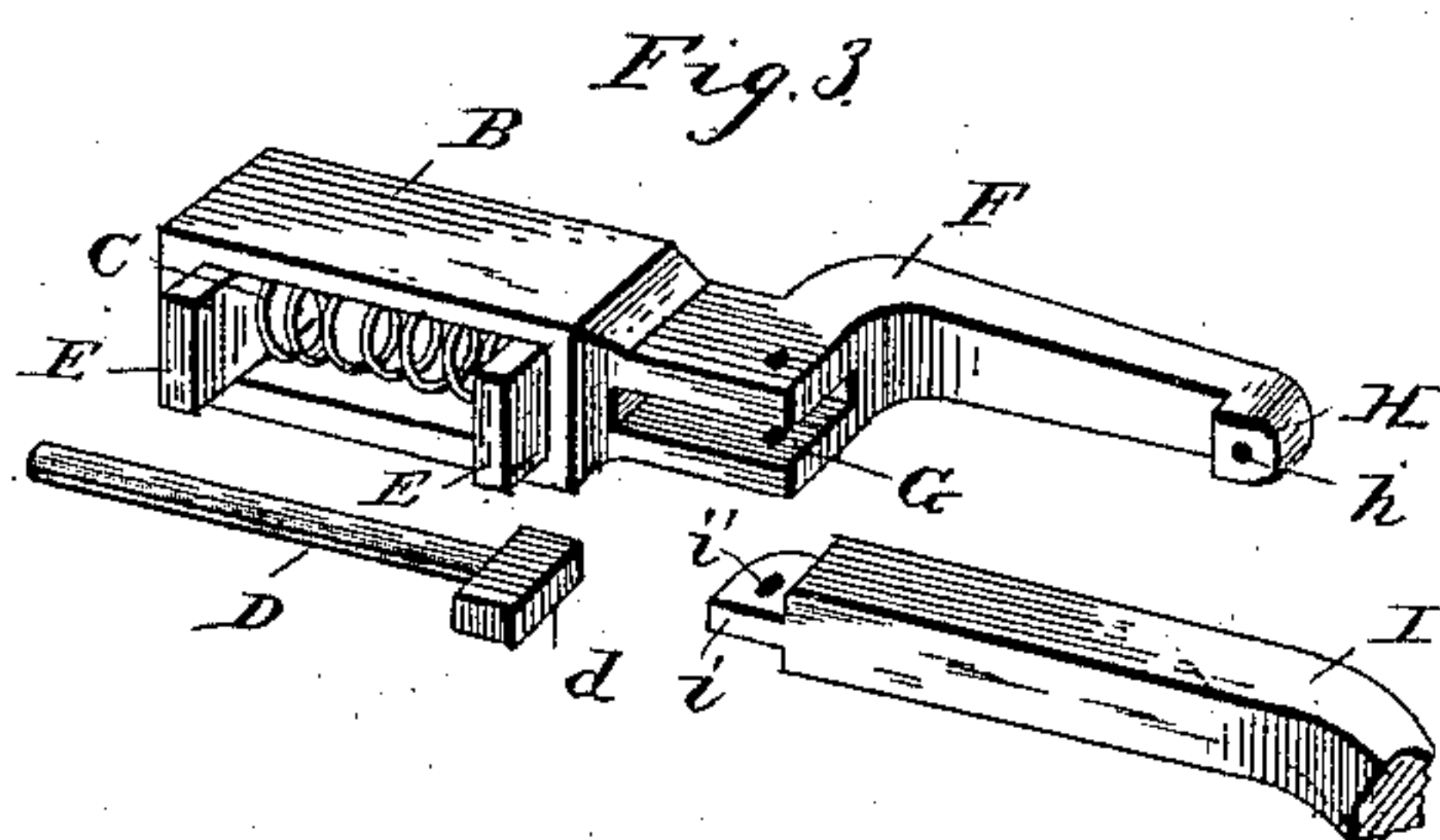
