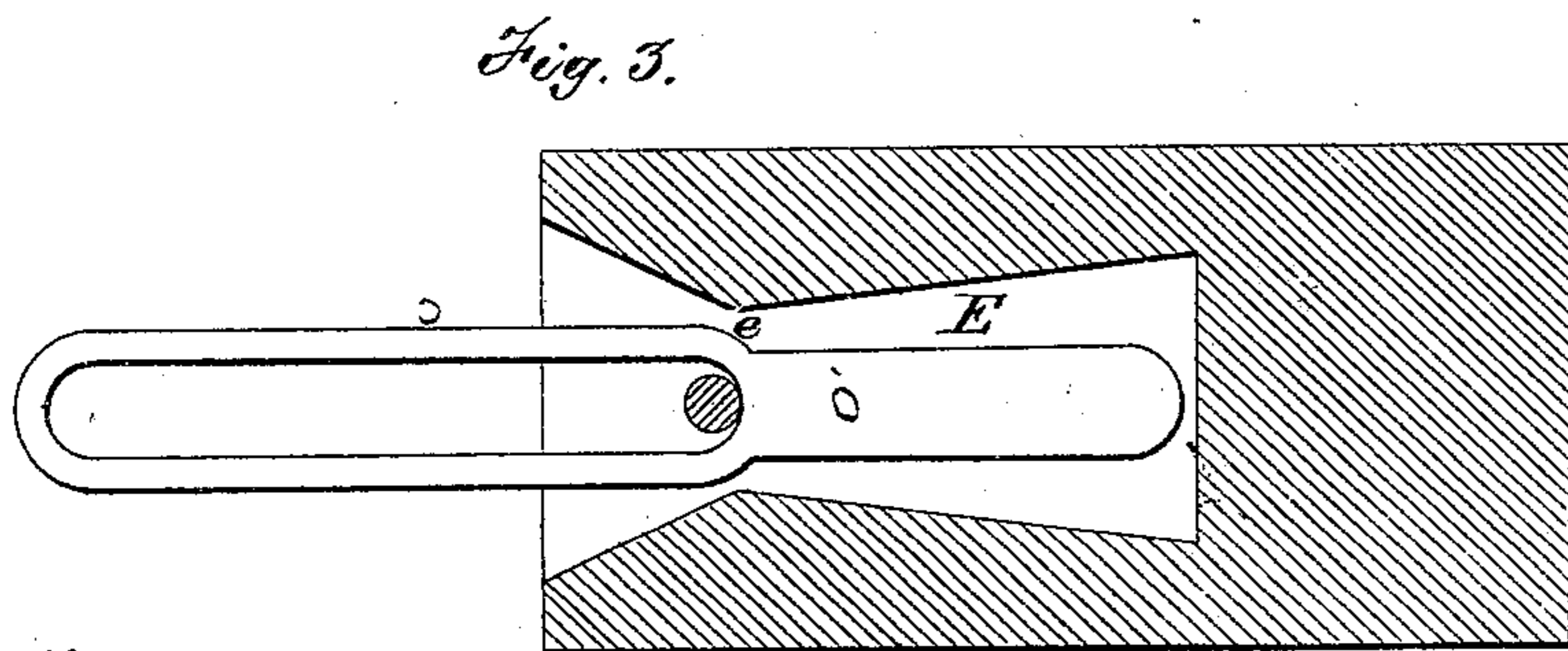
