

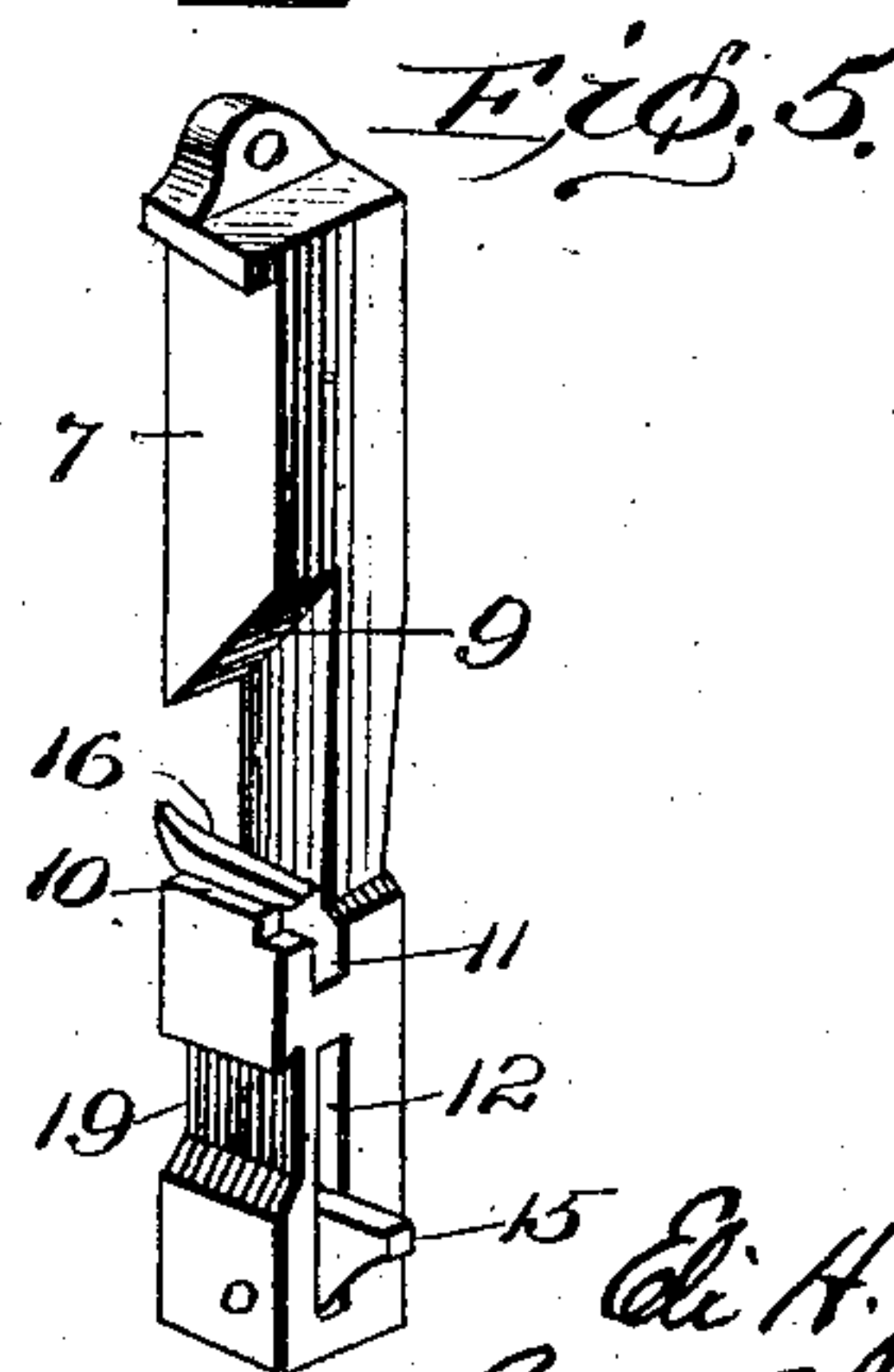
