

JOSEPH B. TRACY.

Improvement in Car Coupling.

No. 121,823.

Patented Dec. 12, 1871.

Fig. 1.

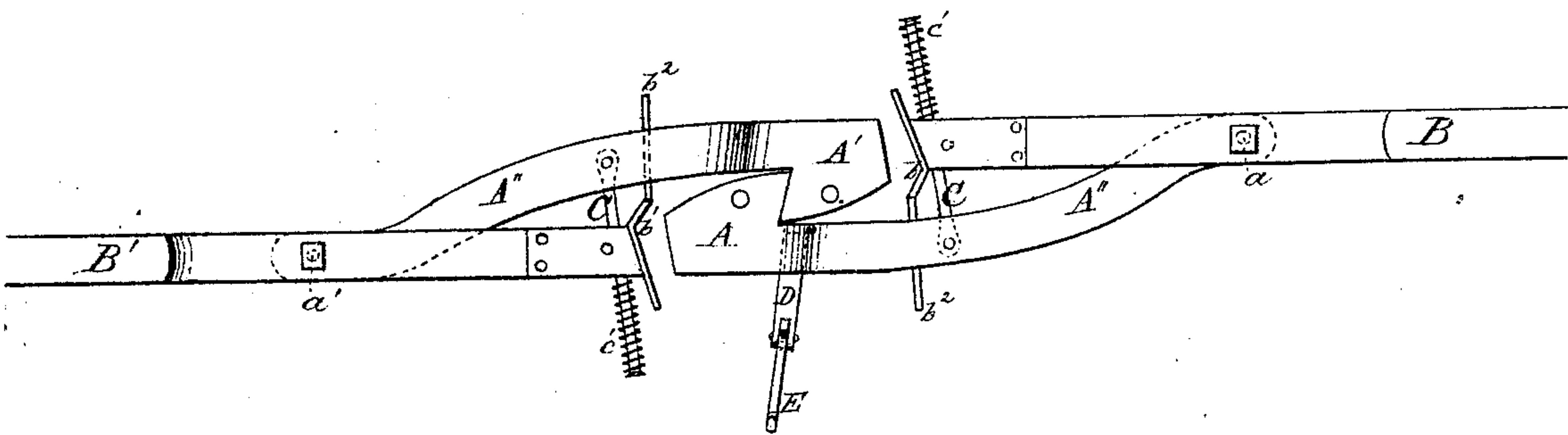


Fig. 2.

