

(No Model.)

H. GAY & F. FINKE.
CAR COUPLING.

No. 501,710.

Patented July 18, 1893.

Fig 1.

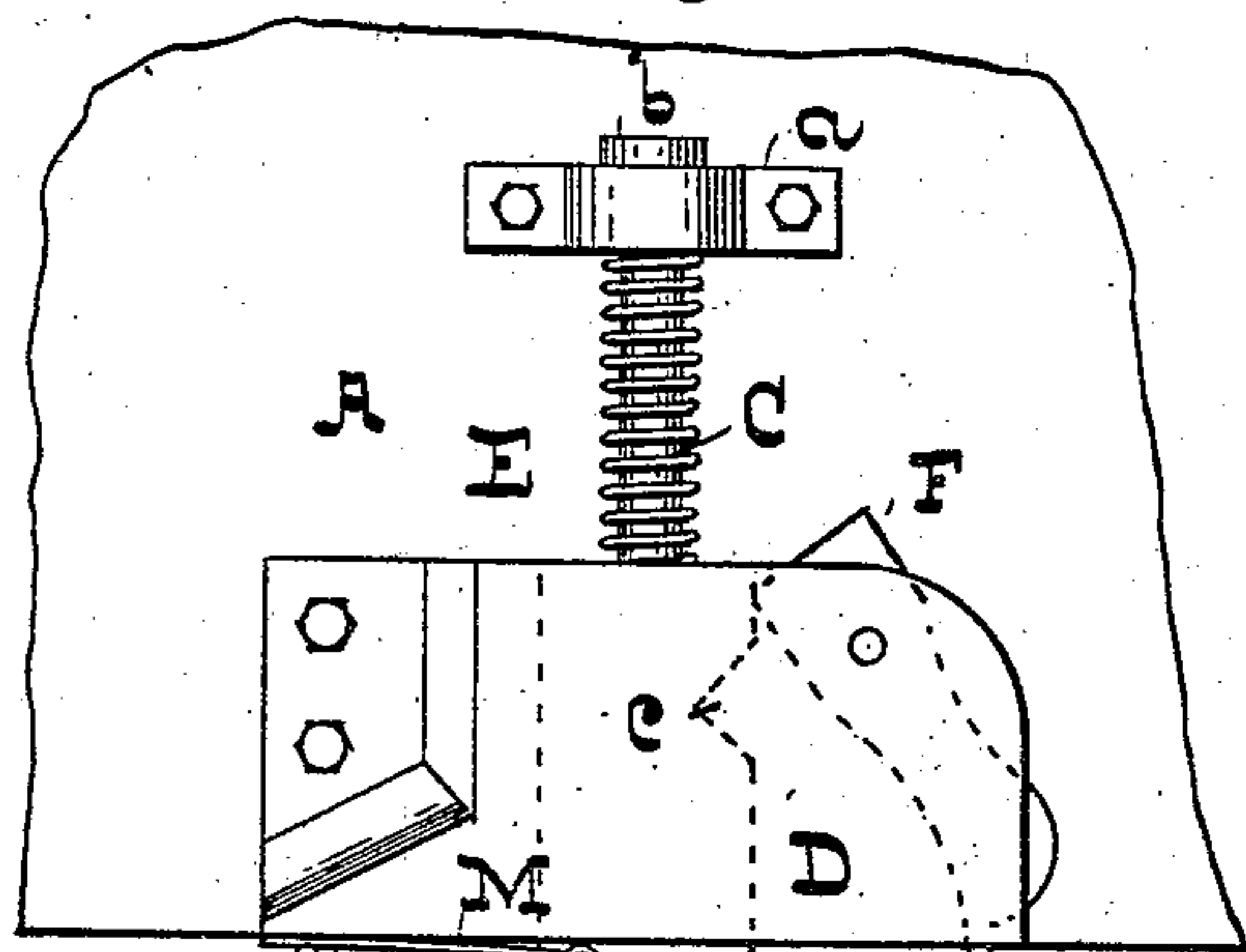


Fig 2.

