

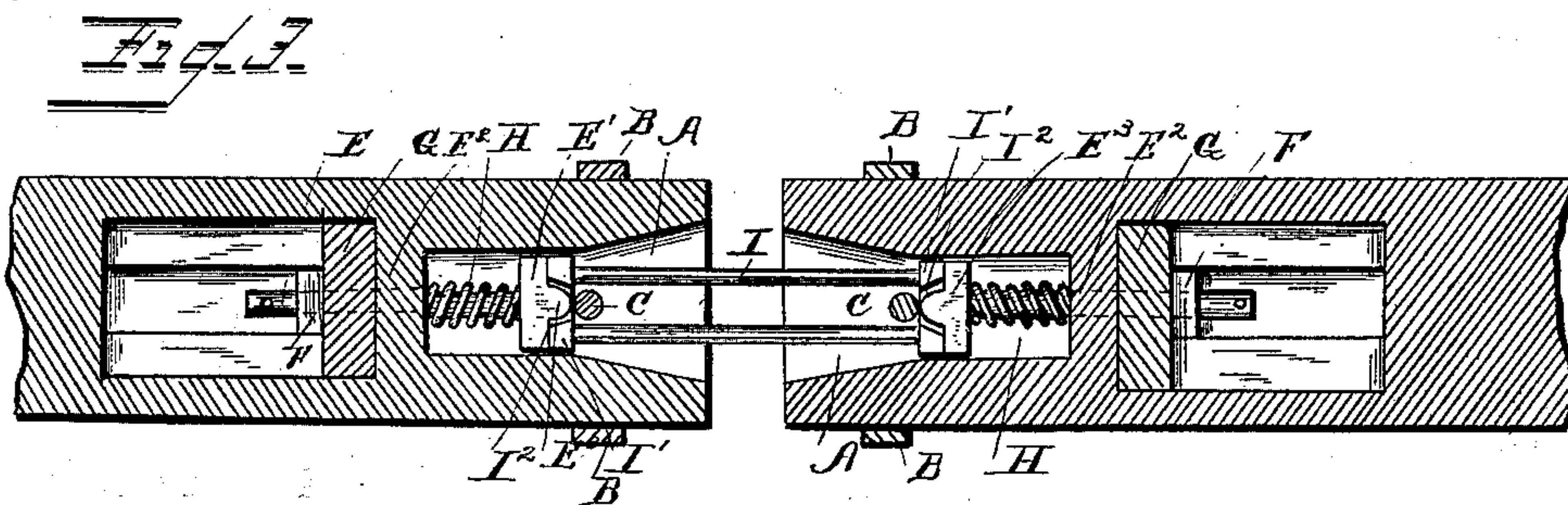
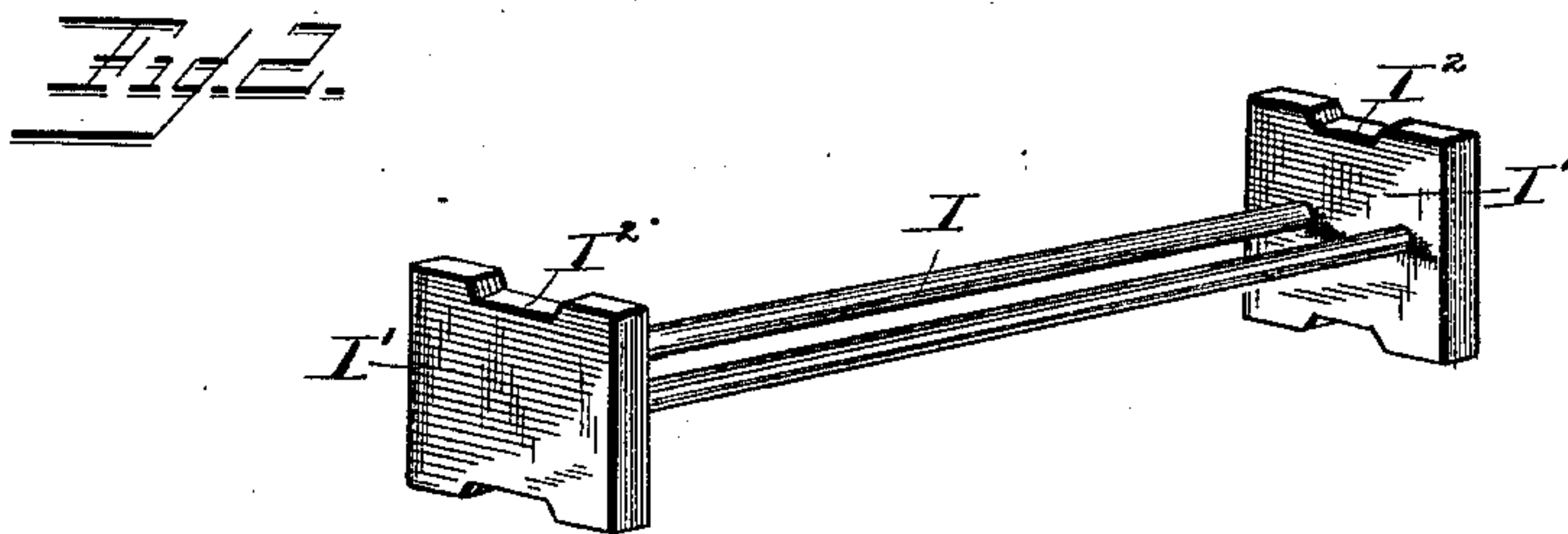
