(No Model.)

A. B. ROHNEY.

STRAIGHT WAY VALVE.

No. 301,282. Patented July 1, 1884.

Fig. 1.

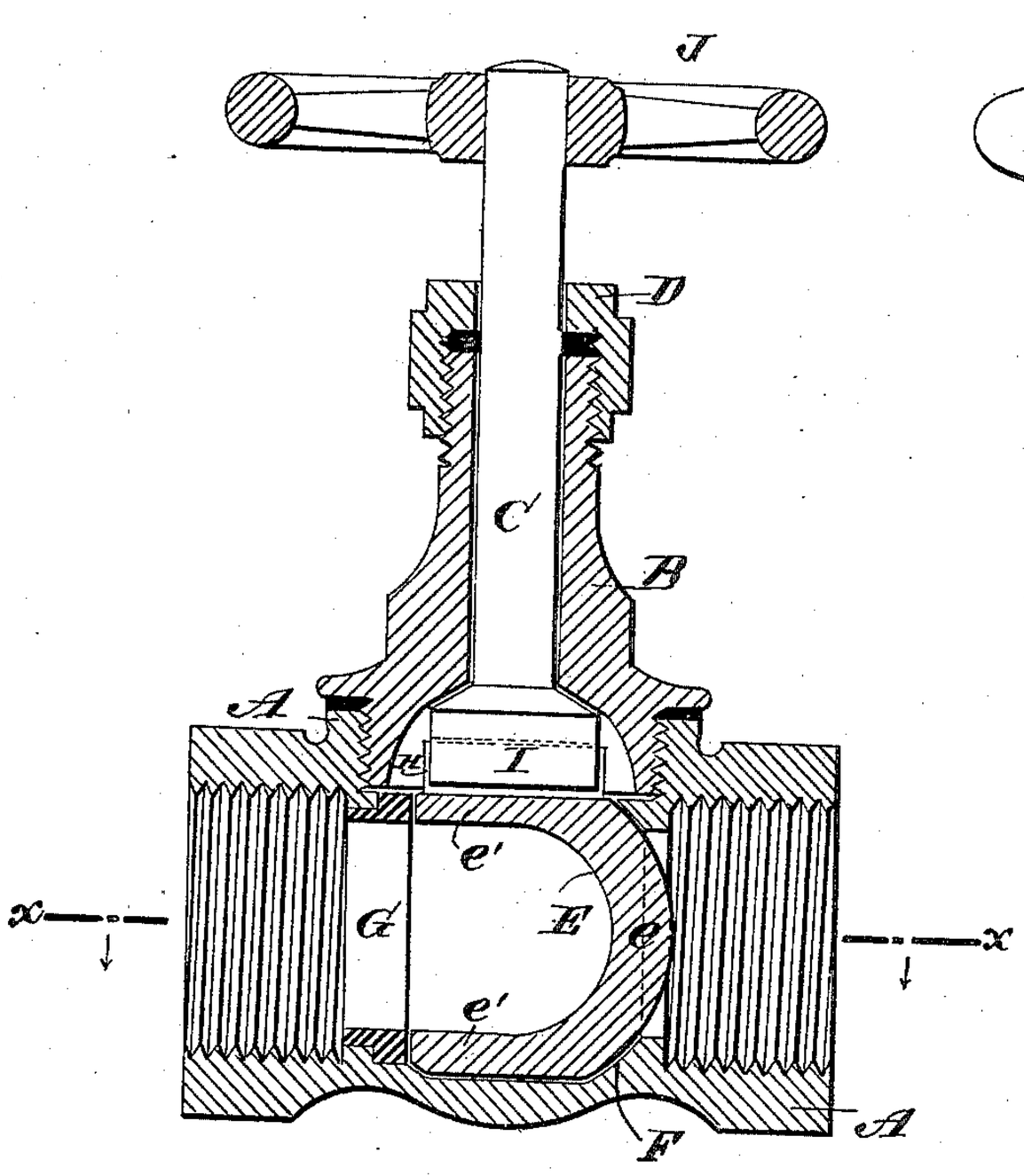


Fig. 2.

