

(No Model.)

C. W. SIVER.
VALVE INDICATOR.

No. 533,615.

Patented Feb. 5, 1895.

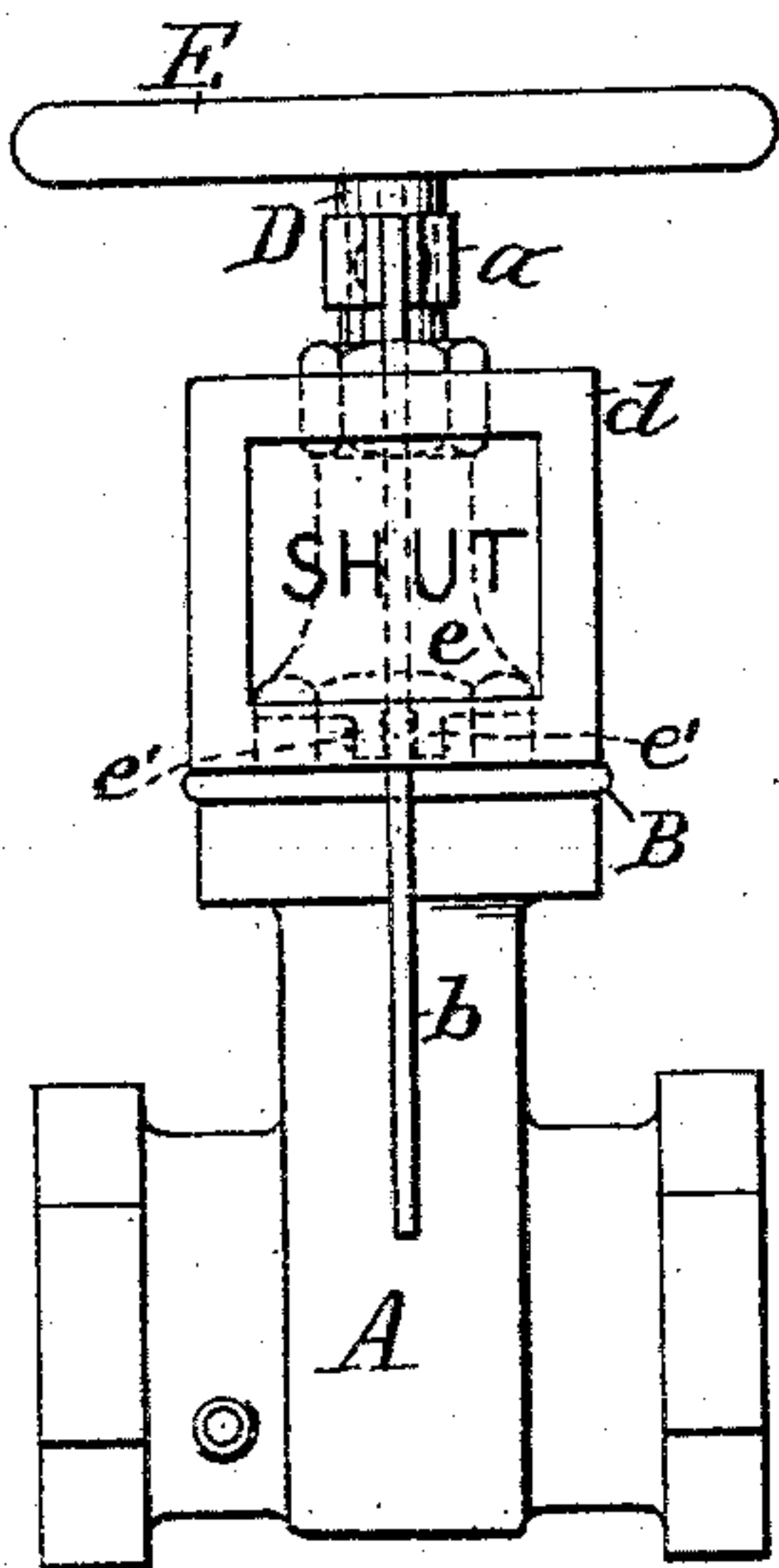


Fig. 1.