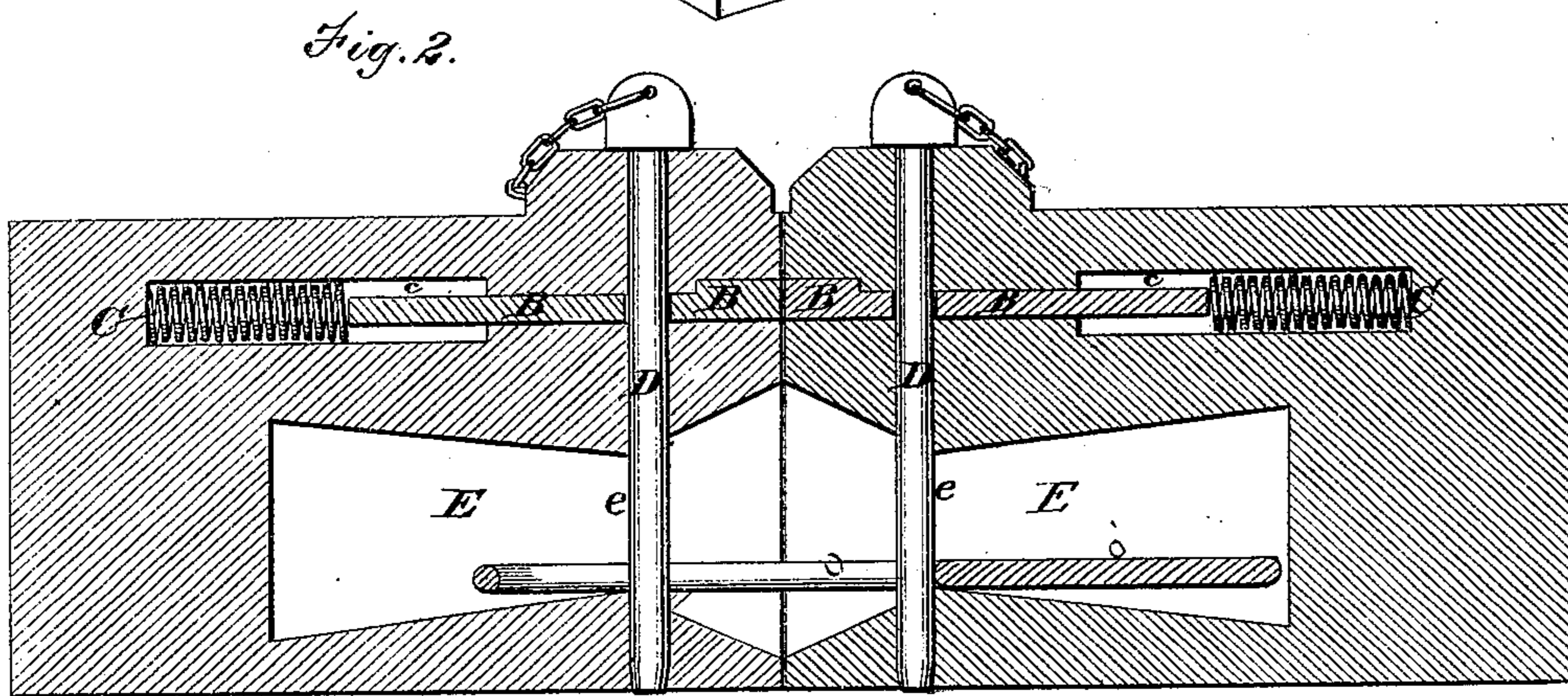
