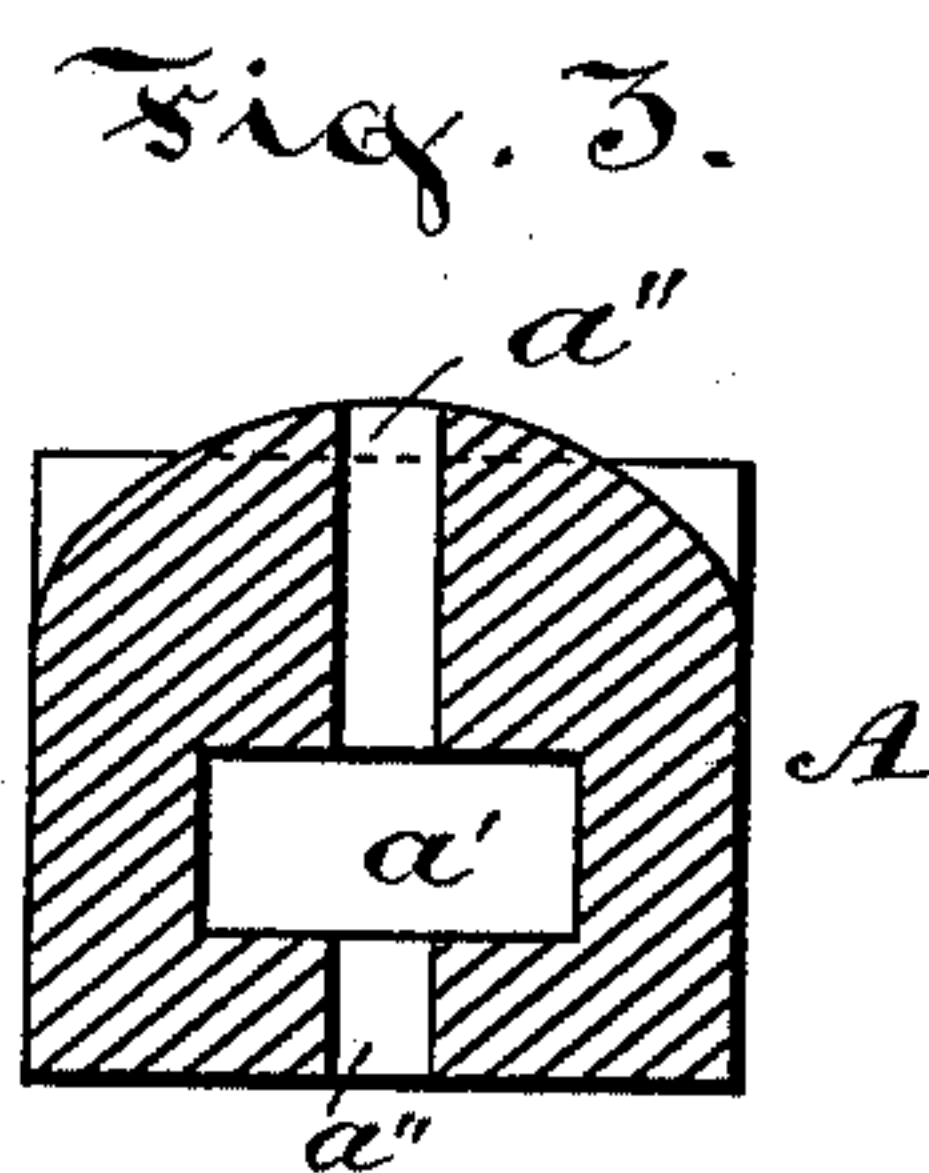