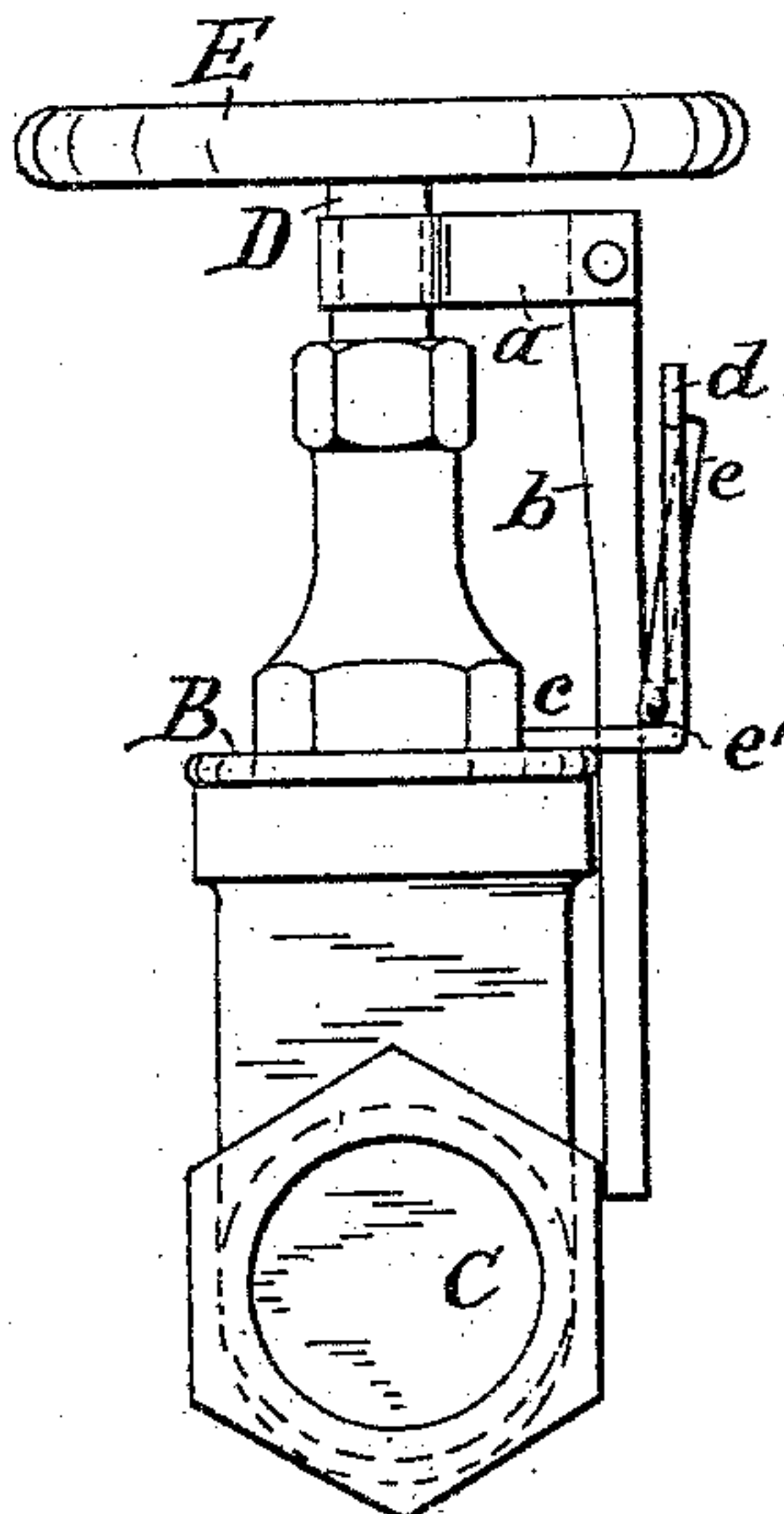


Fig. 2.

