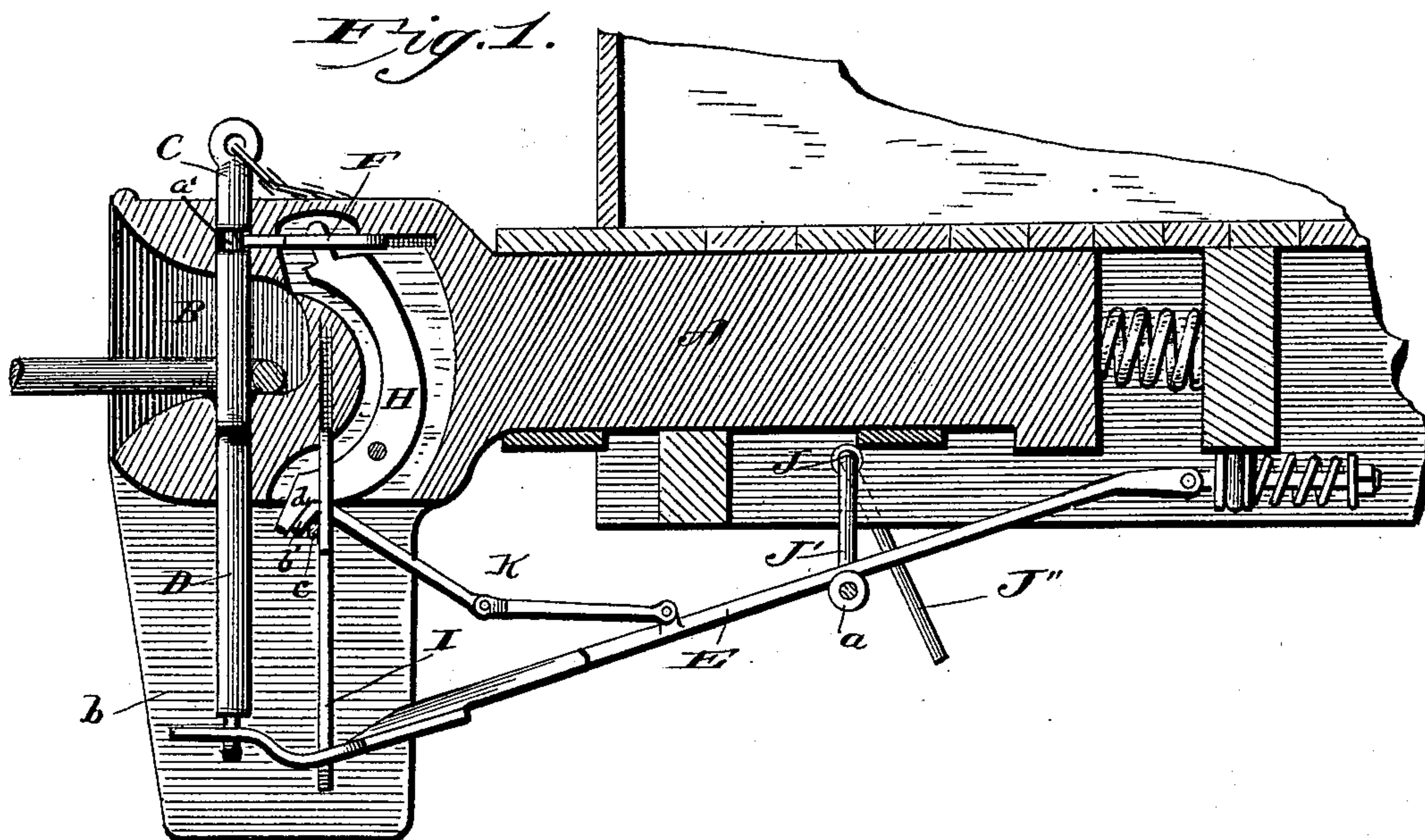


(No Model.)

