

(No Model.)

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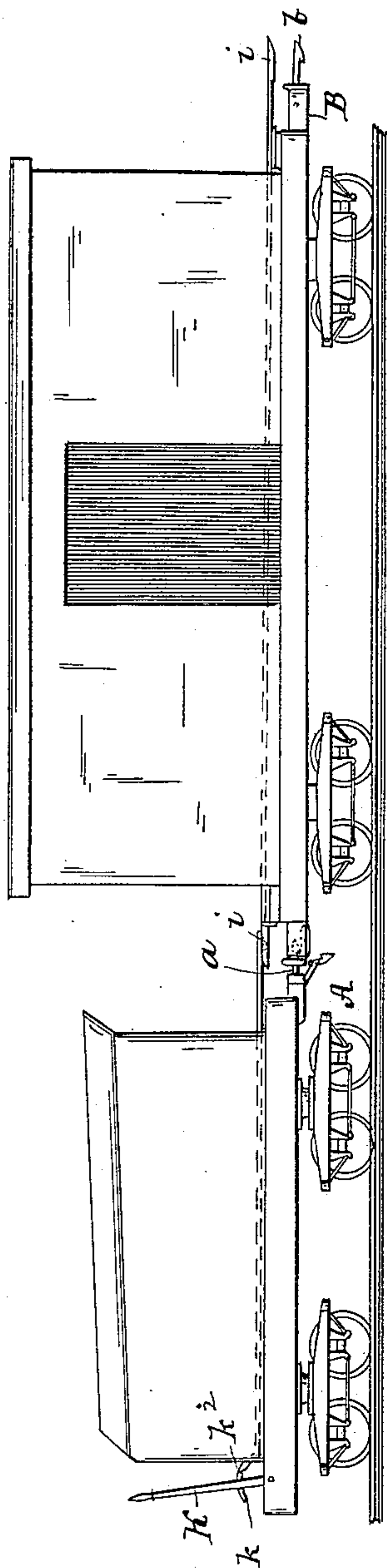
D. McC. HARRIS.

CAR COUPLING.

No. 334,169.

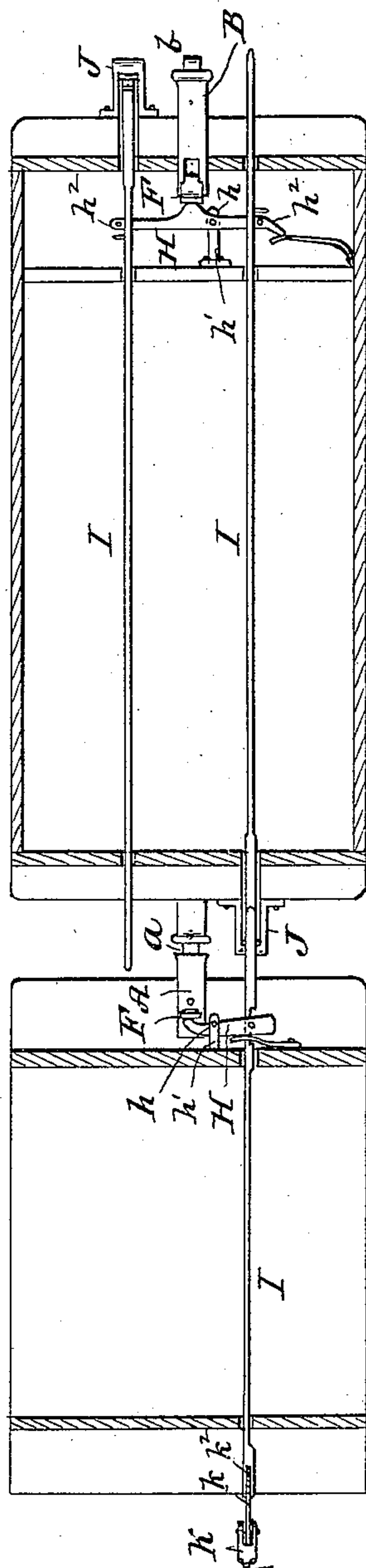
Patented Jan. 12, 1886.

Fig. 1.



Witnesses  
Samuel R. Turner  
A. Parker

Fig. 2.



Inventor  
David McC. Harris  
By R. S. V. A. Lacey  
Attys

(No Model.)