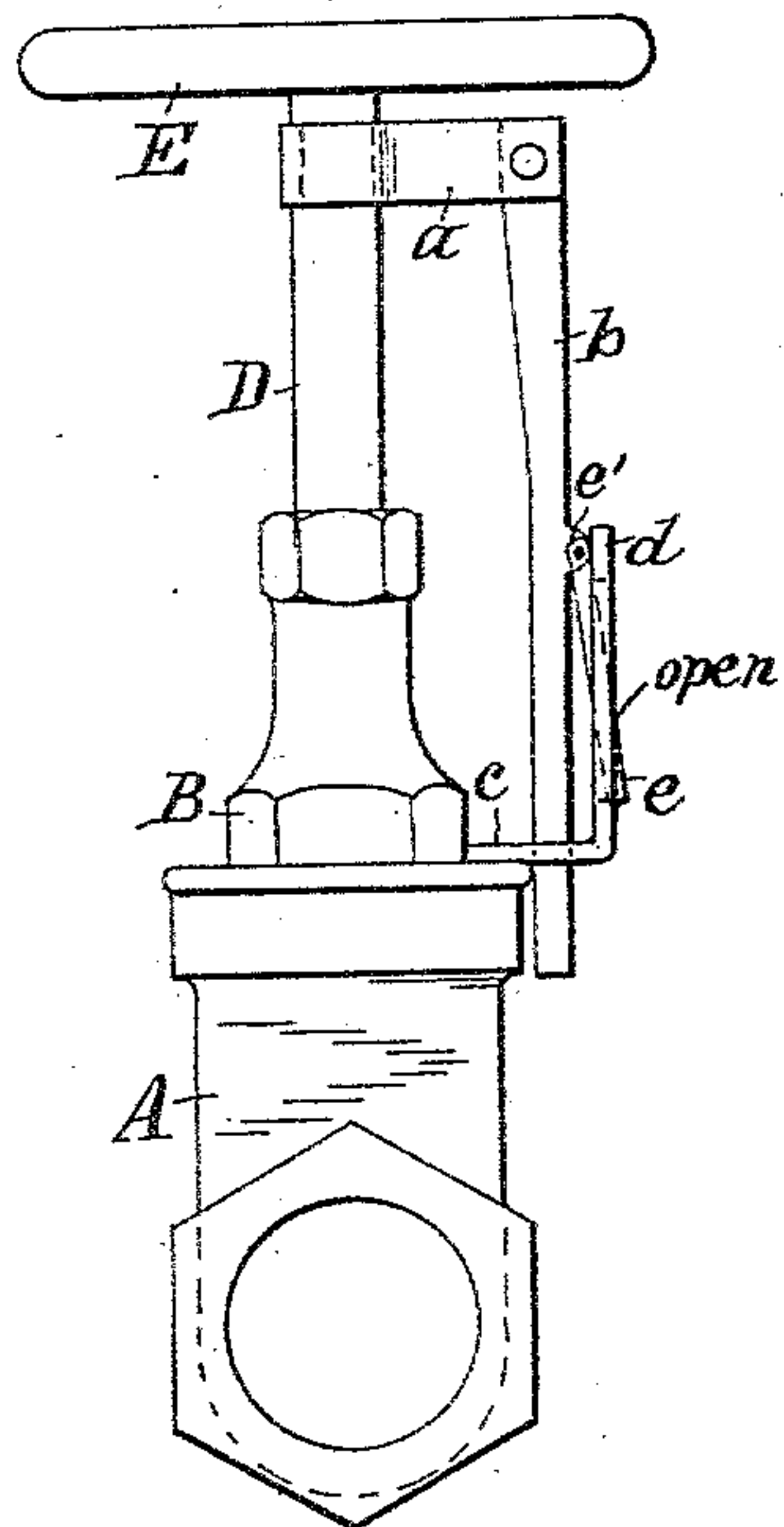


Fig. 3.