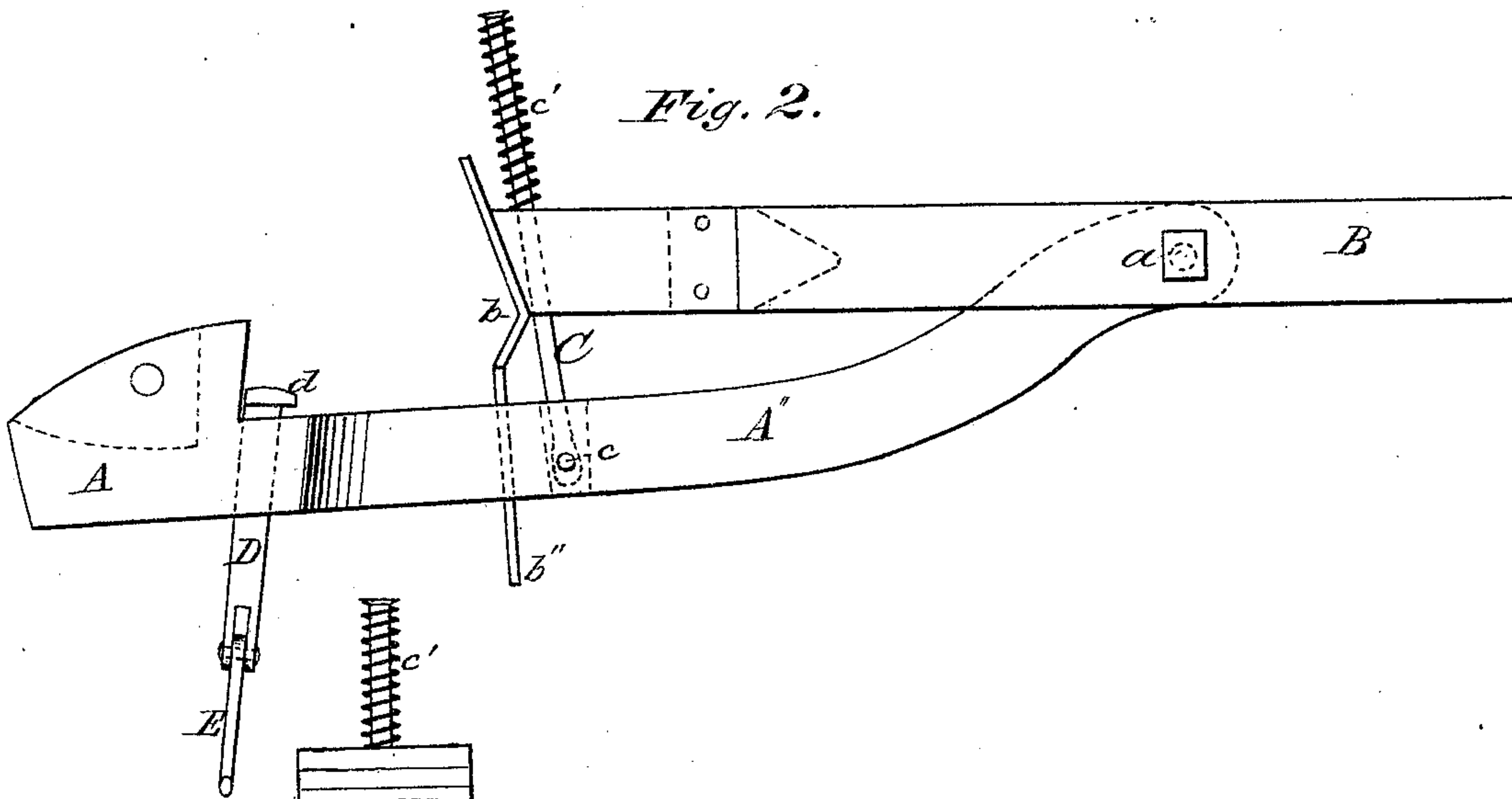
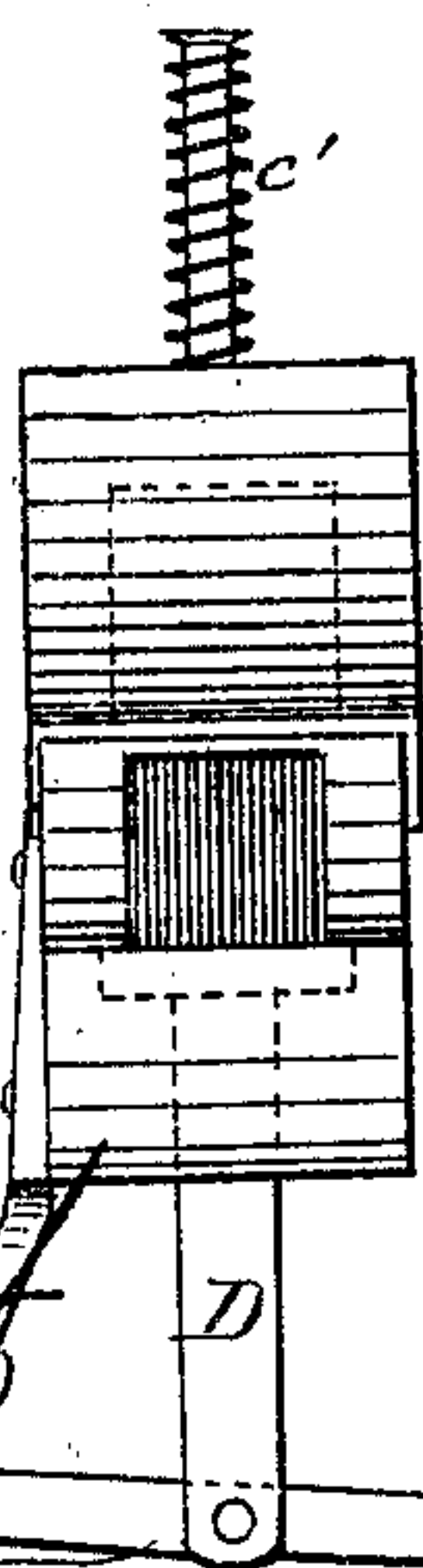