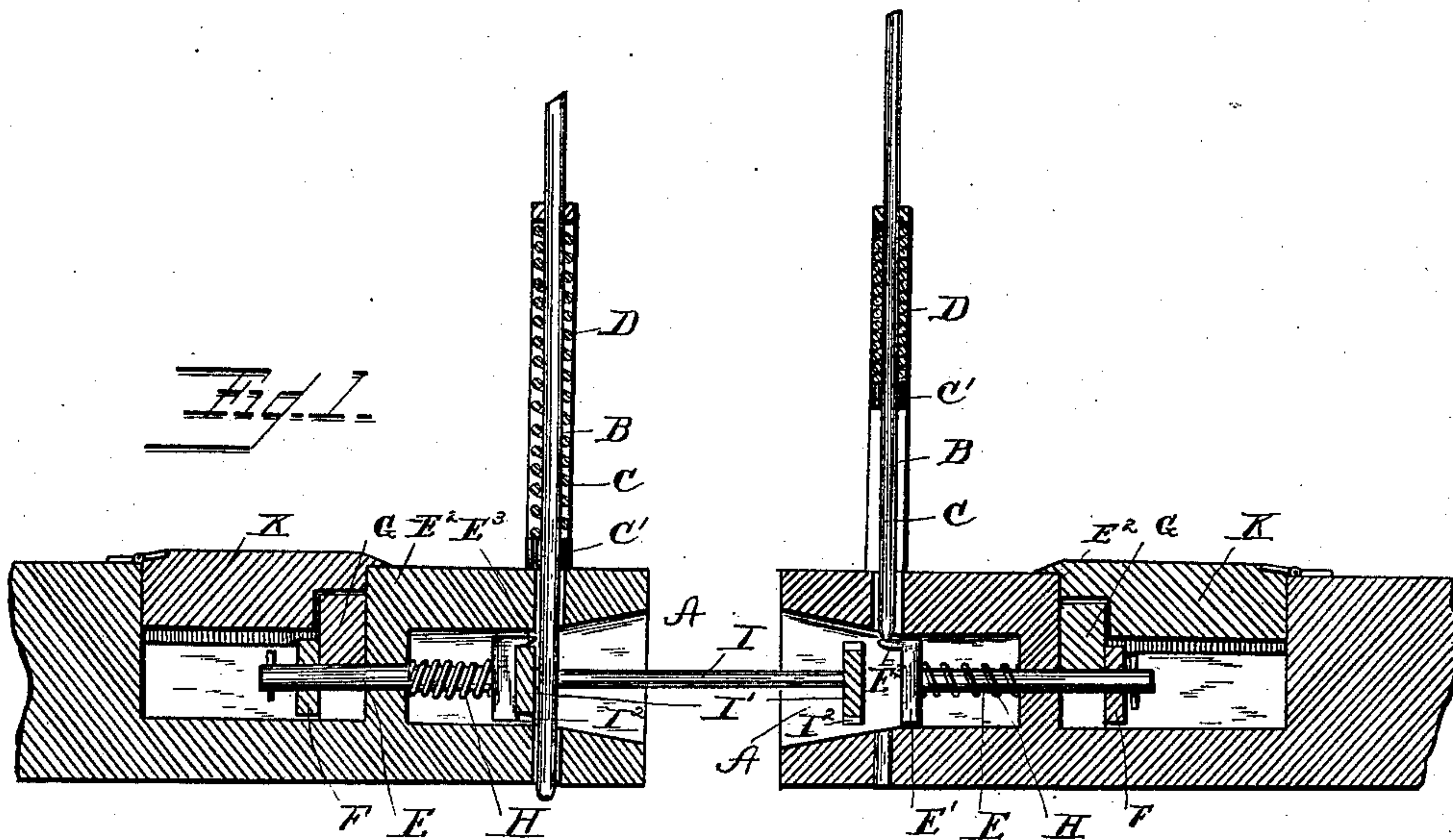
(No Model.)