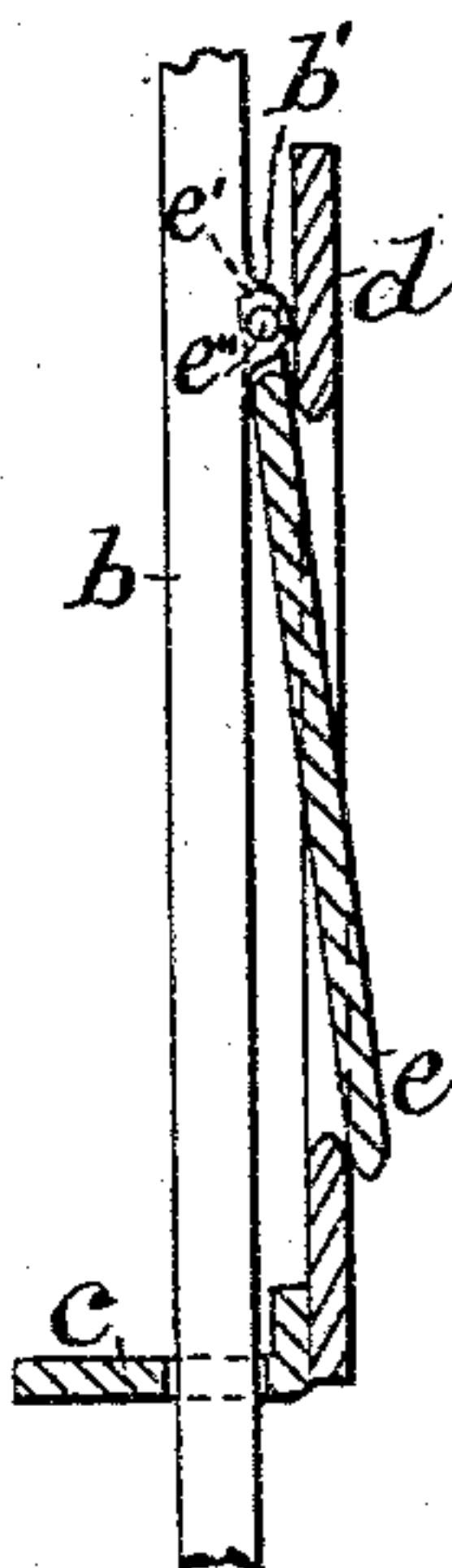


Fig. 4.

Witnesses:

Mark W. Dewey
H. M. Seamans

Inventor.

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By C. H. Duell
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UNITED STATES PATENT OFFICE.

CHARLES W. SIVER, OF SYRACUSE, NEW YORK, ASSIGNOR TO THE MANUFACTURERS' AUTOMATIC SPRINKLER COMPANY, OF SAME PLACE.

VALVE-INDICATOR.

SPECIFICATION forming part of Letters Patent No. 533,615, dated February 5, 1895.

Application filed May 28, 1894. Serial No. 512,604. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. SIVER, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Valve-Indicators, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to indicators for valves, particularly those having a spindle which has a reciprocating movement when the valve is operated; and the object is to provide an indicator that is simple, easily operated and positive in its action.

To this end my invention consists in the combination with a valve, of a bar connected to said valve and adapted to be reciprocated by the same, a target pivoted to the said bar and having one side provided with a sign different from the opposite side, and stationary means whereby the target is reversed during the movement of the valve.

In the drawings hereto annexed and forming a part of this specification, Figure 1 is the front side elevation of a valve embodying my invention. Fig. 2 is an end elevation of the same, both views showing the position of the parts when the valve is closed. Fig. 3 is an end view of the same valve showing the position of the parts when the valve is open or raised, and Fig. 4 is an enlarged vertical transverse section of the target and frame showing clearly the preferred shape of their edges.

Referring specifically to the drawings, A is the body of the valve.

B is the cap, A and B together forming the casing.

