

(No Model.)

J. ELDER.
CAR COUPLING.

No. 270,768.

Patented Jan. 16, 1883.

Fig. 1.

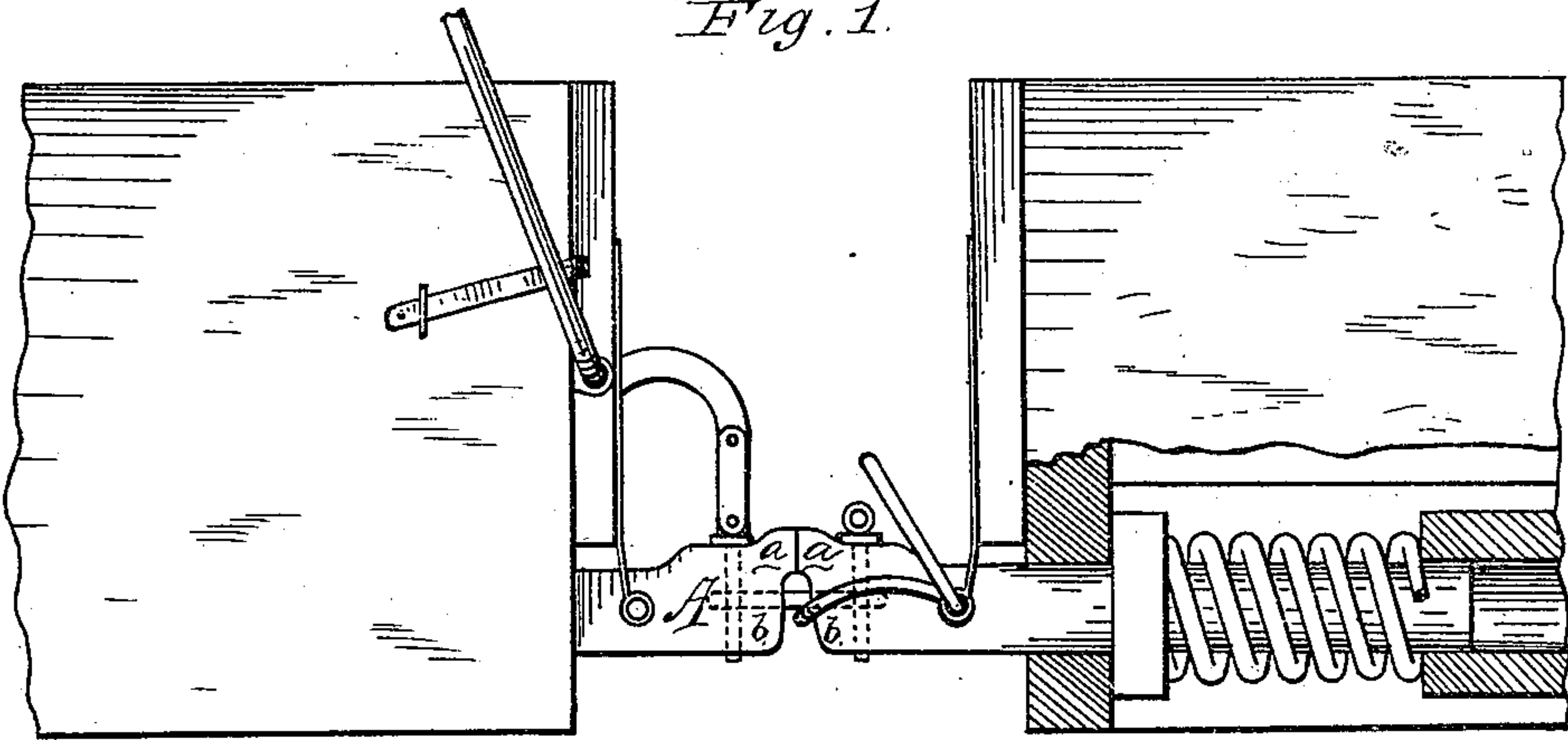


Fig. 2.