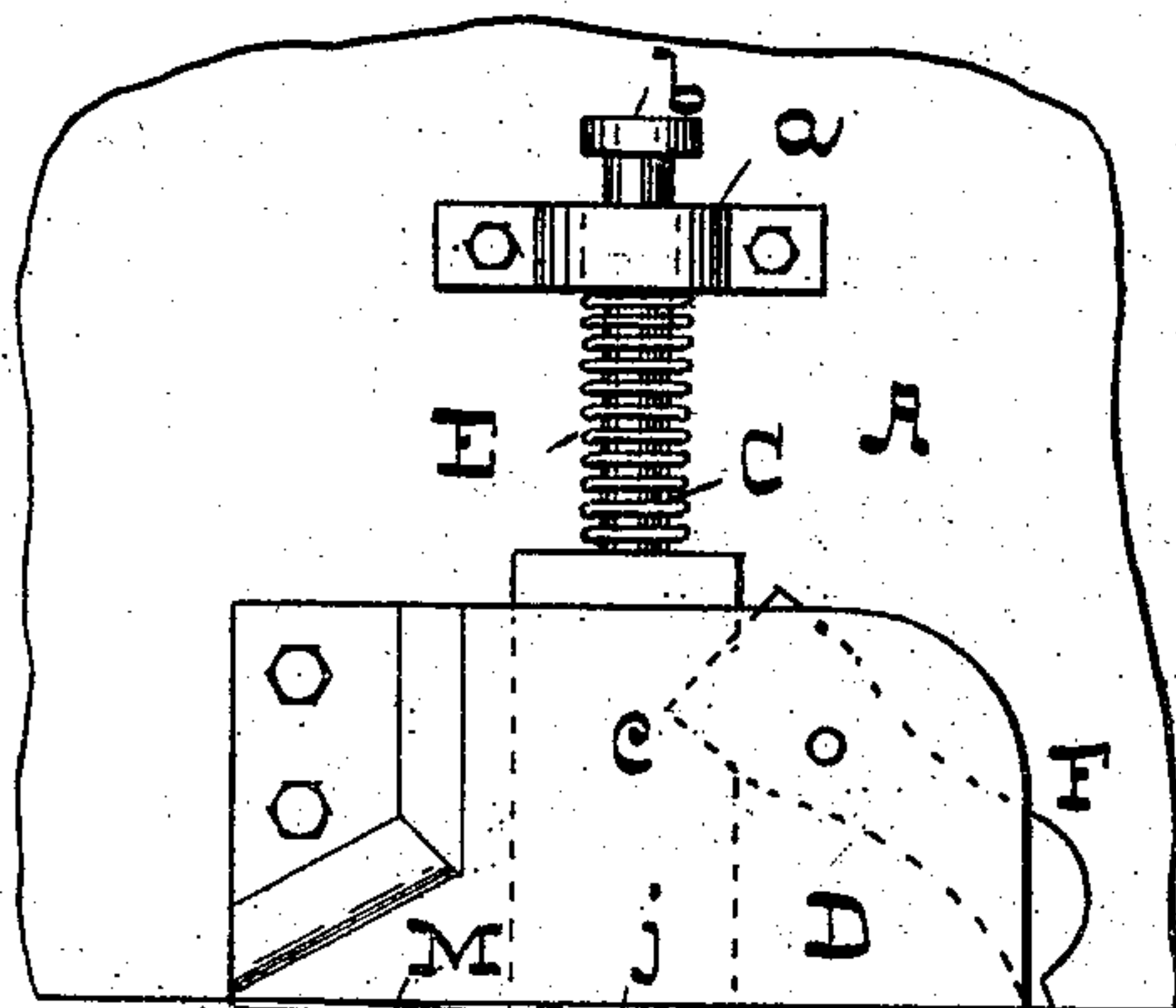


Fig 5.

