

(No Model.)

R. N. PRATT.  
STEAM VALVE.

No. 257,449.

Patented May 2, 1882.

Fig. 1.

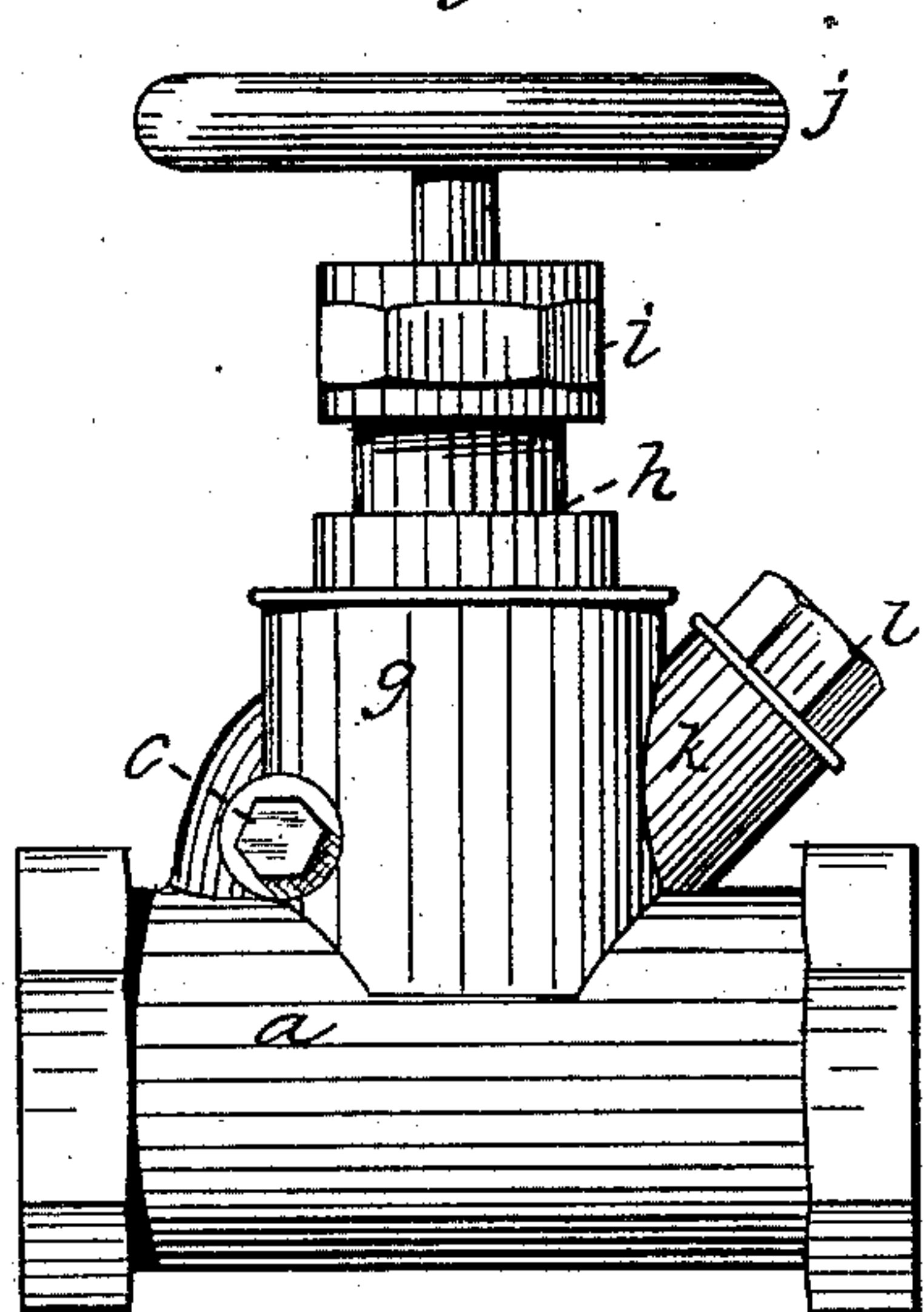


Fig. 2.