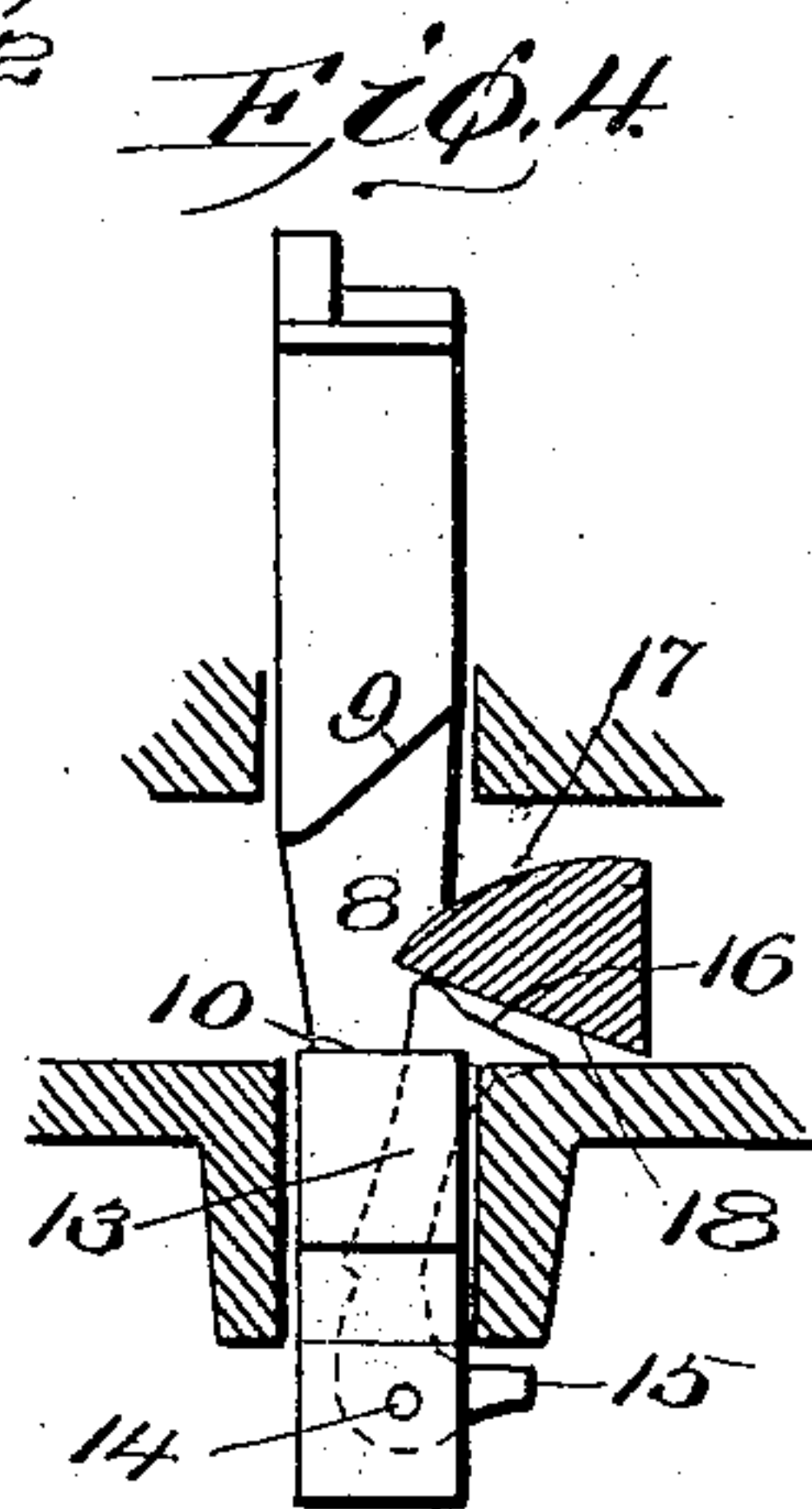
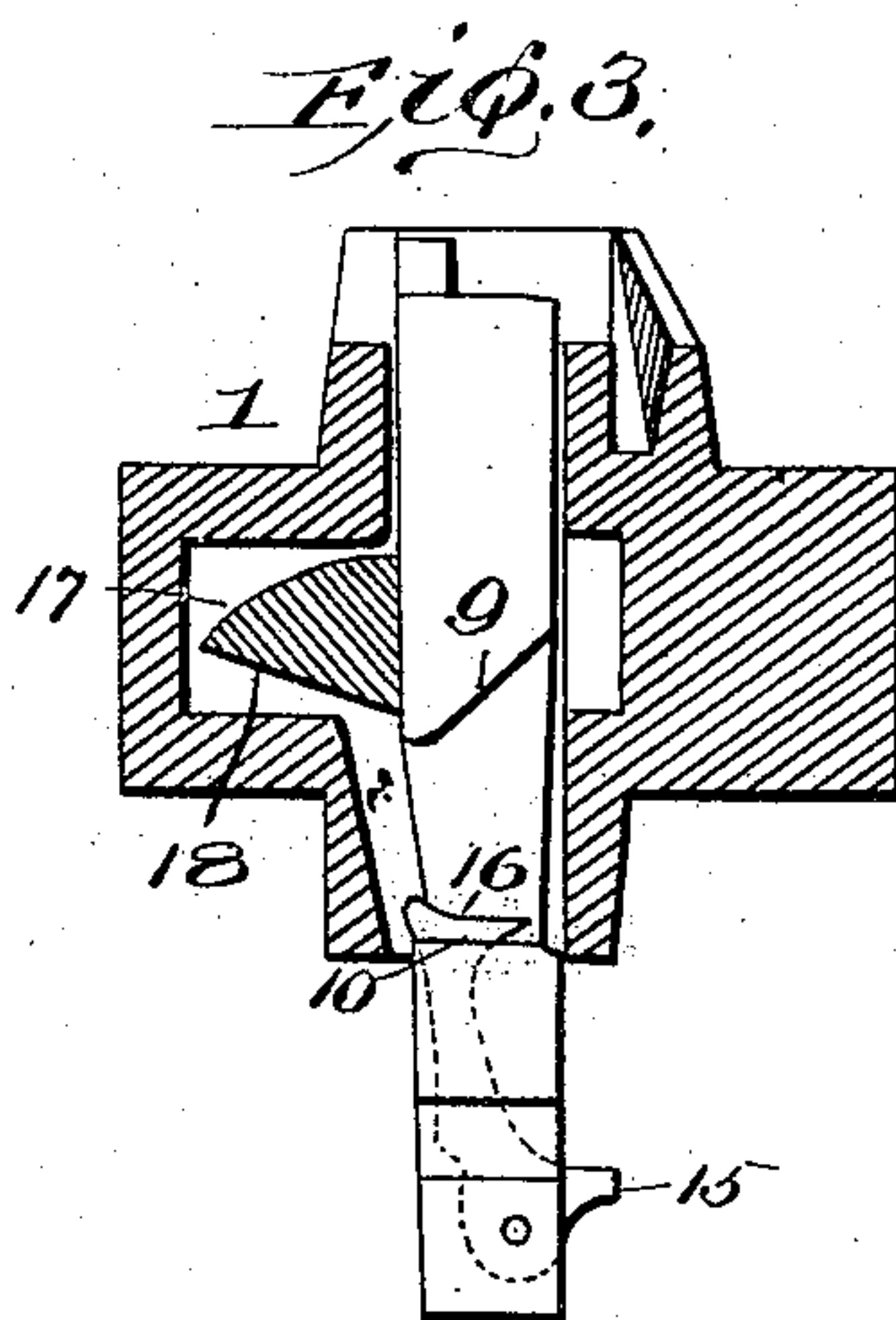