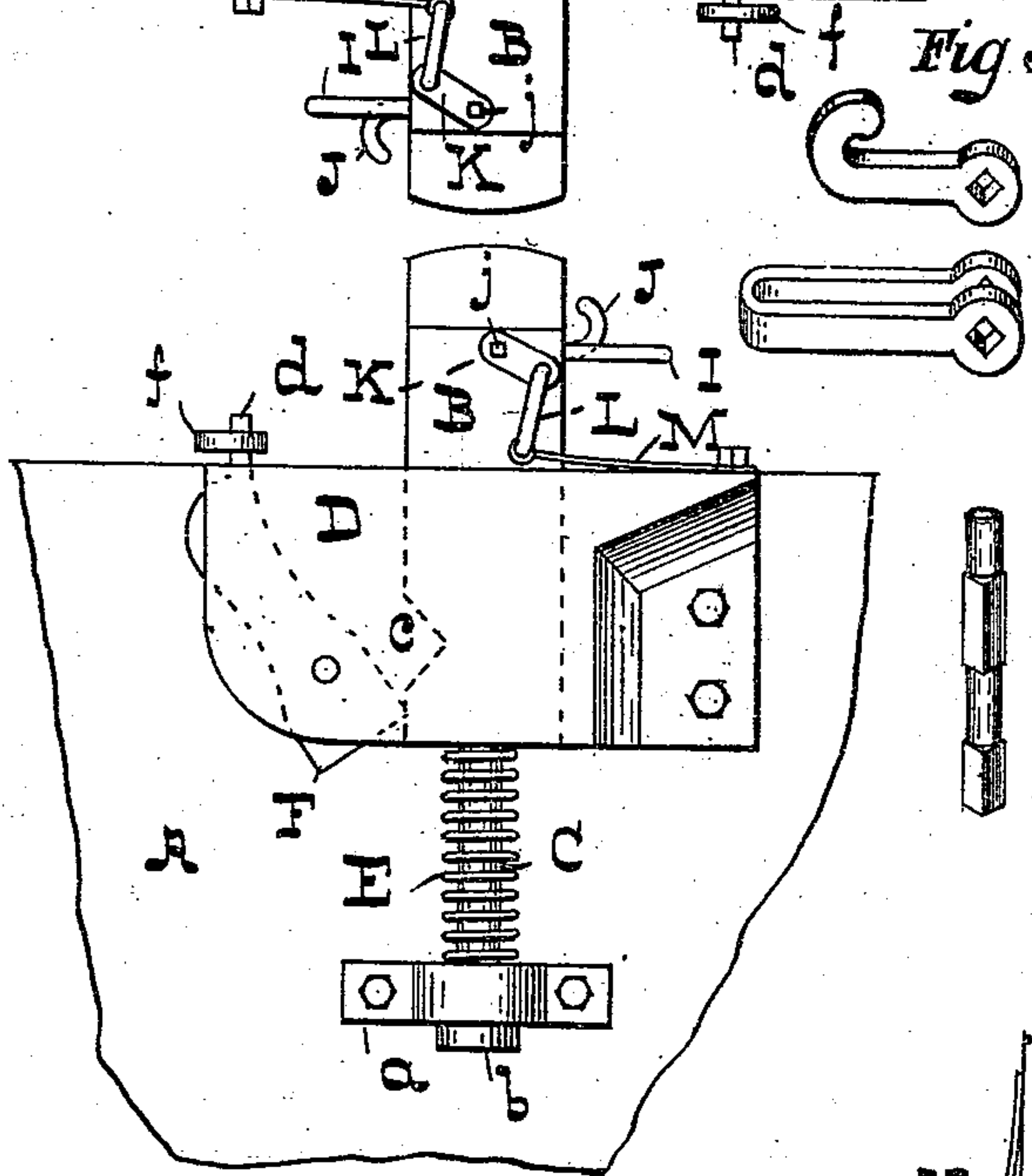


Fig 3.

