

R. A. COWELL.
CAR COUPLING.

No. 107,008.

Patented Sept. 6, 1870.

Fig. 1.

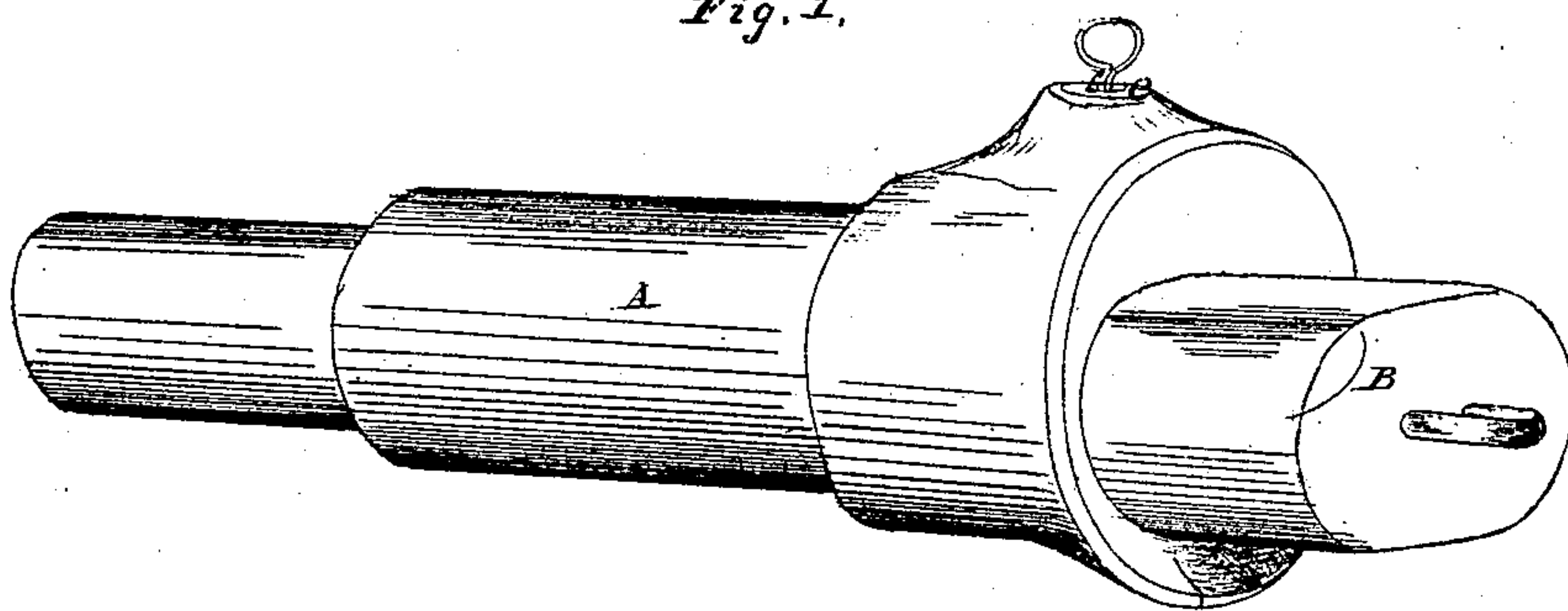
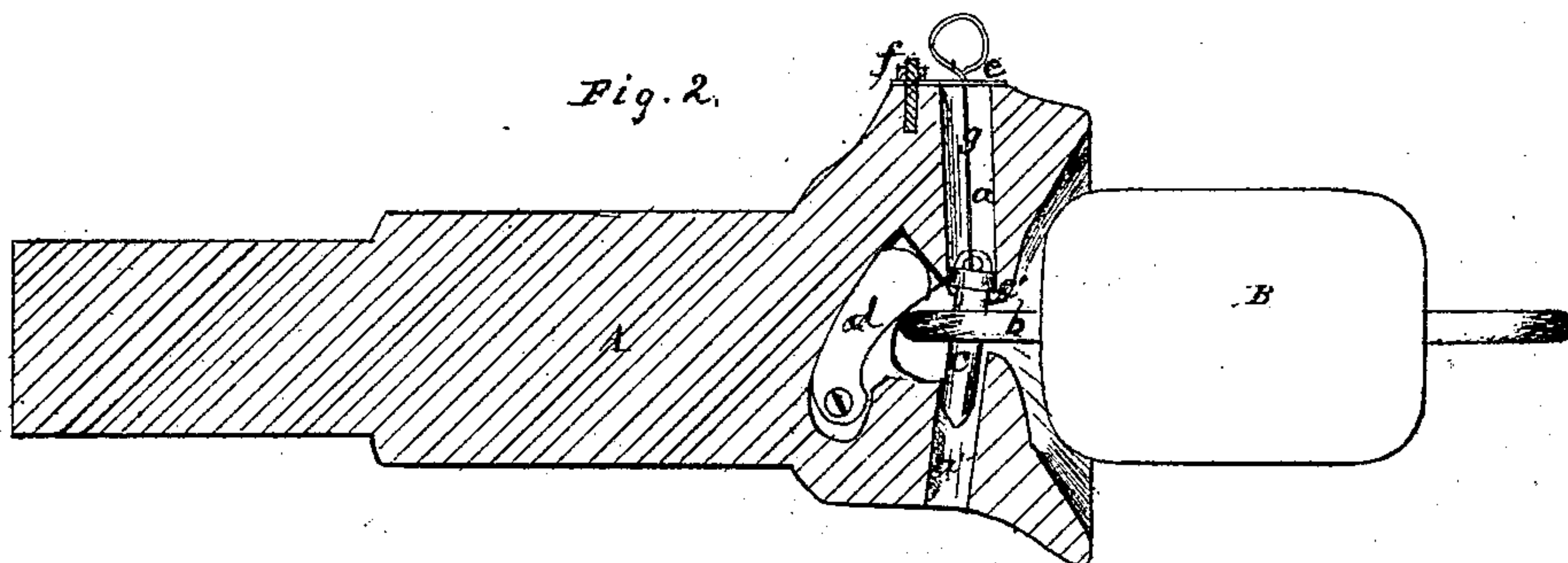