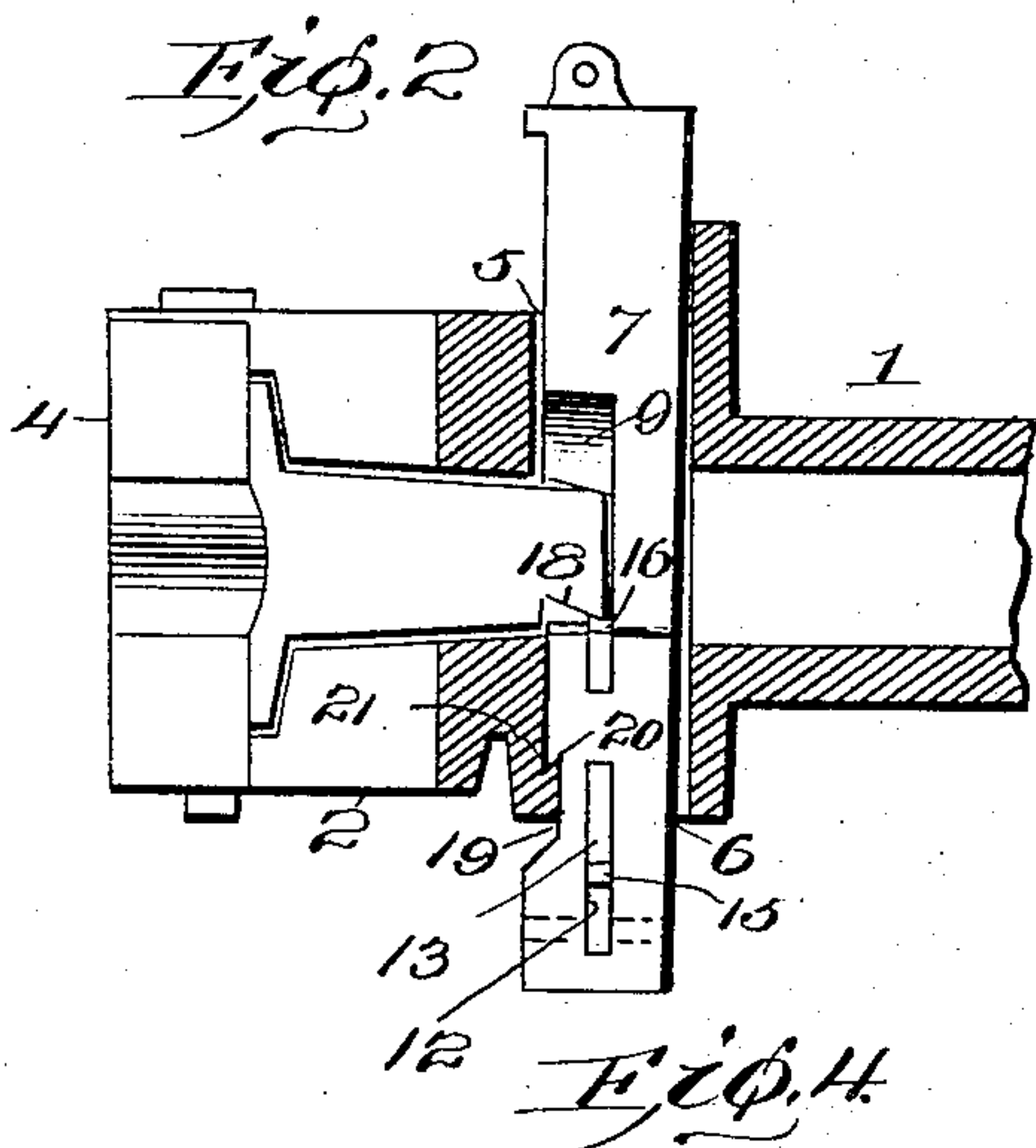
