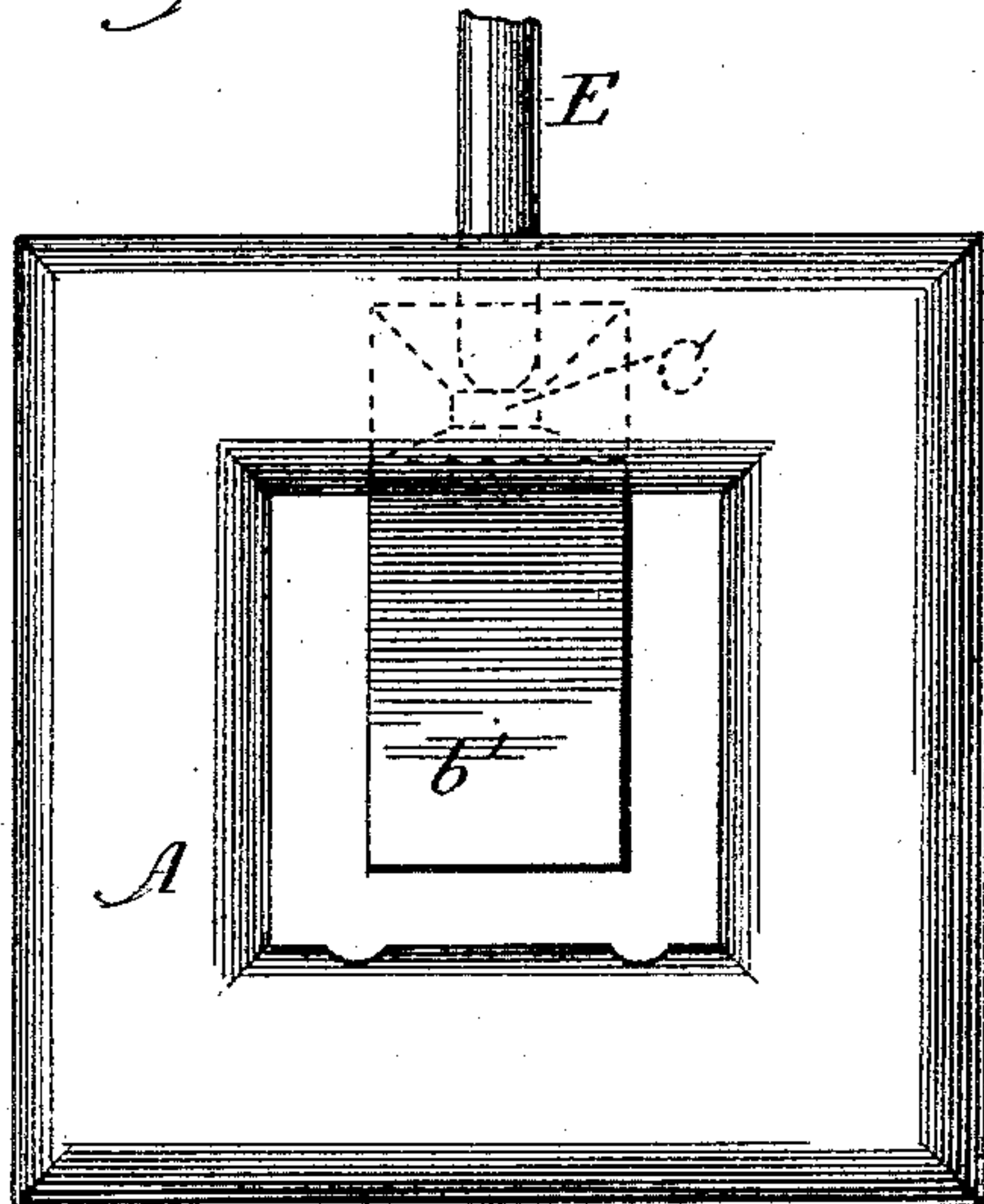