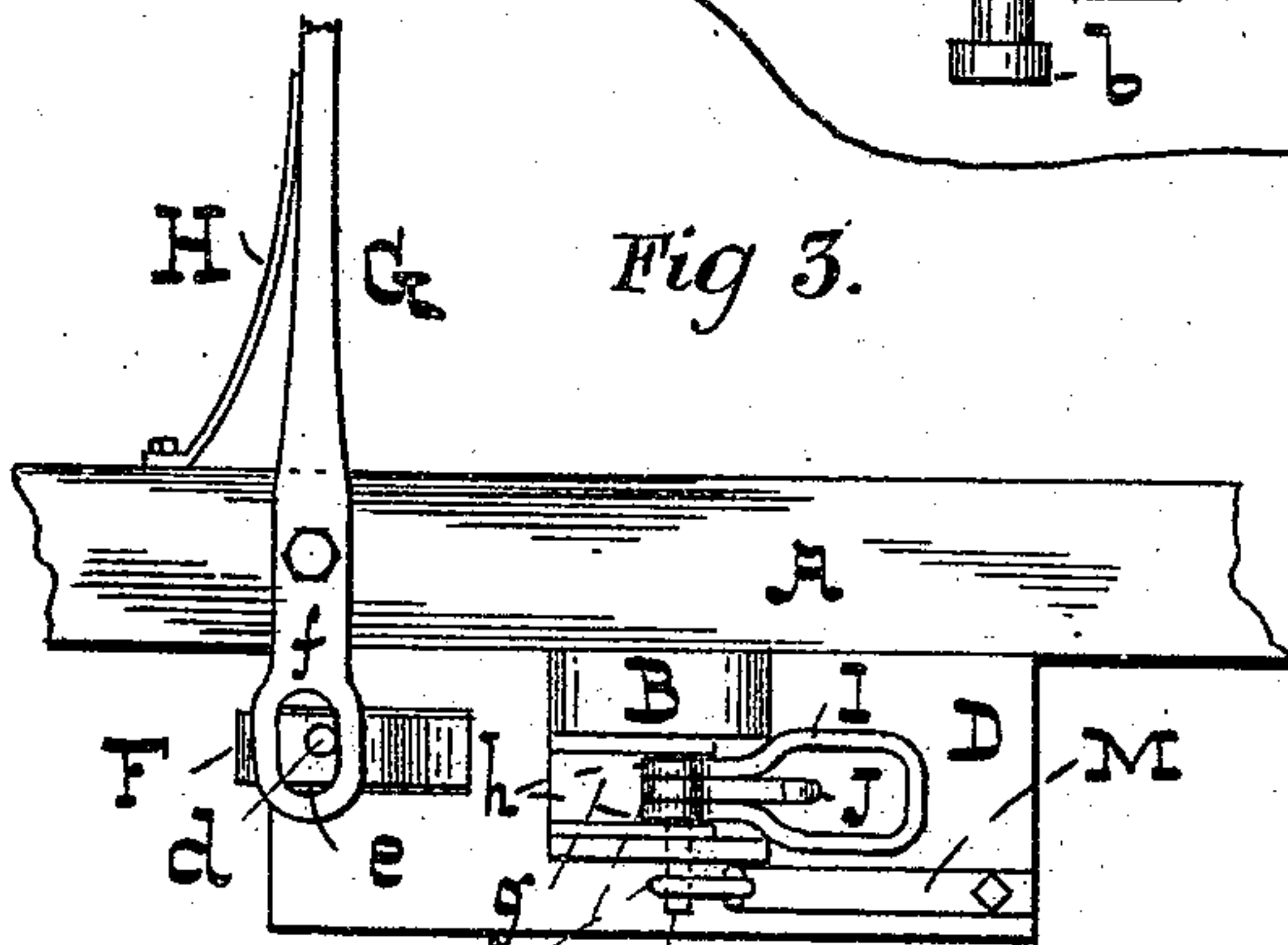