2 Sheets—Sheet 2.

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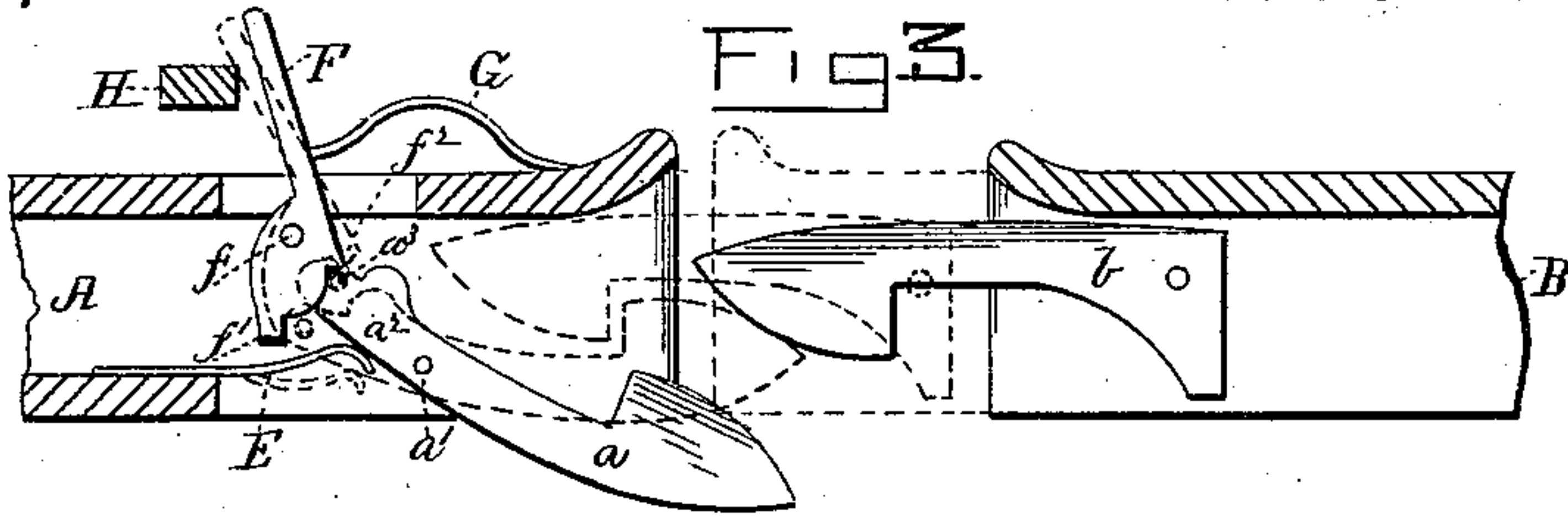


Fig. 3.

