

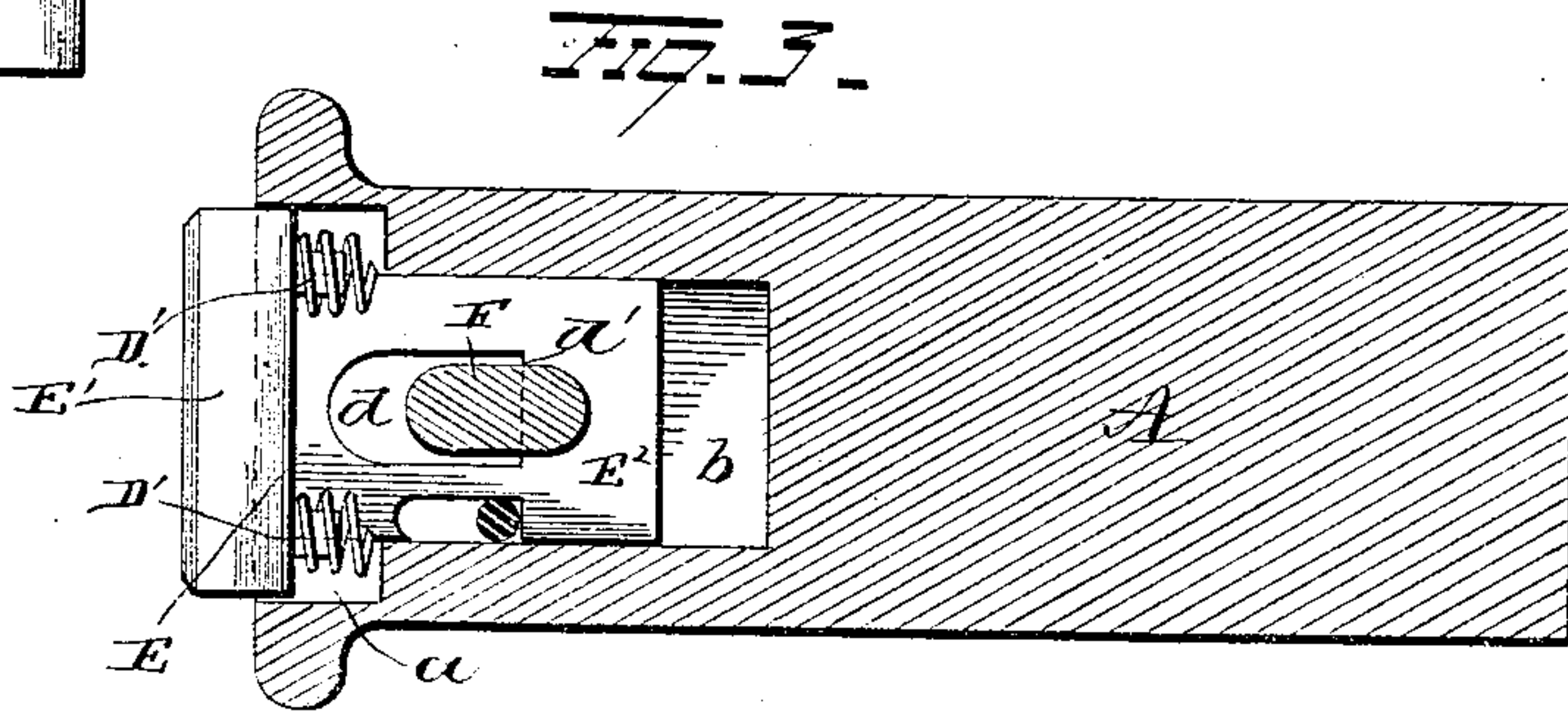
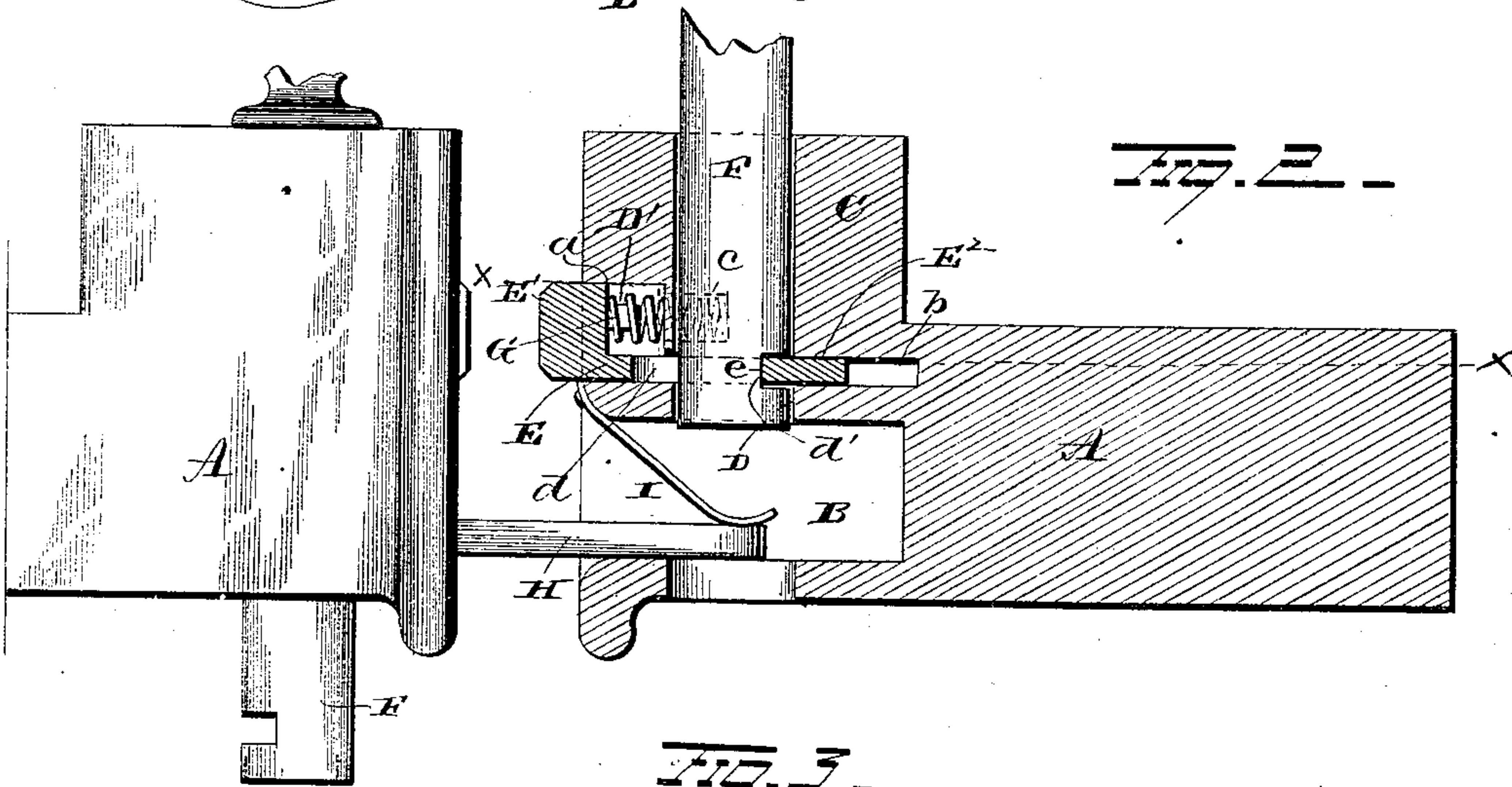