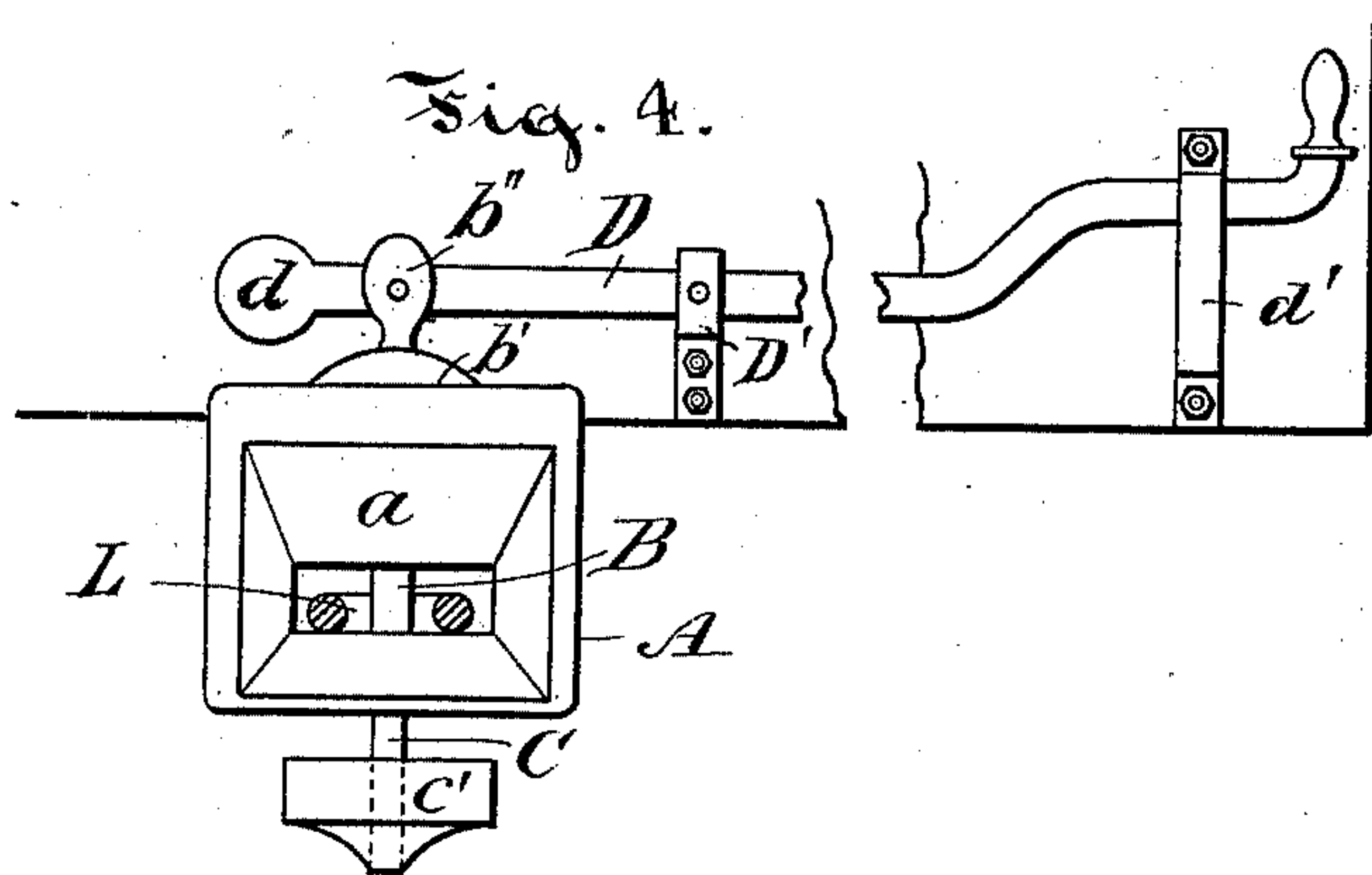