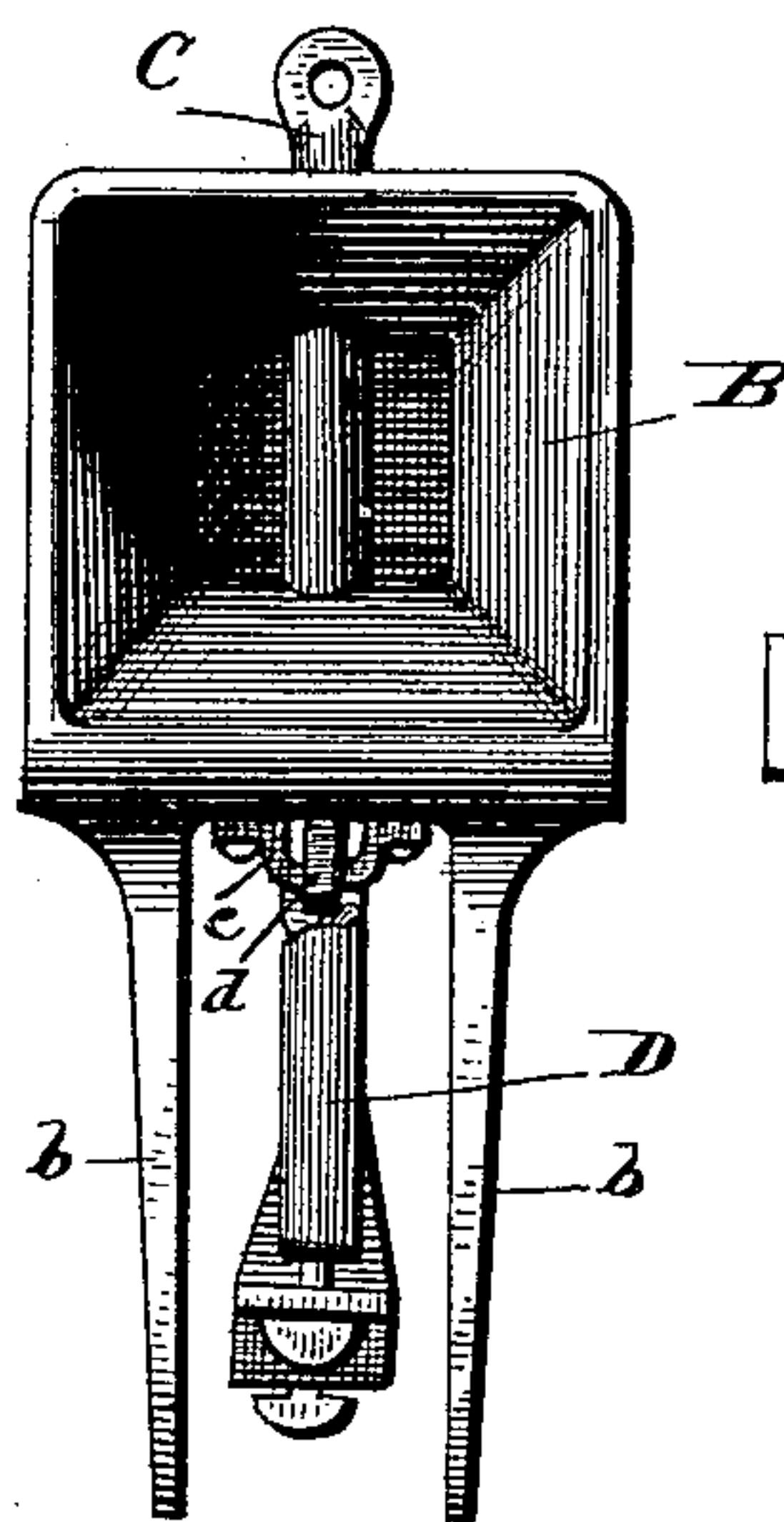
R. J. EDWARDS.  
CAR COUPLING.

No. 405,085.

Patented June 11, 1889.



*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses  
*Wm. S. Finch Jr.*  
*C. H. Davis*

Inventor  
*Richard J. Edwards*  
By *his* Attorney  
*G. W. Alexander*



# UNITED STATES PATENT OFFICE.

RICHARD J. EDWARDS, OF GALENA, ILLINOIS.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 405,085, dated June 11, 1889.

Application filed March 14, 1889. Serial No. 303,210. (No model.)

*To all whom it may concern:*

Be it known that I, RICHARD J. EDWARDS, a citizen of the United States, residing at Galena, in the county of Jo Daviess and State of Illinois, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 represents a vertical longitudinal sectional view of my improved car-coupling complete; Fig. 2, an end elevation of the draw-head; Fig. 3, a detail plan of the forward end of the pivoted operating-lever, and Fig. 4 a detail plan of the sliding dog.

