

(No Model.)

J. E. SMITH.  
Car Coupling.

No. 238,063.

Patented Feb. 22, 1881.

Fig. 1.

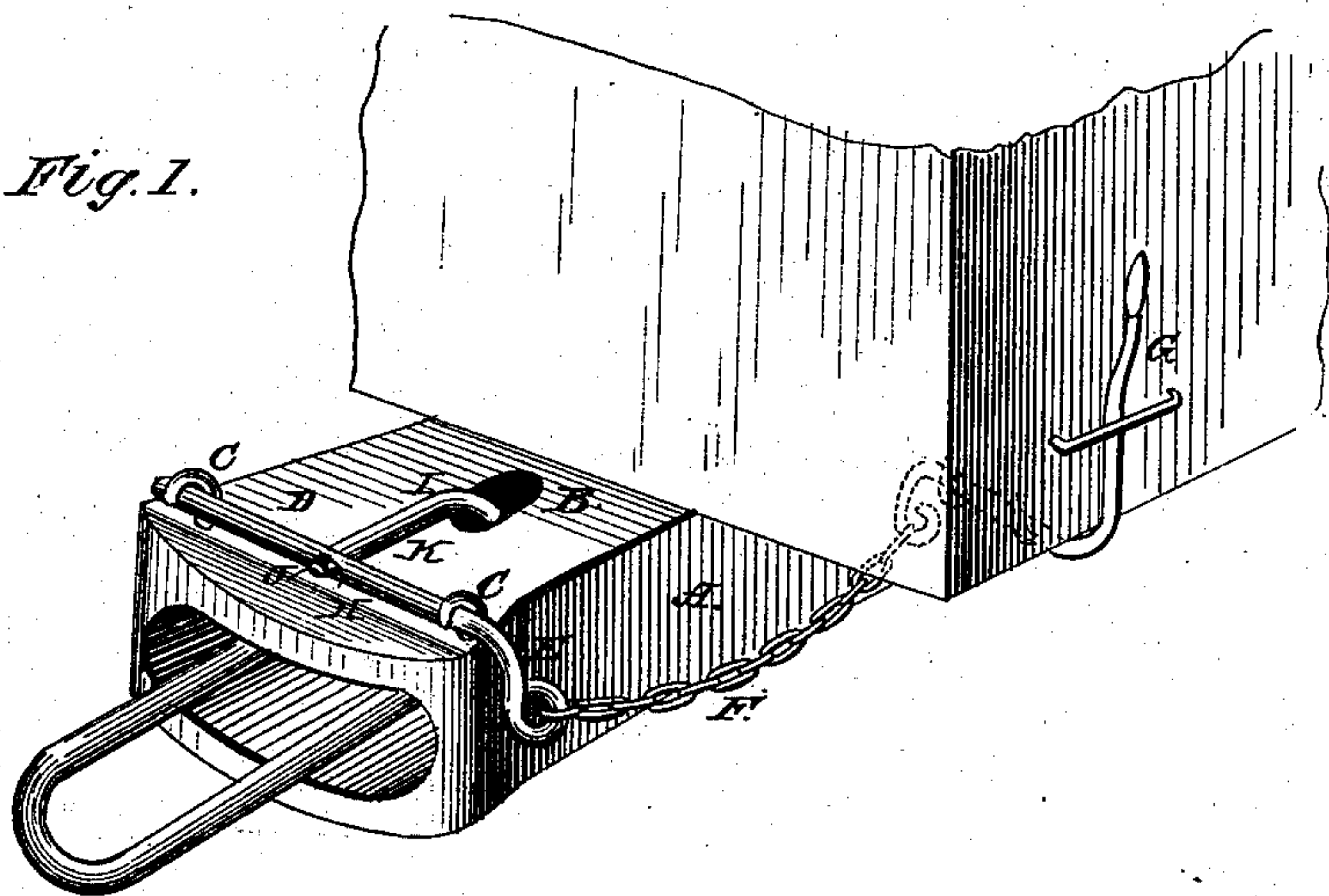


Fig. 2.

