

(No Model.)

G. C. LOAR.
GATE LATCH.

No. 404,974.

Patented June 11, 1889.

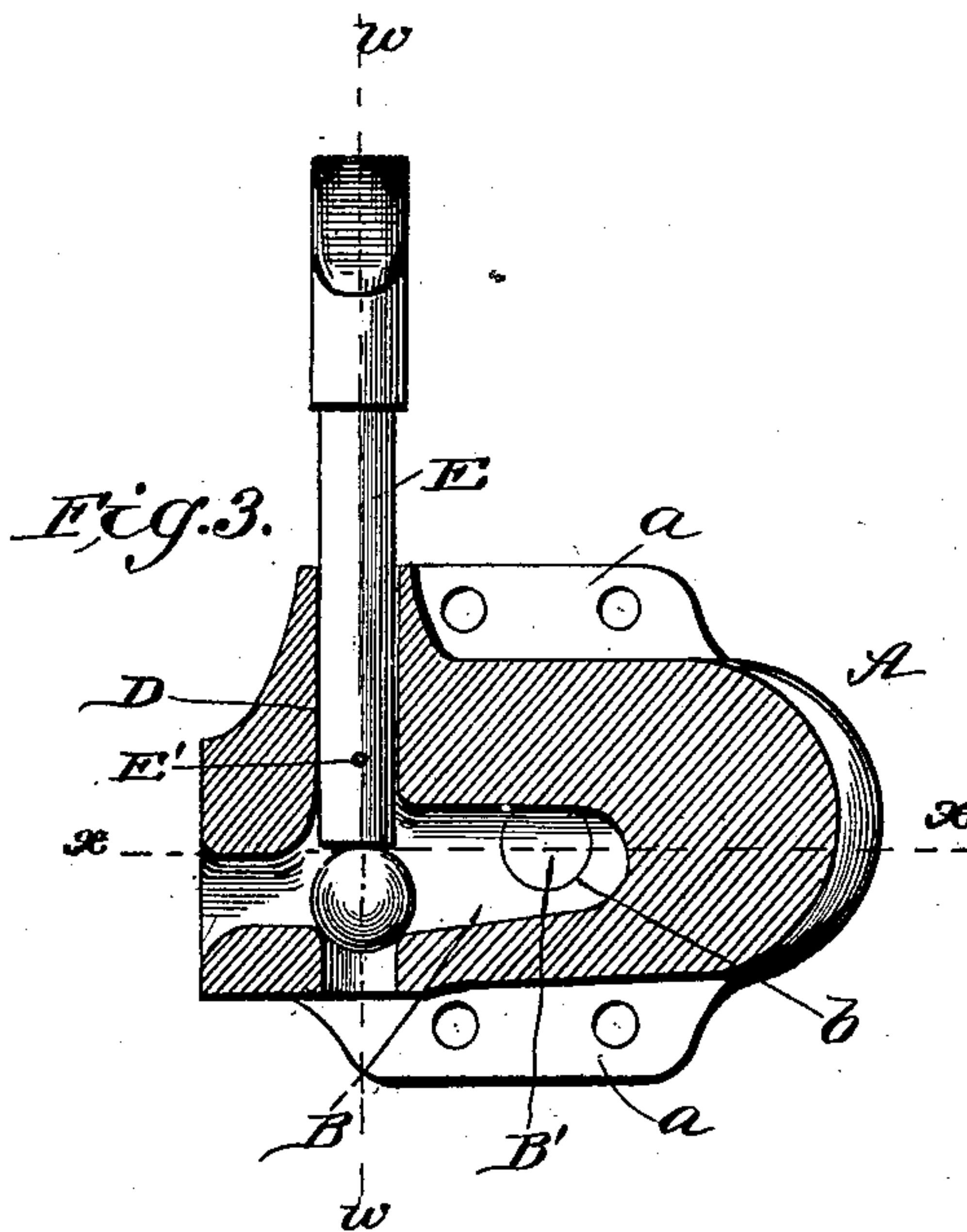