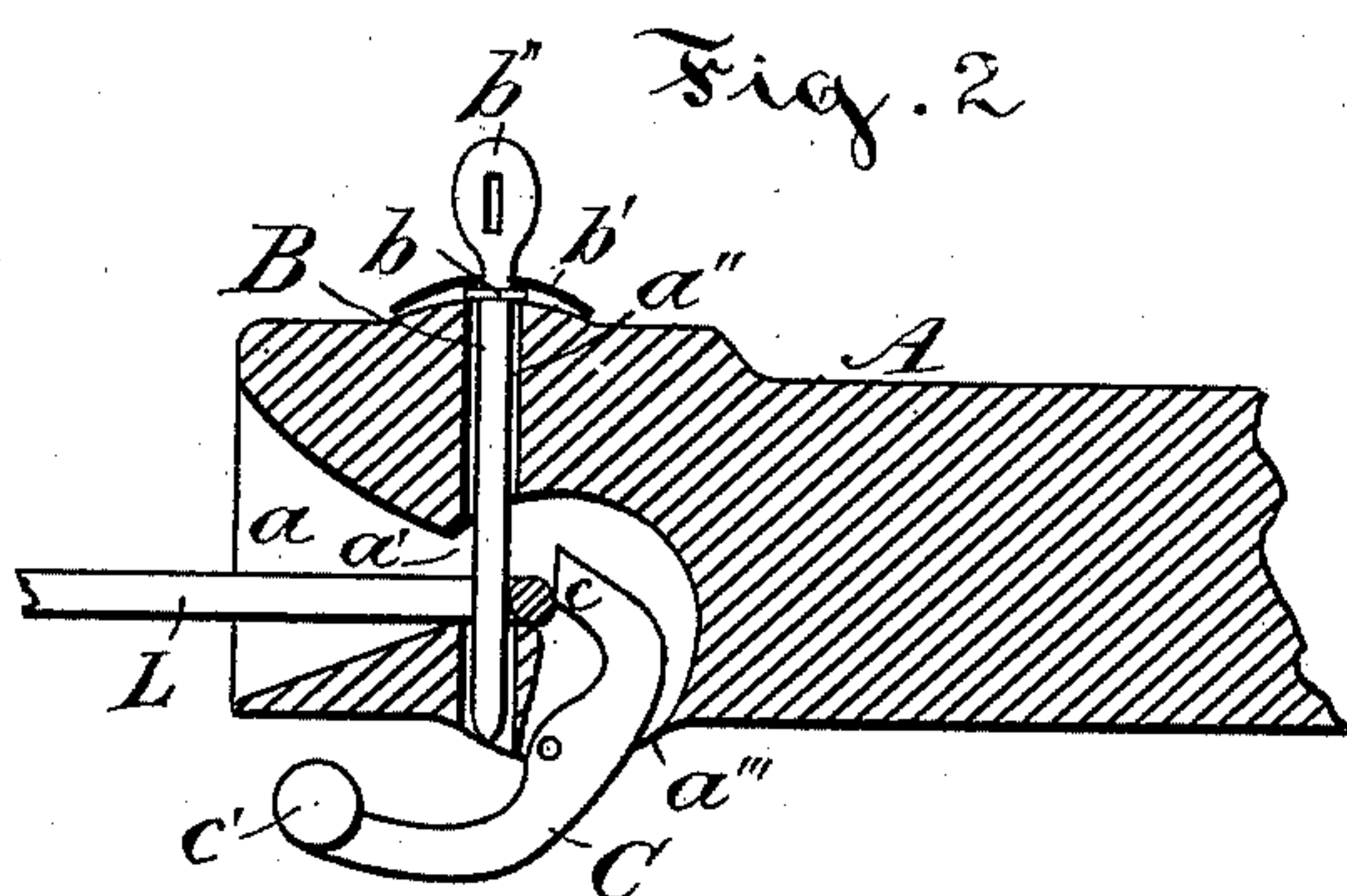