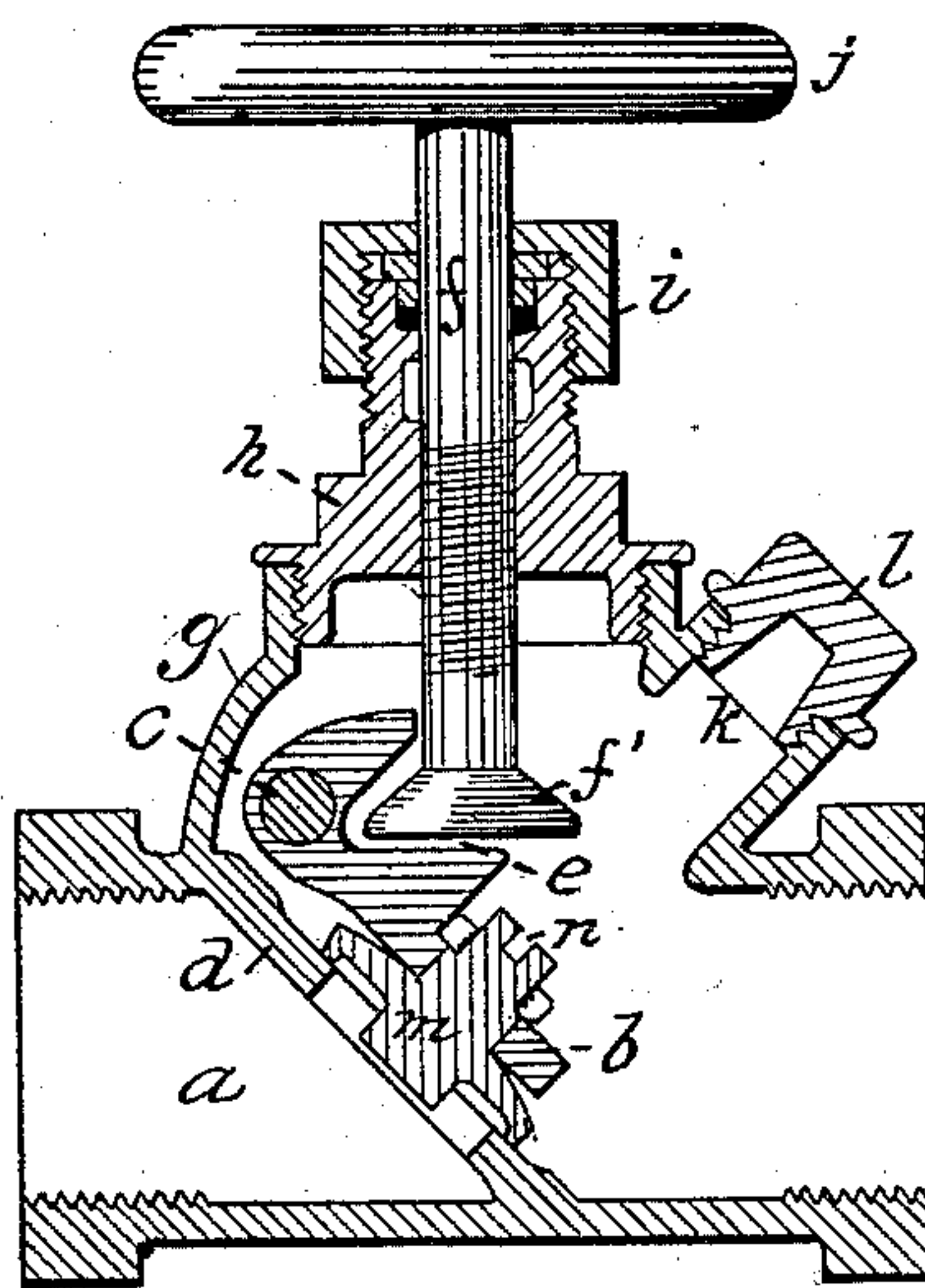
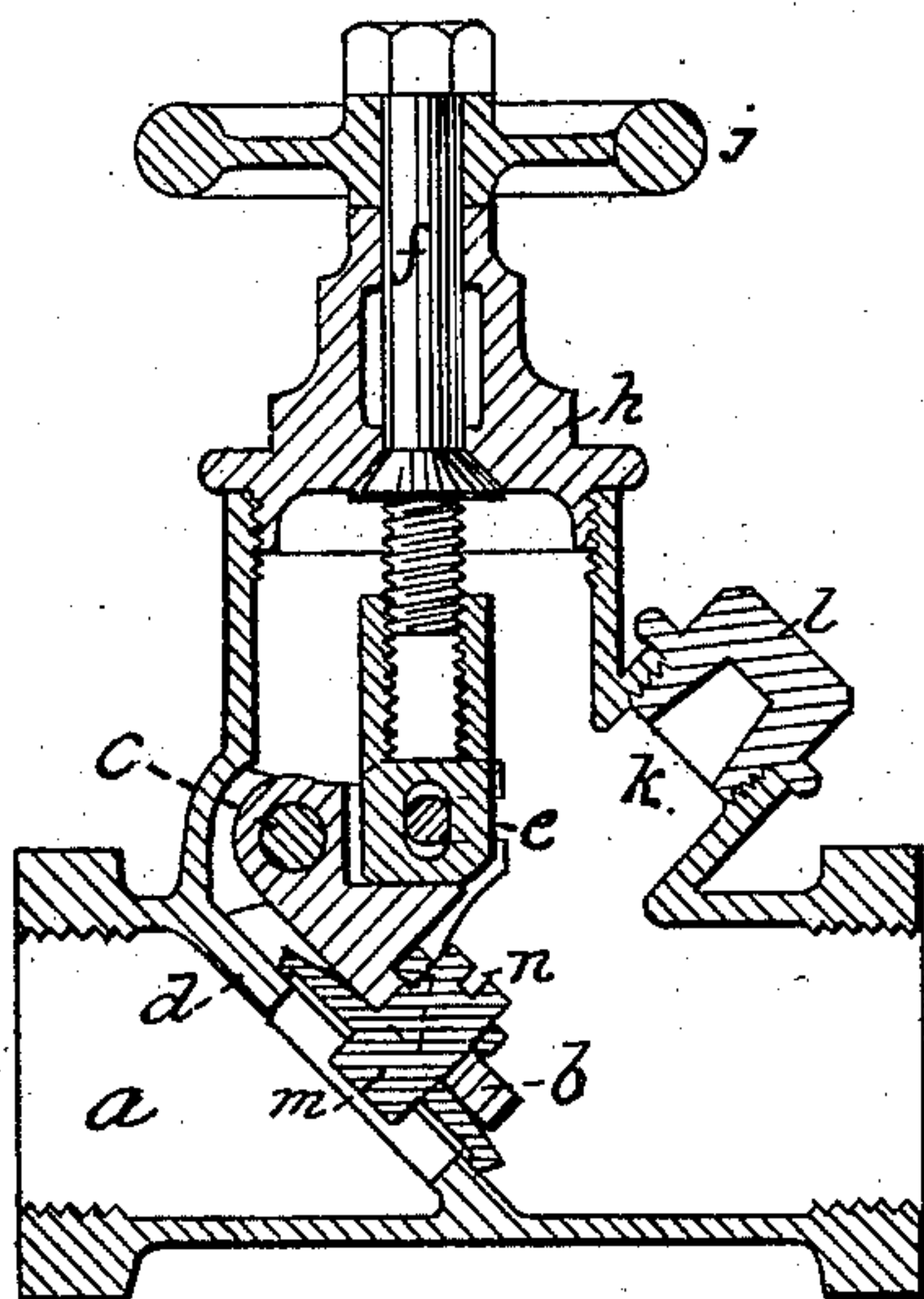