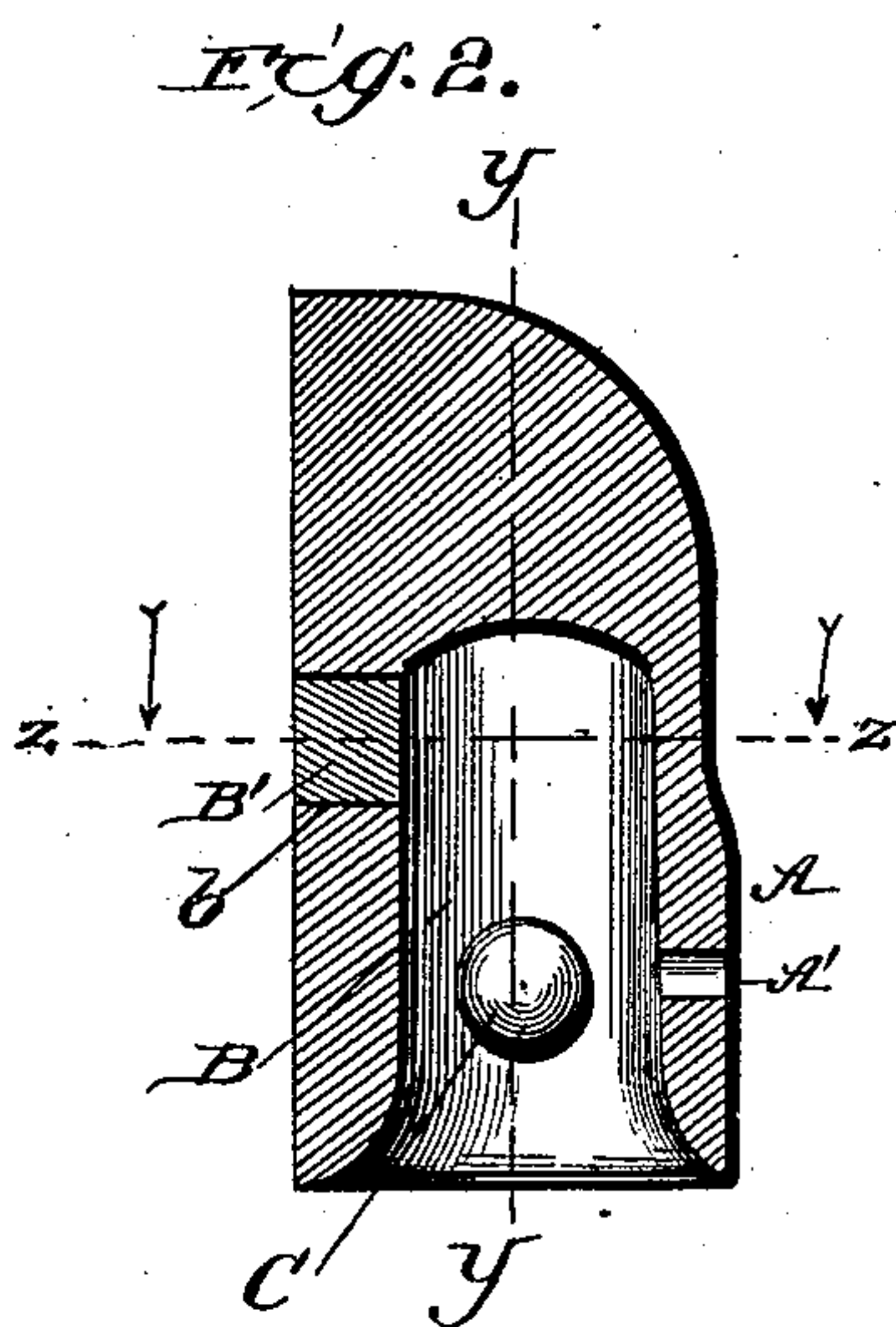
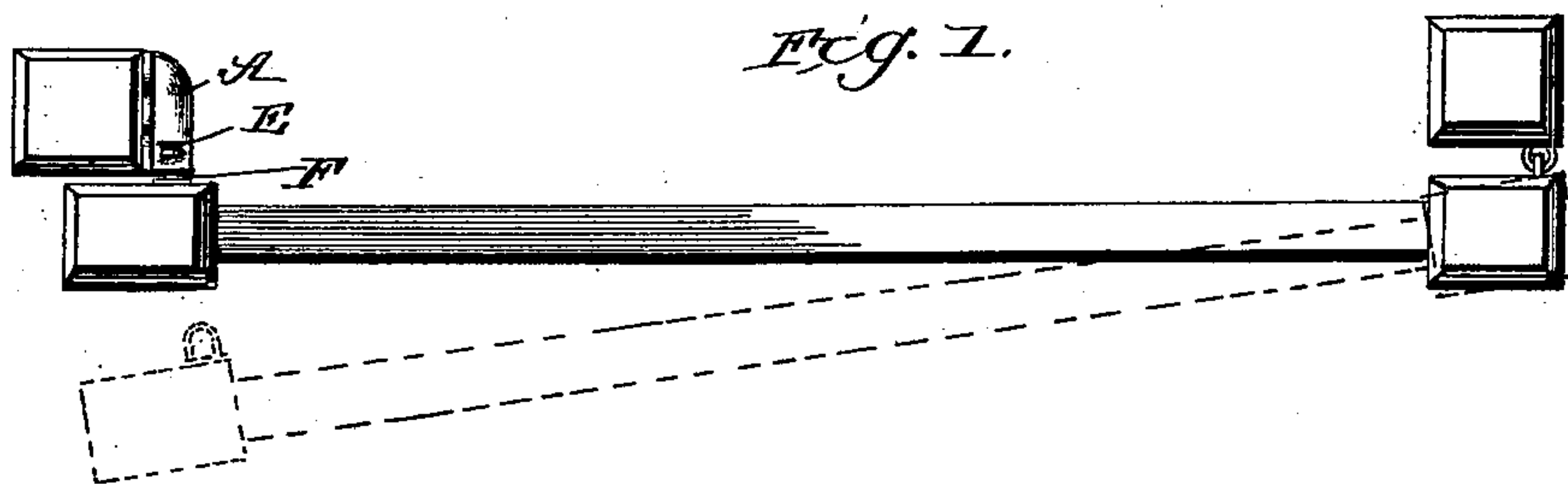