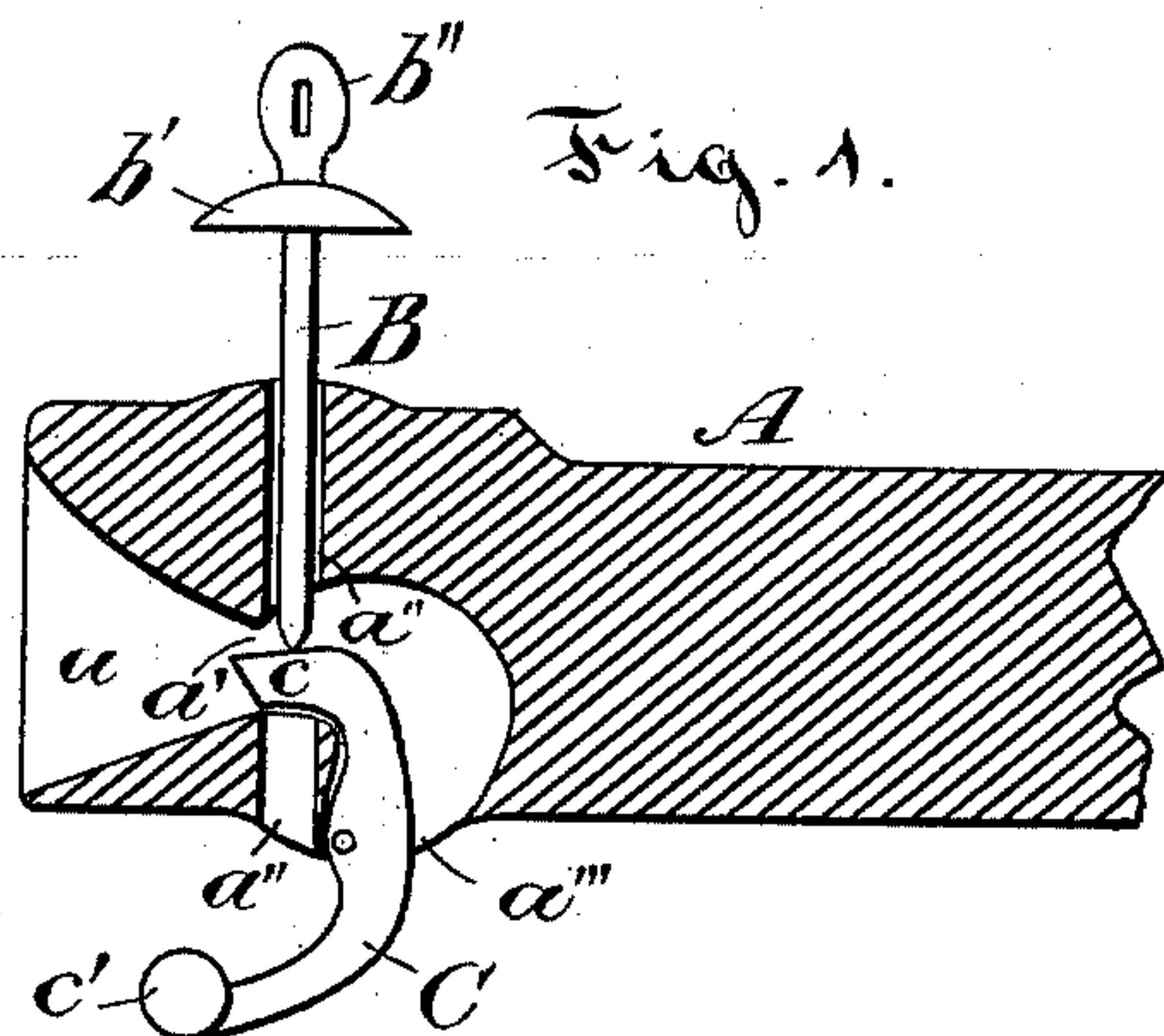