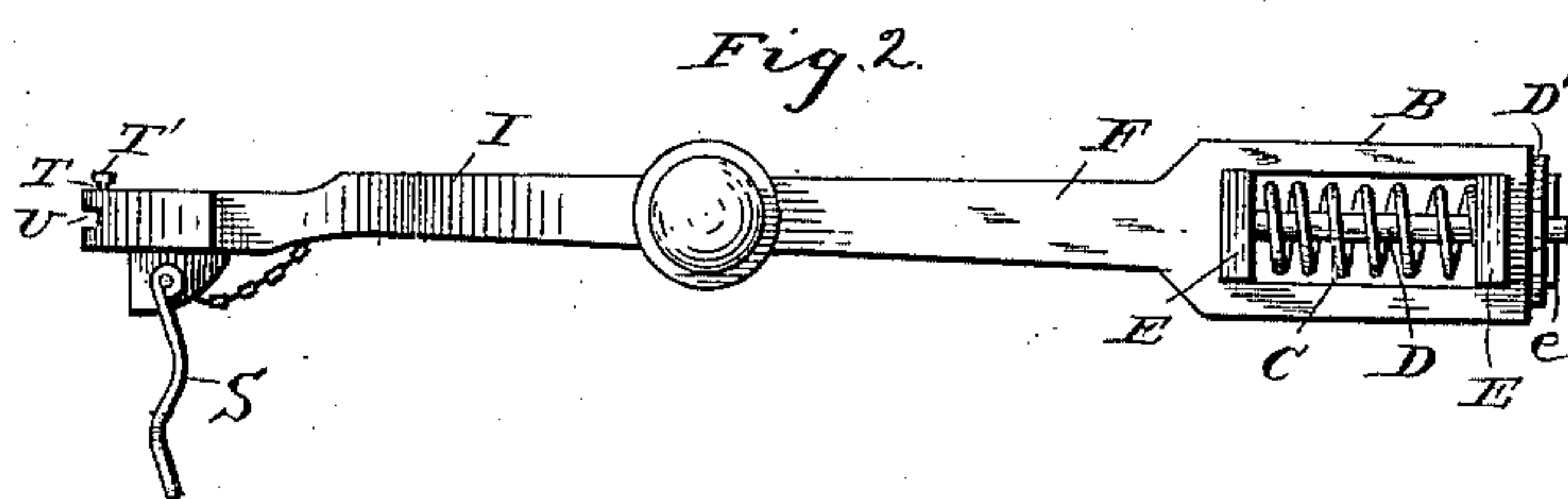
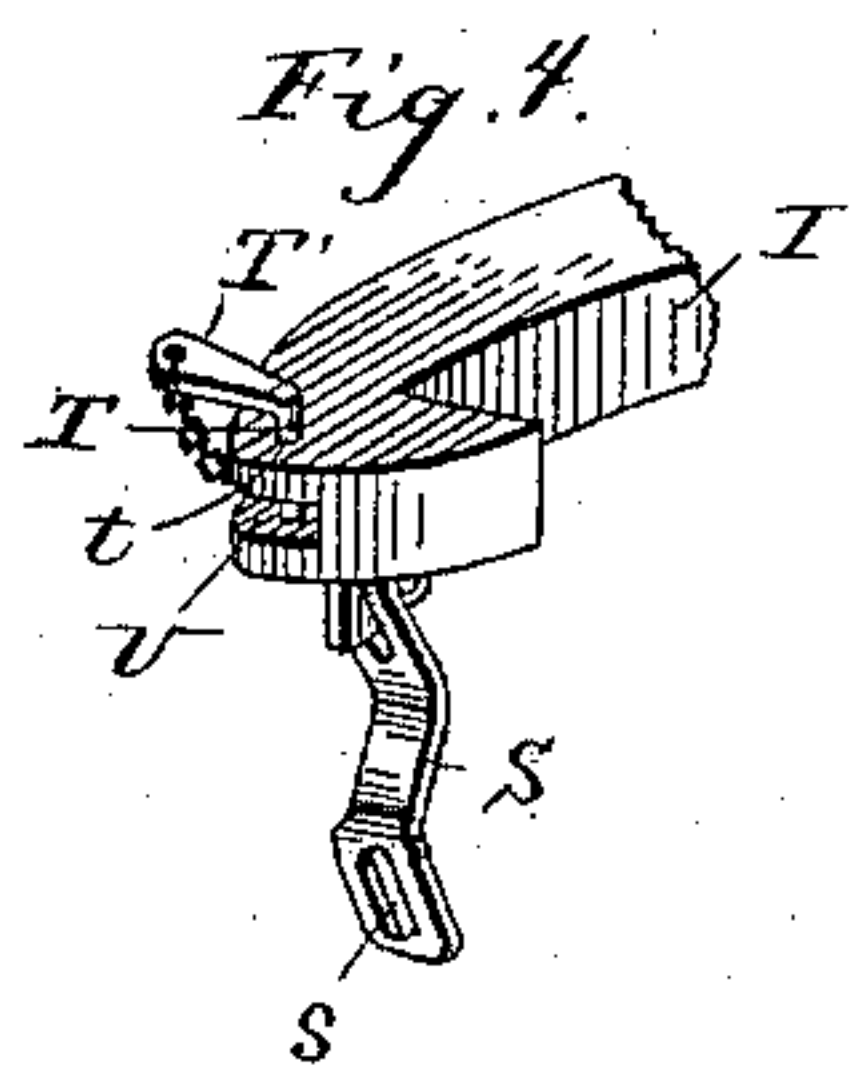