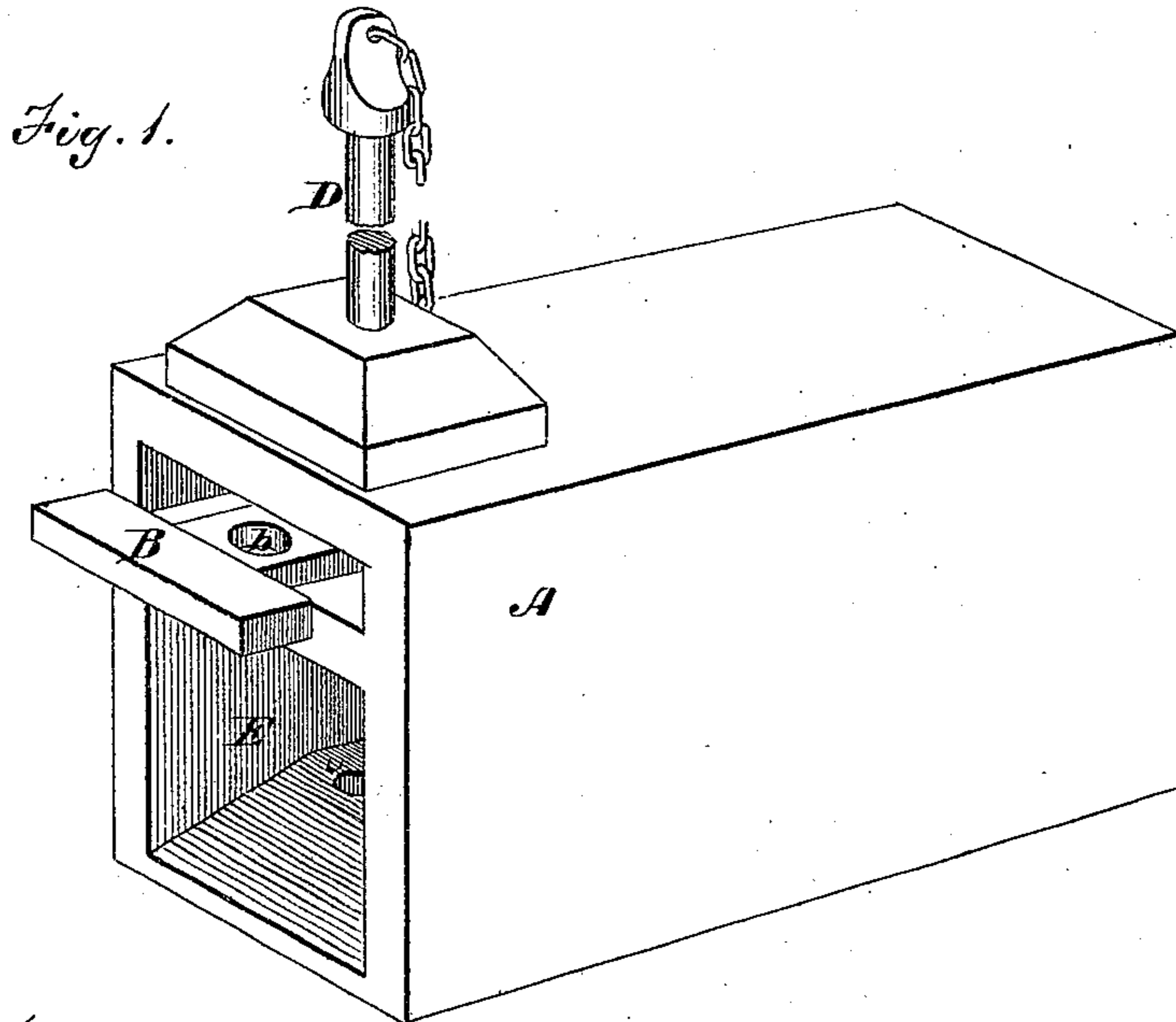