Fig. 4.

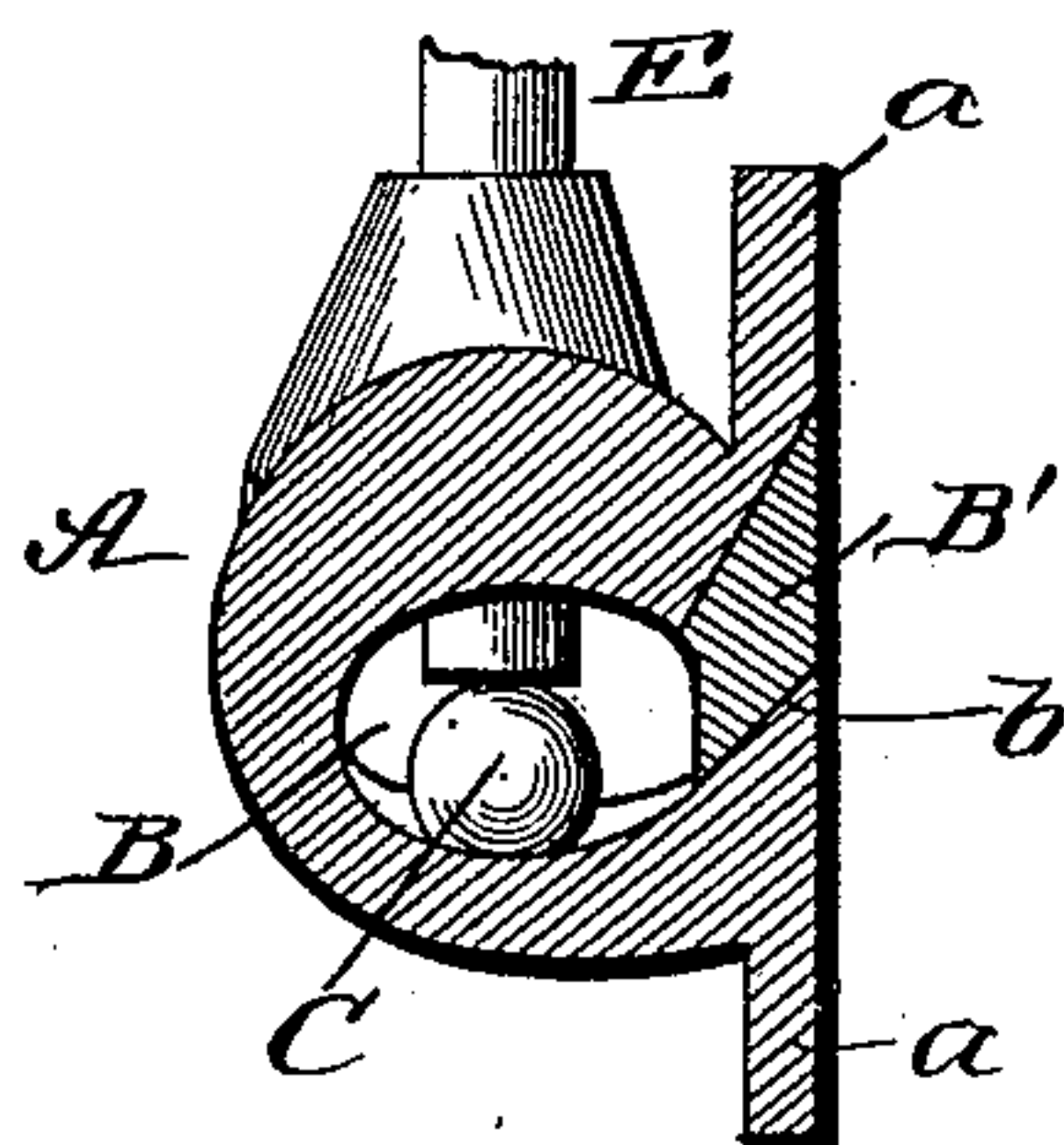


Fig. 5.