Fig. 2.



Witnesses.

Geo. W. Tibbitt

J. Holmes

Inventor.

R. A. Cowell

UNITED STATES PATENT OFFICE.

RENSSELAER A. COWELL, OF CLEVELAND, OHIO.

IMPROVED RAILWAY-CAR COUPLING.

Specification forming part of Letters Patent No. 107,008, dated September 6, 1870; antedated July 15, 1870

I, RENSSELAER A. COWELL, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain Improvements in Car-Couplings, of which the following is a specification:

The nature of this invention relates to certain improvements in railway-car couplings: and has for its object the production of a self-coupler, and also one which shall overcome the jarring and jerking by sudden starting of trains, and by the concussion of cars with one another, by the introduction of a rubber spring surrounding the link connecting the two draw-heads.

Figure 1 is a perspective view. Fig. 2 is a longitudinal section.

In the drawing, A represents a draw-head, or bumper, for railway-cars, having suitable open spaces cast in the head for the reception of the link *b*, coupling-pin *c*, and pallet *d*. The space or chamber *a*, in which the pin *c* plays, is as long as the pin, and is provided with a shoulder, *c'*, upon which the head of the pin rests, and below which it cannot pass. The top of the chamber *a* is covered with a cap, *e*, secured by a small bolt and nut, *f*. The cap *e* has a hole, *b'*, through which a rod or chain, *g*, passes, attached to the eye of the pin. The cap *e* prevents the pin being withdrawn from its chamber *a*, and, consequently cannot be misplaced or lost. The pallet *d* is pivoted at *d'*, and is operated by the link *b*. B is a rubber spring, through which the link *b* is passed, leaving a sufficient portion of the link projecting at either end to enter the draw-head.

The face of the draw-head against which the spring B bears is not made as flaring as it usually is in the ordinary draw-head, in order to give the spring a better bearing, the link entering just sufficient to allow the pin to drop through it into place. The link, when placed in one draw-head, by this means is held in a horizontal position, and is always ready and easily enters the opposite draw-head.

A coil spring of steel, embracing the link *b*,

may be used instead of the rubber, or an elliptic spring may be used instead of the rubber, for the same purpose, but I prefer the rubber, for the reason that it is simpler, more readily applied, and not liable to be broken or to get out of order.

The use of the spring B is to keep the draw-heads spread to the extent of the link, and to take up the jarring by the concussion of cars, thus rendering a train devoid of the annoyance of sudden jerking and jarring in starting and stopping trains. The spring yields sufficiently for cars running on a curve, and will also prevent cars jumping the track.

When the cars are to be uncoupled, the pin *c* is raised in its chamber *a*, and as soon as the link is withdrawn, the pallet *d* falls, and the pin rests upon it, ready to be again coupled. The link, raising the pallet, lets the pin fall into place.

It will be seen that the chamber *a'*, in the lower side of the draw-head, is turned back slightly in its downward direction. This is to prevent the pin being worked up by the link drawing upon it.

I am aware that the pallet for holding the pin up is not new; therefore, I do not claim it.

This car-coupling is particularly adapted to passenger-cars.

What I desire to secure by Letters Patent is—

1. The opening *a'*, when made at an angle to the passage *a*, as shown, to receive the coupling-pin and prevent its working up, as set forth.

2. The combination and arrangement of the draw-head A, inclined passages *a* and *a'*, pin *c*, shoulder *c'*, cap *e*, rod or chain *g*, and the pivoted pallet *d*, all constructed and operating as herein described.

R. A. COWELL.

Witnesses:

GEO. W. TIBBITTS,
GEO. HESTER.