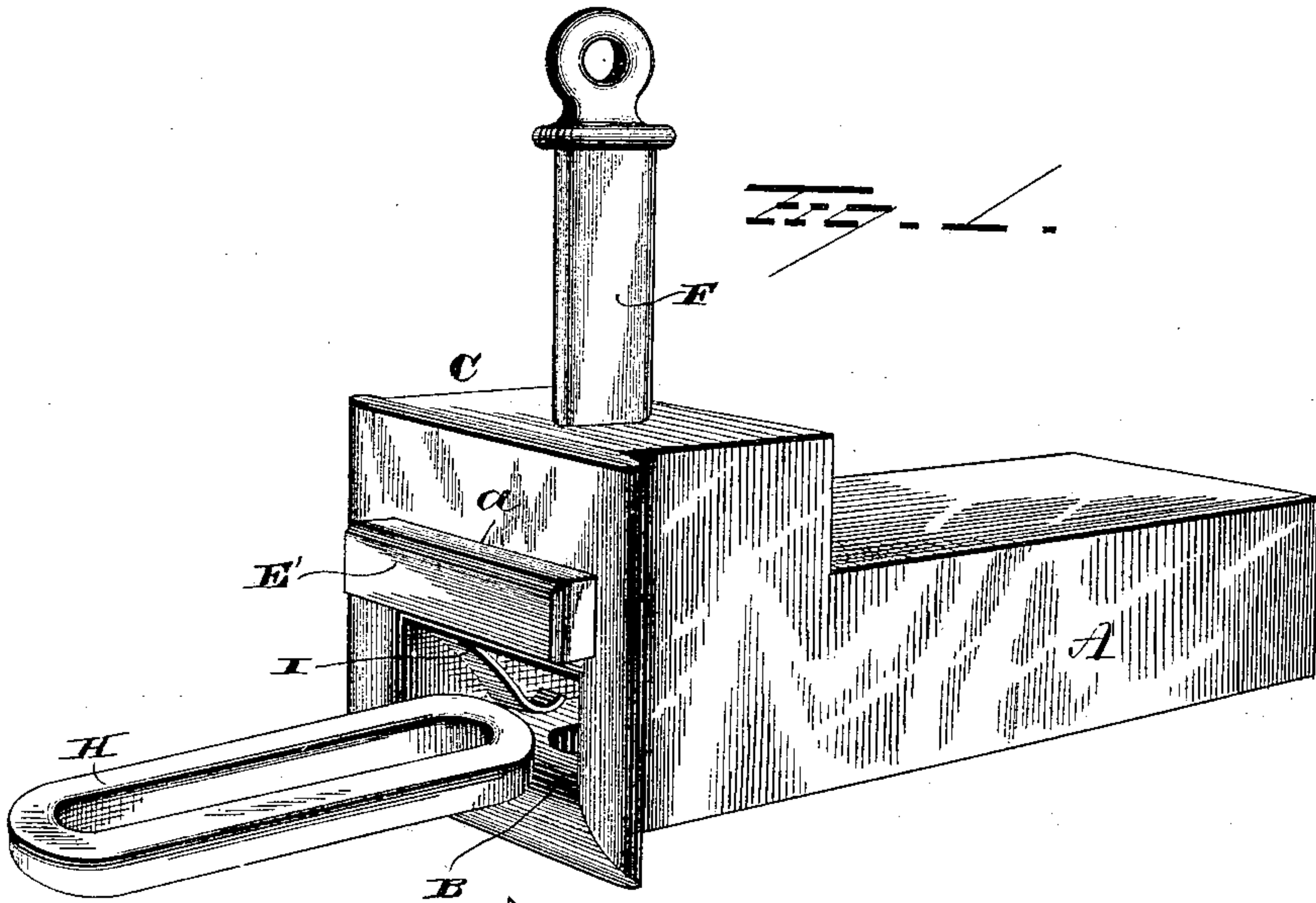
(No Model.)