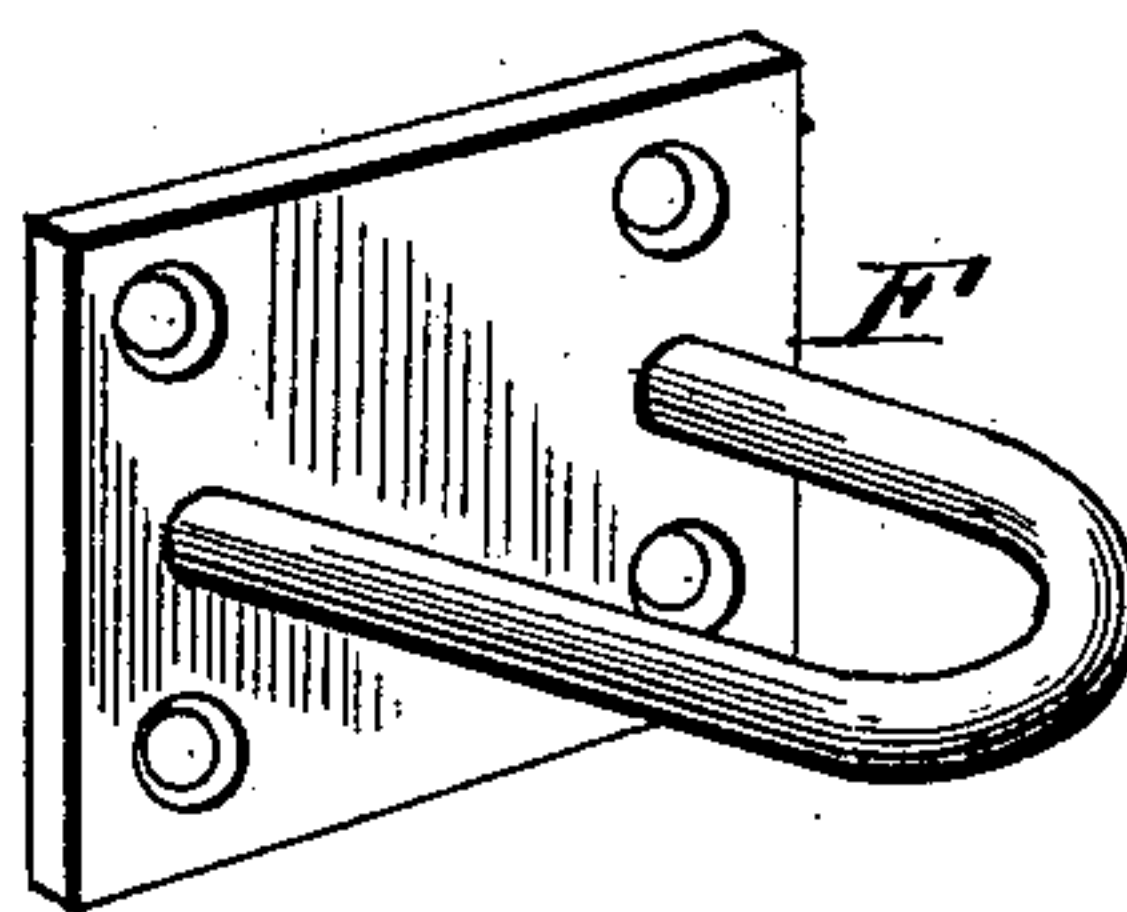