This invention has relation more particularly to that class of car-couplings covered by a patent issued to me on the 17th day of April, 1888, and numbered 381,349; and it has for its object, essentially, to improve the general construction of such couplings, and thereby render them more effectual in use, as will be more fully hereinafter specified.

In the drawings annexed, the letter A designates the draw-bar, provided with the draw-head B; C, the upper coupling-pin attached to the draw-head by means of a chain; D, the lower coupling or ejecting pin inserted in the lower pin-aperture in the draw-head and supported and operated by means of the pivoted lever E; F, the sliding dog in a recess in the draw-head immediately back of the upper coupling-pin; H, the pivoted lever for operating the said sliding dog, this lever H being located in a vertical recess immediately back of the mouth of the draw-head, so as to be out of the way of the entering link; I, the depending gravitating rod hung upon a forward projection of the said lever H and having its lower end inserted removably in a slot in the forward end of the lever E, and J the operating-shaft journaled in the beams of the car and provided with a crank-arm J', to operate the said lever E, and operating-handles J'' at its ends. These parts are constructed and operated in substantially the same manner as in my former patent, and a more minute description thereof is deemed unnecessary. There are, however, a few important points of difference, which will now be pointed out.

In this device the sliding dog is not operated automatically to drop the upper coup-

ling-pin, as in my former coupling; but it is operated by hand, the lever H being placed back in a recess in the draw-head out of the way of the entering link. I prefer this construction, inasmuch as it will preclude the possibility of the lever becoming broken or disarranged in any way. In the present case I also place on the crank-arm J' a small grooved anti-friction roller *a* to facilitate the movements of the contacting parts and enable the lever to be more steadily elevated. I also provide the under side of the draw-head with depending guards *b b* to protect the lower coupling-pin and gravitating rod and lever E, as shown.

Another essential object of the present invention is to provide simple and effectual means for preventing the upper coupling-pin from accidentally jumping out of the draw-head while the cars are in motion, and also to provide simple means for more readily dropping the upper coupling-pin when desired. I prevent the pin from jumping out of the draw-head by providing it with a recess *a'* near its upper end for the reception of the forward end of the sliding dog F. When the pin is dropped into place, the forward end of the dog automatically enters the recess in the pin, the dog being kept normally pressed forward. To withdraw the dog from the recess *a'* in the upper pin, and also to withdraw the dog from under the pin to permit the same to drop, I pivotally attach to the lever E a jointed rod K, provided with a hook portion *b'* at its forward end, this hooked end being held up to the bottom of the draw-head by means of a bracket or plate *c*, secured to the bottom of the draw-head. The hook *b'* prevents the rod K from being withdrawn from the bracket *c*, as is evident. The forward end of the rod K rests against a downward extension *d* of the pivoted lever H and passes through the vertical slot in the gravitating rod I, as clearly shown in Fig. 1.

When the lever E is elevated by means of the crank-shaft J, the sliding dog F, through the medium of the jointed rod K and lever H, will be withdrawn from the recess in the pin, leaving the latter free to be ejected by the lower ejecting-pin. It will also be observed that when the dog F is employed to support the coupling-pin the dog may be drawn back and



the pin allowed to fall by a slight upward movement of the lever E.

I do not claim anything in this application claimed and covered in my patent, No. 400,759, issued April 2, 1889.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A drawhead having cast integral with it depending ears *b b*, substantially as described.

2. The combination, with the draw-bar and draw-head, of the coupling and ejecting pins, the pivoted lever E, the crank-shaft provided with a crank-arm *J'*, and an anti-friction roller journaled on this crank-arm, as described.

3. The combination, with the draw-head, of the coupling-pin, the sliding dog F, the lever H, pivoted in a recess back of the mouth of the draw-head, and means for operating this lever H, substantially as described.

4. The combination, with the draw-head, of the coupling and ejecting pins, the pivoted lever E, the dog F, and lever H, and a rod K, pivotally connected to lever E and adapted to operate the said lever H, substantially as described.

5. The combination, with the draw-head, of the coupling and ejecting pins, a pivoted lever E, connected to ejecting-pin, a sliding dog F, and pivoted lever H, the latter being provided with an extension *d*, a jointed rod K, connected to the lever E and adapted to impinge against said extension *d*, and a bracket, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

RICHARD J. EDWARDS.

Witnesses:

JOHN M. LEEKLEY,  
JAS. S. BAUME.