F. J. SCHUPP.

CAR COUPLING.

No. 329,493.

Patented Nov. 3, 1885.



WITNESSES

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UNITED STATES PATENT OFFICE.

FRED. J. SCHUPP, OF MARSHALL, MISSOURI.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 329,493, dated November 3, 1885.

Application filed September 15, 1885. Serial No. 177,163. (No model.)

To all whom it may concern:

Be it known that I, FRED. J. SCHUPP, of Marshall, in the county of Saline and State of Missouri, have invented certain new and useful Improvements in Car-Couplers; and I do hereby 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.

My invention relates to an improvement in car-couplers, the object of the same being to provide improved devices for holding the coupling-pins in an elevated position and automatically dropping the pins at the proper moment.

A further object is to provide devices for holding the pin and link elevated and automatically releasing the pin when the draw-heads come together; and with these ends in view my invention consists in the parts and combinations of parts, as will be more fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective of a draw-bar or coupler embodying my invention. Fig. 2 is a view in longitudinal section of the same, and Fig. 3 a horizontal section on the lines *xx* of Fig. 2.

A represents a draw-bar of any approved shape and size, provided at its front end or head with the link-pocket B or with a series of link-pockets arranged in different horizontal planes, to enable cars of different heights to be connected. These pockets are preferably provided at their outer edges with beveled faces to guide the links therein, and are sufficiently large to permit the link to have sufficient longitudinal, vertical, and lateral movements to accommodate itself to the position of the draw-bars to which it is coupled. The draw-bar is provided at a point directly over its head or outer end with an enlargement, C, the latter having a rectangular-shaped recess, *a*, on its outer face and a smaller recess or socket, *b*, located in the rear wall of the rectangular recess *a*. The smaller recess or socket, *b*, bisects the pin-hole D, and extends a distance beyond said pin-hole to enable the rear portion of the sliding plate E to engage the rear face or edge of the pin for the purpose of holding the pin in an elevated position.