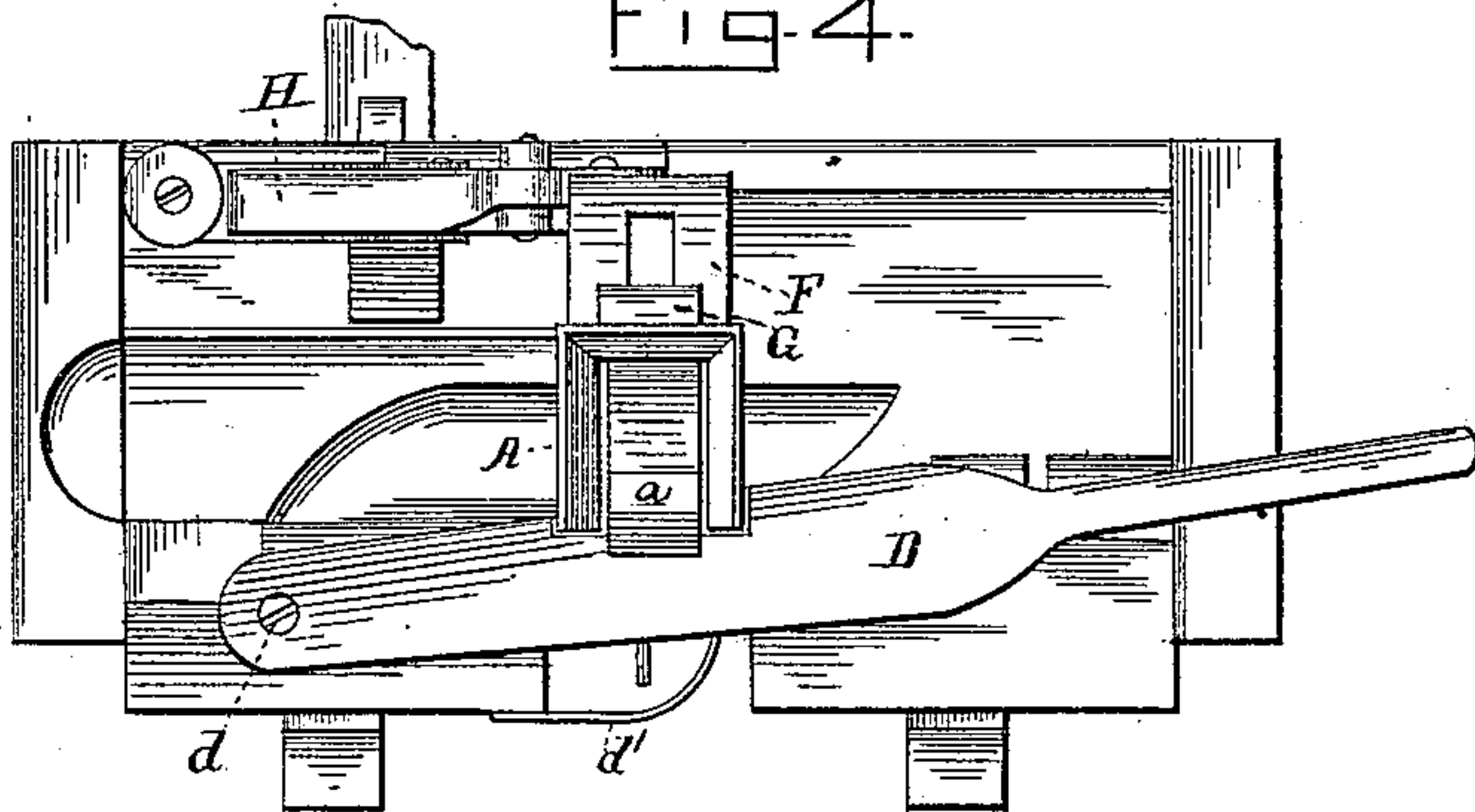


Fig. 4.