(No Model.)

T. RENWICK.
CAR COUPLING.

No. 509,627.

Patented Nov. 28, 1893.



Witnesses:

Chas. Raley.
B. Harvey

Thomas Renwick

Inventor

by A. Harvey

Attorney

UNITED STATES PATENT OFFICE.

THOMAS RENWICK, OF MIAMI, CANADA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 509,627, dated November 28, 1893.

Application filed April 10, 1893. Serial No. 469,652. (No model.)

To all whom it may concern:

Be it known that I, THOMAS RENWICK, of Miami, in the county of Dufferin, Province of Manitoba, and Dominion of Canada, have in-

5 vented certain new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part hereof.

10 My invention, which will be hereinafter fully set forth and claimed, relates to automatic car couplings.

The object of my invention is an automatic car coupling of the link and pin type with

15 provision for certain action of the pin and means for operating the same from the side of the car.

Figure 1 is a vertical longitudinal section of my improved coupling, showing the same

20 uncoupled. Fig. 2 is a similar section, showing the link coupled. Fig. 3 is a vertical transverse section through the draw-head, showing the pin hole, and Fig. 4 is an end view, showing the means of operating the pin.

25 A is the draw-head, having a bell mouth *a*, converging to a throat *a'* in which the end of the link *L* has ample room. Immediately in the rear of the point of the throat is a central vertical hole *a''* in which the pin *B* can play

30 freely up and down, the throat being extended a little farther rearward of the point. The pin *B* is provided with a collar or shoulder *b*, a cover *b'* just above said collar to

35 prevent the entrance of snow and ice, and a weighted head *b''*. The draw-head is rounded on top to avoid a lodging place for snow and ice, apt to get in the hole *a''* and clog the pin *B*.

40 C is a lever of peculiar shape, pivoted to the draw-head at or below its bottom face in lugs *a'''* and in the rear of the pin *B*. The upper portion of said lever works in a cavity in the draw-head and is so shaped and curved

45 forward as to project forward under the pin *B* when free and that its upper forward point *c*, while moving backward will also make an upward movement, so as to force the pin *B*, resting upon it, upward at first, there being suf-

50 ficient room in the rear of the cavity to allow

said lever to be completely out of the way of the link. The lower portion is also curved forward and weighted at the end *c'*, so as to give the upper part a strong forward pressure.

The pin *B* is operated, *i. e.*, lifted, by means 55 of a lever *D* which is pivoted in a bracket *D'* secured to the end of the car, said lever passing through a slot in the head of the pin *B* and having its end *d* weighted. A guide *d'*, may be placed to keep the other end steady. 60

If the coupling is in the position shown in Fig. 1, *i. e.*, the upper part *c* of the lever is projecting forward in the throat *a'* and the pin *B* resting on top of it a short distance back 65 of the point, a link *L* forced by an approaching car against said point drives the upper part of said lever back in the rear of the cavity. In its rearward movement it first lifts the pin *B* a little to insure its being 70 loose and ready to drop. When the point *c* has cleared the lower end of the pin and as soon as the link is passed, the pin drops into the link, thus locking it, as shown in Fig. 2. For uncoupling, the handle of the lever *D* is pressed down, raising the pin *B* and as soon 75 as the pin clears the point *c* of the lever *C* the action of the weighted lower end presses forward the point *c* under the end of the pin, in which position it remains, the pin resting 80 upon it.

I claim as my invention—

1. In a car coupling, the combination of the bell mouthed draw-head *A* with contracted and extended throat and extended cavity and having a vertical pin hole immediately at the 85 rear of the point of the throat and having the top above said portion rounded, a pin *B* working in said hole and provided with a collar *b*, cover *b'* and weighted head *b''*, a lever *C* pivoted to the draw-head at or below its lower 90 face in the rear of the pin hole working in the cavity at the rear of the throat and having its upper portion curved forward to extend in the throat under the pin and swing rearwardly into the cavity to clear said pin and 95 a link and having its lower portion curved forward and weighted and a weighted lever *D* pivoted to the end of the car and passing through the head of the pin *B*, substantially as set forth. 100

2. In a car coupling, the combination of a bell mouthed draw-head A with contracted throat to accommodate the end of a common link and an extended throat to accommodate
5 the rearward swinging head of a lever and having a vertical pin hole and the top rounded, a pin B working in said pin hole provided with a collar, cover and weighted head, and
10 of the draw-head and having its upper portion curved forward to extend in the throat

and under the pin and to swing rearward and clear said pin and the end of a common link and having its lower part curved forward and weighted, substantially as set forth. 15

In testimony whereof I have signed in the presence of the undersigned witnesses.

THOMAS RENWICK.

Witnesses:

A. A. RENWICK,
M. E. RENWICK.