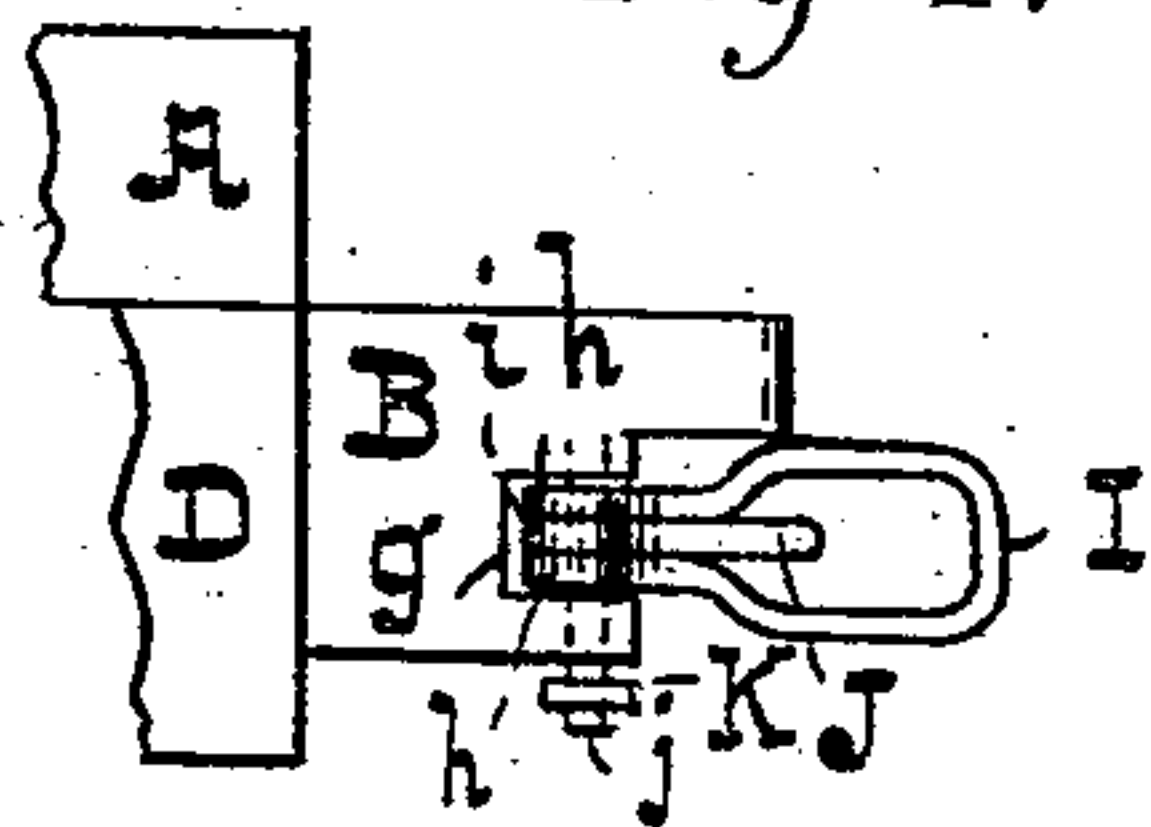


