

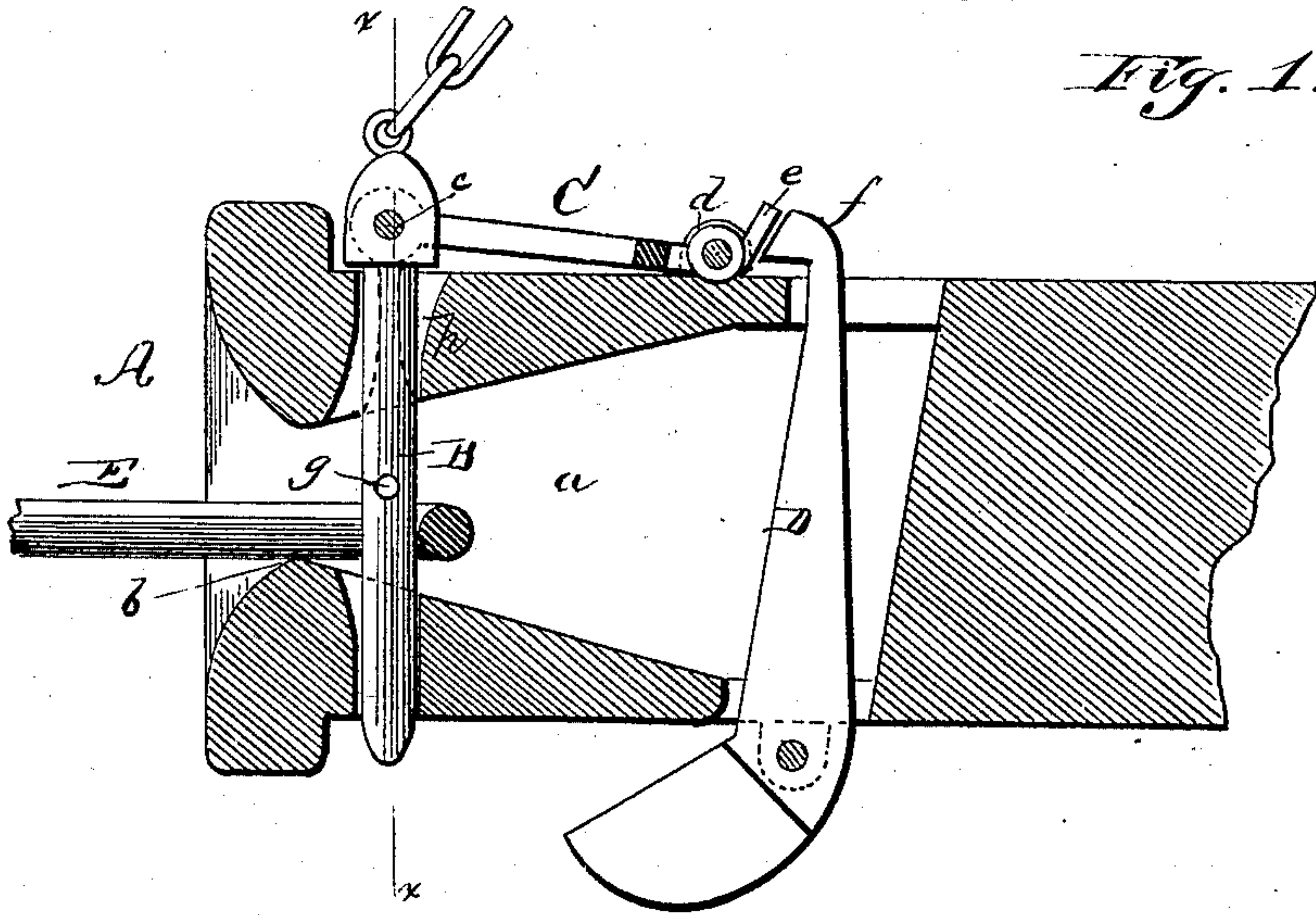
(No Model.)