The sliding plate E has an enlarged head, E', shaped to conform to the shape and size of the

rectangular recess *a*, and with a rearwardly-projecting portion or tongue, E², shaped to conform to the slot *b*. The rear wall of the recess *a*, at a point above the slot *b*, is provided with two or more sockets, *c*, adapted to receive and retain the spiral springs G, which latter project forwardly from the face of said wall and engage the inwardly-projecting lugs D', formed on the rear face of the head E' of the sliding plate E, and tend to hold the outer face of said plate out or beyond the face of the draw-head in the position to be engaged by the coupler of the car to be linked thereto. The section or tongue E² of the sliding plate E is provided with an opening, *d*, corresponding to but larger in size than the pin-holes in the draw-head, for the purpose of permitting the sliding plate to have a limited longitudinal movement when the pin is in its lowered position, and also for preventing the pin from binding. The rear wall, *d'*, of the opening *d* is constructed to form a shoulder, and is adapted, when the pin F is raised, to enter the slot *e* in the lower end thereof and hold the pin in an elevated position with its lower end above the link-pocket. The pin F and the pin-hole can be circular in cross section, or they can be oblong, as shown in the drawings. In the event that the pin be made oblong the slot *e* is formed on the rear side thereof; but if it be made circular the slot should be continuous around the end thereof. The plate E is locked in position within the slots *a b* by the pin G, which latter projects downwardly and passes through a slot or recess, *f*, formed in the section E² of the plate E. By withdrawing this pin and the coupling-pin the plate E can be removed. When the coupling-pin is entirely removed from the draw-head, the rear wall or shoulder, *d'*, of the sliding plate E is carried forward sufficiently far to obstruct the passage of the pin. If the plate E be pushed inward slightly, the pin will fall, and the shoulder *d'* enter the slot *e* and prevent the pin from falling or being withdrawn. When the parts are in their position, the head E' of the plate E projects outwardly from the head of the draw-bar, and is in position to be engaged to by the head or sliding plate of the next coupler, and as soon as the cars come together the sliding plate is forced inwardly, and the pin allowed to drop and couple the cars.

The link H is held in a horizontal position by the inwardly-projecting spring-arms I, which latter are secured at their outer ends in dove-tailed recesses formed in the outer upper face of the pocket and project downwardly and rearwardly a sufficient distance to form a rest for the coupling-link. The coupling-pin can be operated by hand, or it can be connected to levers operated from the side or top of the car, as described. When the pins are in their lowered position, the heads of the sliding plates still project slightly from the draw-heads and form buffers.

By means of the improvement above described it is simply necessary for a brakeman to secure a coupling-link in the draw-head of one car and elevate the pin of the other car before the cars are brought together, and the coupling is done automatically by the draw-heads coming in contact.

I do not limit myself to any particular size or shape of the parts hereinbefore enumerated, as they can be varied considerably without departing from the spirit of my invention. It is also evident that numerous slight changes in the construction and relative arrangement of the several parts might be resorted to, and hence I would have it understood that I do not confine myself to the exact construction shown and described, but consider myself at liberty to make such changes as fairly fall within the spirit and scope of my invention.

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

1. In a car-coupler, the combination, with a draw-head having a link-pocket, a hole for the coupling-pin, and a recess or socket, of the sliding plate located within said recess or socket and provided with an enlarged head, and a spring located between said enlarged head and the draw-head, substantially as set forth.

2. In a car-coupler, the combination, with a draw-head having a link-pocket, a recess or socket, and a hole for the coupling-pin, of yielding arms located within the link-pocket for holding the link in a horizontal position, the sliding plate having an enlarged head, and an opening for the coupler-pin, and springs interposed between said enlarged head and the draw-head, substantially as set forth.

3. The combination, with the draw-head having a link-pocket, the spring-arm located within said pocket, and the coupling-pin, of the sliding plate, substantially as set forth, springs for forcing the plate outwardly, and the pin for locking the plate within the draw-head.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

FRED. J. SCHUPP.

Witnesses:

J. L. WOODBRIDGE,
J. A. TIPPING.