Fig. 3.



Inventor:

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UNITED STATES PATENT OFFICE.

JOSEPH B. TRACY, OF LINCOLN, DELAWARE.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 121,823, dated December 12, 1871.

To all whom it may concern:

Be it known that I, JOSEPH B. TRACY, of Lincoln, county of Sussex, and State of Delaware, have invented certain new and useful Improvements in Car-Couplings; of which the following is a specification, enabling others skilled in the art to make and use the same.

The object of my invention is to provide a simple and strong car-coupling, that may be automatically coupled without endangering the lives of the brakeman and others; and also a means for uncoupling the said coupling by a simple and very powerful arrangement of levers; and it consists in the peculiar construction and arrangement of the parts, all of which will be more fully described in the following specification, reference being had to the accompanying drawing forming a part of this specification.

Figure 1 is a plan view, showing the couplings in position when coupled. Fig. 2 is an enlarged view of one coupling. Fig. 3 is an end view of the same.

In the drawing, A A' represents the jaws of the couplings, with their faces slightly curved, and having bent arms or extensions A'', by which they are pivoted at a a' to the bumper pieces B B' that are secured under the platforms of the cars in the usual manner. The face ends of these bumpers are plated with angular metal pieces b b¹, having an elongation, b², on one side which slides under the bent arms or extensions of the jaws, thereby assisting in holding them up in their proper positions. Immediately behind the pieces b, and pivoted to the bent arms of the jaws, are the pieces C, shown best in Fig. 2 at c, around the upper ends of which, and bearing on the bumpers, are arranged the springs c', having a tendency to draw and hold the jaws and bumpers together. At their front ends the jaws may be cut out for the reception of the common links, provided one car having the old fashioned bumpers should have to be coupled to a car having my improved coupling. Immediately behind the jaws are arranged sliding pieces D, and pass through the side of the jaw. These pieces D have

a flattened head, d, at one end, and are pivoted to a lever, E, at the other, which has its fulcrum in a piece, e, bolted to the lower side of the jaw A. The object of this lever and slide piece is to uncouple the cars, even when in motion, and with the cars pulling upon the jaws. It will be very readily seen that the fulcrum being very short and lever very long, the power exerted upon the lever will be multiplied a great many times, and thus, by exerting a power—say of one hundred pounds—on the end of the lever, it being ten times that of the fulcrum, a force of two thousand pounds can be exerted upon the jaws through the slide piece D, and the cars very easily uncoupled.

The operation is as follows: When two cars provided with my couplings are brought together the jaws, sliding upon their curved faces, are by force opened, the springs c' being compressed until the ends of said jaws pass each other, when, by the expansion of the springs, they are, of course, brought and held together. By the springs, enough play is also allowed the jaws for any vibrations of the cars. When it is desired to uncouple the cars, all that is necessary is to bring the lever to bear, and they are easily uncoupled. When the cars are coupled, it will be understood that the jaws are held in contact by their cross-sectional draft.

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

1. The lever E and slide D, in combination with the jaws and bumpers, constructed and arranged substantially as and for the purpose herein set forth.

3. The arrangement of the bumpers B B', having pieces b b', springs c, and pieces C, the pivoted jaws A A', the slide D, and lever E, when all these parts are constructed and operated substantially as and for the purpose set forth.

JOSEPH B. TRACY.

Witnesses:

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