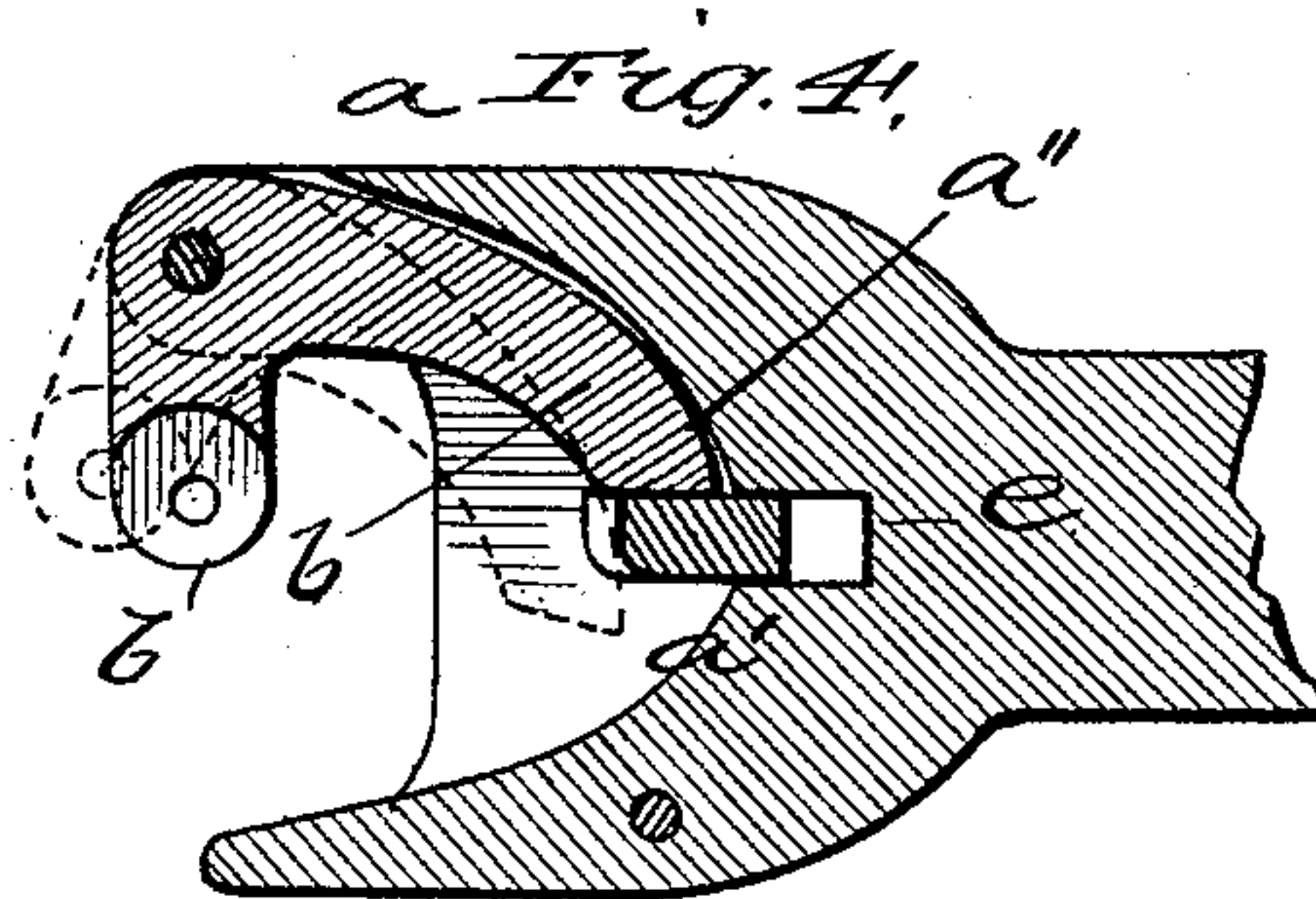