**B. D. MOODY.**  
**Car-Couplings.**

No. 139,016.

Patented May 20, 1873.



*Witnesses.*  
*C. F. Brown.*  
*Walter H. Elsworth.*

*Inventor.*  
*Benjamin D. Moody.*  
*by his Attys.*  
*Wm. & Ellsworth.*

# UNITED STATES PATENT OFFICE.

BENJAMIN D. MOODY, OF DARKSVILLE, MISSOURI.

## IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **139,016**, dated May 20, 1873; application filed May 28, 1872.

*To all whom it may concern:*

Be it known that I, BENJAMIN D. MOODY, of Darksville, in the county of Randolph and State of Missouri, have invented a new and Improved Car-Coupling; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a perspective view of a draw-head having my invention. Fig. 2 is a vertical central section, showing two draw-heads in contact; and Fig. 3, a transverse central section of one draw-head.

Similar letters of reference in the accompanying drawing denote the same parts.

This invention relates to automatic car-couplings, in which the pin is held above the mouth of the draw-bar by a sliding spring-block, which is struck by the end of the adjacent draw-head and forced backward, allowing the pin to drop into place when the cars come together; and it consists mainly in the peculiar construction and arrangement of the sliding block hereinafter described, and also in the formation of the recess of the draw-head, whereby the link which rests therein is allowed free lateral and vertical play, said link being suitably balanced in the throat of the draw-head, so that its projecting end may properly enter the draw-head of the adjacent car, whether the latter be higher or lower, or otherwise out of line or not.

A represents the draw-head, in the upper portion of which is a socket for the reception of a block, B; said block slides in its socket, and is pressed outward by a spiral spring, C, which is located in a chamber, *c*, in the rear of the block. The block B is T-shaped, its wide end projecting from the draw-head A transversely, and extending nearly across the same, as shown in Fig. 1. When in this position the coupling-pin D rests upon the shank of the block B, and is held up thereby; an orifice, *b*, in the shank allowing the pin to drop through at the proper time and enter the recess below. It will be seen that, upon the contact of the draw-head A with that of the adjacent car, the block B will be struck and forced inward until its outer end is flush with that of the draw-head, at which point the ori-

fice *b* comes in line with the pin, and allows it to drop and engage with the link in the usual manner.

I am aware that the idea of holding the pin before coupling by a sliding spring-block is not new. In devices of this kind heretofore in use, however, the block has been constructed with a shoulder or arm, which projects downward into the recess of the draw-head, in order that the device may be operated by contact with the end of the link as well as by the bumper, while the projecting end of the block has usually been made with a small striking-surface, the entire block, in fact, being a rectangular sliding piece, provided with a downwardly-projecting arm, which construction is liable to the following objections, viz: First, the danger of breaking the projecting shoulder when the link is longer than usual, and is forced against it when the cars are brought sharply together, in which case the link is crowded between the end of the recess in the opposite draw-head and the shoulder of the sliding block, and is extremely liable to break the latter; second, the liability of the end of the sliding block failing to collide with the approaching bumper when the latter is so far out of line as to strike on either side of the block, or allow the same to enter its mouth, consequently producing no effect.

These objections are entirely removed in my invention, as the block B slides in a chamber above and entirely distinct from the recess of the draw-head, and, therefore, has no connection whatever with the link. The wide projecting end of the block cannot well escape coming in contact with the adjacent draw-head, as it covers nearly the entire width of the same. The operation is, therefore, certain, and the liability to breakage obviated. The walls of the recess E of the draw-head taper inward from the mouth to a throat, *e*, as shown in Figs. 2 and 3, from which they flare outward again to the inner end of the recess. The link *o* employed is weighted at one end, *o'*, in such manner as to balance itself on the throat *e*, and thus be in a position to swing freely in either direction, laterally or vertically, and accommodate itself to the position of the draw-head of the adjacent car.

In draw-heads of the usual form the recesses

commonly have parallel sides, and are of such width as to allow but little lateral play to the projecting end of a link held therein. Frequently, in coupling cars, the draw-heads are out of line with each other longitudinally, when the cars are on a curve of the track, for instance. Under such circumstances, it is desirable to allow the link to swing laterally to accommodate itself to the positions of the draw-heads. In my invention this result is obtained by the shape of the recess E, as above stated; hence the link is secure from breakage from the cause described, as it cannot bind in the draw-heads.

Having thus described my invention, what I claim is—

The draw-head A having the recess E, with tapering walls and throat *e*, in combination with the weighted link *o o'* and T-shaped block B, operating in a separate recess, and with the spring C and pin D, all constructed and arranged to operate as specified.

BENJAMIN D. MOODY.

Witnesses:

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