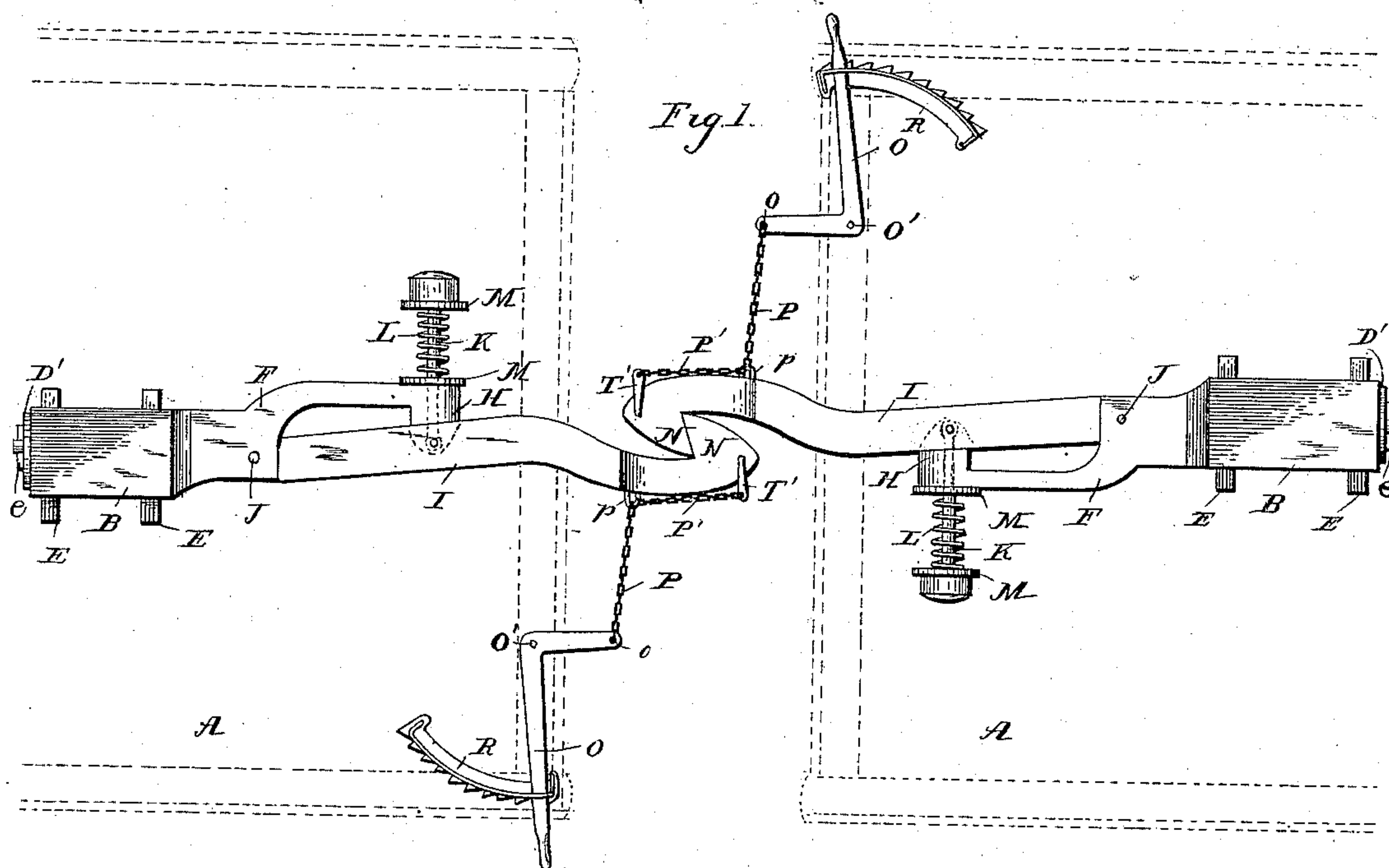