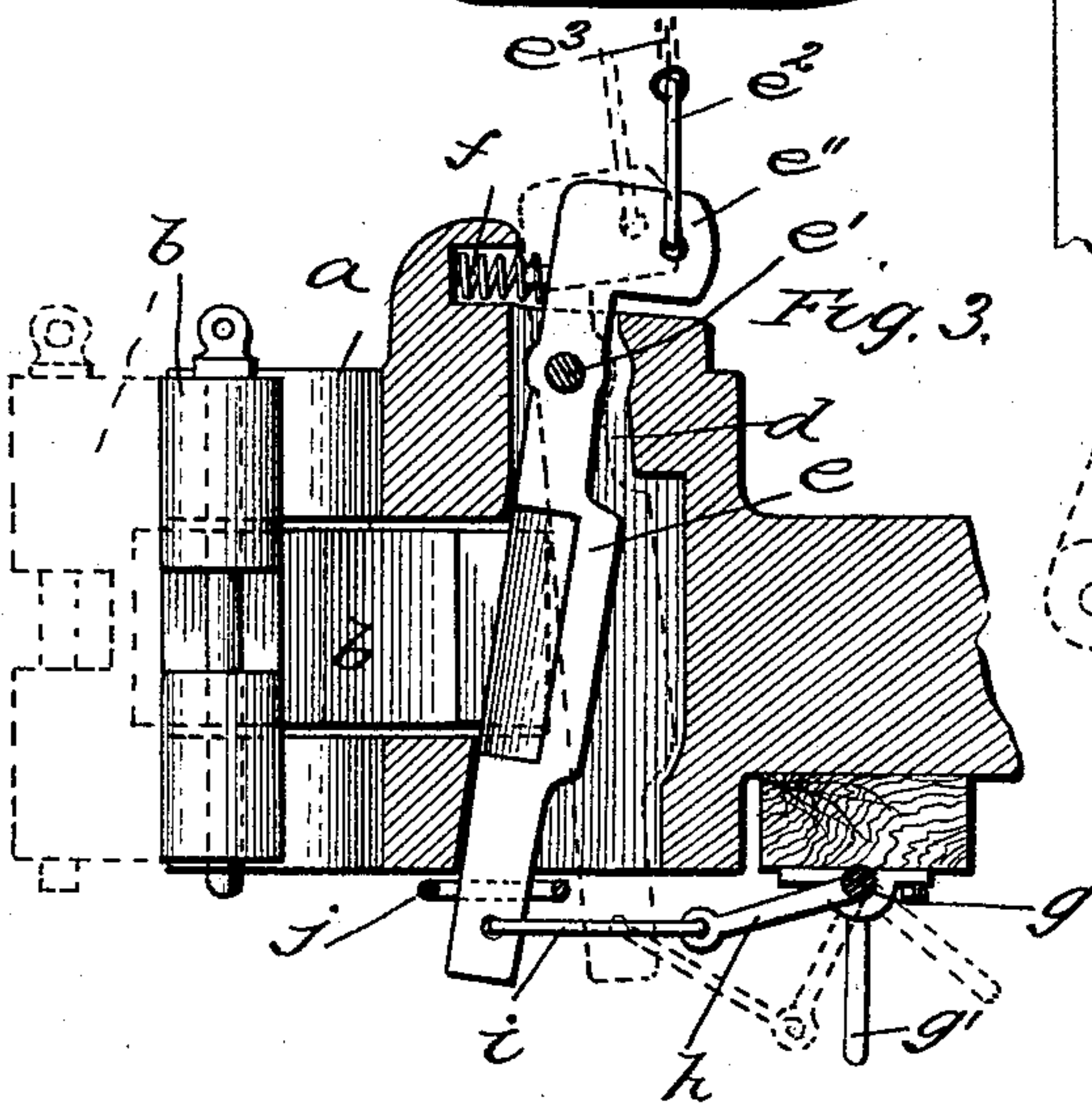
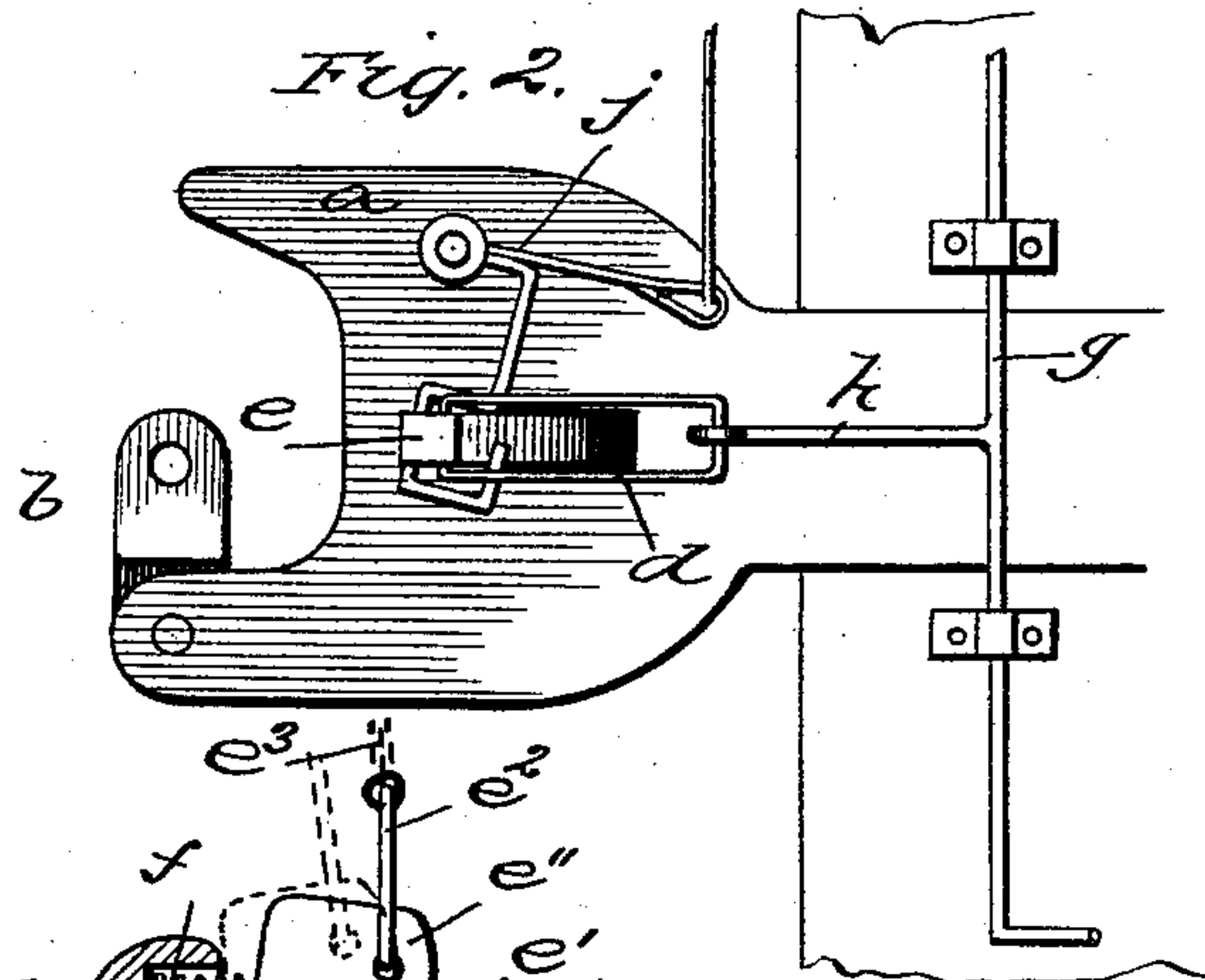