C is the gate or valve and D the revoluble reciprocating spindle suitably secured to the valve and provided at its opposite or upper end with the usual hand-wheel E. The valve and spindle are raised and opened as usual by revolving the spindle by means of the wheel, in one direction, and closed and lowered by revolving the spindle in the opposite direction.

In equipping this form of valve with my invention, I preferably, by turning, decrease the size of the spindle, D, just below the wheel so as to form shoulders between which

and around the spindle is placed a strip, *a*, of metal having its end portions extending outward at right angles to the spindle and forming a swiveled arm. Between the ends of the strip, *a*, and riveted thereto is a bar, *b*, depending vertically. About midway of the length of the bar, *b*, and fixed to the cap, B, by solder or other suitable means, is a bracket, *c*, having an aperture through which the bar, *b*, slides. The bracket, *c*, is provided at its outer end and is preferably integral with a small frame, *d*, which extends upwardly and vertically from the bracket. Between the sides of the frame, *d*, which form guides, is a sign plate or target *e*. The said target is about the size of the opening in the frame, and has engraved or printed on one side the word "Open" and on the other or opposite side, the word "Shut." One side of the target is provided with perforated ears, *e'*, which extend on both sides of the bar, *b*, or a small projection, *b'*, on the front side of said bar. A pivot, *e''*, extends through the ears of the target and the projection horizontally, securing these parts together.

When the valve is open and the wheel, E, and spindle, D, are raised to their highest point the projection to which the target is pivoted is raised to a position behind the upper horizontal portion of the frame, *d*, so that the target hangs from the projection exposing to view through the opening in the frame, the word "Open" but when the valve is closed and the wheel and spindle are lowered to their lowest position the opposite side of the target or sign-plate, bearing the word "Shut" or "Closed" is exposed to view through the opening in the frame, the sign-plate or target having completely turned over during the downward movement of the valve and spindle. This is effected, as will be readily understood, by the target moving in contact with the lower horizontal portion of the frame and the pivot moving to a position behind the said lower horizontal portion of the frame. The target is turned over and inverted during each complete downward or upward movement of the valve spindle.

The target is preferably longer than the distance between the inner top and bottom edges of the frame and said edges together

with the edges of the target are beveled or rounded to facilitate free and easy movement.

I do not desire to be limited to the particular form of valve shown, nor to the exact construction of the indicator as it may be varied in form without departing from my invention.

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

10 1. The combination with a valve, of a bar connected to said valve and adapted to be reciprocated by the same, a target pivoted to the said bar and provided with signs, and stationary means whereby the position of the
15 target is reversed during the movement of said valve, as set forth.

2. The combination with a valve, of a bar adapted to be reciprocated vertically and longitudinally, a sign plate pivoted to the said
20 bar, and stationary means whereby the said plate is inverted during each movement of the said bar, as set forth.

3. The combination with a valve, its casing, and the longitudinally movable spindle, of a
25 bar connected to said spindle and movable with the latter, a target pivoted to the said bar, and a stationary part fixed to the casing

to reverse the position of the target during the movement of said bar, as set forth.

4. The combination with a valve, its casing, 30 and the longitudinally movable spindle connected to the valve, of a bar swiveled on said spindle and extending parallel therewith, a guide for the bar secured to the casing, a frame fixed to the guide, a sign-plate pivoted
35 to the bar and held in position and guided by the frame, and suspended in such relation to the frame that it will be reversed by the latter during each movement of the valve, as set forth.

5. The combination with the valve, casing and revoluble reciprocating spindle, of a strip, 40 *a*, bar, *b*, secured to said strip, target, *e*, projection, *b'*, ears, *e'*, pivot, *e''*, guide, *c*, and frame, *d*, provided with beveled edges on its
45 inner horizontal sides, as and for the purpose set forth.

In testimony whereof I have hereunto signed my name.

CHARLES W. SIVER. [L. S.]

Witnesses:

MARK W. DEWEY,
H. M. SEAMANS.