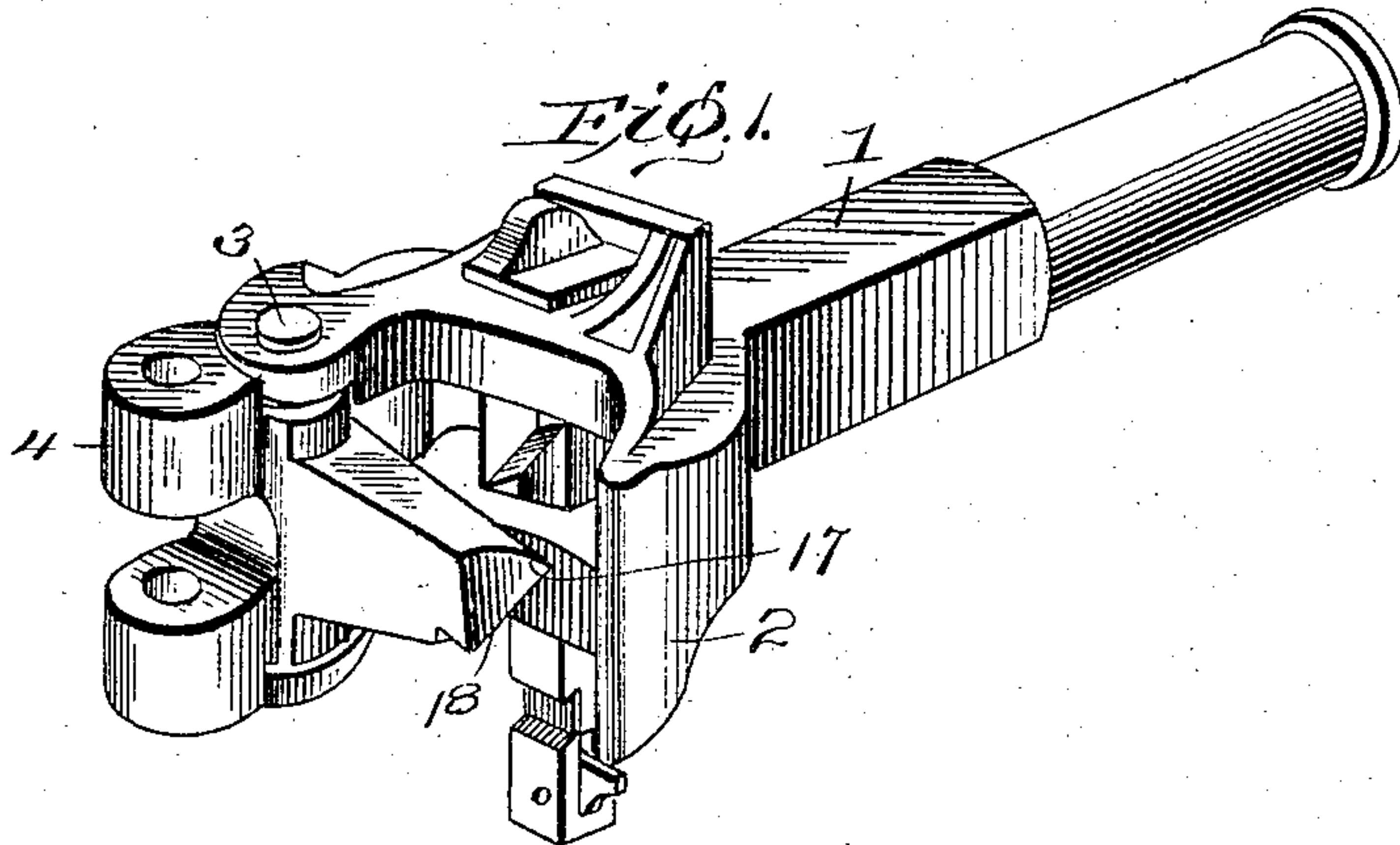
No. 766,042.