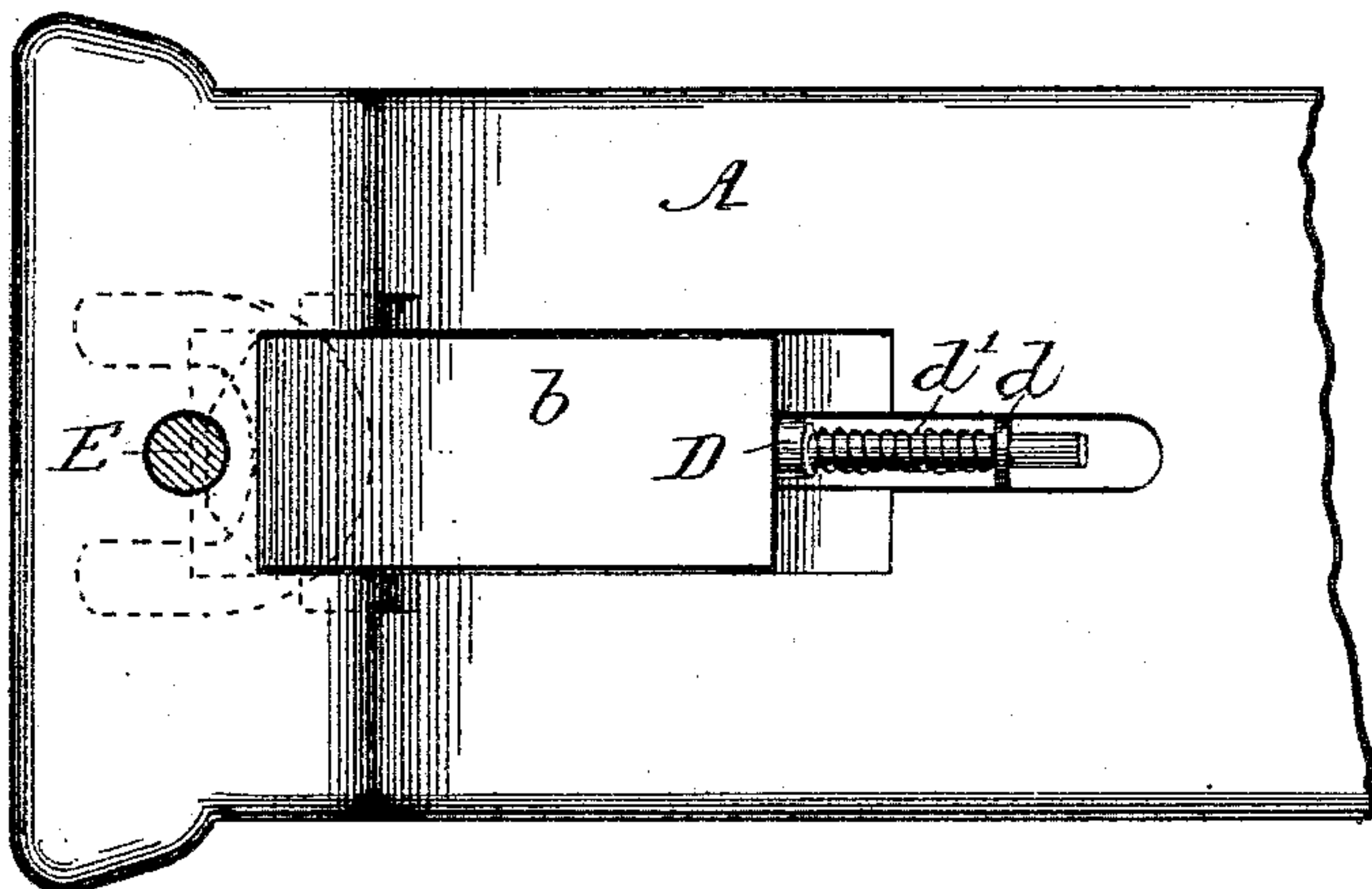


