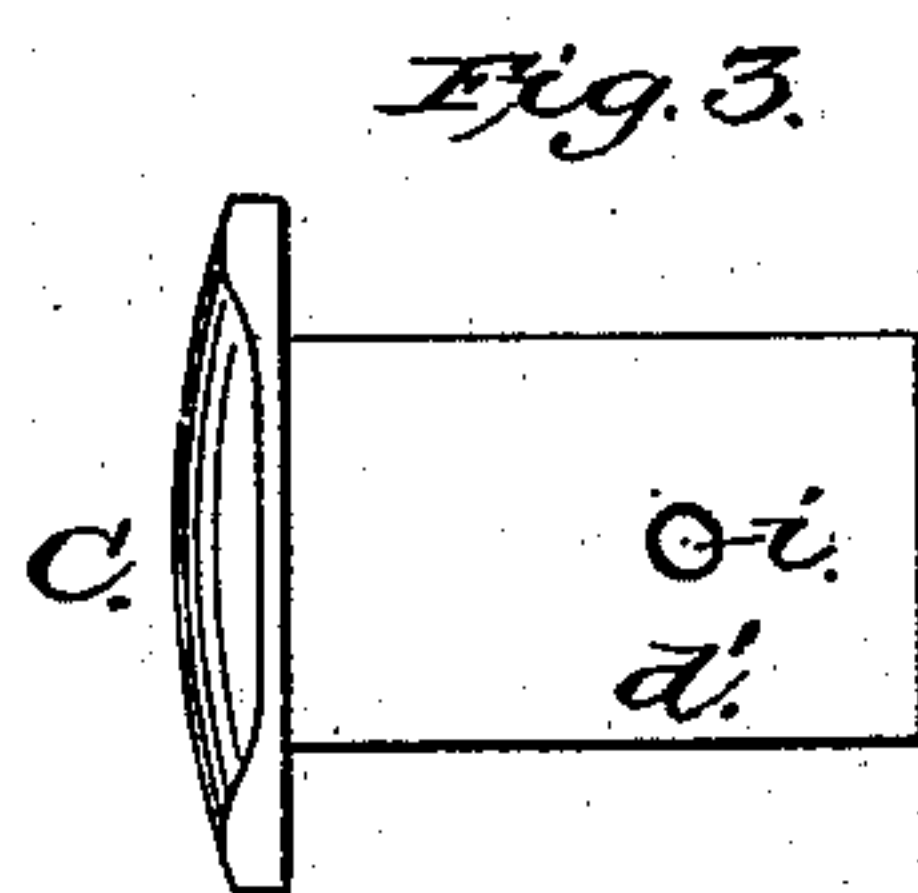
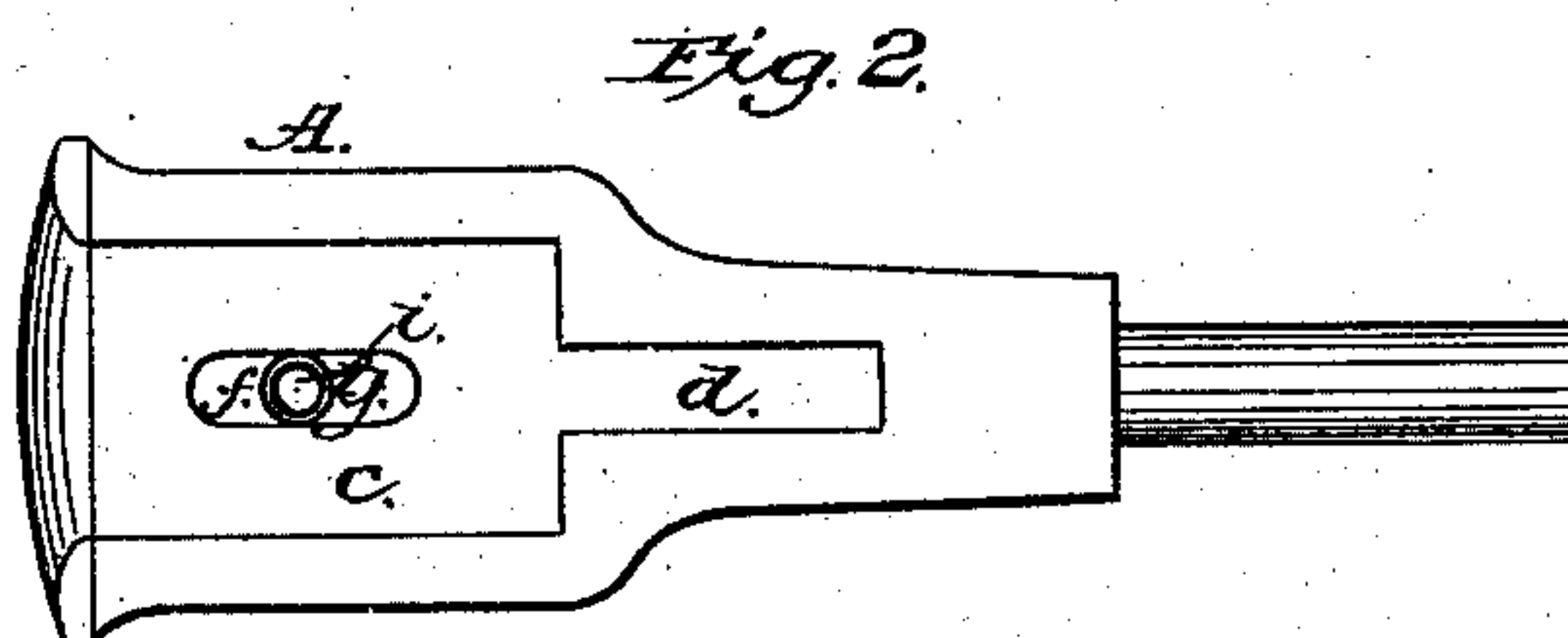