PATENTED JULY 26, 1904.

E. H. JANNEY.
CAR COUPLING.

APPLICATION FILED JULY 29, 1903.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

ELI H. JANNEY, OF FAIRFAX COUNTY, VIRGINIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 766,042, dated July 26, 1904.

Application filed July 29, 1903. Serial No. 167,474. (No model.)

To all whom it may concern:

Be it known that I, ELI H. JANNEY, a citizen of the United States, residing in the county of Fairfax and State of Virginia, have invented new and useful Improvements in Car-Couplings, of which the following is a specification.

My invention relates to car-couplings, and more particularly of that class known as the "Janney" type, and has for its object to provide improved means for automatically rotating the coupling-hook to its open position by means of a vertically-moving locking-pin. This object I accomplish in the manner and by the means hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my improved coupling, showing the same in its open position. Fig. 2 is a vertical longitudinal sectional view, the coupling-hook and locking-pin being shown in full lines. Fig. 3 is a vertical transverse sectional view showing the locking-pin in its locking position. Fig. 4 is a similar detail sectional view showing the locking-pin partially lifted and in the act of forcing the coupling-hook to the open position. Fig. 5 is a detail perspective of the locking-pin.

Similar numerals of reference denote corresponding parts in the several views.

In the said drawings the reference-numeral 1 denotes the draw-bar of the coupling, carrying the draw-head 2 of the well-known Janney type, in which is pivoted, by means of pin 3, the usual coupling-hook 4. Passing vertically through the upper and lower apertures 5 and 6 in the draw-head 2 is the locking-pin 7, the same being recessed on its front side at 8 and having the upper face of said recess formed into an inclined or cam surface 9. The lower face 10 of said recess 8 is flat, and the body of the pin below this face is provided with a deep vertical recess or slot 11, terminating at its upper end in said face 10 and extending through one side of the pin at 12, as shown in Figs. 2 and 5. Mounted in said slot 11 is a trigger 13, the same being pivoted in said pin at 14 and having a horizontal arm 15 projecting through the aperture 12 in the side of the pin. The upper

broadened end 16 of this trigger extends through and somewhat above the lower face 10 of the recess 8, all for a purpose hereinafter to be described.