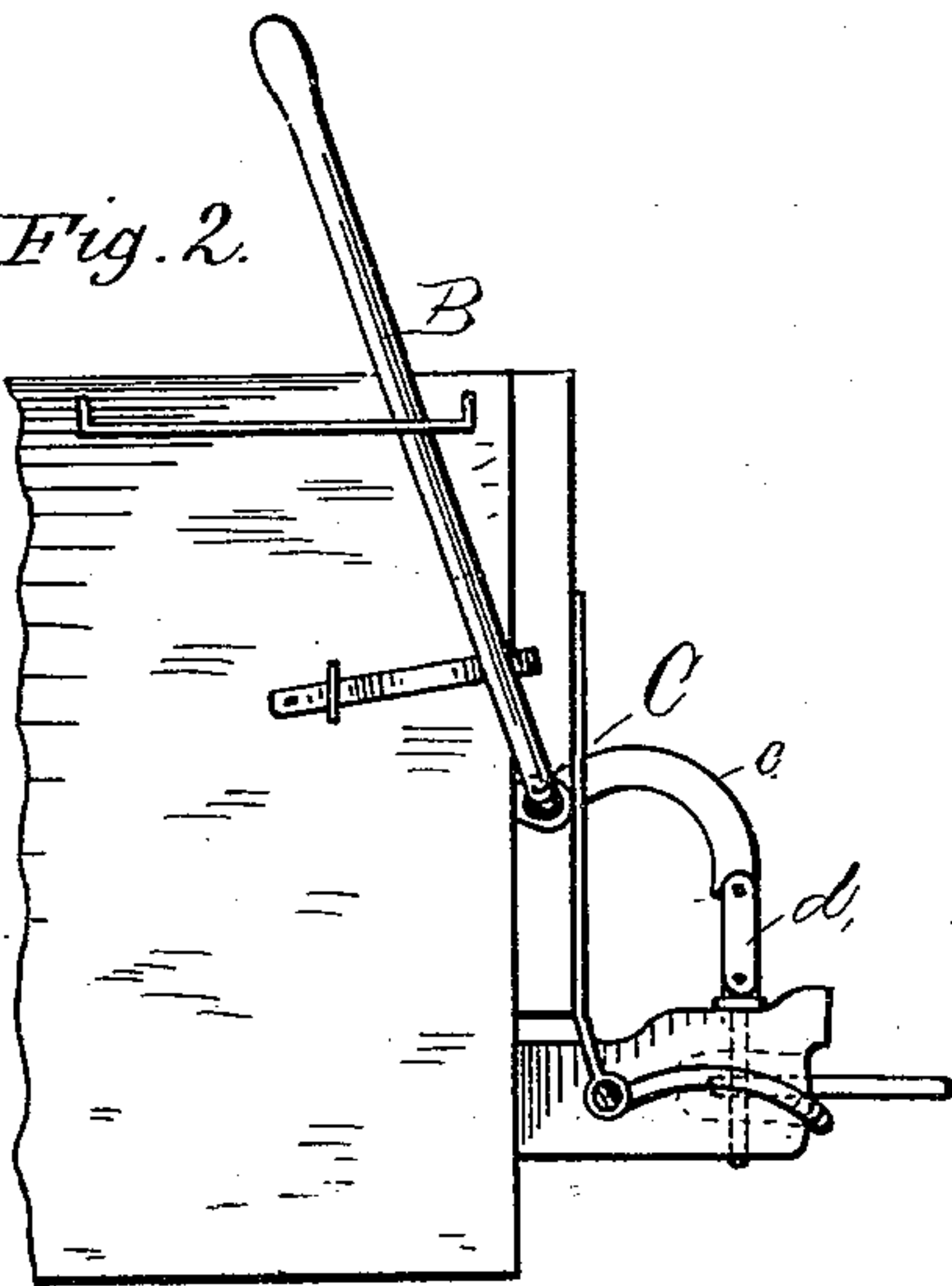


Fig. 3.