E. W. GRANT.  
CAR COUPLING.

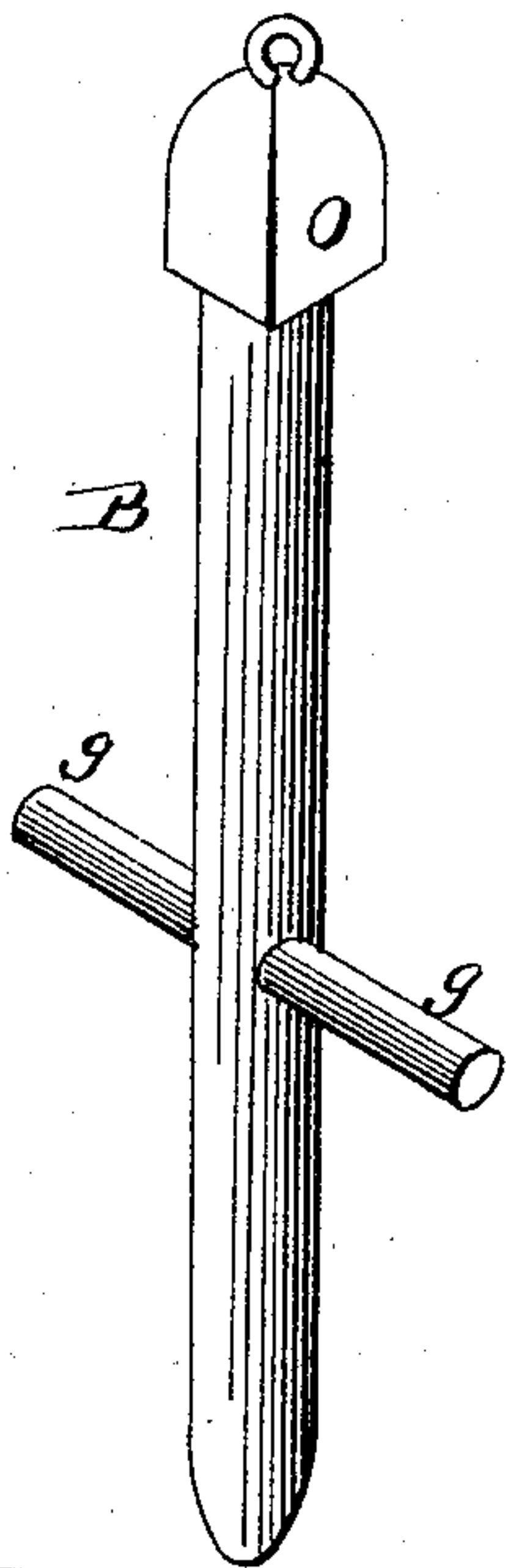
No. 268,219.

Patented Nov. 28, 1882.