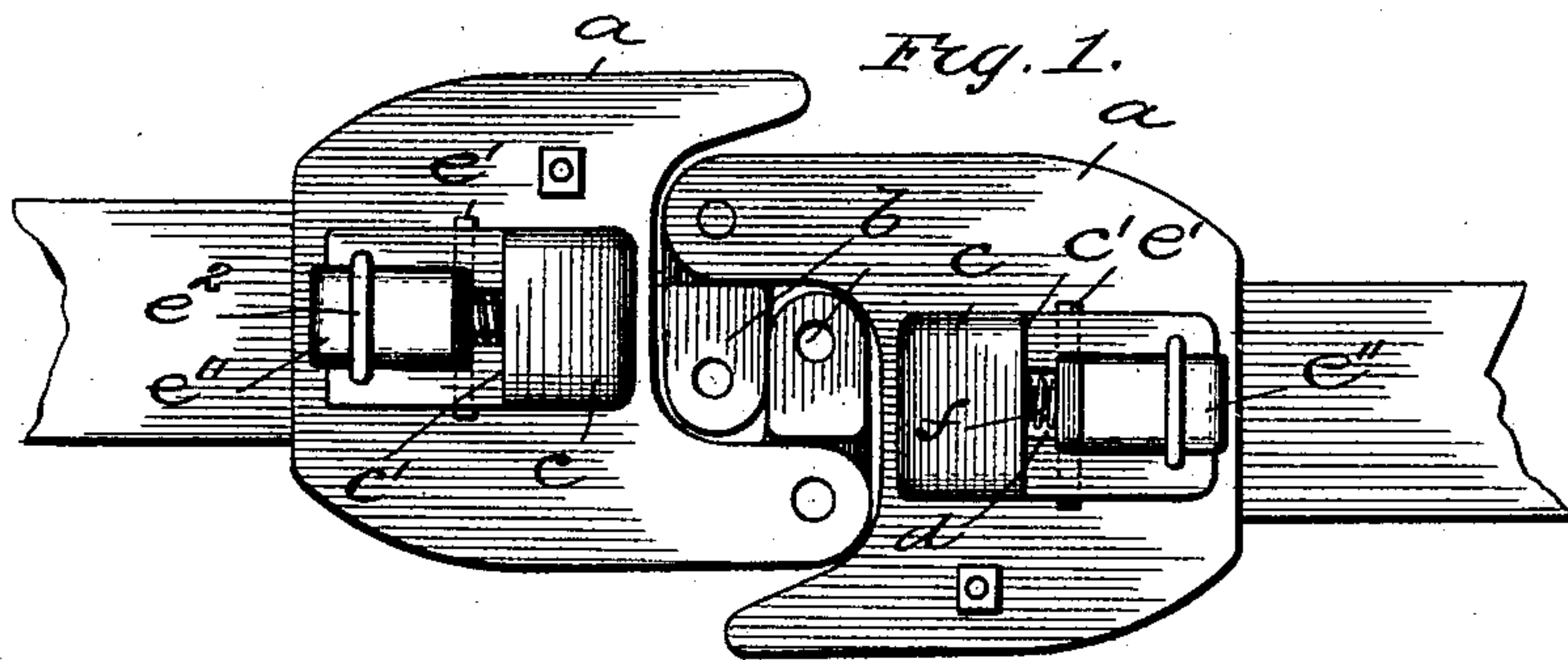