Fig. 3.



Witnesses.

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# UNITED STATES PATENT OFFICE.

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## STEAM-VALVE.

SPECIFICATION forming part of Letters Patent No. 257,449, dated May 2, 1882.

Application filed November 14, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, RUFUS N. PRATT, of Hartford, in the county of Hartford and State of Connecticut, have invented a certain new and useful Improvement in Steam-Valves, of which the following is a description, reference being had to the accompanying drawings, where—

Figure 1 is a side view of a steam-valve constructed in accordance with my invention. Fig. 2 is a view of the same in central longitudinal vertical section. Fig. 3 is a view in central longitudinal section of a valve of equivalent construction.

My invention consists of the peculiar arrangement and combination of the parts of a straight-way fluid-cock, the valve-seat being arranged at an angle (usually about forty-five degrees) with the main barrel of the valve, and integral with it, the valve-seat accessible by means of an opening in the barrel directly opposite the seat, and the flap-operating rod so arranged as to thrust directly over and upon the flap and the appurtenant valve pressing the latter to its seat.

The letter *a* in the accompanying drawings denotes the body or barrel of the valve intended to be interposed in a line of pipe in the usual manner.

The letter *b* denotes the swinging valve as a whole, (meaning thereby to include whatever forms the valve which comes in contact with the valve-seat and the flap,) pivoted on the screw-pin *c*, or in any other common manner, and co-operating with the valve-seat *d*.

The swinging flap in the form shown in Figs. 1, 2 is provided on its back with the mortise *e*, and the rotary flap-operating rod *f* is provided with a foot, *f'*, which meshes into the mortise and serves to operate the flap, at the same time being allowed to rotate.

The barrel *a* is provided with a tubular branch, *g*, for the entrance and support of the flap-operating rod, closed by the usual screw-plug, *h*, bearing the common stuffing-box, *i*. *j* denotes the hand-wheel on the flap-operating rod. The barrel is also provided with an open-

ing, *k*, closed by a screw-plug, *l*, the office of which is to give access, for the purpose of forming the valve-seat, to the seat and flap from a different direction than that afforded by the tubular branch *g*, and from the nature of its office it must be located opposite the valve-seat.

The swinging flap bears the rotary valve-face *m*, made of any suitable material, and so connected with the flap as to be readily detachable to repair or replace. On the back of the valve face or disk *m* there is a short pin or shaft, with its end slotted like the head of a wood-screw, and for a similar reason or purpose. By unscrewing the plug *l* a screw-driver blade can be inserted through the opening *k* into the slot *n* and the rotary disk ground to its seat.

In Fig. 5 I illustrate another method of combining the flap and its operating-rod so as to secure a direct thrust upon the flap and valve-face. The direct thrust of the operating-rod upon its seat on the flap when the latter is closed secures a perfectly-tight valve, which has never before been done where swinging flaps have been used in connection with spindles or operating-rods.

Another advantage of my invention is that I secure in a straight-way valve the feature of the accessibility of the valve disk and seat for removal and repair without removing the whole valve-body from the pipe on which it may be placed.

I claim as my invention—

1. In combination, in a fluid-cock, a barrel, *a*, having branches *g* and *k* and inclined valve-seat *d*, with a swinging flap, *b*, and operating-rod *f*, all substantially as described, and for the purpose set forth.

2. A fluid-cock having a barrel, *a*, inclined valve-seat *d*, branch *g*, and branch *k*, all substantially as described, and for the purpose set forth.

RUFUS N. PRATT.

Witnesses:

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