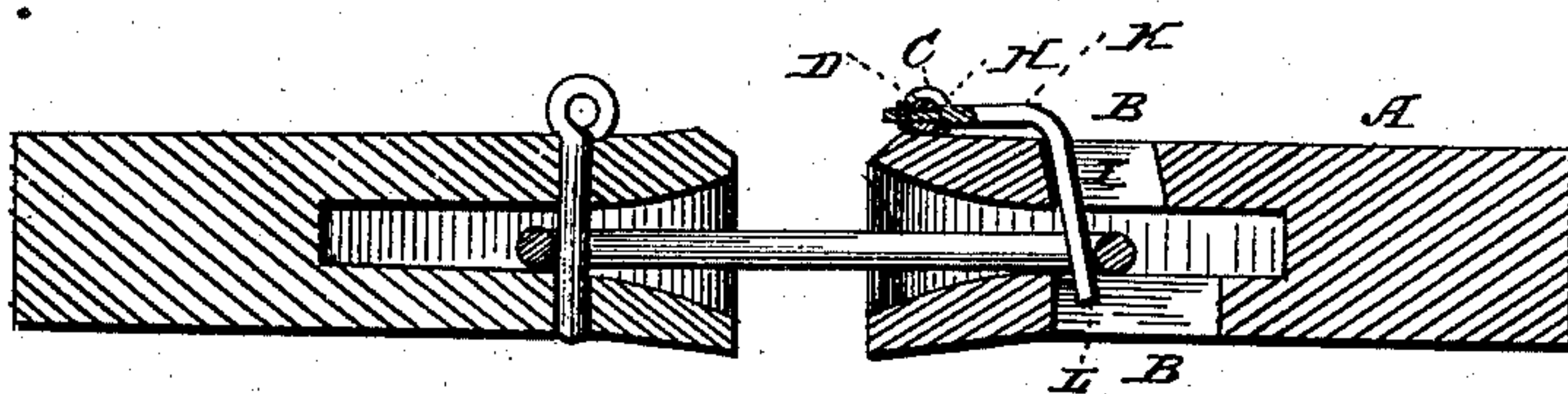


Fig. 3.