Fig. 4.



Witnesses:

Frank G. Ward.

John C. Weber.

Inventor:

Levi Showalter.

By Gillson Benjamin,
His attorneys.

UNITED STATES PATENT OFFICE.

LEVI SHOWALTER, OF BEETOWN, ASSIGNOR OF ONE-FOURTH TO REUBEN B. SHOWALTER, OF LANCASTER, WISCONSIN.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 388,792, dated August 28, 1888.

Application filed May 18, 1888. Serial No. 274,274. (No model.)

To all whom it may concern:

Be it known that I, LEVI SHOWALTER, a citizen of the United States, residing in the town of Beetown, county of Grant, and State of Wisconsin, have invented new and useful Improvements in Automatic Car-Couplings, of which the following is a full and exact description.

My invention relates to that class of car-couplings in which the ordinary link and pin are used; and it consists of devices for holding the link in position for coupling and for holding the pin in a partially-withdrawn position and automatically releasing it and permitting it to fall into place when the link enters the draw-head.

The object of my invention is to secure a certainty of action without the presence of the operator, thereby wholly removing the danger of accident.

In the accompanying drawings, which are made a part of this specification, Figure 1 shows a vertical section through the center of draw-head A, provided with my device, the pin being held in position for coupling. Fig. 2 is a similar view with the pin in its socket and the link adjusted for coupling. Fig. 3 represents an end view of the draw-head with the link removed and the pin adjusted for coupling. Fig. 4 shows a top view of the draw-head.

In the top of the draw-head A, within a suitable recess, A', back of the coupling-pin socket, a tumbling latch, B, having two arms, *b* and *b'*, set at right angles, is pivoted at *b*², so as to permit the arm *b'* to extend down across the mouth of the draw-head, as shown in Fig. 1, in which case the arm *b* would lie in the plane of the upper wall of the draw-head, or to permit the arm *b'* to be in the plane of the upper wall of the draw-head, as shown in Fig. 2, in which case the arm *b* extends in an upward direction.

In the angle of the latch B and extending laterally is an oblong pocket, *f*, having abrupt sides, which receives the end of the thrust-rod D. The opposite end of the rod D is held loosely within the eyelet *d*, fixed transversely within the recess A' in the same plane as the pivotal pin *b*², and upon the said rod is a spiral spring, *d'*, which reacts upon the eyelet *d* and

upon a suitable shoulder upon the rod D, so that it tends to force the said rod firmly against the latch B. When the latch B is in the position shown in Fig. 1, it is held there by the force of the spring *d'*, the end of the rod D being thrown to that end of the pocket which lies in the arm *b'*. In like manner, when the latch B is in the position shown in Fig. 2, the rod D, being thrown to the other end of the pocket *f*, holds it there. The inner surface of the arm *b* may be grooved laterally to accommodate the rod D when the latch B is thrown down. It will be found advisable to have a small ridge or striker, *f'*, extend across the inner face of the arm *b'* to insure the shifting of the rod D when the latch B is thrown up. The rearward end of the recess A' is so shaped as to form a shoulder to stop the arms *b* and *b'* as the latch B is changed in position.

Upon the outer face of the arm *b'*, and near the pivotal point *b*², is the toe C, of sufficient length to project within the socket A², the recess A' opening into said socket for its accommodation, so as to prevent the ingress of the coupling-pin E.

For convenience in adjusting the parts, the slots O may be made on each side of the recess A', extending forward into the thick flange of the draw-head and being open at their rearward ends. These slots receive the pivotal pin *b*², and it is seated at their inner ends, where it is securely held by the action of the spring *d'*.

Within the draw-head A and upon its lower side is placed the flat spring G, its inner end being securely fastened and the outer end projecting a short distance over the recess H in the lower part of the draw-head, immediately back of the socket A². This recess H is suitably shaped to receive the end of the link M, for the purpose of setting or adjusting it for coupling, as shown in Fig. 2, the link M being caught under the end of the spring G, the lug *g* at the end and on the under side of the said spring preventing its escape by the jarring of the car. There must be sufficient space between the end of the spring G and the socket A² to permit the escape of the link M after coupling. An opening should be made from the bottom of the recess H through the wall of the draw-head to allow the escape of dirt that may accumulate.

In use the coupling-link will be adjusted under the spring G in the draw-head of one of two cars to be coupled, as shown in Fig. 2. The coupling-pin will be adjusted in the other
5 draw-head, as shown in Figs. 1 and 3, by throwing down the latch *b* and placing the pin within the upper end of its socket and resting it upon the toe C. As the cars come together, the link strikes the arm *b'* and throws the latch
10 B up, thus releasing the coupling-pin, which immediately falls into its socket, passing through the link. As soon as the cars are separated in starting, the link is released from the spring G.

15 What I claim as new is—

1. The combination of the draw-head A, the latch B, having the toe C, the thrust-rod D, and the spring *d'*, substantially as and for the purposes described.

2. In a car-coupling, the spring G, in combination with the draw-head A, having the recess H, substantially as described.

3. In a car-coupling having the draw-head A, the combination of the latch B, having the pocket *f*, with the thrust-rod D, the spring *d'*,
25 and the eyelet *d*, substantially as and for the purposes described.

4. In a car-coupling, the tumbling latch B, in combination with the spring G, and the draw-head A, provided with the recess H, sub-
30 stantially as and for the purposes described.

LEVI SHOWALTER.

Witnesses:

S. H. TAYLOR,
JOHN G. CLARK.