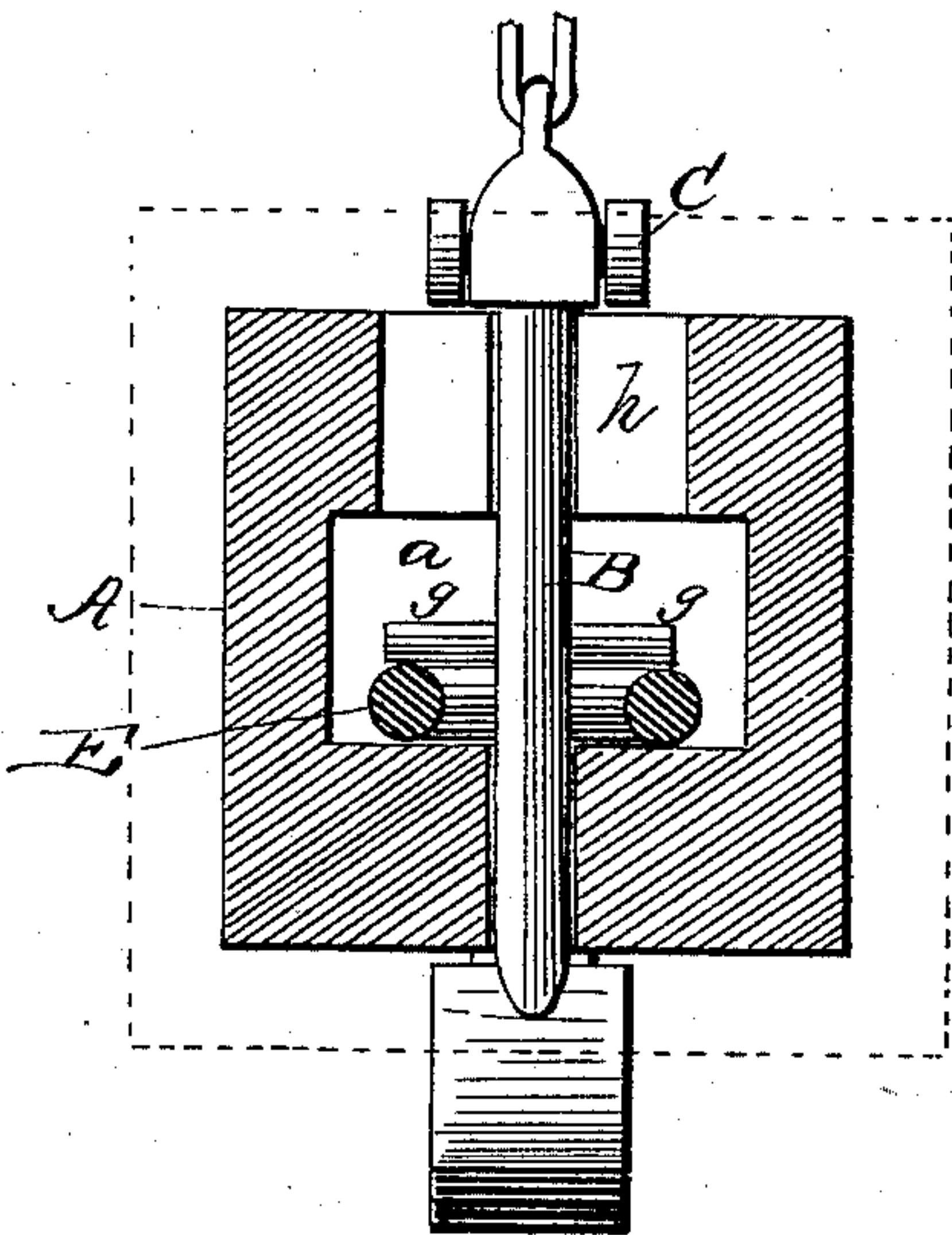
*Fig. 1.*



*Fig. 3.*



*Fig. 2.*



Witnesses  
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# UNITED STATES PATENT OFFICE.

EDWARD W. GRANT, OF YPSILANTI, MICHIGAN.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 268,219, dated November 28, 1882.

Application filed March 30, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD W. GRANT, of Ypsilanti, in the county of Washtenaw and State of Michigan, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention relates to an improvement in car-couplings wherein links and pins are used, the latter being combined with a gravitating catch, which will allow the pin to automatically engage the link when it is thrust into the draw-bar.

The object of my invention is to utilize the weight of a coupling-pin when it passes through the link as a means for balancing the link and holding it in a coupling position, as will be understood from the following description, when taken in connection with the annexed drawings, in which—

Figure 1 is a section taken vertically and longitudinally through the center of a draw-bar having my invention applied to it. Fig. 2 is a vertical cross-section taken through a draw-bar and a coupling-link in the plane indicated by dotted line *x x* on Fig. 1. Fig. 3 is a perspective view of the coupling-pin of Figs. 1 and 2.

A designates part of a draw-bar, having a backwardly-flaring chamber, *a*, in it, which terminates in a fulcrum-ridge or "knife-edge," *b*, at its front end or outwardly-flaring mouth.

B designates a coupling-pin, which is free to play up and down in openings made through the top and bottom portions of the draw-bar, near the enlarged end thereof. The enlarged head of the coupling-pin is connected by a transverse pivot, *c*, to the bifurcated end of a lever, C, which is pivoted between ears *d d* on the top of the draw-bar A. The rear up-turned tongue, *e*, of the lever C will be caught by the hooked end *f* of a gravitating catch, D, when the pin B is fully raised, thereby holding up this pin. When a link is thrust into the chamber *a* of the draw-bar its end will strike the gravitating catch D and release the

tongue of lever C from the hook *f*, thereby allowing the coupling-pin B to drop and effect a coupling or hold the link E, as shown in Figs. 1 and 2. The coupling-pin B should be made heavy enough to hold the coupling-link E in the horizontal position shown in Fig. 1, so that it will enter the draw-bar of a car when two cars come together. The pin of Figs. 1, 2, and 3 is provided with transverse arms *g g*, of sufficient length to rest upon the parallel bars of the link E, as shown in Fig. 2, thus balancing the link on the fulcrum *b* by the combined weight of the pin, the said arms, and the bifurcated portions of the lever C.

By the employment of an arm extended transversely from opposite sides of the pin B, as described and shown, the entire weight of this pin will rest upon the side bars of the link and effectually prevent it from tilting laterally.

It will be seen by reference to Figs. 1 and 2 that I make a curved slot, *h*, vertically through the upper part of the draw-head of sufficient size to allow the coupling-pin, with its radial arms *g g*, to be lifted entirely out of the draw-head. It will also be seen that the pin B is prevented from turning about its longitudinal axis by pivoting its head between the bifurcated end of the lever C. The said arms *g g* are thus positively held in a position for bearing on both bars of the link.

Having described my invention, I claim—

A coupling-pin for a car-coupling, having radial arms *g g* secured to it, in combination with a draw-head having a slot, *h*, which will allow the elevation of said pin, and a link, C, to which the pin is pivoted, which will prevent the latter turning about its longitudinal axis, all constructed and adapted to operate substantially in the manner and for the purposes described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

EDWARD W. GRANT.

Witnesses:

THOMAS KISSANE,  
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