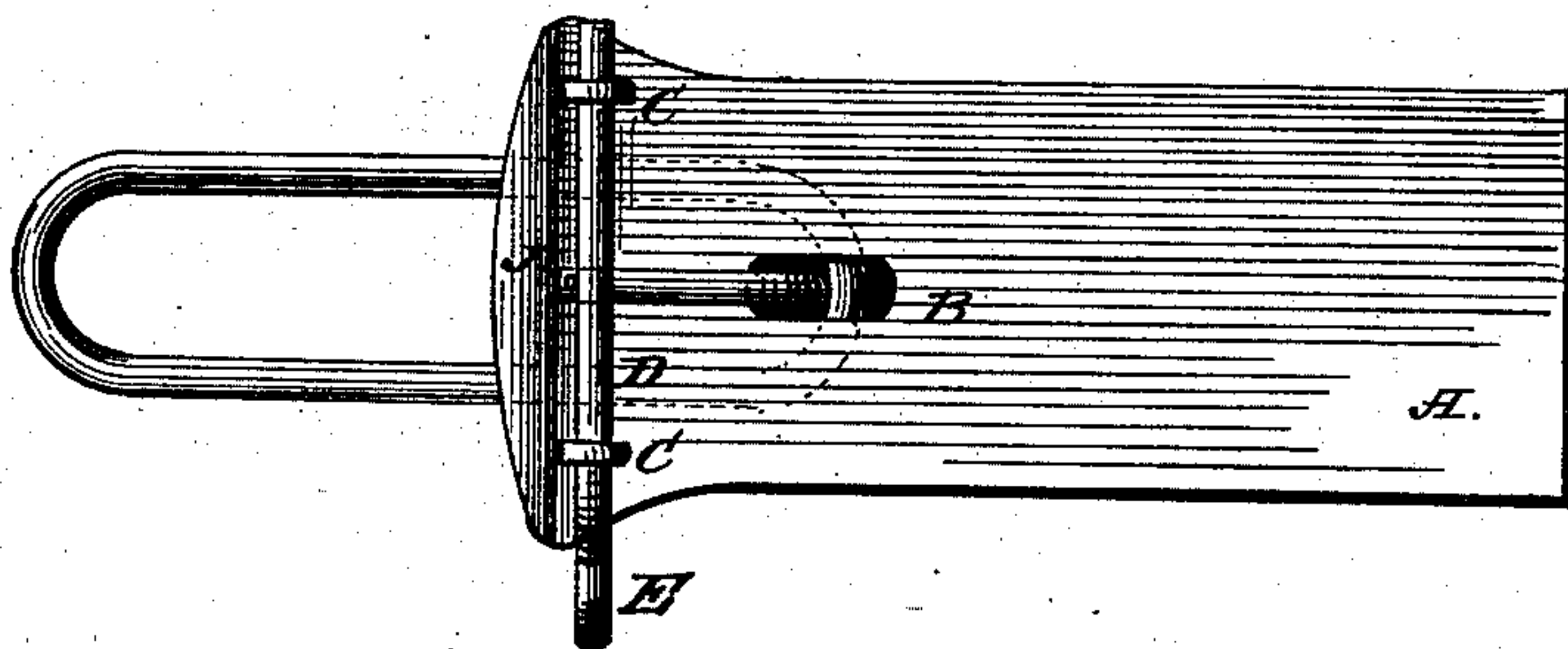
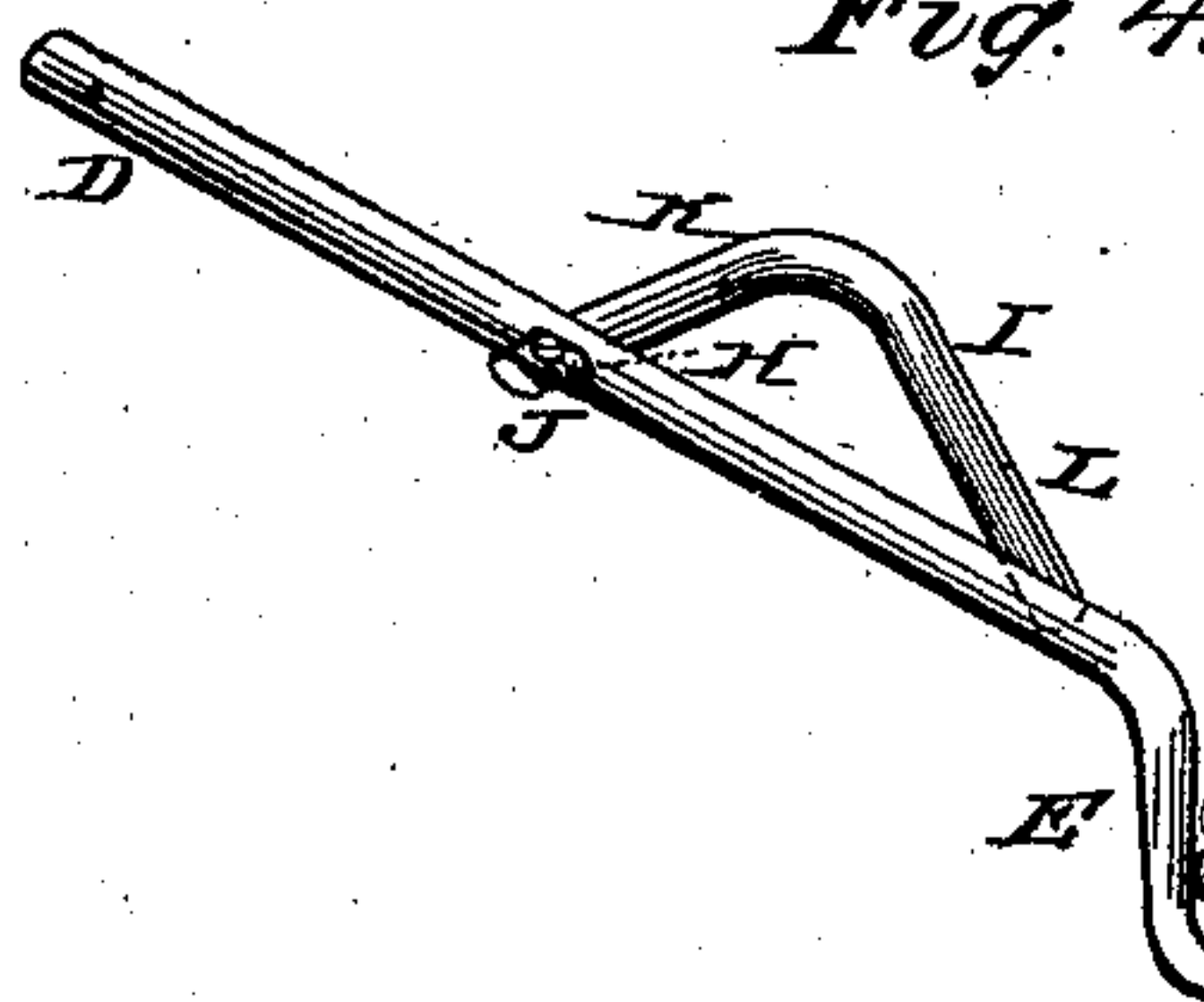