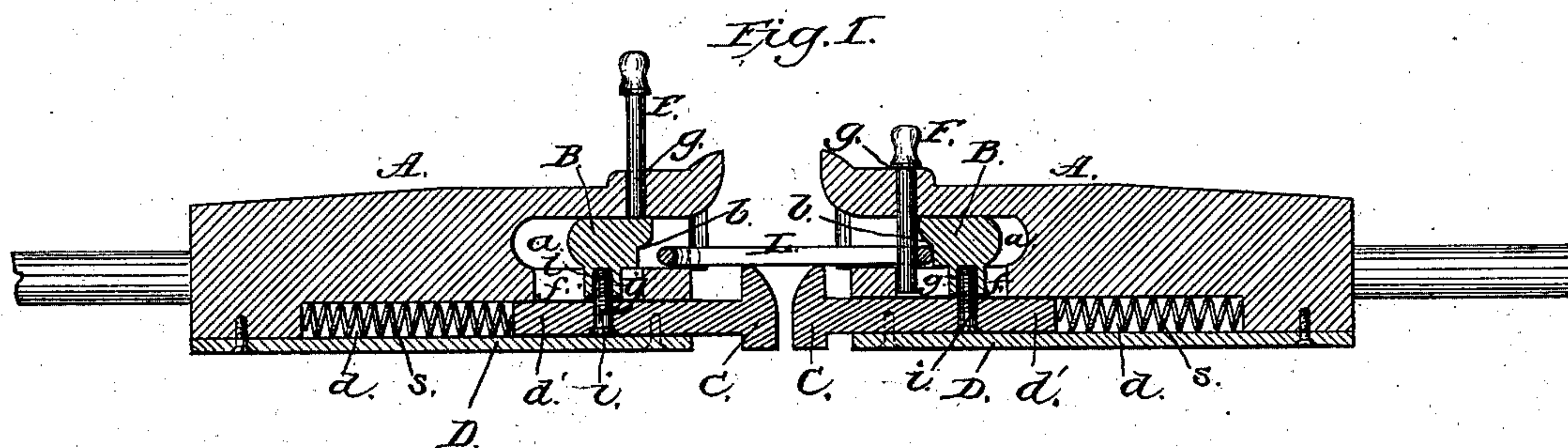