(No Model.)

H. E. MOOMAW.
CAR COUPLING.

No. 486,409

Patented Nov. 15, 1892.



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY E. MOOMAW, OF NEWTON, ALABAMA, ASSIGNOR OF ONE-HALF TO
E. T. HINOTE, OF CARYVILLE, FLORIDA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 486,409, dated November 15, 1892.

Application filed July 15, 1892. Serial No. 440,167. (No model.)

To all whom it may concern:

Be it known that I, HENRY E. MOOMAW, a citizen of the United States, residing at Newton, in the county of Dale and State of Alabama, 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.

This invention relates to new and useful improvements in car-couplers, and relates particularly to improvements in that class of couplers known as the "Janney" type; and it has for its object to provide a device of simple construction which will be positive and accurate in operation.

The invention consists in the novel combination and arrangement of parts, as hereinafter more fully described.

In the drawings, Figure 1 is a plan view of two draw-heads coupled. Fig. 2 is a bottom view of the coupler. Fig. 3 is a longitudinal section, and Fig. 4 is a horizontal section, of coupler.

In the drawings, *a* designates the draw-head of the coupler, which is substantially the same as the draw-head of the Janney coupler, and is provided with the forwardly-projecting lugs, between which is pivoted the swinging coupling-jaw *b*. This swinging coupling-jaw *b* is approximately of the same construction as the Janney coupling-jaw, with the exception that the rear portion *a''* of my coupling-jaw is curved in such manner that when it is forced rearwardly against the coupling-pin it will bear in the center of the front face of said pin, as shown by dotted lines in Fig. 4 of the drawings. By thus forming the rear end of the coupling-jaw a direct rearward pressure is exerted on the locking-pin during the act of coupling, thereby avoiding the danger of bending the locking-pin, as is the case where the pressure is on the side or corner of the said pin, which is the case in the usual construction of this type of coupling.