Fig. 4.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

JAMES E. SMITH, OF WILKESBARRE, PENNSYLVANIA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 238,063, dated February 22, 1881.

Application filed January 8, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES E. SMITH, of Wilkesbarre, in the county of Luzerne and State of Pennsylvania, have invented certain  
5 new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the  
10 same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to car-couplings; and it consists in certain improvements in the construction of the same, which will be herein-  
15 after fully described, and particularly pointed out in the claim.

In the drawings hereto annexed, Figure 1 is a perspective view. Fig. 2 is a longitudinal  
20 sectional view of my improved coupling, showing the same coupled to an ordinary pin-and-link draw-head. Fig. 3 is a top view; and Fig. 4 is a detail view.

Corresponding parts in the several figures  
25 are denoted by like letters of reference.

In the drawings, A represents the draw-head of my improved coupling, which is constructed in all essential particulars like the  
30 pin-and-link draw-heads now universally used, with the single exception that, instead of being formed with perforations for the reception of the pin, it is provided with longitudinal slots B B.

Upon the upper side of the draw-head, near  
35 the front edge, are formed or secured eyes or boxes C, for a transverse shaft, D, provided at one end with a crank-arm, E, connected by a chain, F, or in any other suitable manner, with a lever, G, pivoted to the side of the car, and  
40 through the medium of which the cars may be uncoupled.

The shaft D is provided with a transverse perforation, H, for the reception of the coupling-pin I, which is secured in place by means  
45 of a key, pin, or other suitable fastening, J. The coupling-pin is angular in shape, consisting of an arm, K, which in practice rests on top of the draw-head, and a body, L, which passes through the slots in the same and assumes in coupling a vertical position.  
50

By reference to the drawings hereto annexed, taken in connection with the foregoing description, the operation of my invention will be readily understood.

When the link from the draw-head of the  
55 adjoining car enters my improved draw-head the pin I is pushed back until the link has passed, when it drops down, thus completing the coupling automatically and without assistance. In uncoupling the lever G is operated  
60 to raise the pin until the center of gravity is thrown forward of the shaft D, thus retaining it in an elevated position while the link is being withdrawn from the draw-head.

It will be observed that my improved coupling is capable of being used with cars having  
65 the ordinary pin-and-link coupling without being changed or altered in any respect. It will also be seen that by simply slotting the draw-heads now used with pin and link and  
70 providing them with bearings for the shaft D they may be provided with my improvement.

In the event of loss of or injury to either the pin I or the shaft G, either part may be  
75 readily detached by removing the key or fastening J, and a new one substituted.

I am aware that a slotted draw-head having a transverse pivoted bar on the upper side thereof, provided with an angular locking-pin  
80 rigidly secured thereto, is common in car-couplings, and such I do not wish to be understood as claiming, broadly, as of my invention.

Having thus described my invention, I claim and desire to secure by Letters Patent  
85 of the United States--

As an improvement in car-couplings, the combination of the longitudinally-slotted draw-head A, having eyes or bearings C, shaft D, having crank E, and detachable angular pin I, lever G, and chain F, or its equivalent, all  
90 arranged and operating substantially as and for the purpose herein shown and specified.

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

JAMES E. SMITH.

Witnesses:

J. R. LITTELL,  
C. K. ALLEN.