The tail of the coupling-hook 4 is reversely inclined on its upper and lower surfaces at 17 and 18, and the lower incline 18 is also inclined upwardly and forwardly, as shown in Fig. 2, also for a purpose hereinafter to be described.

Below the recess 8 in the pin 7 is another recess 19, having its upper edge 20 preferably inclined upwardly and inwardly to engage a shoulder 21, formed on the inner front face of the lower aperture 6 in the draw-head when said pin is raised to the unlocking position, the latter having its upper edge preferably beveled to correspond with that of the upper edge 20 of recess 19, as shown in Fig. 2.

From the above description the operation of my improved construction will be understood to be as follows: With the pin 7 in its lowermost position and the coupling-hook 4 open, as shown in Fig. 1, the device is ready for automatic coupling, the rotation of said hook causing cam-surface 17 on the tail thereof to contact with cam 9 on the pin 7, and thus raise the latter until the coupling-hook tail passes the same, when it will drop automatically, and thus lock the hook in its closed position. Now when the coupling-hook is thus locked and it is desired to open the same for coupling the pin 7 is lifted by means of its cord or chain until the lower edge of cam-surface 9 passes above the tail of the hook, thus releasing the latter. A slight further upward movement of said pin will now cause the left side of the upper broadened end 16 of trigger 13 to engage under cam-surface 18 on the coupling-hook tail, it being observed, first, that the position of the pivot 14 thereof to the right of the center of said trigger causes the latter to automatically maintain the position shown in Fig. 3 and, secondly, that while in this position the left side of the upper broadened end 16 thereof projects somewhat beyond that side of the pin 7, so as to engage with said cam-surface 18 on the coupling-hook tail. A still further upward

movement of pin 7 will now cause the horizontal projecting arm 15 of trigger 13 to contact with the under side of the draw-head 2, thus tripping said trigger to the right and automatically rotating the coupling-hook 4 to its open position, as clearly seen in Fig. 4.

In order to automatically set the pin 7 in the unlocked position when the coupling is coupled and it is desired to uncouple the same, it is only necessary to lift said pin, when by the engagement of the upper end 16 of trigger 13 with the incline 18 the lower end of said pin will be forced forward sufficiently to cause the upper edge 20 of recess 19 therein to engage shoulder 21, and thus retain said pin in the unlocked position, this movement to the pin being imparted thereto by reason of the fact that said incline 18 is also inclined forward and upward.

In an application for Letters Patent filed by me May 5, 1903, Serial No. 155,765, are specifically described certain other features disclosed in the drawings forming part of this application; but as the same form no part of the present application a detailed description is deemed unnecessary.

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

1. In a car-coupling, the combination with the draw-head, of a coupling-hook pivoted therein and having an incline on the under side of its tail, a vertically-movable locking-pin for said coupling-hook, and a trigger pivoted in said locking-pin and adapted, when said locking-pin is raised, to engage said incline on the coupling-hook and force said coupling-hook to the open position.

2. In a car-coupling, the combination with the draw-head, of a coupling-hook pivoted therein and having an incline on the under side of its tail, a vertically-movable locking-pin for said coupling-hook, a trigger pivoted in said locking-pin and adapted, when said locking-pin is raised, to engage said incline on the coupling-hook, and a horizontal projecting arm on said trigger adapted during the further raising of said locking-pin to engage the draw-head and thus trip said trigger to force said coupling-hook to the open position.

3. In a car-coupling, the combination with the draw-head, of a coupling-hook pivoted therein and having an incline on the under side of its tail that also inclines forward and upward, a vertically-movable locking-pin for said coupling-hook, a trigger pivoted in said locking-pin and adapted, when said locking-pin is raised, to engage said incline on the coupling-hook, and coacting shoulders on said locking-pin and draw-head adapted when engaged to retain said locking-pin in the unlocking position, the engagement of said trigger with the forward and upward incline on said coupling-hook tail when said coupling-hook is engaged with another coupling-hook forcing said locking-pin forward to engage said shoulders and thus set said locking-pin in the unlocking position.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ELI H. JANNEY.

Witnesses:

THOMAS DURANT,
J. M. FOWLER, Jr.