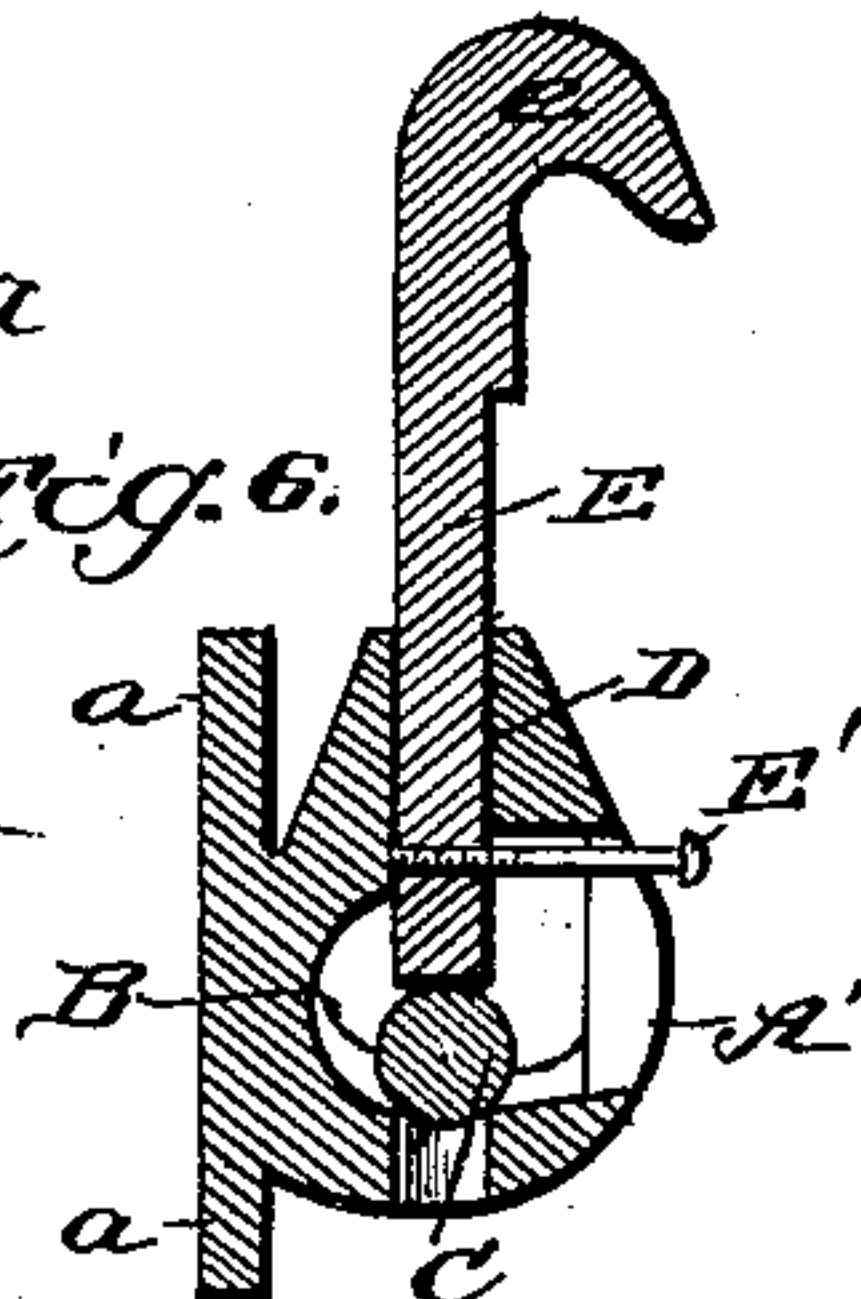