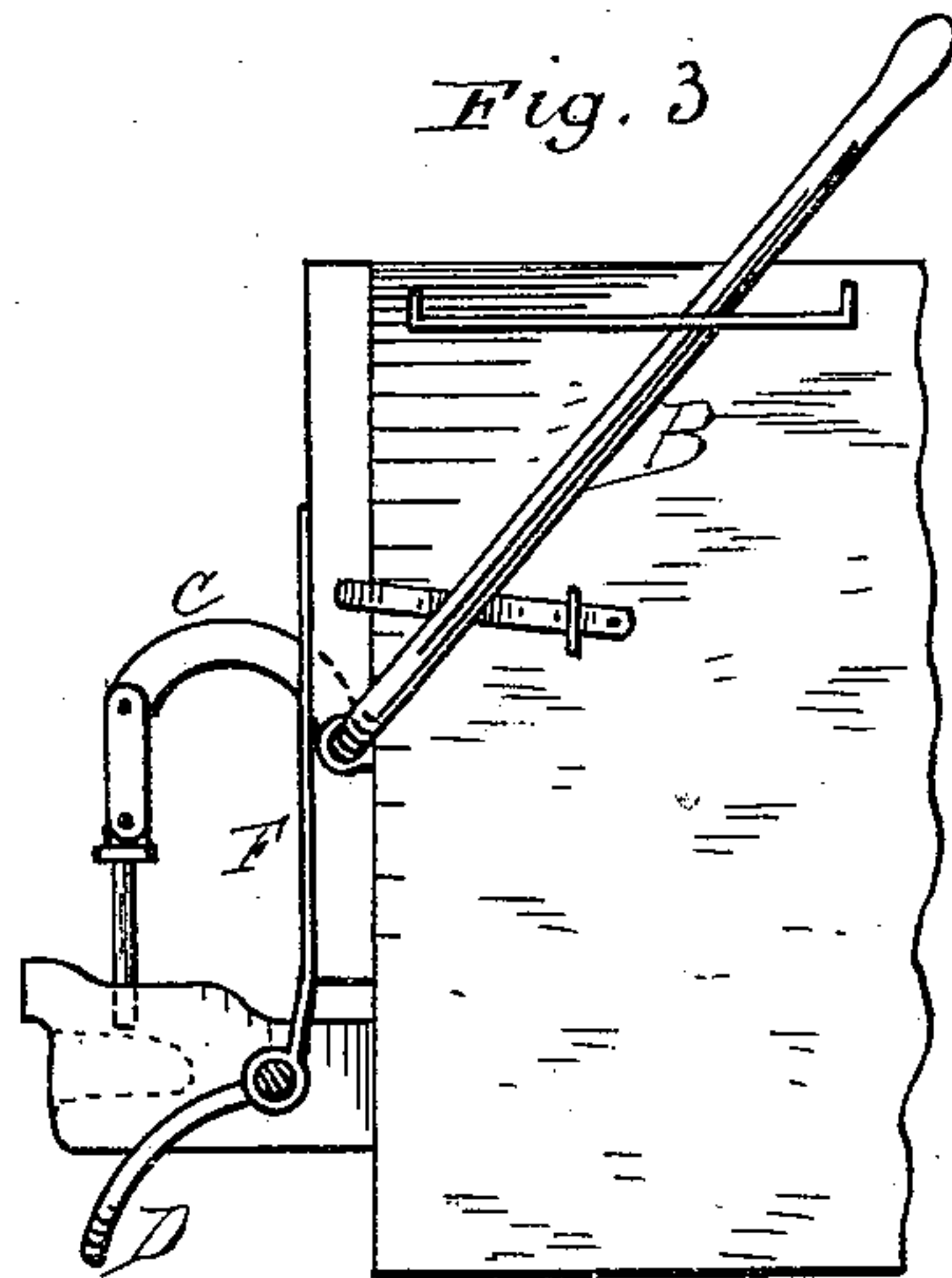
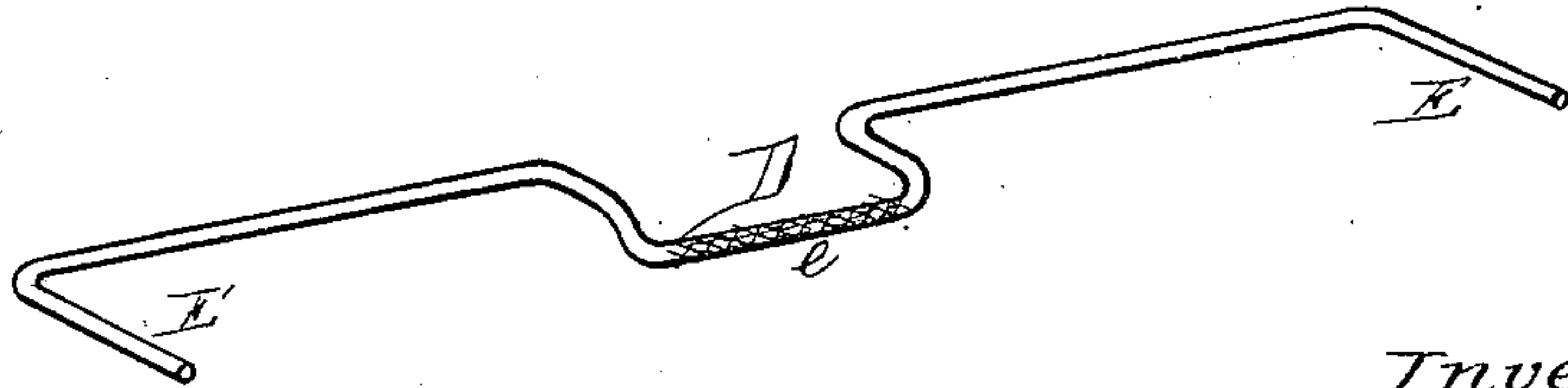


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN ELDER, OF ST. JAMES, MISSOURI.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 270,768, dated January 16, 1883.