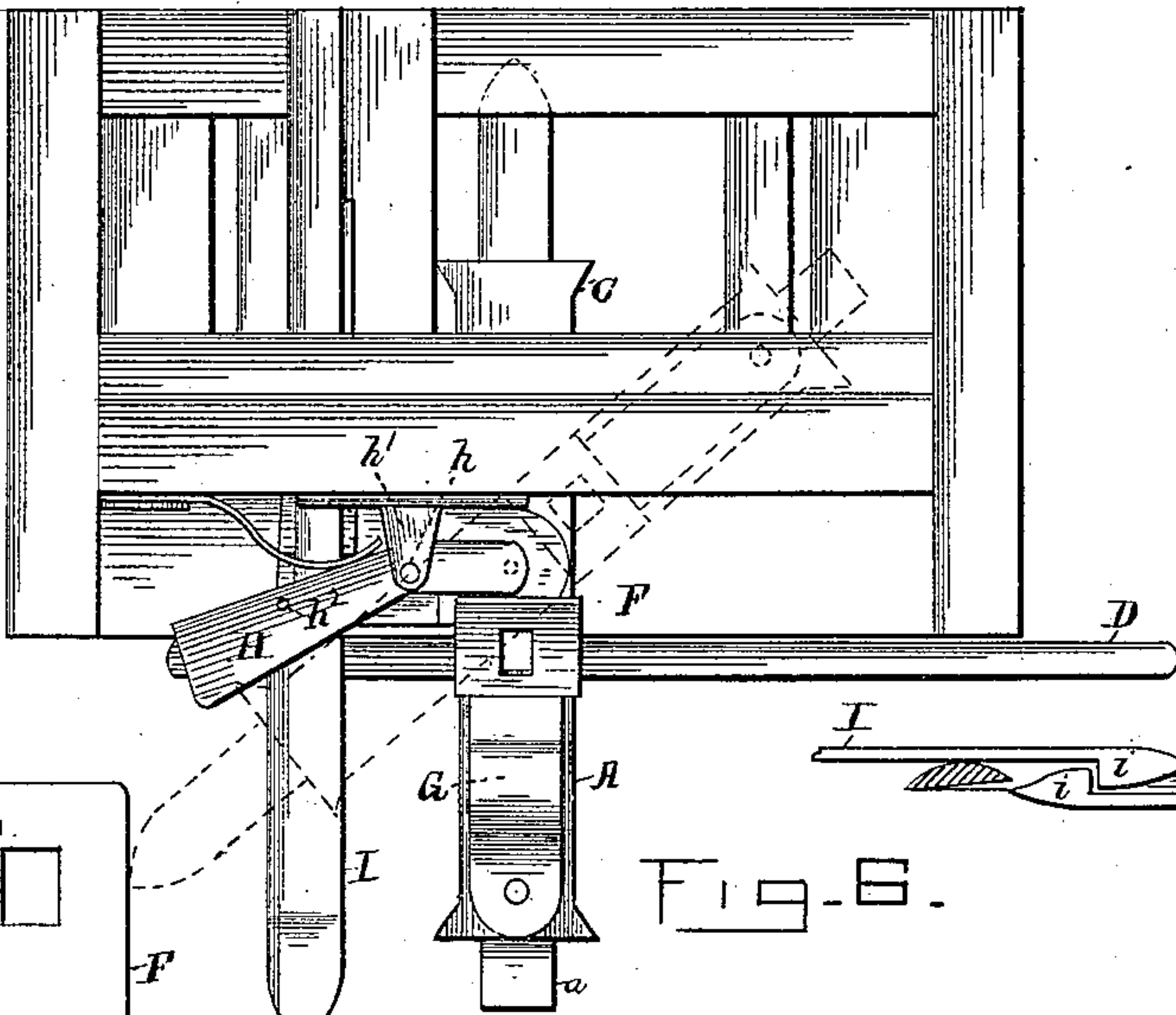


Fig. 5.

Fig. 7.