(No Model.)

J. B. McCRAY & D. E. SHADE.
CAR COUPLING.

No. 378,702.

Patented Feb. 28, 1888.



Witnesses
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By their Attorney,

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UNITED STATES PATENT OFFICE.

JOHN B. McCRAY AND DAVID E. SHADE, OF CORBIN, KANSAS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 378,702, dated February 28, 1888.

Application filed October 11, 1887. Serial No. 252,049. (No model.)

To all whom it may concern:

Be it known that we, JOHN B. McCRAY and DAVID E. SHADE, citizens of the United States, residing at Corbin, in the county of Sumner and State of Kansas, have invented a new and useful Car-Coupler, of which the following is so full, clear, and exact a description as will enable others skilled in the art to which our invention appertains to make and use the same, reference being had to the accompanying drawings.

This invention relates to an improvement in car-couplers or means for connecting and securing together railway-cars; and it consists in certain peculiarities in the construction, arrangement, and combination of parts, substantially as will be hereinafter described, whereby a simple and inexpensive car-coupler is constructed which will automatically secure two railroad-cars together, and which will obviate the necessity of going between the cars to uncouple them.

In the accompanying drawings, illustrating our invention, Figure 1 is a bottom plan of two railway-cars, showing them as coupled together by our improved car-coupler. Fig. 2 is a side plan of one of the couplers. Fig. 3 is a perspective view of the same, showing the parts disconnected. Fig. 4 is a perspective of the end of one of the couplers.

Similar letters of reference designate similar parts throughout the several views.

A A represent two cars, which are shown in the drawings as coupled by our improved coupler.

B designates a hollow spring-casing, made of any suitable material and of any form and size. This casing is adapted to receive and accommodate a coil-spring, C, which is held in position by a headed bolt, D, (shown in Fig. 3,) which extends longitudinally through the said spring-casing. This spring-casing B has also situated within it, at the outer extremity of the hollowed portion, metal plates E E, which extend out beyond the sides of the said casing B, and serve as abutments for the coiled spring C and also as bearings for metallic plates (not shown) secured to the car. A curved bar, F, extends forward from the spring-casing B, and is preferably made integral therewith. This curved bar is formed at its inner extremity with a slot, G, and at its outer ex-

tremity with a head, H, having a perforation, h. The bolt D, when in position, has its head d situated within this slot G, and, as before stated, extends through the hollowed portion of the spring-casing, passing through perforations formed in the metallic plates E for its reception, is encircled by the spring C, and passes out through said casing, where it is secured by a pin, as e, and may be provided with a washer, D'. It will thus be seen that the coiled spring C will lessen the jar or strain incident to two cars coming together, either in coupling or starting and stopping. The slot G is also adapted to receive the extremity i of a draw-bar, I, which extremity is preferably made smaller, for the purpose as best shown in Fig. 3. This extremity i is formed with a perforation, i', for the reception of a pin, J, which forms a pivot for said draw-bar, permitting it to have a lateral movement.