The draw-head is provided with the cavity *a'* for the rear end of the coupling-jaw *b'* to swing in, as shown in Fig. 4. In the center of the draw-head, on the upper side thereof, is formed the enlargement *c*. This enlargement is higher at its forward end than at its rear, and a shoulder *c'* is formed between said

front and rear portions. Through the rear portion of the enlargement and extending through the draw-head is formed a vertical slot *d*, and in this slot is pivoted a vertical swinging locking pin or bar *e*. This slot is so located in the draw-head that its forward end opens into the cavity *a'* and its rear end extends down through the solid portion of the draw-head, as shown in Figs. 3 and 4, and the locking-pin *e* is so pivoted in said slot that its forward edge projects into the cavity *a'* in position to be engaged by the rear end of the coupling-jaw, and the rear edge of said pin extends down through that portion of the slot formed through the solid portion of the draw-head, the locking-pin being braced and prevented from bending and from lateral displacement during the action of coupling by the side walls of the rear portion of the slot embracing the rear edge of the locking-pin, as shown in Fig. 4. The locking-pin *e* extends through the draw-head and projects above and below the same and is pivoted near its upper end on a horizontal pin *e'*, mounted in the enlargement *c*. The upper end of the said locking-pin, above the rear portion of the enlargement *c*, is formed with a rearwardly-extending weight *e''*, which tends to throw the lower portion of the locking-pin forward, as is evident.

The head *e''* is assisted in throwing the lower end of the locking-pin forward by a coil-spring *f*, whose rear end bears against the upper forward edge of the locking-pin above its pivot, its other end fitting in a recess formed in the shoulder of the enlargement *c*. A forwardly-projecting pin formed on the locking-pin enters the coil-spring *f* and serves to retain it in its proper operative position. This coil-spring serves to cause the locking-pin to act quickly, and in that way assist the weight. That portion of the locking-pin which projects into the cavity *a'* is beveled on one of its forward corners, as shown in Figs. 3 and 4, to enable the rear curved portion *a''* of the locking-jaw to force the said locking-pin rearwardly when the cars are brought together in the act of coupling. After the locking-pin has been forced back far enough to permit the rear end of the coupling-jaw to pass it is quickly returned to its normal position by the

weight of the head e'' and the tension of coil-spring f , thereby locking the coupling-jaw in its coupled position.

The uncoupling of the cars may be effected 5 in various ways, according to the service in which the cars are used.

I have shown three ways in which the uncoupling of the cars may be effected, one way for uncoupling from the sides of cars consisting of a transverse rock-shaft g , secured 10 to the under side of the car and provided with an arm h , which is connected with the lower end of the locking-pin by a bail i . The ends of shaft g are turned at right angles to the 15 main portion of the shaft to form operating-arms g' .

To the under side of the draw-head is secured an uncoupling device adapted for use on passenger-cars, and it consists of a pivoted 20 angle-lever j , one end of said lever being bent around the lower end of the locking-pin, its other end having a rod or chain attached, said chain being connected to any suitable mechanism for turning the angle-lever rearwardly 25 on its pivot, and thereby forcing the locking-pin backwardly and releasing the rear end of the locking-jaw.

I have provided still another way of uncoupling the cars, and in this construction 30 they may be operated from the top of the cars. I secure near the rear end of the rearwardly-extending head e'' a bail e^2 , and to the upper

end of this bail I secure a chain or rod e^3 , which is carried to the top of the car and secured there by any suitable means. It will 35 be seen that by drawing upwardly upon chain or rod e^3 the locking-bar will be turned on its pivot and the rear end of the coupling-jaw released from its locked position.

Having thus fully described my invention, 40 what I claim, and desire to secure by Letters Patent, is—

A car-coupling consisting of a draw-head constructed as described and provided with a stepped enlargement on its upper side, a 45 pivoted coupling-jaw constructed as described and carried by the draw-head, a locking-pin pivoted in a vertical slot in the draw-head and formed with a rearwardly-extending head at its upper end, a spring bearing against the forward edge of the locking-pin above its pivot 50 and seated in a recess formed in the stepped enlargement, a portion of the locking-pin below its pivot extending in the path of the rear end of the coupling-jaw, and an uncoupling 55 device connected to the locking-pin, substantially as described.

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

HENRY E. MOOMAW.

Witnesses:

E. H. HODGES,
S. J. CHAPMAN.