Application filed October 31, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN ELDER, a citizen of the United States of America, residing at St. James, in the county of Phelps and State of Missouri, have invented certain new and useful Improvements in Car-Couplers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to that class of car-couplings in which a swinging bail is employed to adjust and hold the link in position while the cars are being coupled; and my invention consists essentially in a bail which is pivoted to the sides of the car by springs, and in the construction of the draw-heads, and in certain combinations, as will be hereinafter set forth, and pointed out in the claims.

In the annexed drawings, Figure 1 is a side elevation, showing the construction of the draw-head, link, and adjuster, and means for raising the coupling-pin. Figs. 2 and 3 are similar views, showing the link-adjuster and coupling-pin in different positions, and Fig. 4 is a detailed view of the link-guide or adjusting-rod.

In the annexed drawings, A represents my improved draw-head, which is provided, as usual, with a rear sliding bar and springs. This draw-head is provided on its front upper portion with an extended bumper or projection, *a*, for receiving the impacts or blows when the cars come together. Under this projecting portion *a* the draw-head is curved downwardly and rearwardly, as shown at *b*, or, in other words, it is formed on the arc of a circle, the center being located at the pivoted portion of the link-adjuster. Below the projecting portion *a* of the draw-head is formed a bell-mouthed recess for receiving the link, and the draw-heads are provided with vertical holes or passages, through which the coupling-pin passes, in order to engage the link and retain the same in the draw-heads. The coupling-pin is elevated and depressed by means of the bar B, which may extend to the sides and tops of the cars, so as to be in easy access when it is desirable to couple or uncouple the cars.

The rod C, which extends across the front of the car for raising or depressing the coupling-pin, is provided with a curved projecting portion, *c*, which extends over the coupling-head, and is provided at its end with a link, *d*. When the cars come together and the coupling-heads are forced backward sufficient play is allowed to the parts which operate the pins to provide against the same being broken.

The link-adjuster D consists of a bar or rod of metal, which is bent substantially as shown in Fig. 4, a central portion, *e*, being provided, which embraces the coupling-heads. This loop *e*, which embraces the coupling-head, is of a sufficient size to swing over the front and side of the same, and its ends E E may be bent so as to form side handles. This link-adjuster D is pivoted to the car by springs F, the ends of which are bent to form eyes, which are located at a point opposite the central portion of the draw-head. This link-adjuster, besides being provided with side handles, may also be provided with means for operating same from the top of the car.

In coupling cars I raise the front portion of the bail so as to elevate the link to a horizontal position, and when the draw-heads come together the link, which is engaged by the coupling-pin of one draw-head and supported by the bail, as shown in Fig. 2, will be guided into the opposing draw-head, in which it can be secured by the coupling-pin belonging to such draw-head. When the cars are being coupled and the draw-heads abut against each other, they are forced back by the impact, the projecting portions *a* striking against each other, and no injury can be done to the link-guide, there being a space formed under the abutting portions of the draw-heads, and, even should the force with which the cars come together be sufficient to drive the draw-head inward beyond the recess formed in these coupling-heads, the link-guide, being supported on springs, will give way and be forced back uninjured. By this arrangement and construction it is evident that the draw-heads will last much longer, and that it is impossible to injure the link-guide.

I am aware that it is not new to swing a link-support so that it will be capable of a downward and rearward movement, and that draw-heads for cars have been provided with

cut-away portions, so as to prevent the same coming together and injuring the link-guide, and I do not claim such invention, broadly.

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

1. A draw-head provided with an upper projecting portion or bumper and a rearwardly curved portion under the same and opposite the link-receptacle, substantially as shown and described.

2. In a car-coupling device, a link-guide or swinging bail substantially as described, pivoted to the car by springs rear of the draw-head, for the purpose set forth.

3. In a car-coupler, the combination of the draw-head provided with upper extended portion, *a*, and curved lower portion, and a link-guide pivoted on springs, substantially as described.

4. The combination, in a car-coupling, of the draw-head provided with the forwardly-pro-

jecting portion *a* and rearwardly-curved lower portion, *b*, and a bail for adjusting the link in a horizontal position, said bail being pivoted to the car on a horizontal line with the central portion of the draw-head by springs, and provided with operating-handles, substantially as described and shown.

5. In a car-coupling, a link-adjuster having a front curved portion bent so as to embrace the bumpers, and pivoted on springs so as to swing under the same, in combination with a bumper having a downwardly and rearwardly curved portion, substantially as shown, whereby the link-adjuster will be forced downwardly automatically below the bumpers when the cars come together for coupling.

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

JOHN ELDER.

Witnesses:

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A. E. CHAPMAN.