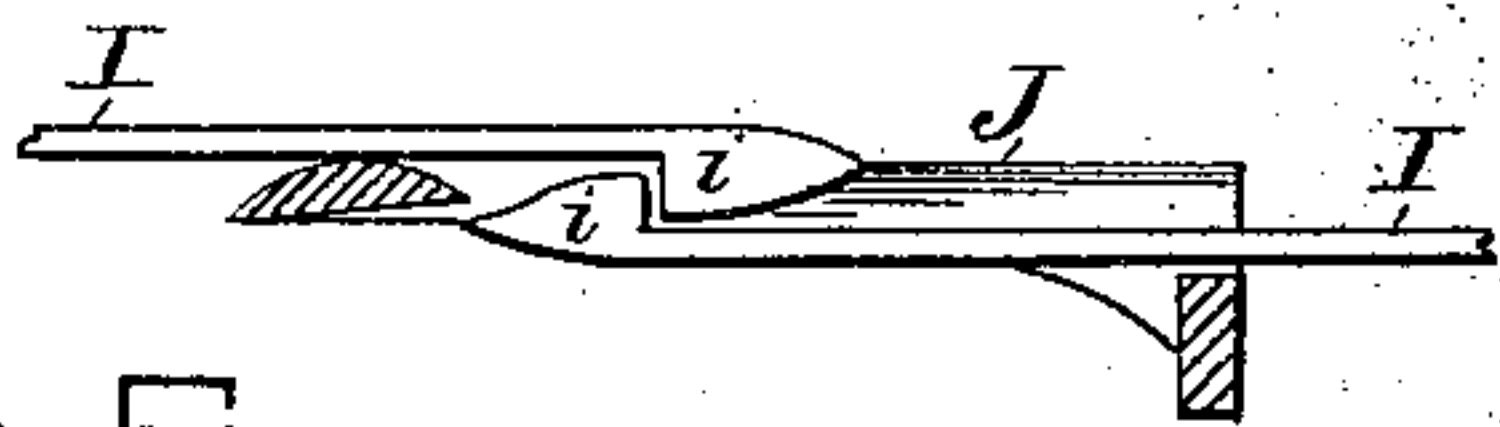
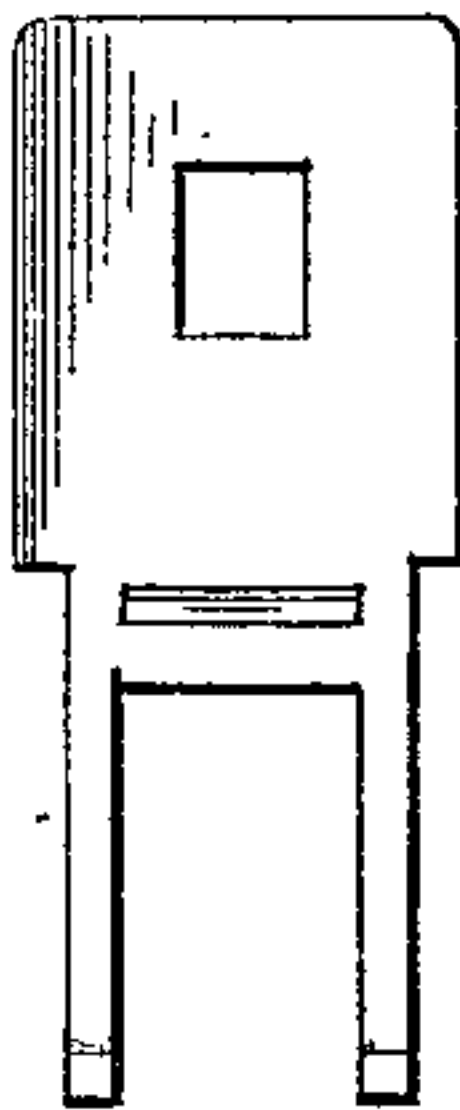
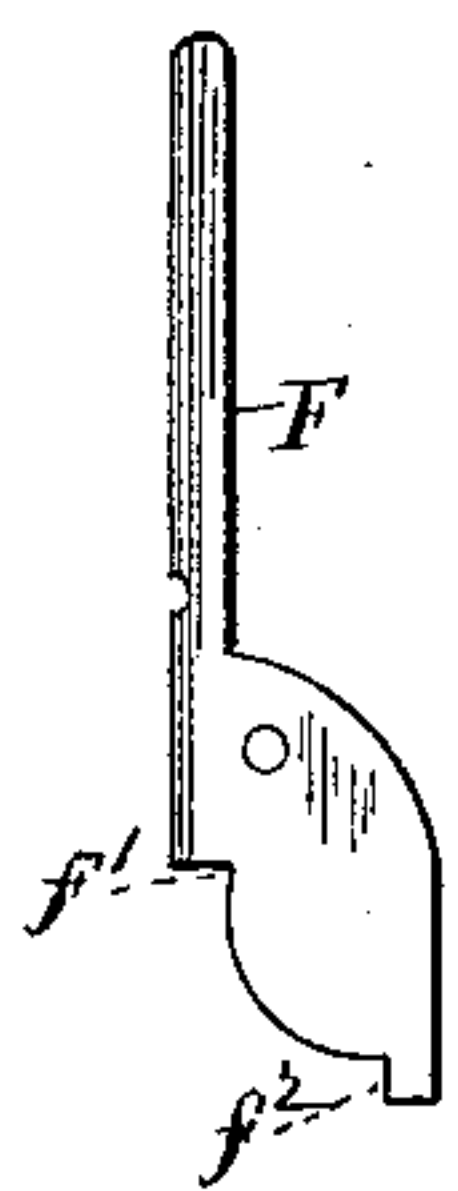
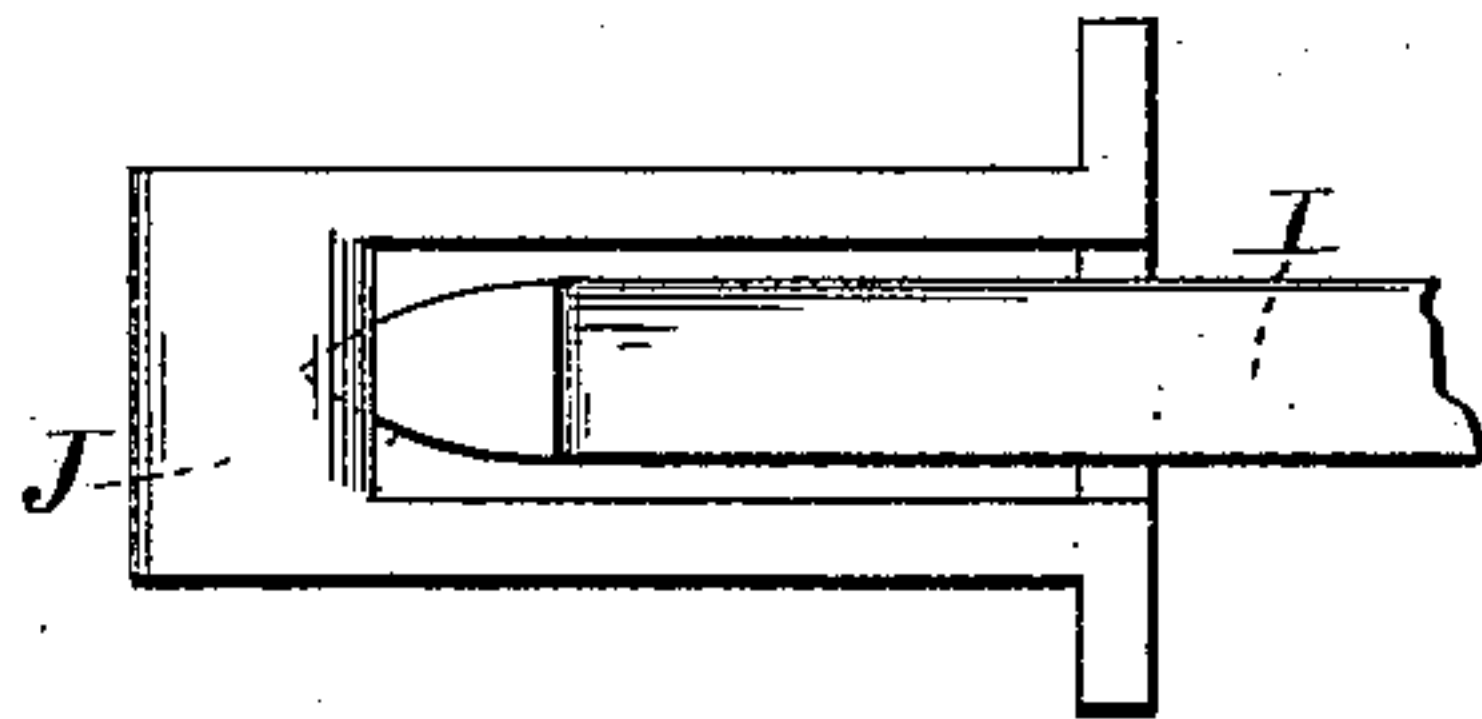