Fig. 6.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE C. LOAR, OF ATCHISON, KANSAS.

GATE-LATCH.

SPECIFICATION forming part of Letters Patent No. 404,974, dated June 11, 1889.

Application filed August 3, 1888. Serial No. 281,907. (No model.)

To all whom it may concern:

Be it known that I, GEORGE C. LOAR, of Atchison, in the county of Atchison and State of Kansas, have invented a new and useful
5 Improvement in Gate-Latches, of which the following is a specification.

My invention is an improvement in latches; and it consists in certain novel constructions and combinations of parts, as will be herein-
10 after described and claimed.

In the drawings, Figure 1 is a plan view of a gate provided with my improved latch. Fig. 2 is a sectional view of the casing on about line *x x*, Fig. 3. Fig. 3 is a section on
15 about line *y y*, Fig. 2. Fig. 4 is a section on about line *z z*, Fig. 2. Fig. 5 is a detail view of the staple, and Fig. 6 is a sectional view on about line *w w*, Fig. 3.

The latch proper consists of a socketed frame
20 or case A, having a cavity B fitted to contain a ball C, which rides forward under a hole D, in which is placed a pin E, such pin being supported on the ball, so that as the staple F enters cavity or recess B it will push back the
25 ball, permitting the pin to fall through and secure the staple.

In practice the case may be secured to the gate-post and the staple to the gate, as shown. On one side the case A has suitable flanges
30 or ears *a*, to receive the screws by which it is secured to the post, and through such side I form an opening *b*, leading into the cavity or recess B, such opening *b* serving to permit the passage of ball C into the cavity, and
35 being usually closed by a removable plug B', as shown.

In advance of the pin-hole D the cavity B is contracted, so that the ball cannot pass in advance of the said opening, while in rear thereof
40 the cavity is sufficiently large to permit the ball to be pushed back by the staple as the latter enters the cavity. The base-wall of the cavity B in rear of the pin-hole is inclined

downward toward the said hole, so that the ball will move automatically forward in position
45 to support the pin when the latter is raised.

A raised portion or tubular extension *d* is projected up surrounding the upper end of and serving to extend the pin-hole D, as shown.

The pin E usually has a hook or head *e* at
50 its upper end. In practice when the gate is opened the pin may be raised, when the ball will roll forward and support the pin until the staple shall enter the cavity and push the ball back, when the pin will fall through and
55 secure the staple, and so latch the gate.

In the side of the case A, I form a vertically-elongated slot A', through which extends a pin E', projecting laterally from the pin E, such part E' serving to prevent the detach-
60 ment of pin E from case A and yet permitting the proper movement of such pin as may be desired. In applying the parts E E' the pin E' is screwed into pin E, so that when pin E' is detached from the pin E the latter
65 may be inserted in opening D, and the pin E' be then passed through slot A' and screwed into the pin E, when the latter will be secured in the case.

Having thus described my invention, what I
70 claim as new is—

In a gate-latch, the combination, substantially as described, of the casing having cavity B and pin-hole D, and provided with a vertically-elongated slot A', extending later-
75 ally outward from said cavity B and formed in a common vertical plane with the pin-hole D, the pin operating in hole D, and the pin E', connected at one end with the pin E and extended laterally outward through the slot
80 A', all being substantially as and for the purpose specified.

GEORGE C. LOAR.

Witnesses:

W. R. SMITH,

A. M. NIKLAUS.