(No Model.)

F. M. RICKER.
Car Coupling.

No. 237,321.

Patented Feb. 1, 1881.



WITNESSES

Mary B. Utley.
F. J. Hasi.

INVENTOR

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UNITED STATES PATENT OFFICE.

FRANCIS M. RICKER, OF SALEM, MASSACHUSETTS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 237,321, dated February 1, 1881.

Application filed June 26, 1880. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS M. RICKER, of Salem, in the county of Essex and State of Massachusetts, have invented a new and valuable Improvement in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a longitudinal section of my improved car-coupling. Fig. 2 is a bottom view of the draw-head, and Fig. 3 is a detail.

This invention has relation to improvements in car-couplings; and it consists in a buffer on the draw-bar projected by a spring and connected to a slide-block in the chamber of the draw-bar aforesaid, which block supports the pin, and when thrust back by the contact of the buffers allows the pin to drop through the link, as will be hereinafter more fully set forth.

In the accompanying drawings, the letter A designates a draw-bar, suspended in the usual manner at the end of a car, and provided with a rectangular chamber, *a*, in which is arranged a slide-block, B, having an undercut front end, *b*. On the under side of this draw-bar is formed a rectangular recess, *c*, and in rear of said recess and in continuation thereof a narrow groove, *d*, in which is seated a spiral spring, *s*, bearing against the inner end or heel of the shank *d'* of the buffer C. This buffer has free endwise movement in the recess *c* and conforms in shape thereto. It is projected by the spring *s*, so that its head reaches out a considerable distance beyond the front of the draw-bar. The spring and buffer are confined in their respective recesses by means of the metallic plate D, secured to the body of the draw-bar by means of screws. The recesses *c d* may, however, be cast in the draw-bar if I so elect, and the spring *s* put in position through a slot in its side. In the bottom of the draw-bar chamber is formed a longitudinal slot, *f*, in which is engaged a stud, *g*, of tubular form, in which is received a pin, *i*, on the shank of the buffer. Consequently as the said buffer is projected the

slide is also drawn forward under the pin-hole *g* in the top of the draw-bar, and a pin, F, inserted in said hole cannot drop through the chamber into the slot *f*. This is accomplished when the buffers C on adjoining cars come together, are thrust inward into their respective recesses and push the slides back past the holes *g*, when the pin F falls through a coupling-link, L, into engagement with the slot *f*, thus effecting a coupling automatically.

It will be observed that the slide is not thrust back into its chamber by the impact of the link, but by the coming together of the buffers C in the draw-bars, by which means the said slides are prevented from being battered, and the links from being bent and broken. These buffers also moderate the shock when the draw-bars come together.

What I claim as new, and desire to secure by Letters Patent, is—

1. In an automatic pin-and-link coupling, the spring-projected endwise-movable buffer connected to a slide moving endwise in a chambered draw-bar and supporting the coupling-pin, substantially as specified.

2. The combination, with a draw-bar, A, having the chamber *a*, and the sliding block B, arranged in said chamber and supporting the pin F, of an endwise-movable spring-projected buffer, C, recessed into the lower portion of the draw-bar and connected to the said slide, whereby they move back and forth together, substantially as specified.

3. The combination, with the draw-bar A, having the longitudinal recesses *c d* on its under side, and a rectangular chamber, *a*, above said recesses and communicating therewith by a longitudinal slot, *f*, and the slide B, having tubular stud *g* on its under side, of the spring-projected buffer C engaging recess *c*, and having the pin *i* entering the stud and connecting the slide and buffer, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

FRANCIS MOORE RICKER.

Witnesses:

HENRY P. IVES,
AUG. P. IVES.