Fig. 6.



WITNESSES:  
Morris A. Clark.  
A. Parker

INVENTOR  
David McC. Harris  
By R. S. V. A. Lacey



# UNITED STATES PATENT OFFICE.

DAVID McC. HARRIS, OF DOUGLASS, KANSAS.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 334,169, dated January 12, 1886.

Application filed June 13, 1885. Serial No. 169,101. (No model.)

*To all whom it may concern:*

Be it known that I, D. McC. HARRIS, a citizen of the United States, residing at Douglass, in the county of Butler and State of Kansas, have invented certain new and useful Improvements in Car-Couplers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to car-couplings; and it consists in the detailed construction and combination of the parts hereinafter fully described and claimed, whereby the cars may be automatically coupled by running them together and uncoupled from either end of the train.

My invention also consists in the detailed construction of the coupling, which is made of two forms, a part being made double-headed and secured to the tender or car in such a manner that either head may be adjusted and brought in position to correspond with and engage that part of the coupling with which the next car may be provided, all as more fully hereinafter set forth and claimed.

In the accompanying drawings, Figure 1 is a side view of the fore part of a train of cars supplied with my couplings. Fig. 2 is a plan view of the same, showing the cars partly in section. Fig. 3 is a longitudinal section through a coupling when detached, the position of the parts when joined together being shown in dotted lines. Fig. 4 is an end view of one of the couplings, showing the spring-catch and lever for working it, also the spring-lever for holding it in position. Fig. 5 is a plan view of the same. Fig. 6 is a longitudinal section through one of the joints of the uncoupling-rods and the trip-bracket, also showing a plan view of the same. Fig. 7 shows detail views of the releasing-lever.