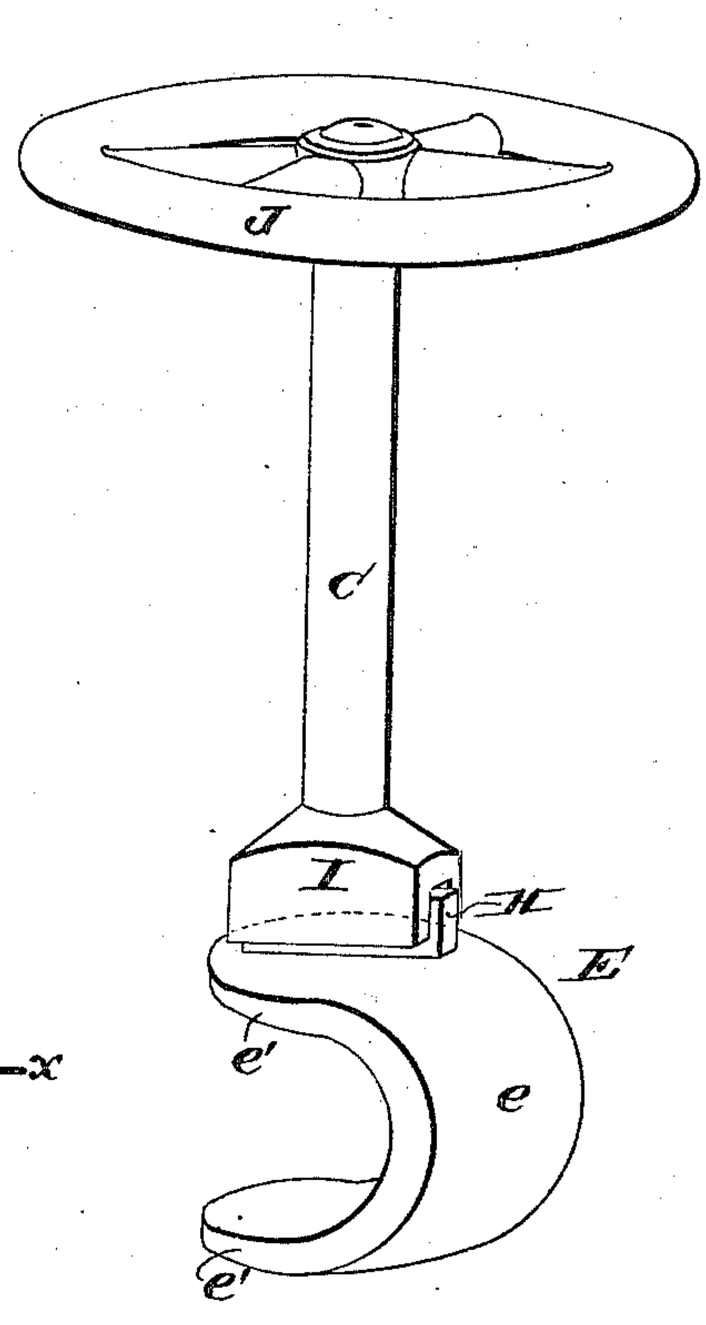
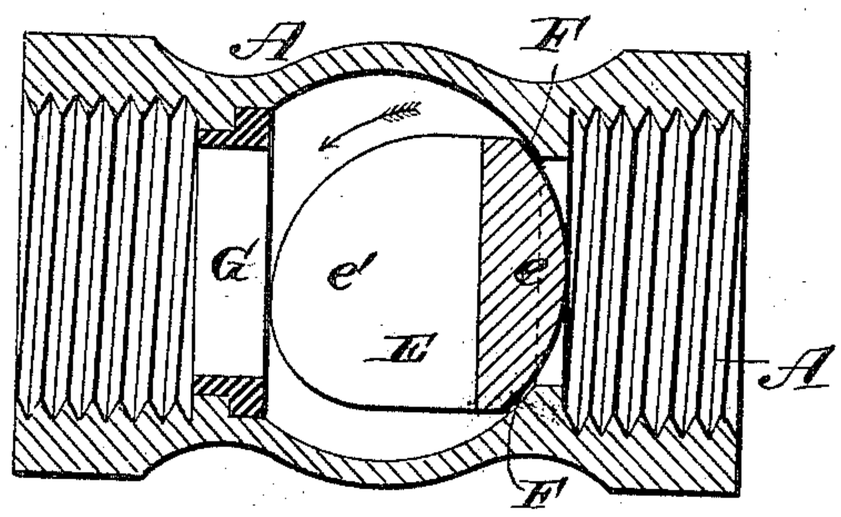


Fig. 3.