A. Z. SWINGLE.

CAR COUPLING.

No. 359,647.

Patented Mar. 22, 1887.



Witnesses

H. A. Smith.

E. F. Murdoch.

Inventor

Alonso J. Swingle

By his Attorney

J. Tarbell

UNITED STATES PATENT OFFICE.

ALONZO Z. SWINGLE, OF RONDO, MISSOURI.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 359,647, dated March 22, 1887.

Application filed October 14, 1886. Serial No. 216,241. (No model.)

To all whom it may concern:

Be it known that I, ALONZO Z. SWINGLE, a citizen of the United States of America, residing at Rondo, in the county of Polk and State of Missouri, 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 improvements in car-couplings; and it consists in the construction and arrangement of the parts, whereby the operation is performed with certainty and without danger to the operator, and the parts can be taken out and repaired or replaced with little or no inconvenience.

In the drawings, Figure 1 is a longitudinal section of the couplings, showing the link engaged by one and in position to engage the other. Fig. 2 is a detail view in perspective of the link. Fig. 3 is a sectional plan view of the couplings.

The draw-head A in this coupling is constructed with the flaring mouth, as in those already in use. To the sides of the draw-head are fastened the ends of the yoke B, which extends up above the draw-head, for the greater convenience of the operator.

The yoke and the upper and lower sides of the draw-head are provided with perforations, through which passes a bolt, C. The bolt C has a collar, C', near the middle, which is larger than the perforations above referred to. Enfolded the bolt C, and interposed between the collar C' and the yoke B, is the coiled spring D.

In the rear wall of the draw-head A is a perforation, through which a rod, E, passes. The rod E is provided with a head, E', corresponding in size and shape to the draw-head A, and adapted to move back and forth in it, and a shoulder, E². The head E' is provided with the projecting lip E³. Bearing against the shoulder is a detachable ring, F, which is held in position by a pin passing through the rod E to the rear of the ring. Over the rod E, and in front of the ring F, is placed a block, G, which has a slot cut in it fitting the rod, and a hand-hold near the top for detaching it from the draw-head. Enfolded the rod E, and interposed between the head thereof and the block G, is a coil-spring, H.

Over the channel in which are the block G and ring F is a door, K, to enable the operator to get at the parts to take them out or to replace them. The link I is provided with heads I', corresponding in shape to the head E' of the rod E, for the greater convenience of manufacture and durability, which are provided with the groove I², to allow the lip E³ to set over them against the bolt C.

When it is desired to couple cars provided with my invention, one of the meeting draw-heads is provided with the link I, and the bolt C in the other raised to operate. This is done by raising the bolt by hand until the end is above the head E' of the rod E. When the bolt reaches this position, the spring H shoots the rod E forward and protrudes the lip E³ under the bolt, the ring F preventing it from going any farther. When the car, with the link, now bumps the other, the link is guided into the draw-head by the flaring portions, where it comes in contact with and forces back the head E' of the rod E until the lip E³ is moved from under the bolt C. The bolt is then forced down through the perforations in the draw-head by the spring D and behind the head of the link.

When the parts are to be removed, the door K is lifted, the piece in the rear of the ring F is removed from the rod E, the ring F is removed, the bolt C is raised, and the rod E and coil-spring H taken out through the draw-head.

What I claim is—

In a car-coupling such as described, the combination of a bolt provided with a spring adapted to operate said bolt, a rod provided with a head fitting the draw-head of said coupler, a spring adapted to force said head under said bolt, stops to regulate such movement, and a link consisting of parallel bars joined at their ends by flat heads corresponding in shape to the draw-head of said coupler, and adapted to be held in horizontal position by the pressure of said coupling-rod against said coupling-pin, substantially as set forth.

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

ALONZO Z. SWINGLE.

Witnesses:

J. R. ALLISON,
G. D. SWINGLE.