A bolt, K, extends through the perforation h in the curved bar F, and has its extremity pivoted in an elongated slot in the draw-bar I. A spring, L, encircles the bolt K, and has its extremities abutting against washers M M, situated on the said bolts. This spring serves to keep the draw-bar normally in contact with the curved bar F, as will be readily seen.

The outer extremities of the draw-bar I are formed as a hook, N, with a curved face. It will thus be seen that our coupling will automatically couple two cars. The hook N of the said draw-bar is depressed somewhat, so that the said end will be slightly lower than the draw-bar, as clearly shown in Fig. 2.

In order to uncouple cars without the necessity of going between them, we have secured a lever, O, preferably to the front of the car, having its fulcrum at O', and formed with a perforation, o, which connects by means of the cable or chain P with an eye, p, secured to the hook end of the draw-bar I, and another cable, P', connects the eye p with a removable pin, T, situated within the extremity of the draw-bar. The purpose of securing the cables P and P' to the eye p, and thus having two cables instead of one continuous one, will be hereinafter described. The lever O is held in any desired position by means of a notched segment-bar, R, secured to the bottom of the car, and it will thus be observed that the necessity of going between the cars in order to

uncouple will be obviated. A link, S, having a perforation, s, is pivotally secured to the forward extremity of the draw-bar I, and a pin, T, having a head, T', extending at an angle thereto, is situated within the perforation t, formed in the extremity N of the draw-bar I, and the said pin extends entirely through the said draw-bar I. It will thus be seen that the coupling herein described can be connected to couplings of another character, the advantages of which will be readily comprehended by those familiar with this class of devices.

In order to connect our coupling with the ordinary coupling, which consists of links and a linchpin, the pin T is removed from the draw-bar, and the link of the other coupling is inserted within the recess U, formed in the extremity of the draw-bar I for its reception. The pin T is then replaced, and the two couplings will be connected in a perfect manner; or the link S may be used, in which event the linchpin of the other coupling will pass through the perforation s.

We do not wish to be understood as limiting ourselves to the exact construction and arrangement of parts herein shown and described, as many of the details might be varied at will without departing from the spirit of our invention or in any manner interfering with its usefulness.

Having now described the construction, operation, and advantages of our invention, what we believe to be new, and desire to secure by Letters Patent, and what we therefore claim, is—

1. In a car-coupling, the combination, with the spring-casing having a slotted curved bar provided with a perforated head, of a draw-bar pivoted to the slotted portion of the curved bar and connected to the head of said curved bar by means of a spring-bolt, as shown and described, and for the purposes set forth.

2. In a car-coupling, the combination, with the casing having a curved bar provided with a slot at the intersection of said casing and bar, said bar also provided at its outer end with a perforated head, of a draw-bar pivoted in the slot of the curved bar and connected at the head thereof by means of a headed bolt and a coiled spring on said bolt, as shown and described, and for the purposes set forth.

3. In a car-coupling, the combination, with the casing having a curved bar provided with a slot and head, a spring-bolt located in said casing, said bolt having a head located and operating in the slot of the curved bar, of a draw-bar pivoted to the slot and head of the curved bar, said head of said curved bar provided with a spring, and a lever having a chain connected to the hook end of the draw-bar at two different points, as shown and described.

In testimony whereof we affix our signatures in the presence of two witnesses.

JOHN B. McCRAY.
DAVID E. SHADE.

Witnesses:

T. P. CHRISTY,
L. E. CHRISTY.