Similar letters of reference indicate corresponding parts in all the figures.

A is a bumper-block pivoted in the framing at one end of each car, and provided with a coupling-hook, *a*, pivoted within it upon the pin *a'*.

B is the bumper-block, attached to the oppo-

site end of the car, and provided with a coupling-hook, *b*, pivoted within it, so that the said hook *b* will engage with the hook *a*.

In order that two cars may not be prevented from coupling when run together by reason of their presenting similar bumpers which will not effect a junction, I provide the bumper A with a second bumper, C, made preferably solid therewith, and forming an extension thereof. This double-headed bumper is pivoted midway of its ends on a common pivot. The bumper C is similar to bumper B, and is provided with a similar hook, so that when two similar bumpers are presented and are likely to come together one may be turned, and thus present an unlike or coupling section that will engage with and couple the cars when run together.

D is a lever for holding either of the bumpers A or C in position. It is pivoted on the pin *d* to the framing of the car, and is provided with the spring *d'*.

The hook *a* within bumper A is provided with a projection, *a*<sup>2</sup>, and a pin, *a*<sup>3</sup>.

E is a spring, which keeps the hook *a* depressed when the cars are uncoupled.

F is a trigger pivoted in the bumper A on the pin *f*, and provided with stops *f'* and *f*<sup>2</sup>.

G is a spring for keeping the trigger F pressed backward.

H is a lever pivoted on the pin *h* in the bracket *h'*, which is secured to the frame-work of the car. The lever H can be operated from either end of the train by mechanism hereinafter more fully described. It serves to push forward the trigger F and uncouple the cars.

When the cars are uncoupled, the pin *a*<sup>3</sup> rests against the stop *f*<sup>2</sup>, and the projection *a*<sup>2</sup> is raised. When the cars are pushed together, the head of hook *b* strikes projection *a*<sup>2</sup>, pushes it down until the pin *a*<sup>3</sup> comes against the stops *f'*, the upper end of the trigger being at the same time thrown back by the action of spring G. The lever H uncouples the cars by pushing forward the trigger and releasing pin *a*<sup>3</sup> from contact with stops *f'*. The spring E then forces up the projection *a*<sup>2</sup> and depresses the hook.

In order that the lever H may be worked from either end of the train, it is provided with arms extending in opposite directions on



either side of its fulcrum, each of which is provided with a pin,  $h^2$ , and with an uncoupling-rod, I.

As both of the uncoupling-rods are exactly alike in construction, I will confine the description to one of them. Each uncoupling-rod I is made in sections and provided with hooks  $i$  at the end of each section, so they (the said hooks) will automatically engage when the cars are brought together.

J is the trip-bracket for uncoupling the rods.

K is a lever, which may be pivoted at either end of the train, and is connected to one of the uncoupling-rods I by means of the arm  $k$  and the pin  $k'$ . The arm  $k$  is provided with teeth  $k^2$ , so that its position with regard to the pin may be adjusted as required. When the lever K is drawn back so as to pull upon one of the uncoupling-rods, the lever H is pushed forward against the trigger F and uncouples the cars, as hereinbefore described. The continued movement of the uncoupling-rod in the direction of the arrow, Fig. 6, brings both the hooks  $i$  into contact with the trip portion of the bracket J, which thrusts them apart and uncouples them.

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

1. In a car-coupling, the combination of the bumper A, pivoted upon the pin and provided with the hook  $a$ , and trigger F, and springs E and G, with the bumper C, also pivoted on a pin and adapted to be interchanged for bumper A, and the lever D, and spring  $d'$  for holding either of said bumpers in position, substantially as shown and described. 35

2. In a car-coupling, the combination of bumper A, provided with hook  $a$ , trigger F, springs E and G, the interchangeable bumper C, the bumper B, having hook  $b$ , the lever H for working trigger F, and an uncoupling-rod connected with said lever, substantially as shown and described. 40

3. In a car-coupling, the combination of an uncoupling-rod made in sections and provided with hooked ends, the lever K for working said rod, and the trip-bracket J for disjoining the sections of the rod, substantially described and shown. 45 50

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

DAVID McC. HARRIS.

Witnesses:

W. STAPLETON,  
L. D. STONE.