WITNESSES:

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ALEXANDER B. ROHNEY, OF MONTREAL, QUEBEC, CANADA.

STRAIGHT-WAY VALVE.

SPECIFICATION forming part of Letters Patent No. 301,282, dated July 1, 1884.

Application filed February 18, 1884. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER B. ROHNEY, of Montreal, in the Province of Quebec and Dominion of Canada, have invented a new and Improved Straight-Way Valve, of which the following is a full, clear, and exact description.

My invention relates to straight-way valves for pipe-fittings, to pass steam, liquids, or gases, the object being to provide a valve having but few and simple parts, and one which may be made cheaply and is durable in use.

The invention consists in a valve made in U form, with its head or bend serving as the valve-face, and with its side arms, which afford a free passage between them, shaped as cams, to act against shoulders of the valve-case in seating the valve, and in a removable adjustable bearing on which the cams act, and to receive their wear and to compensate for the wear of the parts, and in a connection of the valve with its stem, permitting free movement of the valve while it is being seated or closed by the cams, all as hereinafter fully described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal sectional elevation of one of my improved valves, shown closed. Fig. 2 is a perspective view of the valve and stem removed from the valve-case; and Fig. 3 is a sectional plan view of the valve on line *x x*, Fig. 1.

The letter A indicates the valve-case, having a suitable neck, B, in which to support the valve-stem C, and a stuffing-box, D, to pack the stem in the usual manner.

E is the valve, made in U form, with the bend *e* constituting the valve-face, which acts against the seat F of the case A in closing the pipes in which it is fitted. The arms *e'* of the valve are shaped as cams, which may act directly against shoulders formed on the interior of case A, opposite the seat F, in closing the valve-face *e* against said seat; but I propose to fit within the case A the ring-bearing G, against which the cam-arms *e'* may act in seating the valve; and in practice this bushing or bearing G may be made adjustable by screwing it to place—for instance, so that it may be set out to take up the wear of the valve-face *e*, the seat F, and the acting faces of the cams *e'*. I fit the stem C to valve E by a tongue, H, on the valve, entering loosely within a groove in a block, I, on the stem, so that the valve may move freely on or in the stem, to be firmly seated by the action of the cams *e'* on turning the stem by its hand-wheel J.

It will be noticed that the valve, when seated at F, completely closes the orifice through the valve-case, as in Figs. 1 and 3, and that when the valve is turned one-quarter round in direction of the arrow, Fig. 3, the space between the cam-arms *e'* registers with the opposite openings of the valve-case and affords a free passage through the pipes. The valve-face *e* (here shown rounded both ways) may vary in shape to match any suitable correspondingly-shaped seat at F in the valve-case.

It is evident that the action of the valve is quick and positive, and that the compensation for wear by the adjustment of bearing G insures a tight closure of the valve, with great durability of the parts.

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

1. The combination, with a valve-case, A, having a seat, F, of a valve, E, having a face, *e*, and arms *e' e'*, affording a free passage through the valve-case when the valve is open, and said arms *e' e'* shaped as cams to act against shoulders of the valve-case to force the valve tightly to its seat, and means for turning the valve to open and close it.

2. The combination, with a valve-case, A, and the valve E, having face *e*, and cam-arms *e' e'*, and means for operating the valve, of the bearing G, affording compensation for wear of the parts.

3. The combination, with the valve-case A and valve E, having tongue H, face *e*, and cam-arms *e' e'*, of the stem C, having a grooved block on its lower end for loosely engaging the tongue H, substantially as set forth.

ALEXANDER B. ROHNEY.

Witnesses:

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PATRICK GORMAN.