Fig 4.



-WITNESSES-

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UNITED STATES PATENT OFFICE.

HERMANN GAY AND FIDELIO FINKE, OF BALTIMORE, MARYLAND, ASSIGNORS
OF ONE-THIRD TO ALEXANDER H. SCHULZ, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 501,710, dated July 18, 1893.

Application filed April 7, 1893. Serial No. 469,413. (No model.)

To all whom it may concern:

Be it known that we, HERMANN GAY and FIDELIO FINKE, of the city of Baltimore and State of Maryland, have invented certain Improvements in Car-Couplers, of which the following is a specification.

In the description of the said invention which follows, reference is made to the accompanying drawings forming a part hereof and in which—

Figure 1 is an under side view of portions of two car bodies provided with our improved couplers, and before the same are coupled. Fig. 2 is a similar view showing the cars coupled. Fig. 3 is a face view of one of the couplers together with a part of the car body. Fig. 4 is a side view of a portion of a draw head forming a part of the invention. Fig. 5 illustrates details of the coupler.

Referring to the drawings, A represents the car bodies, and B the drawheads of the couplers.

C C are draw-bars extending rearward from the draw-heads. These draw-bars pass through suitable bearing boxes *a* secured to the under side of the bodies A of the cars. The draw-heads are adapted to slide in holders D which may be of any suitable construction and shape, and their outward movement is limited by collars *b* on the draw-bars which come in contact with the bearing boxes.

E E are springs coiled about the draw-bars and extending endwise between the bearing boxes and the rear ends of the draw-heads. These springs yieldingly keep the draw-heads in their extended position, except when the cars are coupled. Each draw-head has a notch *c* in one side, into which the inner end of a pivoted tumbler F enters when the draw-heads are forced inward as the cars are brought together, and prevents the return of the draw-heads to their extended position, until released by means hereinafter described. The tumbler F has a pin *d* at its outer end which is seated in a slot *e* in the short arm *f* of the hand lever G which lever is pivoted to the car body. A spring H of any appropriate construction retains the hand lever G yieldingly in such position as will keep the end of the tumbler F in the notch *c* in the draw-head. From this description it will be un-

derstood that when a draw-head is forced inward, it is caught by the tumbler and held until released by the movement of the hand lever in a direction contrary to that automatically taken as the draw-head is forced in.

Pivoted within a slot or depression *g* in each draw-head B, is a link I, and between the eyes *h* of the link I, is secured a hook J having an eye *i* similar to those of the link. The hook is much shorter than the link, as shown in the drawings. The link and hook are required to move together, and to accomplish this, the eyes of the said devices are made square and the pivotal bolt *j* which passes through them is also square and of the same size, see Fig. 5. The lower end of the pivotal bolt *j* extends below the bottom of the draw-head, and on it is secured an arm K having a connecting rod L at its outer end which connects it to a spring M fastened to the platform of the car body. The length of the connecting rod L is such that when the draw-head is depressed or forced inward, its end strikes the platform and has the effect of throwing the link I and hook J out from a position at a right angle with the longitudinal center line of the car, into alignment with that center line, as illustrated in Fig. 2 which shows the cars coupled. When however the draw-heads are extended the springs M draw the connecting rod L and arm K in, and the link I and hook J are forced into the first position described, as shown in Fig. 1 which illustrates the cars as not coupled. Supposing that two cars are to be coupled, they are brought toward each other, and as the draw-heads come in contact, they are forced inward and held in that position by the tumblers entering the notches. At the same time the links and hooks of the two couplers engage with each other and the cars are coupled, as shown in Fig. 2. When the cars are to be uncoupled, the hand levers are moved so as to withdraw the tumblers F from the notches *c* in the draw-heads, when the springs E force out the draw-heads and the links I and hooks J are detached from each other.

We claim as our invention—

A car coupler having the following elements in combination, viz., a draw-head held yieldingly in an extended position with regard to the car body, and provided with a notch, as de-

scribed, a tumbler adapted to enter the said notch when the draw-head is forced inward, and thereby hold the said draw-head, a spring-held lever for operating the said tumbler, and
5 a pivoted link and hook adapted to be thrown into alignment with the longitudinal center line of the car as the draw-bar is depressed, and thereby adapted to couple with a simi-

lar link and hook on another coupler, substantially as specified.

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Witnesses:

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